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**SIGNIFICANT FACTORS AFFECTING HORTICULTURAL
CORRUGATED FIBREBOARD STRENGTH**

**A THESIS PRESENTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF**

DOCTOR OF PHILOSOPHY

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Abstract

The New Zealand kiwifruit and apple industries export the two largest horticultural crops by value and tonnage on long sea routes to distant markets. The long storage and shipping times, low temperature ($\sim 0^{\circ}\text{C}$) and high humidity ($>70\text{ \%RH}$) conditions require boxes manufactured from high performance corrugated fibreboard. As the corrugated fibreboard boxes are a significant expense, improvements to reduce the weight and therefore the cost of the corrugated fibreboard, while maintaining their vertical compression strength, would increase the apple and kiwifruit industries profitability

Through analysis of the literature it was established that the greatest contributor to box compression strength was the corrugated fibreboard edgewise compression strength, which is significantly affected by moisture. The strength of corrugated fibreboard decreases with increasing moisture content, which tends to be high in low-temperature high-humidity cool-stores. The literature also indicated that temperature and moisture content of the fluting medium could be optimised to reduce the damage caused during the fluting process.

The objectives of this study included improving box compression strength predictions by measuring the effect of moisture and temperature on the strength of the corrugated fibreboard and measuring the relationship between temperature, humidity and corrugated fibreboard moisture content. The objectives also included developing a mathematical model to optimise the operations preceding the fluting process by predicting the fluting medium moisture content and temperature just prior to the fluting process.

The measurements of corrugated fibreboard properties enabled the widely known McKee's equation to be modified to enable the prediction of box compression strength over a range of moisture contents (7 to 30 %db), the values of which could be estimated using the moisture sorption isotherms developed in this study over the temperature and relative humidity range of 0 to 20°C and 40 to 90 %RH.

A mathematical model was developed to predict how the operation of the corrugator would affect the temperature and moisture content of the fluting medium just prior to the fluting process. The model was tested by running the corrugator at normal and extreme settings based on the model's predictions, and measuring the strength properties of the corrugated fibreboard produced. The measured strength properties indicated that the machine speed and steam shower could have an effect but the too were inconsistent to established firm conclusions.

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Nomenclature

A	=	flute constant (dimensions not stated)
$A_{FM/P}$	=	contact area between fluting medium and preconditioner roll (m^2)
$AIECS$	=	accumulative intrinsic edgewise compression strength (N.m^{-1})
$AIECS_{Adj}$	=	adjusted accumulative intrinsic edgewise compression strength (N.m^{-1})
a_w	=	sample water activity (dimensionless)
a_{w1}	=	water activity of sample at T_1 in Kelvin (dimensionless)
a_{w2}	=	water activity of sample at T_2 in Kelvin (dimensionless)
a_{w3}	=	water activity at TP_3 (dimensionless)
a_{w4}	=	water activity at TP_4 (dimensionless)
B	=	box constant (dimensions not stated)
BCS	=	box compression strength (N)
BCS_{KL}	=	box compression strength (dimensions not stated)
BP	=	box perimeter (m)
BP_K	=	box perimeter (cm)
BP_{KL}	=	box perimeter (dimensions not stated)
BS	=	bending stiffness of corrugated fibreboard (Nm)
BS_{CD}	=	corrugated fibreboard cross machine direction (CD) bending stiffness (N.m)
BS_{HS}	=	ending stiffness of homogeneous strip (Nm)
BS_{MD}	=	corrugated fibreboard machine direction (MD) bending stiffness (N.m)
BS_W	=	bending stiffness (dimensions not stated)
BT	=	box type factor (dimensions not stated)
BW	=	basis weight (g.m^{-2})
b_w	=	fluting medium basis weight ($\text{kg}_{\text{dryfibre}}.\text{m}^{-2}$)
$b_{w.B}$	=	total basis weight of corrugated fibreboard (g.m^{-2})
$b_{w.L}$	=	total basis weight of linerboards (g.m^{-2})
$b_{w.M}$	=	basis weight of fluting medium (dimensions not stated)
C	=	corrugated fibreboard thickness (or calliper) (m)
C'	=	fitted constant to express temperature dependence of C (dimensionless)
c_a	=	air specific heat ($1005 \text{ J.kg}^{-1}\text{K}^{-1}$)
C_B	=	board thickness (dimensions not stated)
CC	=	average corrugation count (dimensions not stated)
c_{com}	=	combined (fibre, liquid water and water vapour) specific heat capacity ($\text{J.kg}^{-1}\text{K}^{-1}$)
c_f	=	specific heat capacity of paper fibre ($\text{J.kg}^{-1}\text{K}^{-1}$)
CFB	=	corrugated fibreboard (subscript)
C_G	=	Guggenheim constant (dimensionless)
C_{HS}	=	thickness of homogeneous strip (m)
C_K	=	corrugated fibreboard thickness (mm)
C_L	=	linerboard thickness (dimensions not stated)
CS_{CD-DBL}	=	compression strength of the double-backer linerboard in the cross-machine direction (N.m^{-1})

CS_{CD-M}	=	compression strength of the fluting medium in the cross-machine direction ($N.m^{-1}$)
CS_{CD-SFL}	=	compression strength of the single-facer linerboard in the cross-machine direction ($N.m^{-1}$)
C_v	=	specific heat capacity of water vapour ($J.kg^{-1}K^{-1}$)
C_w	=	specific heat capacity of liquid water ($J.kg^{-1}K^{-1}$)
D_f	=	diffusion coefficient of water vapour in the fluting medium ($m^2.s^{-1}$)
$D_{water-air}$	=	diffusivity of water in air ($m^2.s^{-1}$)
$D1$	=	roll-stand to preconditioner distance (m)
$D2$	=	over first preconditioner roll distance (m)
$D3$	=	between preconditioner rolls distance (m)
$D4$	=	over second preconditioner roll distance (m)
$D5$	=	between preconditioner and Steam-shower distance (m)
$D6$	=	steam-shower distance (m)
$D7$	=	between steam-shower and single-facer distance (m)
E	=	sheet porosity (dimensionless)
E_{CD}	=	fluting medium Young's modulus in the cross machine direction (dimensions not stated)
ECT	=	corrugated fibreboard edgewise compression test strength ($N.m^{-1}$)
ECT_1	=	edgewise compression test value of A and AB flute corrugated fibreboard ($kgf.cm^{-1}$)
ECT_2	=	edgewise compression test value of B flute corrugated fibreboard ($kgf.cm^{-1}$)
ECT_A	=	edgewise compression strength of A-flute corrugated fibreboard ($kgf.cm^{-1}$)
ECT_{AB}	=	edgewise compression strength of AB-flute corrugated fibreboard ($kgf.cm^{-1}$)
ECT_{est1}	=	estimated edgewise compression test strength based on linerboard and fluting medium properties and equation 2.7 (N)
ECT_{est2}	=	estimated edgewise compression test strength based on linerboard and fluting medium properties and equation 2.9 (N)
E_{HS}	=	elastic modulus of homogeneous strip ($N.m^{-2}$)
EI	=	geometric mean bending stiffness (N.m)
E_L	=	elastic modulus of linerboards (dimensions not stated)
E_{MD}	=	fluting medium Young's modulus in the machine direction (dimensions not stated)
ERH	=	sample equilibrium relative humidity
fc	=	skin friction coefficient (dimensionless)
FC_1	=	fitted constants (dimensions not stated)
FC_2	=	fitted constants (dimensions not stated)
FC_3	=	fitted constant (dimensions not stated)
FC_4	=	fitted constants, value not stated (dimensions not stated)
FC_5	=	fitted constants, value not stated (dimensions not stated)
FC_6	=	fitted constants, value not stated (dimensions not stated)
FC_7	=	fitted constants, value not stated (dimensions not stated)
FC_8	=	fitted constant (dimensions not stated)
FC_9	=	fitted constant (dimensions not stated)

FC_{10}	=	fitted constant (dimensions not stated)
FC_{11}	=	fitted constant (dimensions not stated)
FC_{12}	=	fitted constants (dimensions not stated)
FC_{13}	=	fitted constant (dimensions not stated)
FC_{14}	=	fitted constant (dimensionless)
FC_{15}	=	fitted constant – value unknown (dimensions not stated)
FC_{16}	=	fitted constant – value unknown (dimensions not stated)
FC_{17}	=	fitted constant (dimensionless)
FC_{18}	=	fitted constant (dimensionless)
FC_{19}	=	fitted constant (dimensionless)
F_{CF}	=	contact force between fluting medium and preconditioner roll (N)
FCT	=	corrugated fibreboard flat crush (kPa)
FM	=	fluting medium (subscript)
H	=	corrugated fibreboard hardness (N)
h_c	=	convection heat transfer coefficient ($W.m^{-2}K^{-1}$)
h_{cB}	=	bottom boundary heat transfer coefficient ($J.K^{-1}m^{-2}$)
$h_{contact}$	=	surface contact heat transfer coefficient ($W.m^{-2}K^{-1}$)
h_{cs}	=	convection coefficient for curved surfaces ($W.m^{-2}K^{-1}$)
h_{cT}	=	top boundary heat transfer coefficient ($J.K^{-1}m^{-2}$)
h_m	=	surface mass transfer coefficient ($m.s^{-1}$)
h_{mB}	=	bottom boundary mass transfer coefficient ($kg.m^{-2}$)
h_{mT}	=	top boundary mass transfer coefficient ($kg.m^{-2}$)
h_{oc}	=	over all heat transfer coefficient ($W.m^{-2}K^{-1}$)
h_{ps}	=	convection coefficient for planar surfaces ($W.m^{-2}K^{-1}$)
h_R	=	surface heat transfer coefficient to air ($W.m^{-2}K^{-1}$)
H_v	=	water vapour enthalpy ($J.kg^{-1}$)
i	=	i^{th} measurement
K'	=	fitted constant to express temperature dependence of K (dimensionless)
K	=	linerboard factor (dimensions not stated)
k	=	test method coefficient (dimensions not stated)
K_G	=	factor correcting properties of the multi-layer molecules with respect to the bulk liquid (dimensionless)
LA	=	corrugated fibreboard liner adhesion (N)
$LB1$	=	single-facer linerboard (subscript)
$LB2$	=	double-backer linerboard (subscript)
M	=	moisture content ratio of fluting medium ($kg_{water}.kg_{fibre}^{-1}$)
M_1	=	reference moisture content ratio ($kg_{water}.kg_{solids}^{-1}$)
M_2	=	new moisture content ratio ($kg_{water}.kg_{solids}^{-1}$)
MC	=	moisture content (% db)
MC_{SW}	=	sidewall moisture content (% , basis not given)
MC_{UKB}	=	moisture content (% , basis unknown)
M_i	=	initial moisture content ratio of the fluting medium i.e. moisture content of the fluting medium on the roll-stand ($kg_{water}.kg_{fibre}^{-1}$)
M_o'	=	fitted constant to express temperature dependence of M_o ($kg_{water}.kg_{dry fibre}^{-1}$)
M_o	=	mono-layer moisture content ratio ($kg_{water}.kg_{dry fibre}^{-1}$)

M_w	=	molar mass of water (kg.mol ⁻¹)
n	=	number of measurements (count)
n_1	=	sample size for sample 1 (count)
n_2	=	sample size for sample 2 (count)
P_c	=	contact pressure (kPa)
$P_{FM/P}$	=	contact pressure between the fluting medium and the preconditioner roll (Pa)
$P_{ice, \theta}$	=	vapour pressure of pure ice at $\theta^\circ\text{C}$ (Pa)
P_{iceT}	=	vapour pressure of pure ice at T Kelvin (mbar)
$P_{ice, \text{ sample db } \theta}$	=	vapour pressure of pure ice at the sample dry bulb temperature (Pa)
$P_{ice, \text{ sample dp } \theta}$	=	vapour pressure of pure ice at the hygrometer dew point temperature output (Pa)
Pr	=	Prandtl's number (dimensionless)
PR	=	printed ratio (dimensionless)
$P_{\text{sample}, \theta}$	=	partial water vapour pressure exerted by the sample at $\theta^\circ\text{C}$ (Pa)
$P_{\text{sat}, \theta}$	=	saturated water vapour pressure at $\theta^\circ\text{C}$ (Pa)
$P_{\text{sat}, \text{ sample db } \theta}$	=	saturated water vapour pressure at the sample dry bulb temperature (Pa)
$P_{\text{sat}, \text{ sample dp } \theta}$	=	saturated water vapour pressure at the hygrometer dew point temperature output (Pa)
$P_{\text{sat}T}$	=	saturated water vapour pressure T Kelvin (mbar)
P_v	=	water vapour partial pressure (Pa)
Q	=	differential heat of water vapour sorption (J.kg ⁻¹)
Q_R	=	differential heat of sorption as calculated by Reardon (J.kg ⁻¹)
Q_s	=	heat of sorption (J.mol ⁻¹)
R	=	gas constant (8.314 J.K ⁻¹ mol ⁻¹)
r	=	radius of curvature of the fluting rolls (dimensions not stated)
R^2	=	correlation coefficient (%)
RCT_L	=	overall ring crush test strength of the linerboards (dimensions not stated)
R_{DB}	=	gas constant (cal.R ⁻¹ .mol ⁻¹)
RH	=	air relative humidity (%)
R_{max}	=	maximum pore radius (m)
R_O	=	gas constant (82.05 cm ³ .atm.gmol ⁻¹ K ⁻¹)
RR	=	retention ratio – ratio of compressive strengths of fluted to non-fluted medium (dimensionless)
S	=	degree of fractional saturation (dimensionless)
S_1^2	=	variance for sample 1 (dimensions vary)
S_2^2	=	variance for sample 2 (dimensions vary)
SC	=	fluting medium sheet thickness (m)
SCR	=	secondary region compression rate (in.in ⁻¹ hr ⁻¹)
$SSCS$	=	short span compression strength (kN.m ⁻¹)
$SSCS_{CD-DBL}$	=	short span compression strength of the double-backer linerboard in the cross-machine direction (N.m ⁻¹)
$SSCS_{CD-M}$	=	short span compression strength of the fluting medium in the cross-machine direction (N.m ⁻¹)
$SSCS_{CD-SFL}$	=	short span compression strength of the single-facer linerboard in the cross-machine direction (N.m ⁻¹)

SSE	=	error sum of squares (dimensions vary)
T	=	temperature (K)
T_1	=	temperature of sample 1 (K)
T_2	=	temperature of sample 1 (K)
t	=	time (s)
TF	=	take-up factor ($m_{\text{fluting medium}} m_{\text{board}}^{-1}$)
T_i	=	initial temperature of the fluting medium i.e. temperature of the fluting medium on the roll-stand ($^{\circ}\text{C}$)
TP_1	=	total pressure of condition 1 (atm)
TP_2	=	total pressure of condition 2 (atm)
TS_L	=	tensile stiffness of the liner (N.m^{-1})
TS_{gth}	=	tensile strength (kN.m^{-1})
t_{stat}	=	t statistic for two-sample t test (dimensionless)
TtF	=	time to failure (hours)
V_1	=	tensile force vector (N.m^{-1})
v_a	=	air velocity (m.s^{-1})
v_e	=	air velocity at boundary layer edge (m.s^{-1})
V_L	=	molar volume of water ($18 \text{ m}^3.\text{gmol}^{-1}$)
$VP_{air\theta}$	=	water vapour pressure of the air at temperature θ (Pa)
VP_R	=	vapour pressure ratio (Pa Pa^{-1})
$VP_{sat\theta}$	=	saturated vapour pressure at temperature θ (Pa)
W_{FM}	=	width of fluting medium – cross-machine direction (m)
x	=	proportion of conduction heat transfer via parallel analogy
$\bar{x}_1$	=	average of sample 1 (dimensions vary)
$\bar{x}_2$	=	average of sample 2 (dimensions vary)
$\hat{y}$	=	estimated dependent variable value (dimensions vary)
y	=	measured dependent variable value (dimensions vary)
z	=	dimension in the fluting medium thickness direction (m)
ΔH_{adsorp}	=	heat of adsorption of water vapour onto adsorbent (cal.mol^{-1})
ΔH_C	=	difference in enthalpy between bulk liquid and multilayer, fitted variable (J.mol^{-1})
ΔH_{cond}	=	heat of condensation of water (cal.mol^{-1})
ΔH_K	=	difference in enthalpy between monolayer and multilayer, fitted (J.mol^{-1})
ΔH_M	=	fitted constant to express temperature dependence of M_o (J.mol^{-1})
δ	=	0.0 for difference between two means (dimensions vary)
δ	=	diffusibility factor (dimensions not stated)
θ	=	fluting medium temperature ($^{\circ}\text{C}$)
θ_{AB}	=	temperature of ambient air or preconditioner in contact with bottom surface ($^{\circ}\text{C}$)
θ_{AT}	=	temperature of ambient air or preconditioner in contact with top surface ($^{\circ}\text{C}$)
θ_{CA}	=	contact angle between fluting medium and preconditioner roll ($^{\circ}$)
κ_{AB}	=	permeability of ambient air at bottom surface (m^2)
κ_{AT}	=	permeability of ambient air at top surface (m^2)
κ_r	=	relative permeability (m^2)

κ_s	=	saturated intrinsic permeability (m^2)
κ_v	=	fluting medium water vapour permeability (m^2)
λ_1	=	thermal conductivity for components in series ($\text{W.m}^{-1}\text{K}^{-1}$)
λ_2	=	thermal conductivity for components in parallel ($\text{W.m}^{-1}\text{K}^{-1}$)
λ_{com}	=	combined thermal conductivity of fibre, liquid water and water vapour ($\text{W.m}^{-1}\text{K}^{-1}$)
λ_{eff}	=	effective conduction coefficient ($\text{W.m}^{-1}\text{K}^{-1}$)
λ_f	=	paper fibre thermal conductivity ($\text{W.m}^{-1}\text{K}^{-1}$)
λ_v	=	water vapour thermal conductivity ($\text{W.m}^{-1}\text{K}^{-1}$)
λ_w	=	liquid water thermal conductivity ($\text{W.m}^{-1}\text{K}^{-1}$)
μ_v	=	water vapour viscosity ($\text{kg.m}^{-1}\text{s}^{-1}$)
π	=	pi (dimensionless)
ρ_a	=	air density (kg.m^{-3})
ρ_f	=	density of paper fibre (kg.m^{-3})
ρ_M	=	density of fluting medium (dimensions not stated)
ρ_v	=	density of water vapour (kg.m^{-3})
ρ_w	=	density of liquid water (kg.m^{-3})
ϕ_P	=	diameter of pressure roll (m)
ρ_v	=	water vapour density ($\text{kg}_{\text{watervapour}}.\text{m}^{-3}$)
ρ_{vA}	=	water vapour density of ambient air ($\text{kg}_{\text{water}}.\text{m}^{-3}$)
ρ_{vAB}	=	water vapour density of ambient air in contact with bottom surface ($\text{kg}_{\text{water}}.\text{m}^{-3}$)
τ	=	tortuosity factor (dimensions not stated)
$\phi(MC)$	=	water content dependent function (dimensions not stated)

Chapter 1

Introduction

Kiwifruit and apples were the largest horticultural exports from New Zealand with 86 million trays (approx \$ 756.8 million) (MAF, 2008a) of kiwifruit and 13.9 million trays (approx \$ 316.9 million) (MAF, 2008b) of apples being sent to overseas markets in 2006. These two export crops are almost entirely shipped in either corrugated fibreboard trays and boxes or wood pallet bins. Both kiwifruit and apples are shipped on one of the longest sea routes to reach the markets of Europe, although much fruit does go to nearer markets. Coupled with onshore storage in New Zealand and Europe, packed kiwifruit and apples may spend up to 6 months in low temperature, high humidity cool-storage.

Cool-storage at 0 - 2°C is the most important tool in maintaining fruit quality, by slowing the metabolic processes within the fruit, which in turn slows the rate at which the fruit matures, to extending the products storage life. A high relative humidity must be maintained and packaging must provide physical protection. The high humidity reduces the rate of water loss from the fruit by reducing the water vapour concentration difference between the fruit and surrounding air.

The kiwifruit and apple cool-storage and transport conditions provide one of the most demanding environments for corrugated fibreboard packaging. The strength of corrugated fibreboard is reduced with the adsorption of moisture. The demands on the packaging has lead to the kiwifruit and apple industry using high performance corrugated fibreboard with semi-chemical fluting medium and relatively heavy Kraft linerboards, both from predominantly virgin pulps and joining using water resistant adhesive.

The use of the corrugated fibreboard trays and boxes imposes a necessary but significant cost on the kiwifruit and apple industries. Improvements in box

manufacture to either increase the average box compression strength or to reduce the compression strength variation would enable a reduction in the weight and cost of the corrugated fibreboard while still providing the necessary protection to the product. Improvements could be achieved through improved knowledge of those factors that have the greatest effect on box compression strength and providing such knowledge was the overall goal of this study.

The scope of this study was limited by some practical constraints. Access was granted only to the Carter Holt Harvey Ltd. Levin corrugated fibreboard box manufacturing facility that produced boxes from rolls of linerboard and fluting medium. Thus it was not possible to include any experimentation in the pulp and paper manufacturing facilities. The scope was further reduced by the decision to use the apple industry Z-Pack inner as the subject of this study. The choice of this particular corrugated fibreboard box was based on the quantity that was produced at the Carter Holt Harvey Ltd. Levin facility and on the size of the corrugated fibreboard blanks produced by the corrugator, as more samples can be cut from the larger blanks. Also, as commercial scale storage trials were not possible, the box and tray designs were not experimented with. The scope of the study therefore included corrugated fibreboard blank manufacture on the Carter Holt Harvey Ltd. Levin corrugator, conversion of the corrugated fibreboard blanks to boxes on the Carter Holt Harvey Ltd. Levin converter and cool-store conditions.

The literature review contains a summary of the relevant literature to this study including published box compression strength equations, factors affecting corrugated fibreboard strength during manufacture and use in cool-stores and moisture sorption isotherms. A new method for measuring moisture sorption isotherms is presented in Chapter 3 along with the measured data for three paper types and fitted isotherm equations. The effect of moisture on the apple Z-pack inner corrugated fibreboard and its constituent paper plies is presented in Chapter 4. The application of the strength measurements is presented in Chapter 5 with McKee *et al.* (1963) used to estimate box compression strength as function of cool-store humidity. An attempt to measure the effect of temperature and moisture content on the strength of semi-chemical fluting medium of the apple Z-pack inner corrugated fibreboard is presented in Chapter 6.

Chapter 7 contains the development of a mathematical model for predicting the temperature and moisture content of the semi-chemical fluting medium just prior to the single-facer of the corrugated board manufacturing process. The model was developed to enable optimization of the flute formation operation within the corrugated fibreboard manufacturing process.

Chapter 2

Literature Review – Factors Affecting Corrugated Fibreboard Box Strength

2.1 Introduction

The objective of this literature review was to determine the best research avenues to achieve the related aims of reducing the variability and/or improving the compression strength of corrugated fibreboard boxes for horticultural products. Equations previously used to predict box compression strength were identified and used as a guide to the most important factors that affect the corrugated fibreboard box strength. Further information was then sourced to establish how other factors affected these inputs to the box compression strength equations.

It was only possible to examine box compression strength equations or models that had been published. It was anticipated that companies and research institutions would have developed more complex and (presumably) accurate mathematical models, but these are usually kept as trade secrets and therefore not available for analysis.

A brief description of the corrugated fibreboard manufacturing process is presented in Appendix A1. The converting process consists of five operations: feeding blanks, printing (one station per colour), cutting and creasing (e.g. adding handholds, air vents, slots etc and cross-machine direction creases), gluing the manufacturer's joint (to form a rectangular tube) and palletising.

Figures 2.1 and 2.2 show the box manufacturing and cool-store factors that were initially thought to affect the performance of corrugated fibreboard boxes. The three most significant factors were believed to be the box design, the corrugated fibreboard the boxes were made from, and the board moisture content (MC). In optimising the box performance in this study, the number of factors considered was reduced to those within the influence of the corrugated box manufacturer. Thus the paper manufacturing process was excluded as were changes to the design of cool-stores.

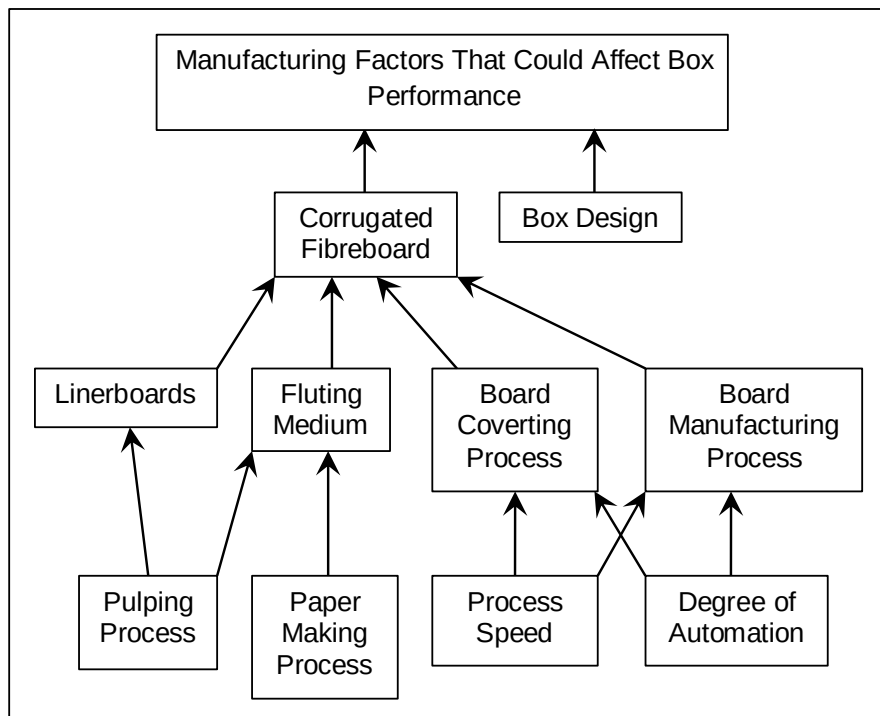


Figure 2.1 Initial conceptualisation of manufacturing factors that could affect box performance in commercial horticultural cool-stores.

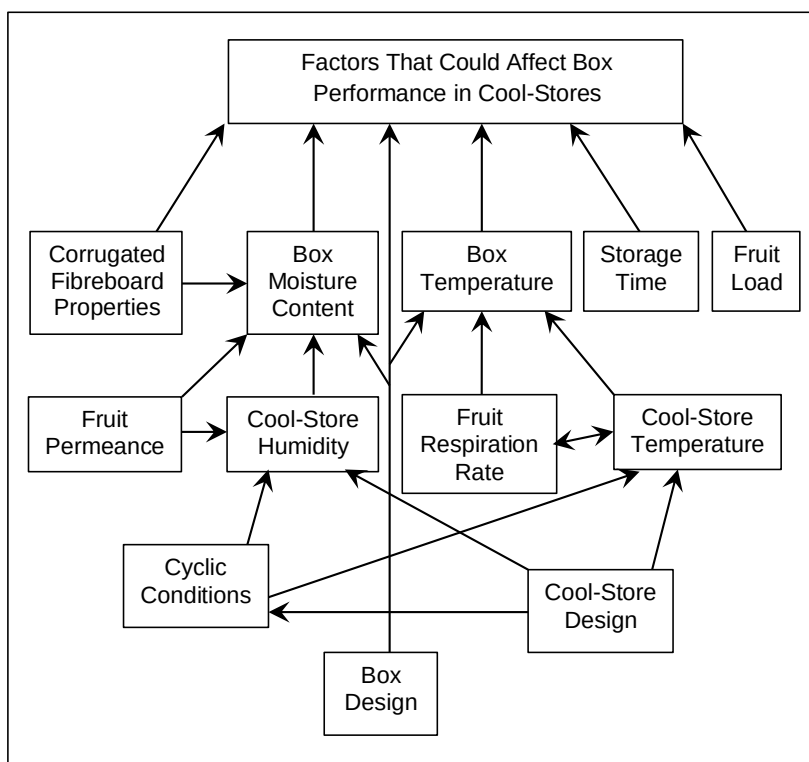


Figure 2.2 Initial conceptualisation of cool-store factors that could affect box performance in commercial horticultural cool-stores.

2.2 Corrugated Fibreboard Components and Strength Tests

The corrugated fibreboard used to manufacture Z-Pack inners comprises four components: single-facer linerboard, double-backer linerboard, fluting medium and adhesive (Figure 2.3). The single-facer linerboard is the first of the two linerboard joined to the fluting medium to form single-face corrugated fibreboard and the double-backer linerboard is glued to the other side of the fluting medium to form double-backed corrugated fibreboard.

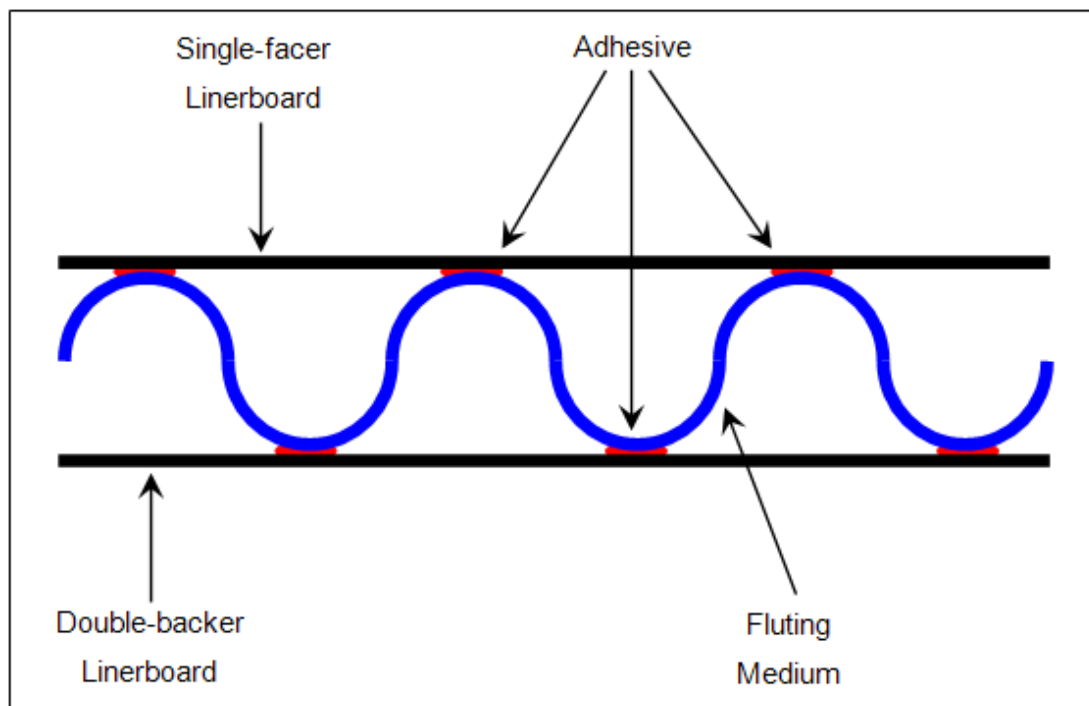


Figure 2.3 Components of Z-Pack inner corrugated fibreboard.

The labelling of the dimensions of linerboard, fluting medium and corrugated fibreboard is based on the paper and corrugated fibreboard manufacturing process. The machine direction of paper and corrugated fibreboard is the direction of travel through the two manufacturing processes, the cross-machine direction is equivalent to the width of the machine (Figure 2.4). The Z or thickness direction is the remaining and smallest dimension.

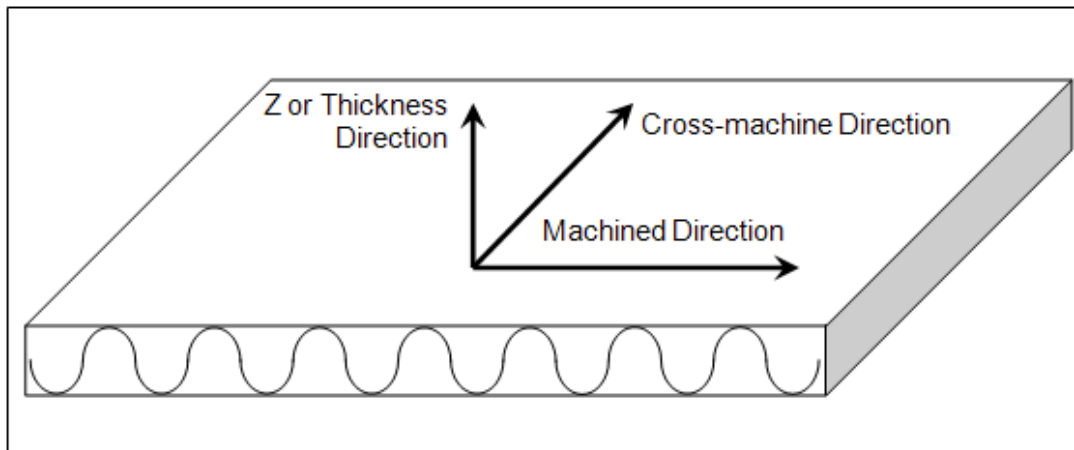


Figure 2.4 Dimensions of linerboard, fluting medium and corrugated fibreboard.

Figure 2.5 to 2.8 show the way in which the corrugated fibreboard edgewise compression test (ECT) strength, three and four point bending stiffness, flat crush and hardness and liner adhesion values are measured. Figures 2.9 and 2.10 show how the linerboard and fluting medium short span compression strength and tensile properties were measured.

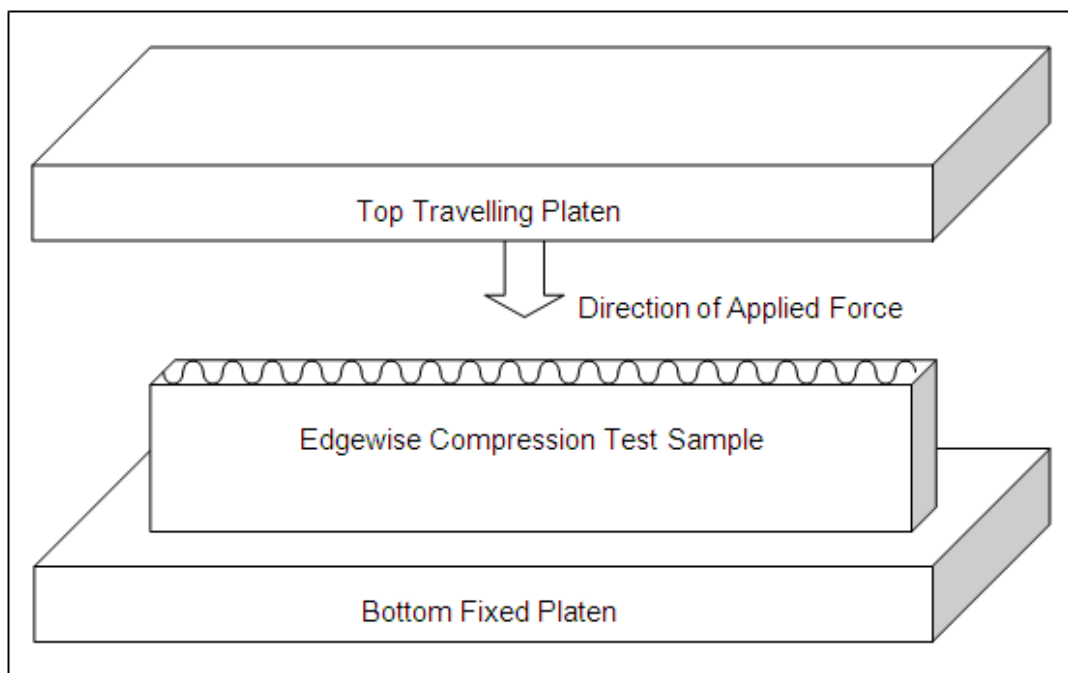


Figure 2.5 Illustration of edgewise compression test

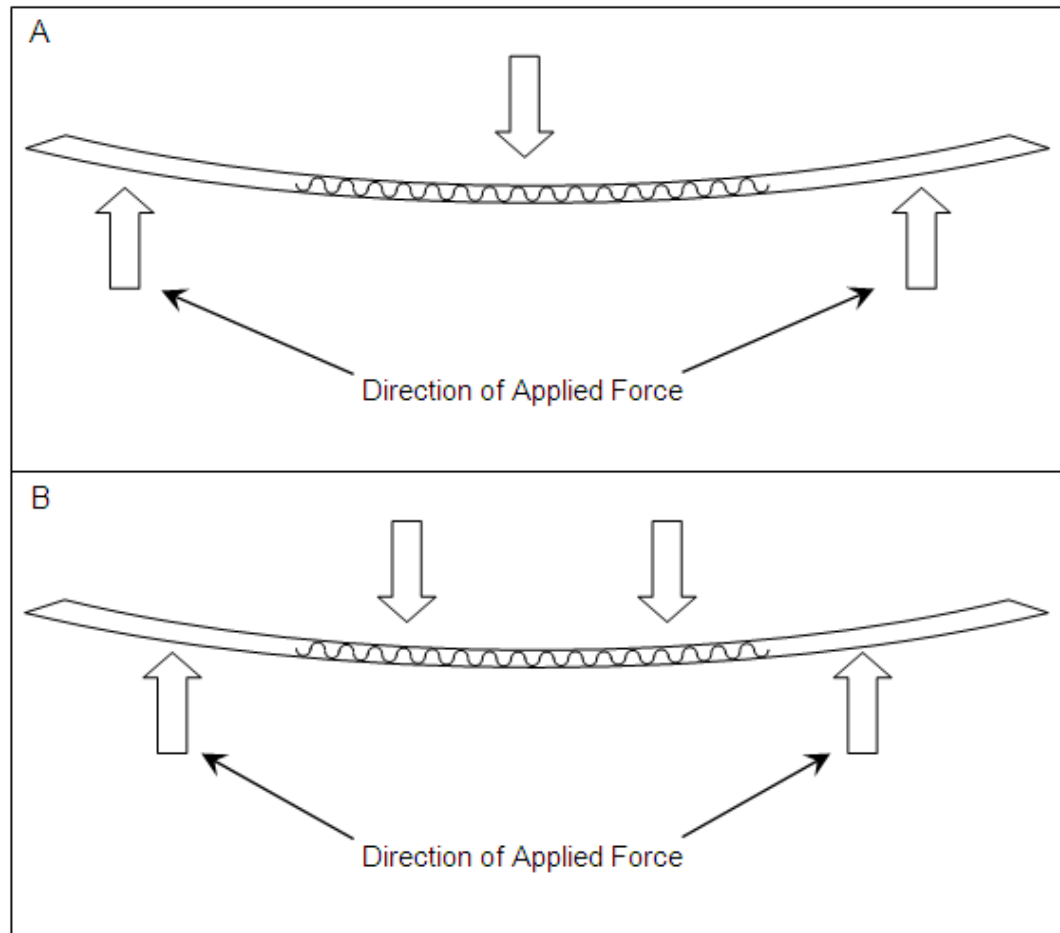


Figure 2.6 Illustration of (A) three point and (B) four point bending point stiffness tests.

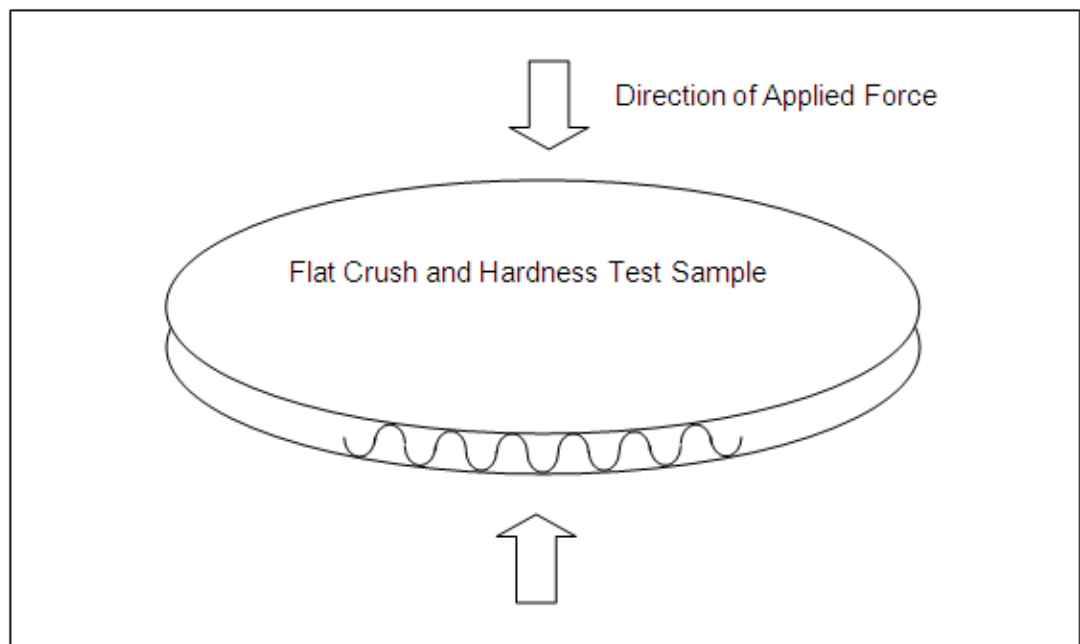


Figure 2.7 Illustration of flat crush and hardness tests.

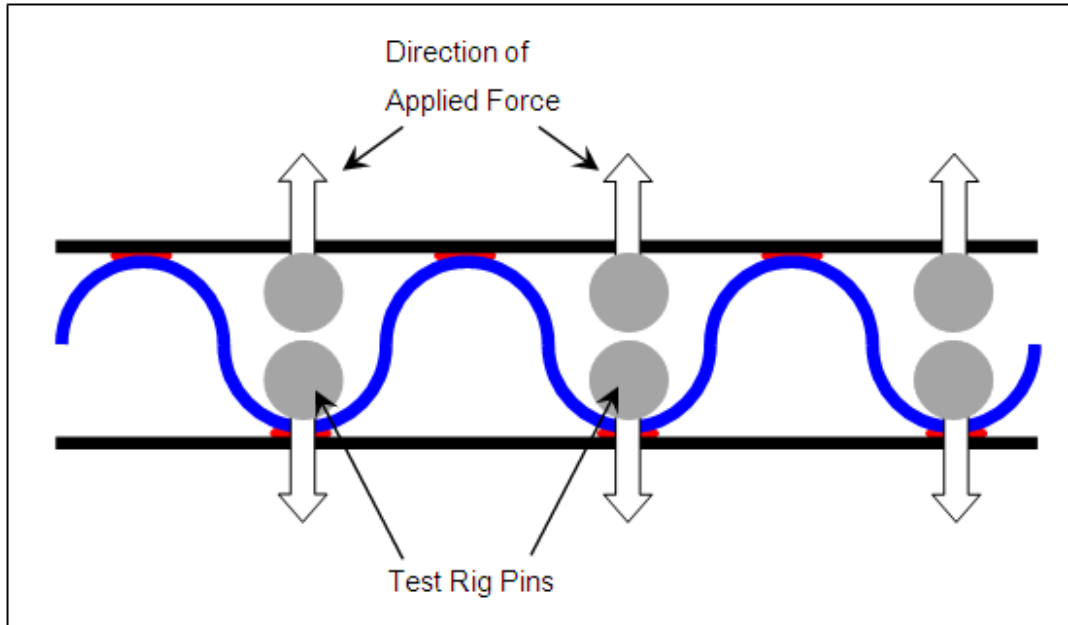


Figure 2.8 Illustration of liner adhesion test.

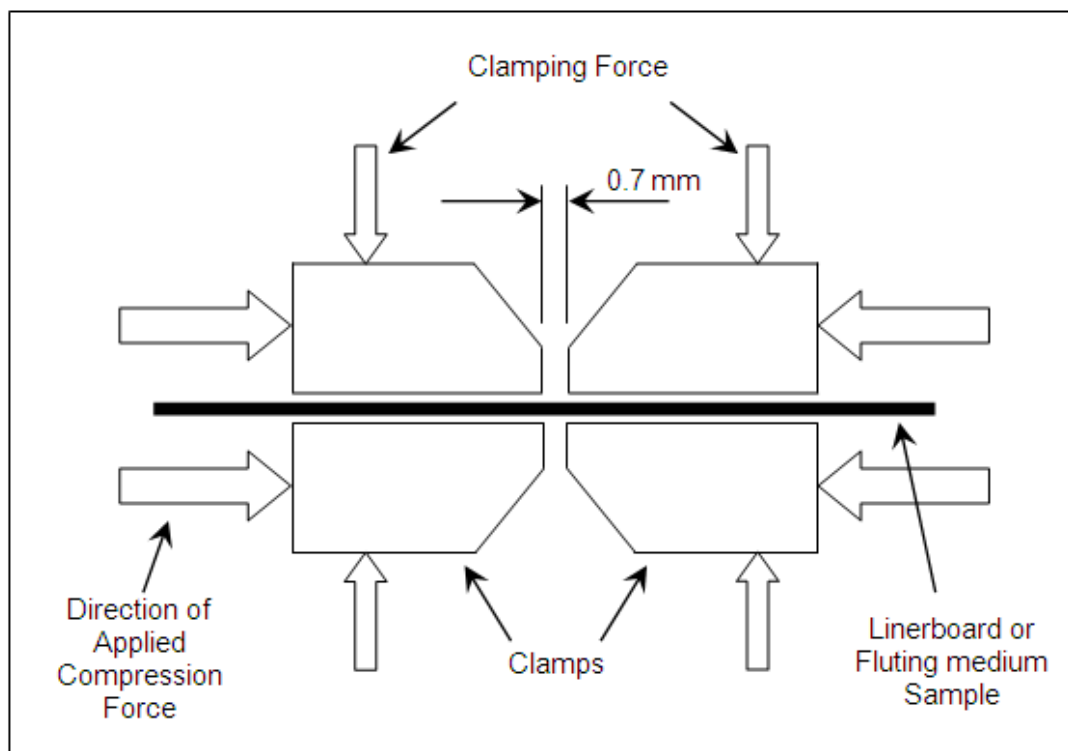


Figure 2.9 Illustration of short span compression test for linerboard and fluting medium samples, showing initial gap of 0.7 mm (Markström 1999).

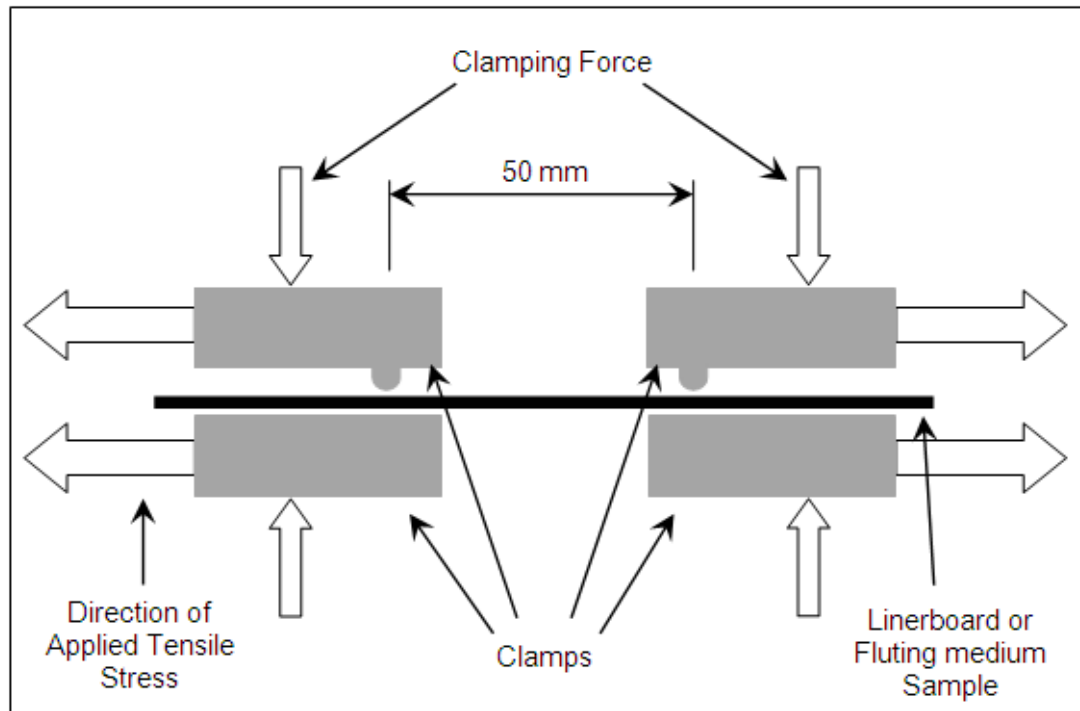


Figure 2.10 Illustration of linerboard and fluting medium tensile test showing initial gap of 50 mm.

2.3 Published Relationships Describing Board and Box Strength

2.3.1 McKee's Equation

McKee *et al.* (1963) developed two semi-empirical equations to predict the vertical box compression strength from the properties of the corrugated fibreboard (equations 2.1 and 2.2). In developing these equations the samples were conditioned following the standard procedure, with the testing conducted at 50 % relative humidity (RH) and 73°F (22.8°C) (Maltenfort 1988); therefore presumably the MC of the samples would be approximately 7.5-8.5 % (db) (Setterholm and Gunderson, 1983; Figure 3.18). The edgewise compression samples were 2 inches (50 mm) in height and width and were strengthened with wax ¼ inch from the top and bottom edge; the bending stiffness was measured using the four point bending test. The constants and indices for equations (2.1) and (2.2) remain the same regardless of whether the inputs are in S.I. or Imperial units.

$$BCS = 2.028 ECT^{0.746} \left(\sqrt{BS_{MD} BS_{CD}} \right)^{0.254} BP^{0.492} \quad (2.1)$$

where BCS = box compression strength (N)
 ECT = corrugated fibreboard edgewise compression test strength (N.m⁻¹)
 BS_{MD} = corrugated fibreboard machine direction (MD) bending stiffness (N.m)
 BS_{CD} = corrugated fibreboard cross-machine direction (CD) bending stiffness (N.m)
 BP = box perimeter (m)

$$BCS = 5.874 ECT C^{0.508} BP^{0.492} \quad (2.2)$$

where C = corrugated fibreboard thickness (or calliper) (m)

Despite the time elapsed since the first publication of McKee's *et al.* (1963) equations, they are still quoted in recent publication as a means of predicting the compression strength of corrugated fibreboard boxes from corrugated fibreboard properties (Sprague and Whitsitt 1982, Urbanik 1997, Markström 1999 and Urbanik 2001). McKee *et al.* (1963) used a linear relationship (equation 2.3) to simplify equation (2.1) to (2.2). More recent corrugated fibreboard properties published by Urbanik (2001) and Allerby *et al.* (1985) show a close fit to the relationship described by equation (2.3) (Figure 2.11).

$$66.1 ECT \times C^2 = \sqrt{BS_{MD} BS_{CD}} \quad (2.3)$$

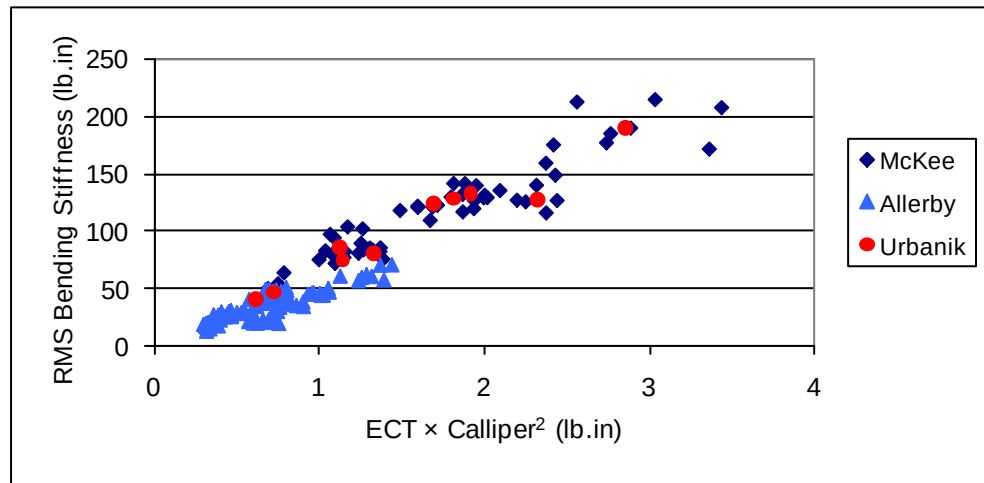


Figure 2.11 Relationship between composite bending stiffness and the product of edgewise compression strength and thickness squared (McKee *et al.* 1963, Urbanik 2001 and Allerby *et al.* 1985).

The grouping of Allerby's *et al.* (1985) data at the lower left hand corner of Figure 2.11 was probably a result of the difference in corrugated fibreboard basis weights. Allerby's *et al.* (1985) samples ranged from 417 to 804 g.m⁻² whereas the basis weight of McKee's *et al.* (1963) and Urbanik's (2001) samples ranged from 863 to 1726 g.m⁻².

The exponents of McKee's *et al.* (1963) equation (2.1) and (2.2) indicate that the compression strength of boxes will be most sensitive to variation in edgewise compression strength of the corrugated fibreboard. It would be useful to extend the application of McKee's *et al.* (1963) equations by adding terms for MC and temperature, as this would assist the estimation of box compression strength in low temperature high humidity horticultural cool-stores.

2.3.2 Allerby's Modified McKee's Equation

Allerby *et al.* (1985) modified the constant and exponents of McKee's *et al.* (1963) equation (2.1) to predict the compression strength of boxes made of C-flute corrugated fibreboard (equation 2.4). The exponents for equation (2.4) were based on measurements on a range of samples collected from three corrugated fibreboard manufacturing facilities in New Zealand.

Allerby *et al.* (1985) used FEFCO rectangular ECT samples and a three point bending stiffness rig (Chalmers pers.comm. 2006). The rectangular ECT samples may result in a higher test value, whereas the three point bending stiffness rig has been shown to produce a lower test value for the machine direction than the four point bending stiffness rig (Markström 1999).

$$BCS = 0.13.ECT^{0.71} \left(\sqrt{BS_{MD}BS_{CD}} \right)^{0.38} \left(\frac{BP}{1000} \right)^{0.46}$$

For C flute corrugated fibreboard
(2.4)

2.3.3 Kawanishi's Equation

Kawanishi (1989) developed an empirical equation to predict the box compression strength of wrap-around and regular-slotted cartons (equation 2.5). Kawanishi (1989) did not state what constitutes a K, K', B or C linerboard but the codes and corresponding linerboard factors probably account for differences in pulp type.

$$BCS = 9.81 \times 3.79 \times 10^{-8} \times K^{0.379} \times b_{w.L}^{0.650} \times b_{w.B}^{1.20} \times TF^{-4.15} \times CC^{2.45} \\ \times C_K^{3.43} \times BP_K^{0.565} BT^{-0.315} \times PR^{0.0602} \times MC_{SW}^{-1.10}$$

(2.5)

where	K	=	linerboard factor (3 for K linerboard, 2.5 for K' linerboard, 2 for B linerboard, factor for C linerboard not stated) (dimensions not stated)
	$b_{w.L}$	=	total basis weight of linerboards (g.m ⁻²)
	$b_{w.B}$	=	total basis weight of corrugated fibreboard (g.m ⁻²)
	TF	=	take-up factor (1.59 m _{fluting medium} m _{board} ⁻¹ for A-flute, 1.36 m _{fluting medium} m _{board} ⁻¹ for B-flute, 1.27 m _{fluting medium} m _{board} ⁻¹ for E flute, 2.95 m _{fluting medium} m _{board} ⁻¹ for AB-flute)
	CC	=	average corrugation count (dimensions not stated)
	C_K	=	corrugated fibreboard thickness (mm)
	BP_K	=	box perimeter (cm)

BT	=	box type factor (1 for A-1/regular slotted type, 2 for wrap-around type) (dimensions not stated)
PR	=	printed ratio (1 for no print, 0.01 for solid print) (dimensionless)
MC_{SW}	=	sidewall moisture content (% , basis not given)

A sensitivity analysis was conducted on equation (2.5) by calculating the box compression strength using average, high and low values for the equation inputs (Table 2.1). The high, low and average values for the equation inputs were taken on the data that Kawanishi (1989) presented. Kawanishi (1989) did not present any data indicating how much variation was found in the take-up factor or the corrugation count, although the later should remain constant as it would be dependent on the design of the fluted corrugator rolls. The sensitivity analysis was only conducted for one of the two box types as the A-1 or regular slotted design best represents the apple Z-Pack inner.

Table 2.1 Values used for the sensitivity analysis of Kawanishi's (1989) equation

Equation Inputs				Equation Outputs
	Average	Low	High	Change in Box Compression Strength (% of average value)
A and B flute				
Linerboard factor	2.5	2	3	15.3
Linerboard basis weight (g.m ⁻²)	225	150	300	43.7
Medium basis weight (g.m ⁻²)	142.5	125	160	29.5
Printed ratio	0.6	0.2	1.0	9.52
Sidewall moisture content (%)	15.5	8	23	142
Box type	2			NA
A Flute				Average BCS 78.7 kg
Corrugated fibreboard thickness (mm)	4.9	4.8	5	14.0
Box perimeter (cm)	126	118	134	7.18
Take-up factor	1.59			NA
Corrugation count	34			
B Flute				Average BCS 54.3 kg
Corrugated fibreboard thickness (mm)	2.75	2.7	2.8	12.5
Box perimeter (cm)	133.5	131	136	2.15
Take-up factor	1.36			NA
Corrugation count	50			

The sensitivity analysis (Table 2.1) indicates that the MC of the sidewalls had, by a large margin, the most significant effect on the box compression strength. The next two most important equation inputs were the basis weight of the linerboards and medium. Of the seven equation inputs investigated, all but the MC and thickness were design parameters. The design parameters are generally determined by the end use of the corrugated fibreboard box and are therefore fixed parameters. The MC of the corrugated fibreboard will be dependent on the air conditions and the thickness is primarily dependent on the flute profile of the corrugating rolls but can be reduced by crushing of the board during and following manufacture.

In terms of optimising the strength of, or minimising the damage to, the corrugated fibreboard, based on the sensitivity analysis of Kawanishi's (1989) equation, the MC of the corrugated fibreboard should be kept at as low as possible. The sensitivity

analysis also suggests a greater proportion of the paper fibre should be put into the linerboard, at the expense of the fluting medium.

2.3.4 Kellicutt's Equation

Kellicutt and Landt's (1952) equation predicts the box compression strength from the design parameters of the box and the overall ring crush strength of the linerboards (equation (2.6), Kawanishi 1989). Equation (2.6) indicates that the box compression strength is directly proportional to the overall ring crush strength of the linerboards.

$$BCS_{KL} = RCT_L \left(4 \frac{A}{BP_{KL}} \right)^{\frac{2}{3}} \times B \quad (2.6)$$

where

BCS_{KL}	=	box compression strength (dimensions not stated)
RCT_L	=	overall ring crush test strength of the linerboards (dimensions not stated)
A	=	flute constant (dimensions not stated)
BP_{KL}	=	box perimeter (dimensions not stated)
B	=	box constant (dimensions not stated)

2.4 Effect of Linerboard and Medium Properties

Sprague and Whitsitt (1982), Seth (1985) and Markström (1999) presented similar equations (2.7, 2.8 and 2.9 respectively) to predict the corrugated fibreboard compression strength from the compression strength of the linerboards and medium.

The main difference between these equations was that Seth's (1985) equation (2.8) estimates the edgewise compression strength solely from the linerboard and fluting medium compression strength without the fitted constants required in Sprague and Whitsitt's (1982) and Markström's (1999) equations (2.7 and 2.9). These fitted constants in equations (2.7) and (2.9) compensate for the differences between the paper and corrugated fibreboard test methods and possibly for the damage that can occur during the corrugating process. The accumulated intrinsic edgewise compression strength (AICES) equation (2.8) estimated the ECT strength solely on the

linerboard and fluting medium properties. The AICES is expected to overestimate the ECT as the linerboards and fluting medium compression strength is expected to be reduced during corrugated fibreboard manufacturing process and the larger test span used when measuring the ECT, relative to the short span compression test, is also expected to reduce the ECT value.

$$ECT_{est1} = FC_1(CS_{CD-SFL} + CS_{CD-DBL} + TF CS_{CD-M}) + FC_2 \quad (2.7)$$

$$AIECS = SSCS_{CD-SFL} + SSCS_{CD-DBL} + TF SSCS_{CD-M} \quad (2.8)$$

$$ECT_{est2} = k(CS_{CD-SFL} + CS_{CD-DBL} + TF CS_{CD-M}) \quad (2.9)$$

where	ECT_{est1}	=	estimated edgewise compression test strength based on linerboard and fluting medium properties and equation (2.7) (N)
	FC_1, FC_2	=	fitted constants (dimensions not stated)
	CS_{CD-SFL}	=	compression strength of the single-facer linerboard in the cross-machine direction (N.m ⁻¹)
	CS_{CD-DBL}	=	compression strength of the double-backer linerboard in the cross-machine direction (N.m ⁻¹)
	CS_{CD-M}	=	compression strength of the fluting medium in the cross-machine direction (N.m ⁻¹)
	$AIECS$	=	accumulative intrinsic edgewise compression strength (N.m ⁻¹)
	$SSCS_{CD-SFL}$	=	short span compression strength of the single-facer linerboard in the cross-machine direction (N.m ⁻¹)
	$SSCS_{CD-DBL}$	=	short span compression strength of the double-backer linerboard in the cross-machine direction (N.m ⁻¹)
	$SSCS_{CD-M}$	=	short span compression strength of the fluting medium in the cross-machine direction (N.m ⁻¹)
	ECT_{est2}	=	estimated edgewise compression test strength based on linerboard and fluting medium properties and equation (2.9) (N)
	k	=	test method coefficient (Table 2.2) (dimensions not stated)

Table 2.2 Test method coefficients (equation (2.8), Markström 1999)

Test Method	Coefficient - k
Ring Crush Test	1.28+0.08
Crush Linear Test (Concora Liner Test)	0.97+0.04
Short Span Compression Test	0.71+0.03

Allerby *et al.* (1985) found that equation (2.8) overestimated the ECT by just over 40%. They stated that the difference between the actual and estimated ECT arises because the increased sample size employed for the ECT increased the number of weak sections where failure could begin. Also they stated that the corrugating process would produce stress concentration where failure could occur prematurely. Allerby *et al.* (1985) fitted a linear equation to the relationship between the accumulative intrinsic ECT values and the measured ECT values of the C-flute corrugated fibreboard, with a sample size of 47 and correlation coefficient (R^2) of 86% (equation 2.10).

$$AIECS_{Adj} = 0.61 AIECT + 0.74 \quad (2.10)$$

where $AIECS_{Adj}$ = Adjusted accumulative intrinsic edgewise compression strength ($N.m^{-1}$)

Seth's (1985) comparison of the AIECS and measured ECT produced four linear plots with correlation coefficients (R^2) ranging from 94.2 to 97.8%. Seth (1985) found the ECT strength was equal to between 69.6% and 78.8% of the AIECS. A number of reasons were given for the difference, including the test procedures and damage during the corrugating process.

Whitsitt (1988) presented an equation (2.11) that indicated that the bending stiffness of corrugated fibreboard was proportional to the elastic modulus of the linerboards.

$$BS_W = \frac{E_L C_L C_B^2}{2} \quad (2.11)$$

where BS_W = bending stiffness (dimensions not stated)
 E_L = elastic modulus of linerboards (dimensions not stated)

$$\begin{aligned} C_L &= \text{linerboard thickness (dimensions not stated)} \\ C_B &= \text{board thickness (dimensions not stated)} \end{aligned}$$

Markström (1999) presented a simple equation (2.12) to predict the bending stiffness of corrugated fibreboard. This equation indicates that the bending stiffness is directly proportional to the tensile stiffness of the liners.

$$BS = 0.5 TS_L C_B^2 \quad (2.12)$$

where BS = bending stiffness of corrugated fibreboard (Nm)
 TS_L = tensile stiffness of the liner (N.m⁻¹)

Fellers and Carlsson (1983) presented an equation (2.13) for the bending stiffness of a homogeneous strip. Equations (2.12) and (2.13) indicate thickness of the board and the tensile properties of the board determine the bending stiffness of corrugated fibreboard.

$$BS_{HS} = \frac{E_{HS} C_{HS}^3}{12} \quad (2.13)$$

where BS_{HS} = bending stiffness of homogeneous strip (Nm)
 E_{HS} = elastic modulus of homogeneous strip (N.m⁻²)
 C_{HS} = thickness of homogeneous strip (m)

Similar figures presented by Cavlin (1988) (Figure 2.12), Fellers (1983) and Markström (1999) indicate that at low strains the bending stiffness are equally dependent on the compression and tensile stiffness of the linerboards. However at larger strains the bending stiffness and ultimate bending strength are dependent on the compression stiffness and strength of the linerboard on the concave surface.

Assuming the box faces bend outwards while under a compression load, the single-facer linerboard cross-machine direction compression stiffness and strength would be the most important properties with respect to the box compression strength.

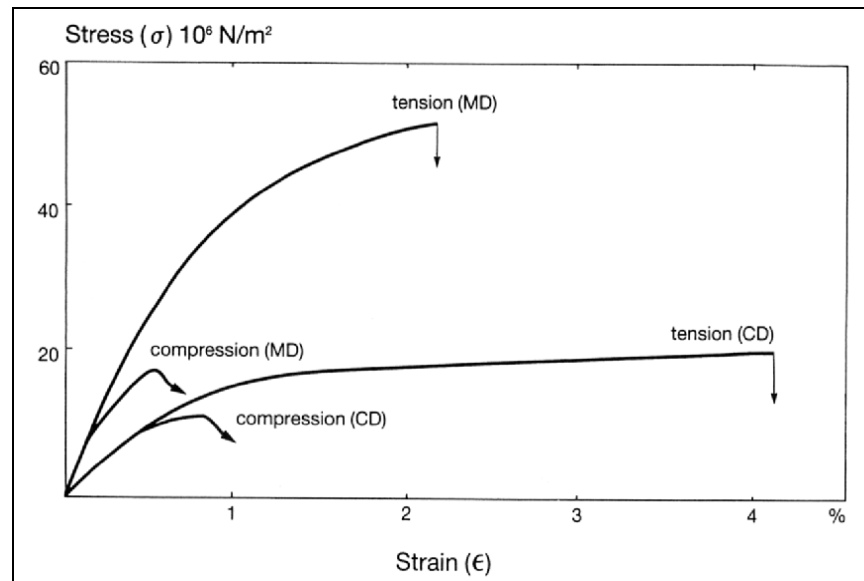


Figure 2.12 Comparison between tensile and compressive strength of paperboard (Scanned from Cavlin 1988).

2.5 Factors Affecting Corrugated Fibreboard Strength During the Manufacturing Process

2.5.1 Introduction

This section outlines how the important corrugated fibreboard properties, based on the box compression strength, are affected by the corrugated fibreboard manufacturing processes of corrugating and converting.

2.5.2 Corrugated Fibreboard Thickness

The maximum corrugated fibreboard thickness is a function of the flute height and the linerboard thicknesses. During and following manufacture the corrugated fibreboard thickness could be reduced by compression.

The effect of the thickness on the bending stiffness was shown by Whitsitt (1988), Markström (1999) and Fellers and Carlsson (1983) (equations 2.11, 2.12 and 2.13 respectively). Whitsitt's (1988) and Markström's (1999) equations (2.11 and 2.12 respectively) indicate that the bending stiffness is proportional to the thickness

squared, whereas Fellers and Carlsson's (1983) equation (2.13) indicates that the bending stiffness is proportional to the thickness cubed.

Urbanik (2001) modelled the effect of flute shape, including flute height, height to pitch ratio, flank angle and take-up factor, on the edgewise compression strength and bending stiffness of corrugated fibreboard. Based on Urbanik's (2001) model, a 10 or 20% reduction in flute height from manufacture during flute formation would cause a reduction in edgewise compression strength of approximately 1 or 3 %, respectively. This reduction in thickness during manufacture could arise from the use of corrugator rolls with a smaller flute profile or from excessive tension on the fluting medium.

Batelka (1994) found that a reduction in thickness of 50 mil (1.27mm) from crushing reduced the edgewise compression strength from 42.8 to 37.2 lb.in⁻¹ (36.4 to 31.7 kN.m⁻¹) which equates to a reduction of 13%. Batelka (1994) did not state the original thickness of the single-face board, however if the samples were originally 4 mm thick, 1.27 mm corresponds to crushing of 32% of the original thickness.

Kroeschell (1992) stated, based on theoretical analysis, that crushing of corrugated board may affect the edgewise compression strength as this would reduce the thickness to height ratio, which may then allow bending failure. However, Kroeschell (1992) stated the effect of crushing on the edgewise compression strength was variable (Table 2.3).

Table 2.3 Influence of crushing on edgewise compression test (Kroeschell 1992).

Study by:	Reduction in thickness (%)	Reduction in ECT (%)
Batelka (1984)	30	15
	<10	Insignificant
Eriksson (1979)	40	5
	100	30

2.5.3 Linerboard to Medium Bond

Kroeschell (1990) stated that a previous study by Wennerbolm (1985) found that factors such as liner and medium properties, starch composition, starch solids content and corrugating speed did not affect the liner adhesion strength of the resulting

corrugated fibreboard. The only factor that did affect the liner adhesion strength was the amount of starch applied.

Kroeschell (1990) also stated that the edgewise compression strength of corrugated fibreboard was dependent on liner adhesion strength up to a value of 400 N.m^{-1} , beyond which there was no effect on the edgewise compression strength. Kroeschell (1990) further stated that the liner adhesion strength of 400 N.m^{-1} was half the strength usually regarded as the minimum.

Batelka (1994) found that a reduction in the single-facer linerboard to medium liner-adhesion strength of 84.6 to 38.6 lb (1.83 to 0.83 kN, 54% reduction) caused a reduction in the ECT strength of 42.0 to 38.6 lb.in⁻¹ (35.8 to 32.9 kN.m⁻¹, 8 % reduction).

Schaepe (2000) stated that above 50 lbf.ft^{-1} (730 N.m^{-1}) the influence of liner adhesion strength on edgewise compression strength of corrugated fibreboard was minimal and not statistically significant. Schaepe (2000) stated that the pin adhesion strength of 60 lbf.ft^{-1} (876 N.m^{-1}) is regarded as good; 50 lbf.ft^{-1} (730 N.m^{-1}) is considered to be low; and corrugated fibreboard with liner adhesion strength of below 30 lbf.ft^{-1} (438 N.m^{-1}) is at risk of delaminating.

Chalmers (per. comm. 2002) stated that based on anecdotal evidence, the bonds between the linerboards and fluting medium tips of New Zealand manufactured corrugated fibreboard were usually significantly stronger than required.

2.5.4 Flute Shape

Urbanik (2001) developed a mathematical model to optimise flute shape with respect to the edgewise compression strength of corrugated fibreboard. The characteristics of the flutes were defined by Urbanik (2001) using the symbols show in Figure 2.13.

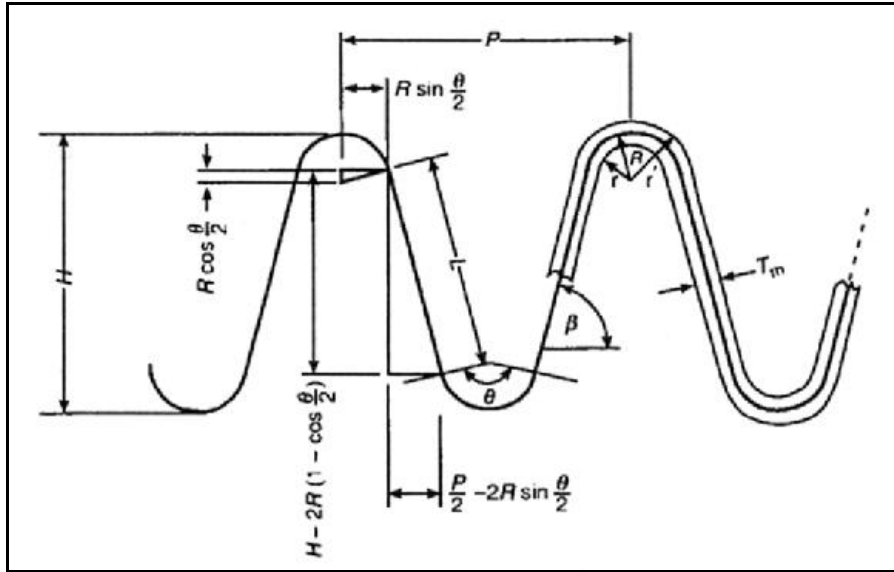


Figure 2.13. Flute diagram showing nomenclature used by Urbanik (2001) to characterise flute shape (Transferred from Urbanik 2001).

Urbanik's (2001) model predicts that the edgewise compression strength is dependent on the take-up factor, flute height to pitch ratio and the flank angle (Figure 2.14), whereas the geometric bending stiffness (equation 2.14) is only dependent on the take-up factor and the flank angle (Figure 2.15). Urbanik's (2001) model can however, only be applied when designing a new pair of corrugator rolls and is of little use when optimising an existing single facer.

$$EI = \sqrt{BS_{CD}BS_{MD}} \quad (2.14)$$

where EI = Geometric mean bending stiffness (N.m)

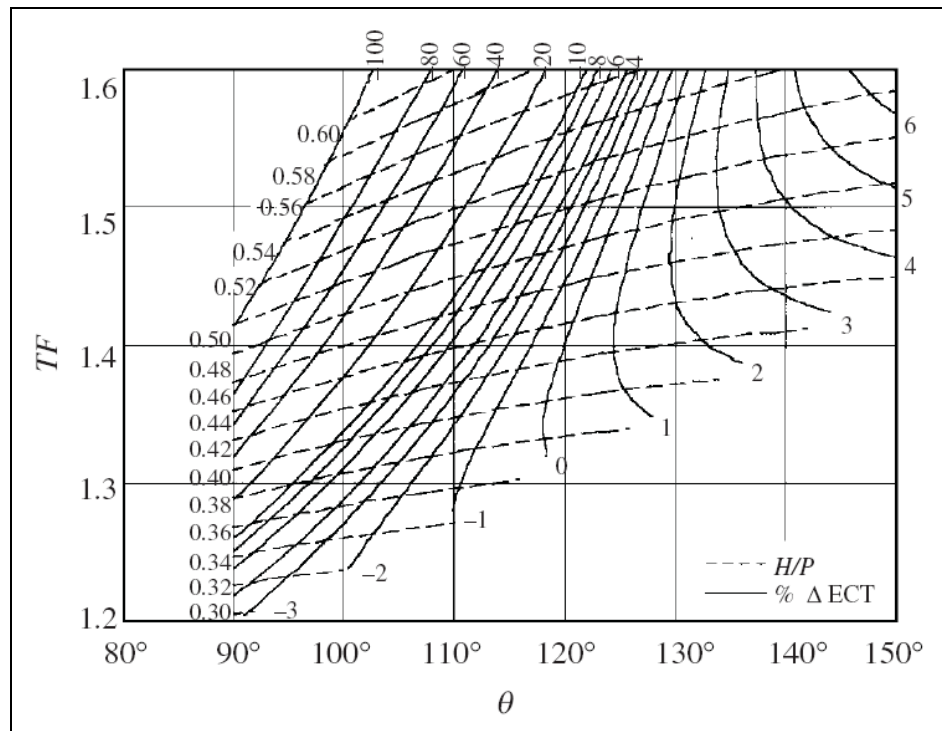


Figure 2.14. Contours of constant levels of ECT strength (expressed as % difference from standard profile) and contours of constant levels of flute height to pitch (H/P). $R = 1.52$ (Transferred from Urbanik 2001).

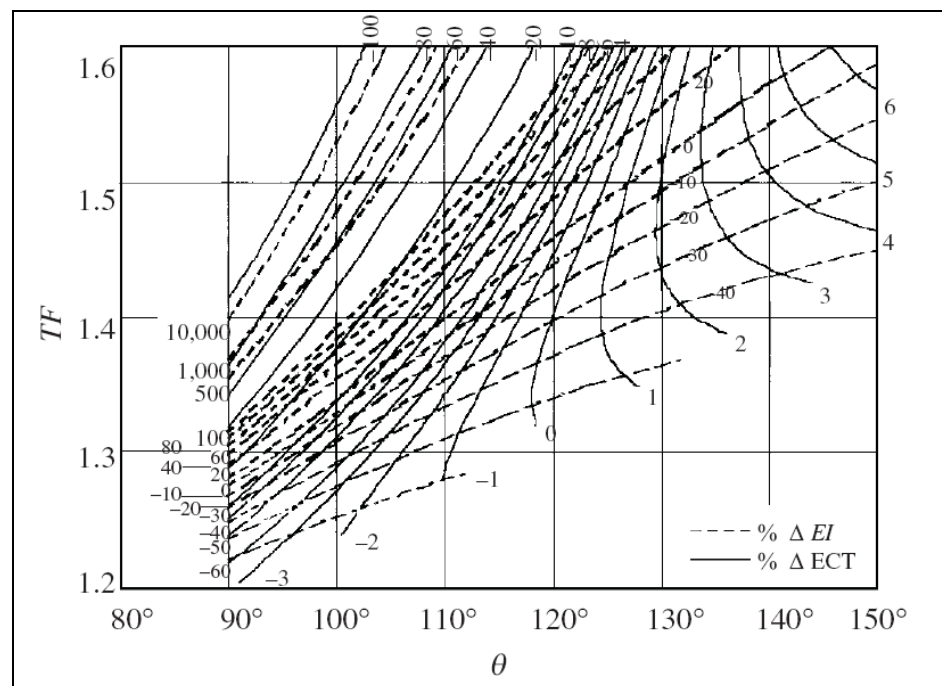


Figure 2.15. Contours of constant levels of geometric mean bending stiffness (EI) and ECT strength (expressed as % difference from standard profile). $R = 1.52$ mm (Transferred from Urbanik 2001).

2.5.5 Flute Formation Process

Whitsitt and Sprague (1987) measured the effect of flute formation by running fluting medium through a pilot plant single-facer without gluing it to a linerboard and measuring the short span compression strength in the machine and cross-machine directions. They also compared the strength of the fluting medium after a hot and cold fluting process and used four different rolls of fluting medium. Rolls numbered 1, 10 and 19 were semi-chemical fluting medium, with basis weights of 127.4, 126.9 and 128.4 g.m⁻², respectively, whereas the roll numbered 114 was recycled fluting medium with a basis weight of 137.7 g.m⁻².

Whitsitt and Sprague's (1987) graphs of machine direction short span compression strength (Figure 2.16) show an average reduction of 42% relative to the non-corrugated fluting medium compression strength, with the most significant loss occurring at the flute tips. Figure 2.16 also shows that the temperature of the fluting formation process can be significantly reduced without significantly affecting the short span compression strength of the fluting medium.

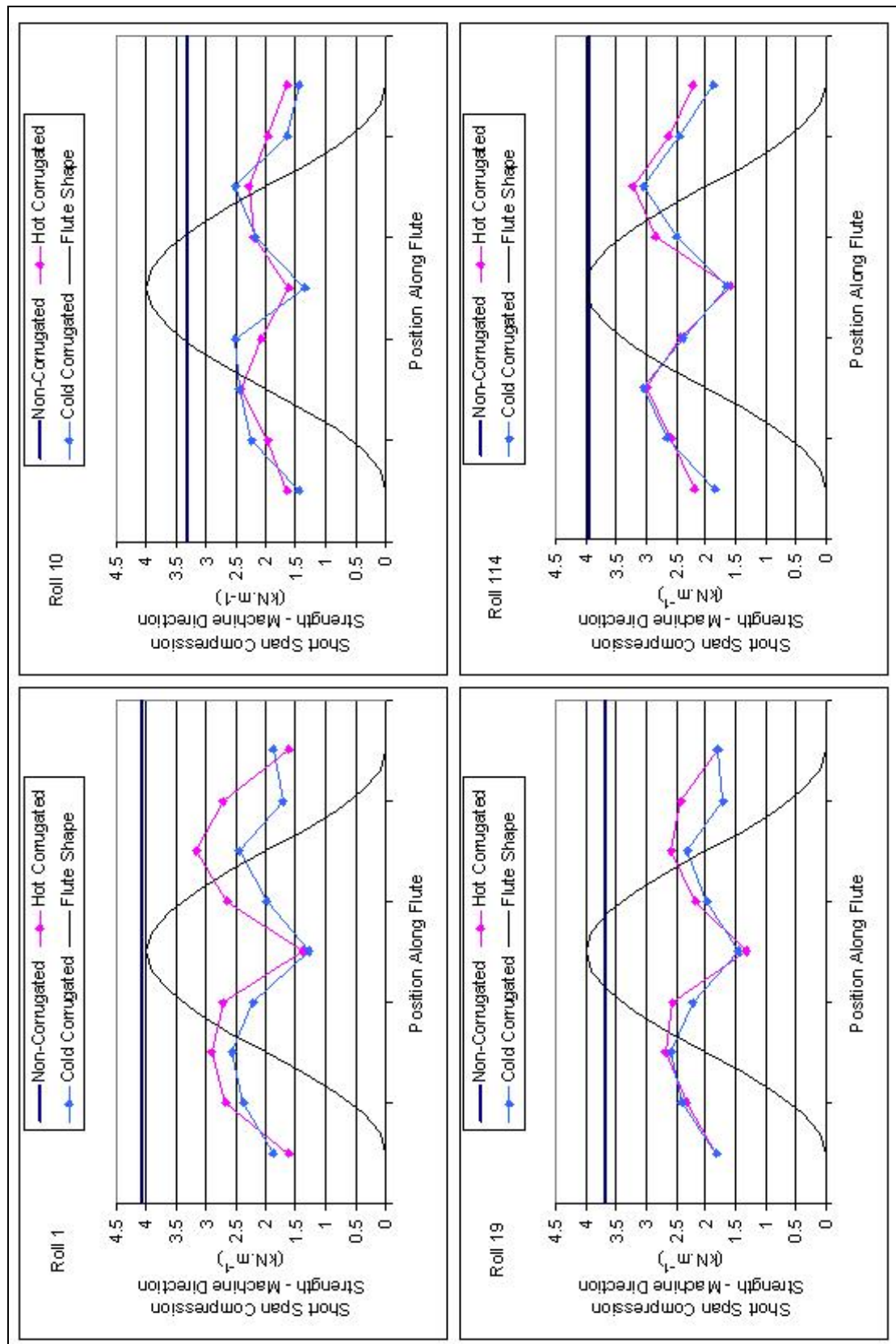


Figure 2.16 Short span compression strength of fluting medium in the machine direction (Digitised from Whitsitt and Sprague 1987).

Whitsitt and Sprague (1987) also measured the cross-machine direction short span compression strength of the non-corrugated, hot corrugated and cold corrugated fluting medium. Measuring the cross-machine direction properties will provide a better indication of how the corrugating process affects the edgewise compression strength of the corrugated fibreboard. Whitsitt and Sprague (1987) made measurements across both the flutes and flanks. Hence a single compression strength value was reported for the cross-machine direction measurements.

As with the machine direction measurements, there was little difference between cross-machine direction short span compression strength for the hot and cold corrugating samples (Figure 2.17). The cross-machine direction short span compression strength was reduced on average by 28% relative to the non-corrugated fluting medium compression strength. The reduction in the edgewise compression strength of the corrugated fibreboard is likely of be a function of the reduction in compression strength of the fluting medium and the ratio of fluting medium basis weight to total linerboard basis weight.

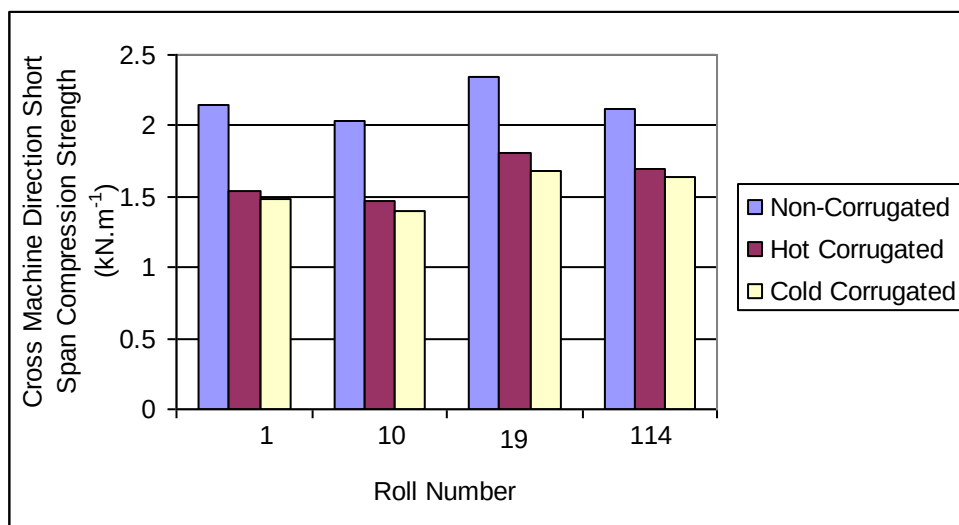


Figure 2.17 Short span compression strength of roll 1 fluting medium in the cross-machine direction (Digitised from Whitsitt and Sprague 1987).

Whitsitt and Baum (1987) presented an equation (2.15) to predict the ratio of the compression strength of corrugated and non-corrugated fluting medium. This equation implied that to reduce the damage to the fluting medium during the fluting

process, the density and Young's modulus in the cross-machine direction should be increased and the Young's modulus in the machine direction and basis weight should be reduced.

$$RR = 1 - \left(\frac{FC_3}{r} \right) \left(\frac{E_{MD}}{E_{CD}} \right)^{1/4} \frac{b_{w.M}}{\rho_M} \quad (2.15)$$

where

RR	=	retention ratio – ratio of compressive strengths of fluted to non-fluted medium (dimensionless)
FC_3	=	fitted constant (dimensions not stated)
r	=	radius of curvature of the fluting rolls (dimensions not stated)
E_{MD}	=	fluting medium Young's modulus in the machine direction (dimensions not stated)
E_{CD}	=	fluting medium Young's modulus in the cross-machine direction (dimensions not stated)
$b_{w.M}$	=	basis weight of fluting medium (dimensions not stated)
ρ_M	=	density of fluting medium (dimensions not stated)

The four medium properties in equation (2.15) are controlled largely by the paper making process, but adjusting the medium temperature and MC prior to fluting may allow for some control of the fluting medium's Young's modulus.

Whitsitt and Baum (1987) found that increasing the medium density from approximately 540 to 1010 kg.m⁻³ (an 87% increase) increased the edgewise compression strength from approximately 48 to 69 lb.in⁻¹ (41 to 59 kN.m⁻¹, a 44% increase). Whitsitt (1987) stated that the corrugating process can reduce medium compression strength in the machine and cross-machine direction by up to 40 and 20%, respectively. The corresponding loss of edgewise compression strength was estimated to be 7%.

2.5.6 Temperature

During the manufacture of corrugated fibreboard, temperature has an important role in setting the adhesive between the fluting medium and linerboard as well as plasticising the fluting medium to minimise the damage during flute formation (Whitsitt *et al.* 1982). However, Whitsitt *et al.* (1982) developed a cold corrugating process that formed corrugated flutes at room temperature. The resulting corrugated fibreboard

performed favourably in laboratory tests compared with normal (hot) corrugated fibreboard. Whitsitt's *et al.* (1982) work indicates that it is possible to successfully flute paper over a wide temperature range, from approximately 20°C in their case to above 100°C on a conventional single-facer. Whitsitt *et al.* (1982) did not state the MC of the fluting medium used, but presumably it would have been higher than that used on a conventional single-facer to compensate for the lower temperature. Under normal conditions the combination of high temperatures and a small quantity of moisture would sufficiently plasticise the fluting medium prior the fluting process.

Wallace *et al.* (1995) investigated the effect of single-facer linerboard temperature, measured after a preheater, on the edgewise compression and linerboard adhesion strength of corrugated fibreboard with high-density liners. They found that the single-facer linerboard temperature had a significant effect of the corrugated fibreboard properties (Figure 2.18), with an optimum at about 85 - 100°C. The MC of the single-facer linerboard was measured as 4.0 to 5.0 % (basis not stated).

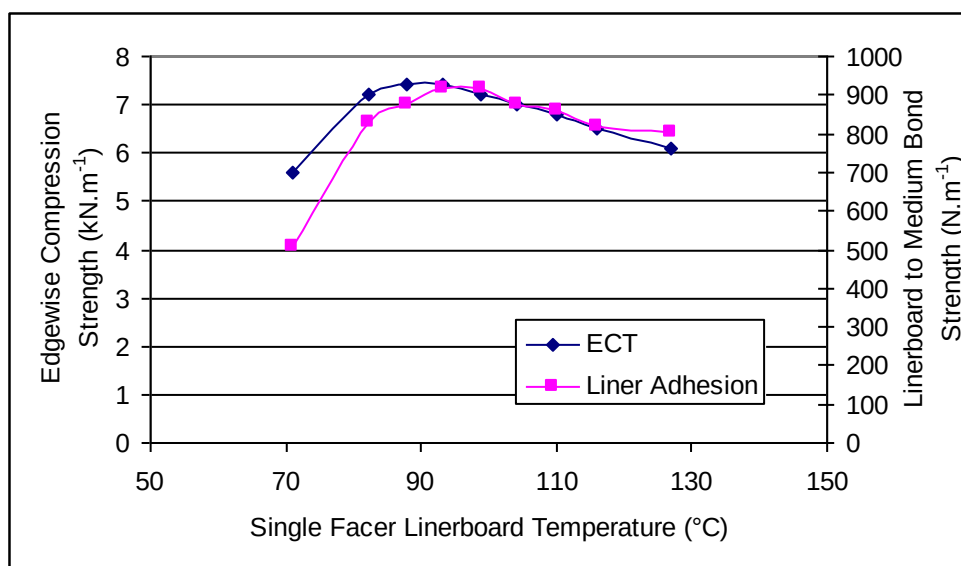


Figure 2.18 Effect of single-facer linerboard temperature on edgewise compression strength and linerboard to medium bond strength (Wallace *et al.* 1995).

Andersson and Berkyto (1951) measured a linear trend between the tensile stress and breaking stress and temperature for a range of strains in the machine and cross-machine directions for dry machine glazed Kraft paper (Figure 2.19). Their measurements showed that the strain to failure diminished as temperature increased.

No conclusion can be drawn from the differences between the Kraft and newsprint sample as they did not state the respective basis weights.

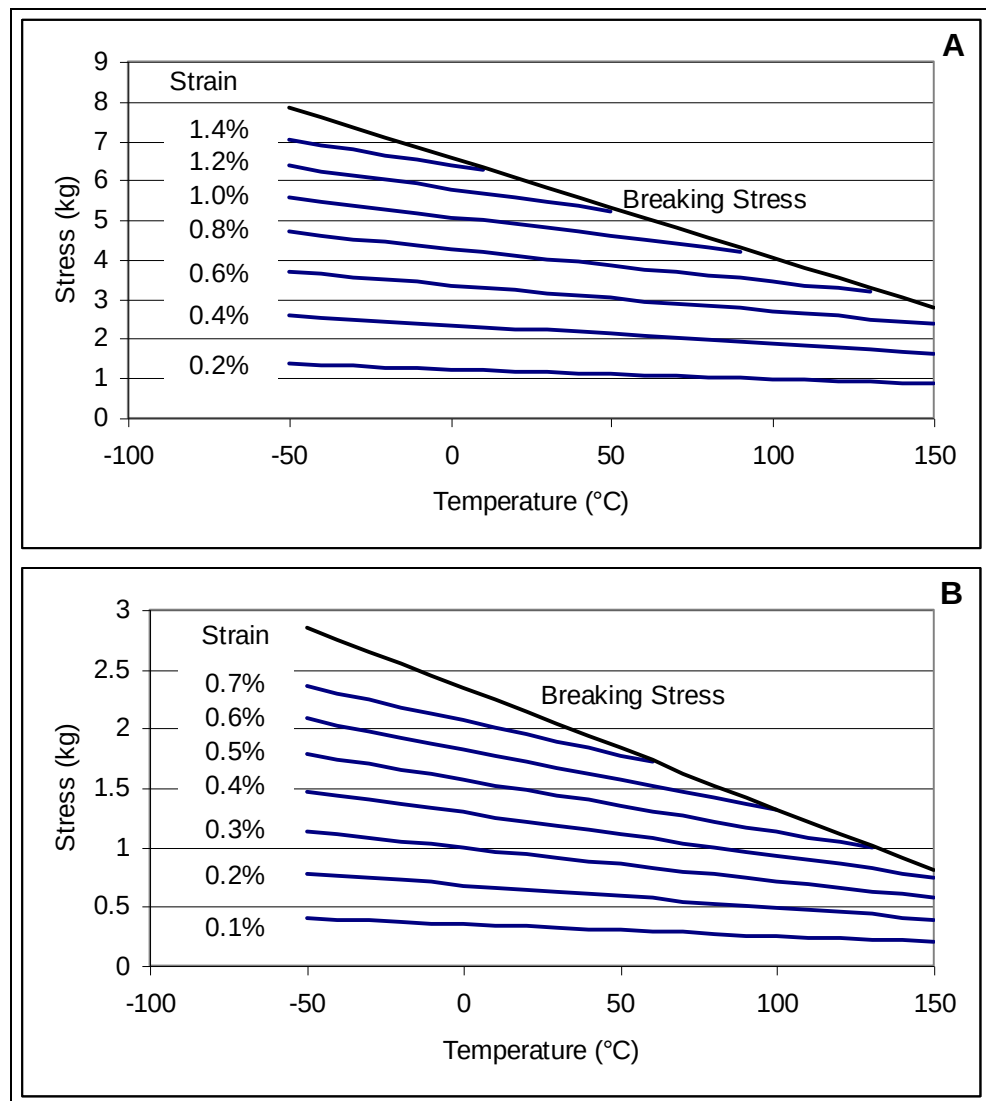


Figure 2.19 Effect of temperature on machine direction tensile stress-stain relationship and breaking stress of (A) dry machine glazed Kraft paper and (B) dry newsprint (basis weights not stated) (Andersson and Berkyto 1951).

Salmen and Back (1980) measured the effect of temperature and moisture on the modulus of elasticity of Kraft sack paper (Figure 2.20). Their data showed some curvature but the data could be approximated with linear models. The parallel nature of the lines in Figure 2.20 for the different MCs suggests that the relative effect of

temperature increases with increasing MC, whereas in absolute terms the effect of temperature was constant.

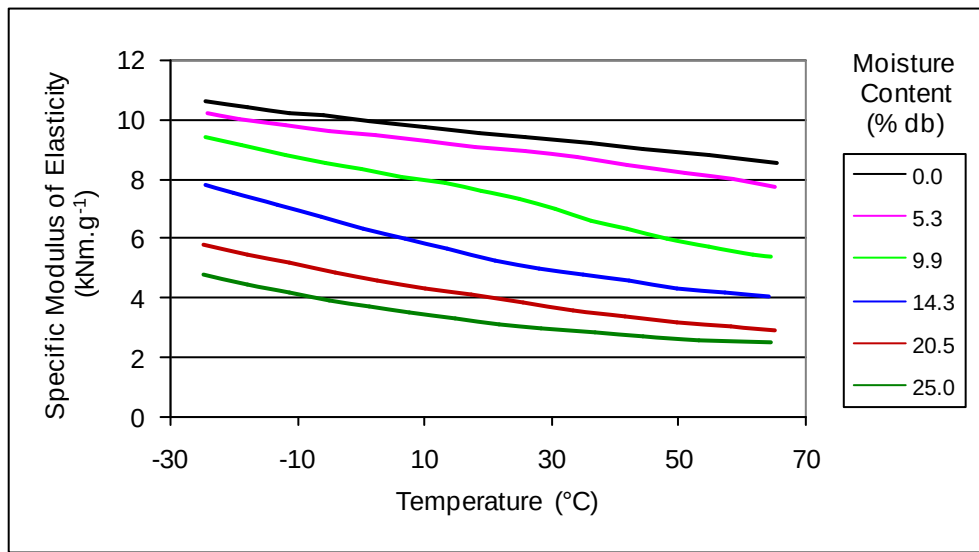


Figure 2.20 Effect of temperature at various moisture contents on the specific modulus of elasticity of Kraft sack paper (digitised from Salmen and Back 1980). Note: the specific modulus of elasticity was calculated by dividing the modulus of elasticity (kN.m^{-1}) by the sample basis weight (g.m^{-2}).

2.5.7 Moisture

Wallace *et al.* (1995) investigated the effect of steaming the single-facer linerboard and fluting medium prior to the single-facer. The steaming was conducted to increase the MC while the preheater and preconditioner were operated in such a way (although not stated how) to prevent the linerboard or fluting medium temperature increasing. The study was conducted on high density linerboard and fluting medium.

Steaming of the single-facer linerboard increased the average edgewise compression and liner adhesion strength by 2.2 and 5.0 %, respectively, based on the strength of corrugated fibreboard made from unsteamed linerboard (Wallace *et al.* 1995).

Steaming of the fluting medium increased the average edgewise compression and liner adhesion strength by 1.0 % and 18 %, respectively, based on the strength of corrugated fibreboard made from unsteamed fluting medium (Wallace *et al.* 1995). These results indicate that additional moisture can reduce the level of damage to the linerboards and

fluting medium during the corrugating process producing stronger corrugated fibreboard.

The MC of the fluting medium on the roll was 3.5 to 5% (basis not stated) (Wallace *et al.* 1995) which is considerably lower than the 9.9 %(db) moisture of the 160 g.m⁻² semi-chemical fluting medium used to manufacture the C-flute corrugated fibreboard for apple Z-pack inners. Wallace *et al.* (1995) did not report the MC of the single-facer linerboard nor of the fluting medium following the steam showers. It is therefore difficult to quantitatively assess the effect of moisture on the fluting medium and corrugated fibreboard properties for this study.

Andersson and Berkyto (1951b) found that the effect of moisture (Figure 2.21) on the properties of Kraft paper (at 20°C) was less uniform than the effect of temperature (Figure 2.19). The Kraft paper appeared to go through a transition at a MC of 10 % (basis not stated). The effect of moisture was significantly greater between 8 and 12% than outside of this range.

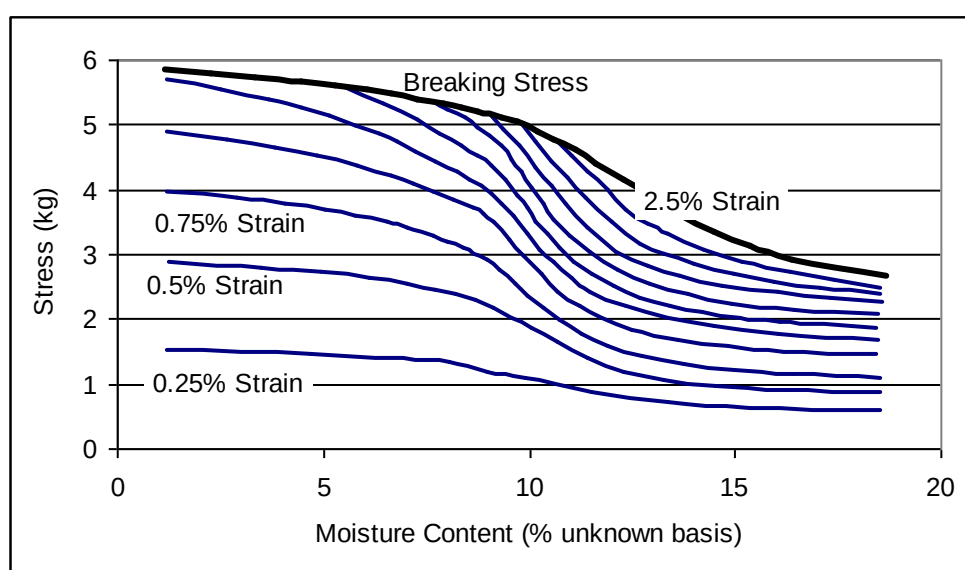


Figure 2.21 Effect of moisture on the machine direction tensile stress-strain relationship and breaking stress of machine glazed Kraft paper at 20°C (Digitised from Andersson and Berkyto 1951b). The strain values for the curves increase in 0.25% increments from 0.25% to 2.5%.

When the measurements of Salmen and Back (1980) are plotted with MC as the independent variable (Figure 2.22) they show similar trends to those of Andersson and Berkyto (1951b) in Figure 2.21. Salmen and Back (1980) stated that each line on

Figure 2.22 has a glass transition temperature at the MC corresponding to the greatest negative slope.

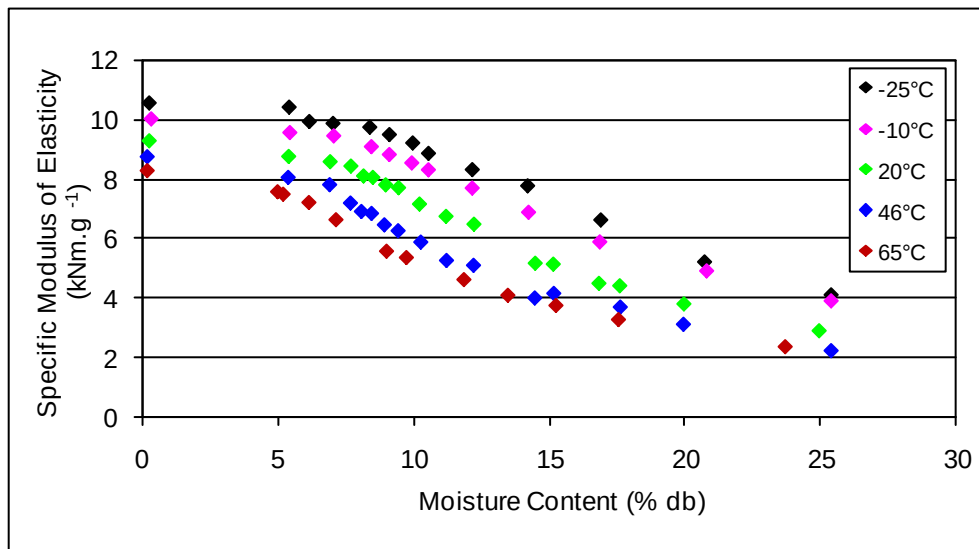


Figure 2.22 Modulus of elasticity of softwood 105 g.m⁻² Kraft sack paper over a range of moisture contents and temperatures (digitised from Salmen and Back 1980). Note: the specific modulus of elasticity is calculated by dividing the sample's elastic modulus by its density.

Back and Salmen (1981) calculated the effect of moisture on the glass transition temperature of the three main components of paper, cellulose (Figure 2.23), hemicellulose and lignin (Figure 2.24) using an approach published by Kaelble (1971). Figure 2.23 shows that the glass transition temperature of cellulose is dependent on the crystallinity of cellulose as well as the MC. The glass transition temperature of lignin (native and thiolignin) is only dependent on the MC up to approximately 2 %, which is the maximum MC of lignin (Back and Salmen 1981). Paper samples with low crystallinity would be expected to show significant differences in their strength properties when tested above and below their glass transition temperatures.

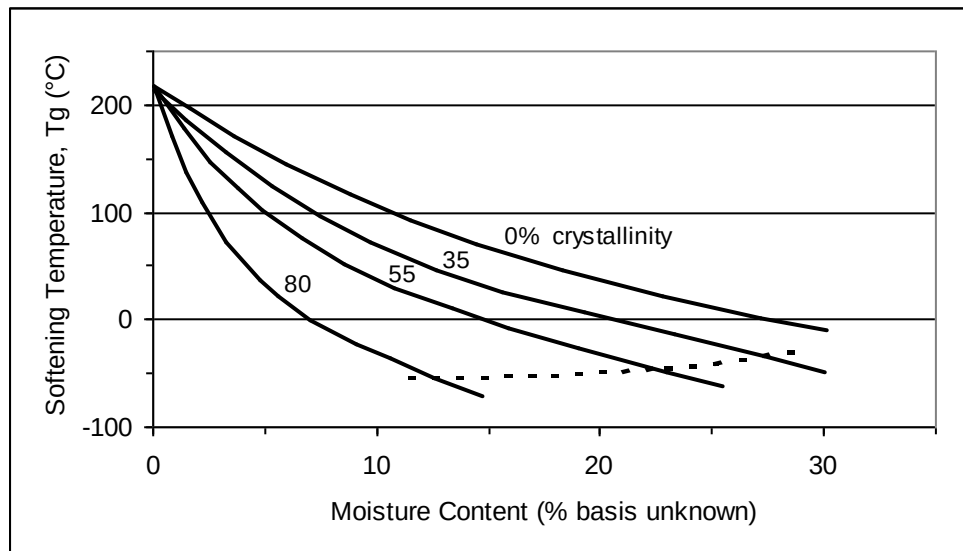


Figure 2.23 Effect of moisture and percentage crystallinity on glass transition temperature (T_g) of cellulose (Digitised from Back and Salmen 1981). Dashed line indicates completely swollen cellulose.

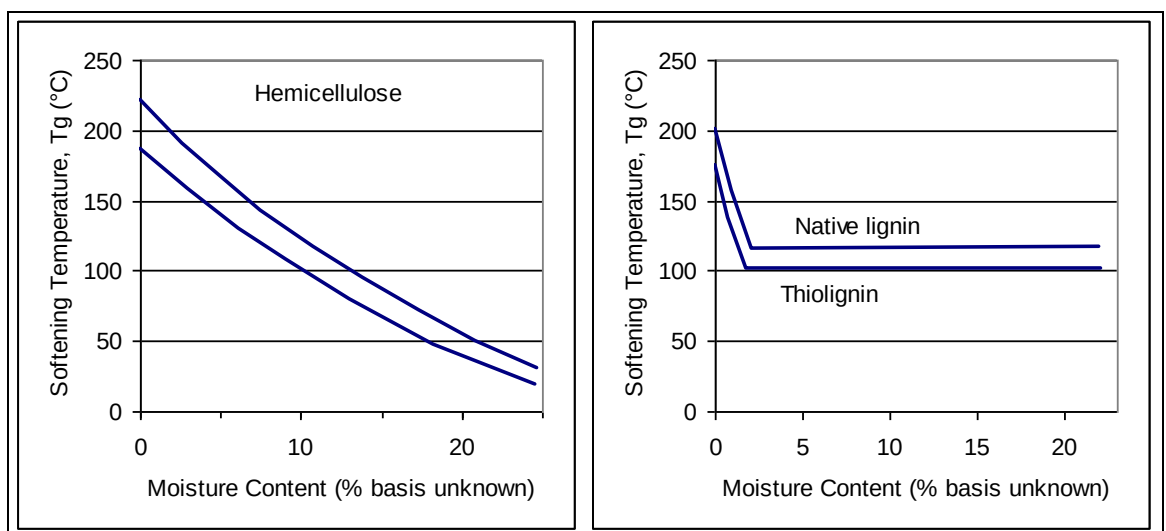


Figure 2.24 Effect of moisture on the glass transition temperatures (T_g) of hemicellulose, native lignin and thiolignin (Digitised from Back and Salmen 1981). Dual lines for hemicellulose are for the two glass transition temperatures measured by Kaelble (1971), Goring (1963) and Häkkinen (1973).

The effect of moisture on the glass transition temperature of hemicellulose is similar to that of amorphous cellulose. In contrast, moisture only influences the glass transition temperature of relatively dry lignin as approximately 2% MC (basis unknown) is the maximum MC.

2.5.8 Web Tension

Whitsitt *et al.* (1982) stated that the tension on the fluting medium just prior to the single facer has a significant bearing on the occurrence of “flute fractures”. Flute fractures occur either when the tension on the fluting medium between the tips of the top and bottom corrugating rolls within the single facer are too high, resulting in fracturing of the flanks of the fluted medium, or when the bending stress is too high and results in fracture of the flute tip (Sprague and Whitsitt 1982, Whitsitt *et al.* 1982).

The fluting medium tension between the corrugating rolls tips is dependent on the coefficient of friction between the fluting medium and the tips of the corrugating rolls and the tension just prior to the single facer (Whitsitt *et al.* 1982, and Sprague and Whitsitt 1982). The tension on the fluting medium during flute formation can be minimised by use of solid “slip agents” or lubricants applied to the surface of the fluting medium which reduce the coefficient of friction. The tension can also be minimised by control of the brakes on the roll stand (Sprague and Whitsitt 1982) and the speed of the pre-feeders (preconditioners) (Whitsitt *et al.*, 1982).

Whitsitt *et al.* (1982) stated that the coefficient of friction between the tips of the corrugator rolls and the fluting medium generally falls with increasing temperature and declining MC and machine speed. Sprague and Whitsitt (1982) stated that ideally the fluting medium should have a low coefficient of friction and high tensile strength and should stretch to resist flute fracture during flute formation. Sprague and Whitsitt (1982) also stated the effect of temperature and moisture on the coefficient of friction was not well quantified but the use of slip agents or lubricants are effective for reducing the occurrence of flute fractures.

2.6 Factors Affecting Corrugated Fibreboard Strength in Horticultural Cool-Stores

2.6.1 Introduction

The factors investigated in this section are limited to the cool-store temperature and humidity. Other factors such as how the boxes of product are transported and stacked

will also affect the performance of the corrugated fibreboard but these are regarded as being outside the scope of this study. The temperature of apple and kiwifruit cool-stores, New Zealand's major horticultural products, were expected to average 0-2°C and fluctuate with the on-off cycle of the refrigeration system and through the exchange of outside air, e.g. during loading and emptying. The cool-store humidity was also expected to fluctuate in sync with the temperature.

2.6.2 Temperature

Cool-store temperatures vary depending on the crop being stored with apples and kiwifruit typically being stored near 0°C. As a hygroscopic material, paper adsorbs or desorbs moisture to achieve equilibrium with its environment. As the temperature is reduced, the MC of paper increases at a constant RH (Figure 2.25). Therefore temperature has an indirect effect on the properties of paper by influencing the MC.

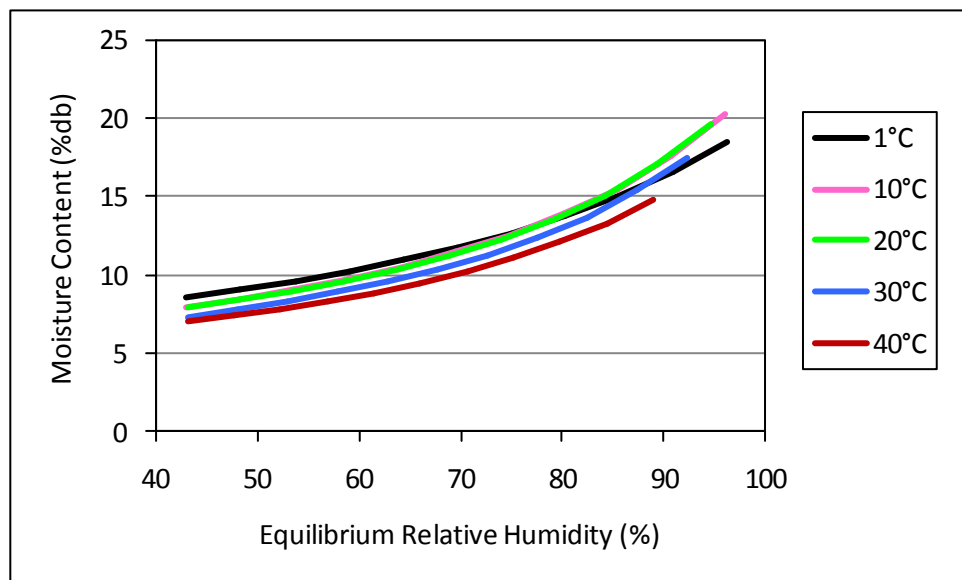


Figure 2.25 Moisture adsorption isotherm for corrugated fibreboard made from Kraft linerboards and recycled fluting medium (inner corrugated fibreboard sleeve) (Eagleton and Marcondes 1994).

Cooling will also stiffen corrugated fibreboard based on Andersson and Berkyto's (1951) (Figure 2.19) and Salmen and Back's (1980) (Figure 2.20) studies of Kraft paper. However, the temperature stiffening of paper and corrugated fibreboard would

probably be insignificant relative to the increase in MC arising from the high humidity commonly found in horticultural cool-stores.

2.6.3 Moisture

The MC of corrugated fibreboard at standard testing conditions is approximately 8.1 %(db) (Setterholm and Gunderson 1983), whereas in horticultural cool-stores the MC may achieve 20 %(db) (Tanner and Nevins 2000). Figure 2.21 show a significant reduction in the stress required to achieve a particular strain and the maximum stress following an increase in moisture from 8 to 20% and Figure 2.22 shows a significant reduction in elastic modulus over the same moisture range.

The effect of moisture on the top-to-bottom case compression strength has been modelled by Kellicutt and Landt (1951) (equation 2.16), Maltenfort 1988) and Kawanishi (1989) (equations 2.17 and 2.18). Kellicutt and Landt's (1951) equation predicts a reduction in strength of 56 % from an increase in moisture from 8 to 20 %(db), based on the strength at 8 %(db) moisture (Figure 2.26). Kawanishi's (1989) equations predicts a reduction of between 62 and 73% for the same increase in MC based on the strength at 8 %(db).

$$\frac{BCS_{MC1}}{BCS_{MC2}} = \frac{10^{3.01 \times MC_2}}{10^{3.01 \times MC_1}} \quad (2.16)$$

where

BCS_{MC1}	=	regular slotted box compression strength with reference moisture content (N)
BCS_{MC2}	=	regular slotted box compression strength with new moisture content (N)
MC_1	=	reference moisture content (%db)
MC_2	=	new moisture content (%db)

$$BCS = FC_4 \times 0.898^{MC_{UKB}} \quad (2.17)$$

$$BCS = FC_5 \times 0.923^{MC_{UKB}} \quad (2.18)$$

where MC_{UKB} = moisture content (% , basis unknown)
 FC_4 and FC_5 = fitted constants, value not stated (dimensions not stated)

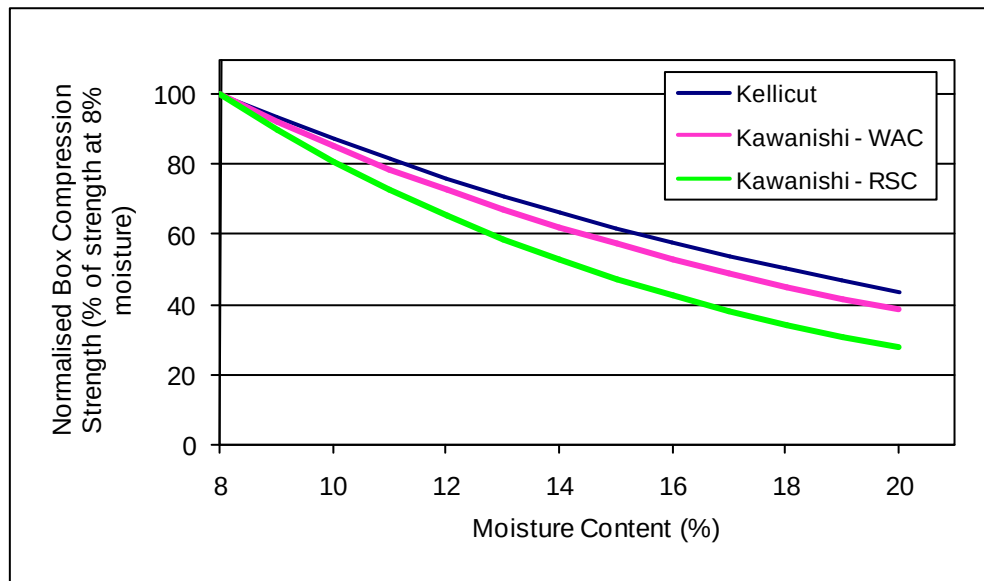


Figure 2.26 Effect of moisture on box compression strength as predicted by equations developed by Kellicutt and Landt's (1951) and Kawanishi (1989). RSC – regular slotted carton, WAC – wrap around carton. Kellicutt and Landt's (1951) used % moisture in dry basis units. The MC basis was not stated in Kawanishi (1989).

Kawanishi (1989) produced two empirical equations to model the effect of moisture on the edgewise compression strength of corrugated fibreboard (equations 2.19 and 2.20). Kawanishi's (1989) predictions of the effect of moisture on the edgewise compression strength is very similar to that of the box compression strength (Figure 2.27).

$$ECT_1 = FC_6 \times 0.917^{MC_{UKB}} \quad (2.19)$$

$$ECT_2 = FC_7 \times 0.916^{MC_{UKB}} \quad (2.20)$$

where ECT_1 = edgewise compression test value of A and AB flute corrugated fibreboard (kgf.cm⁻¹)
 ECT_2 = edgewise compression test value of B flute corrugated fibreboard (kgf.cm⁻¹)
 FC_6 and FC_7 = fitted constants, value not stated (dimensions not stated)

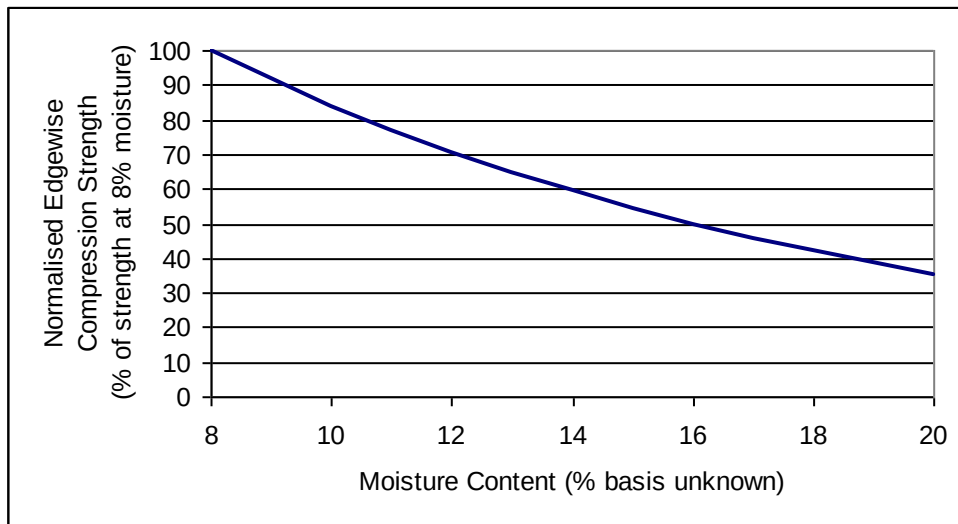


Figure 2.27 Effect of moisture on edgewise compression strength of corrugated fibreboard (Kawanishi 1989). Note: normalised plots of equations (2.19) and (2.20) only differ by 0.45%.

Kawanishi's (1989) box compression strength measurements did not show the same S-shaped curvature as seen in Figures 2.21 and 2.22. The driest samples (6 to 8 %, basis not stated) may have been too moist for the S-shaped curvature to have been visible.

Benson (1971) measured the tensile properties of three Kraft linerboard samples from 3 to 17 %(db) moisture. Benson (1971) stated that the maximum tensile stress (Figure 2.28) and modulus of elasticity followed a linear trend, with respect to MC, up to 13 %(db) moisture. This was the only data set found with a linear trend over any part

of the MC range. Benson (1971) measured a similar relationship between elastic modulus and MC as shown in Figure 2.28.

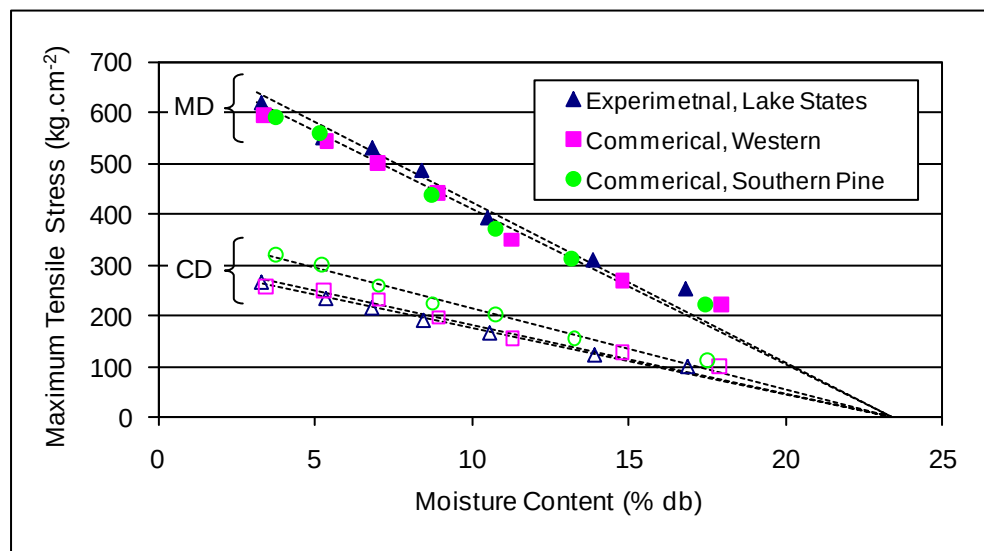


Figure 2.28 Effect of moisture on maximum tensile stress of three linerboard samples at 23°C (digitised from Benson 1971). Note: dashed straight lines included to emphasise the deviation from linearity at high MCs.

2.6.4 Compression Load

Standard laboratory tests used to measure the tensile and compression strength of paper, the properties of corrugated fibreboard and the compression strength of boxes are performed at constant strain rates and are usually completed in seconds and not more than a minute or two. However paper, corrugated fibreboard and boxes behave differently in tests where a constant tensile (paper only) or compression load less than that measured in standard laboratory test is applied (Figures 2.19 and 2.21).

Paper based packaging exhibits creep whereby a sample under a constant tensile or compressive stress, less than the maximum stress measured in a standard laboratory compression test, will deform in the direction of the stress. This deformation can lead to failure of the sample after a time span longer than that usually allowed for with constant strain rate laboratory tests. Figure 2.29 shows that the time-to-failure of a box is dependent on the load on the box. For example a box with a load equivalent to 70% of its maximum strength as measured in a standard laboratory test was expected

to fail in just over one day. In contrast, a box with a load equivalent to 54% of its maximum strength was expected to fail in approximately 100 days.

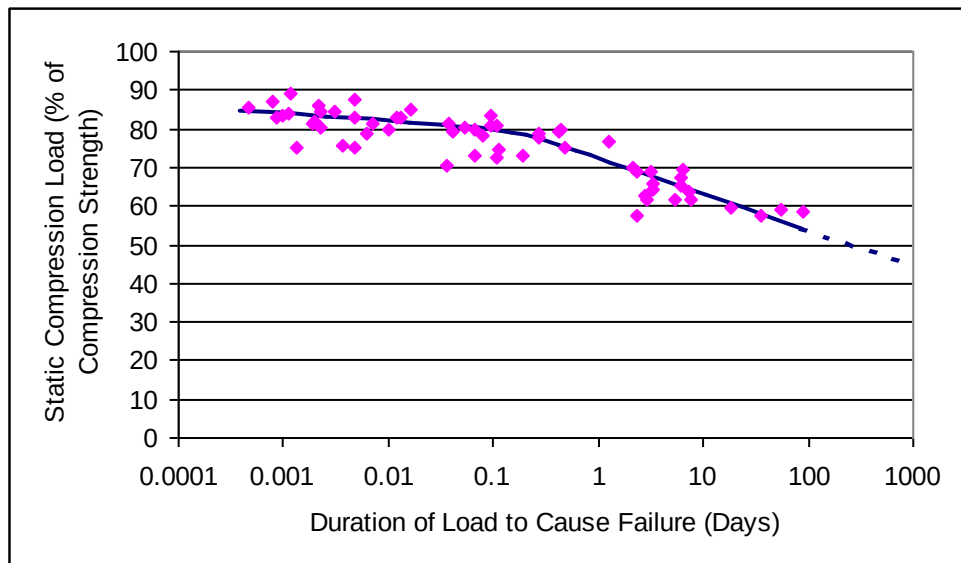


Figure 2.29 Duration of load test of corrugated fibreboard boxes conducted in different atmospheres with various dead loads (Digitised from Maltenfort 1988). Note: dashed line represents extrapolation of the trend as modelled by Maltenfort (1988).

Figure 2.29 was reproduced by Maltenfort (1988) from the Forest Products Laboratory report No D1911 (1951) by Kellicutt and Landt. Maltenfort (1988) did not explain in detail how the samples were treated to generate the data for Figure 2.29, therefore it can only be used quantitatively to indicate the effect of load on failure time. An important implication of Figure 2.29 is that increasing the strength of the corrugated fibreboard, as measured by the laboratory box compression strength test, should extend the duration to failure under a given constant compression load.

Koning and Stern (1977) presented a graph illustrating how the compression profile of a stack of three boxes can be categorised into three regions (Figure 2.30). The primary region extends over the period in which an initially rapid compression (or creep) rate slows and stabilises to the constant compression rate of the secondary region. The compression profile finishes with the tertiary region in which there is a marked increase in compression rate indicating failure of the box(es).

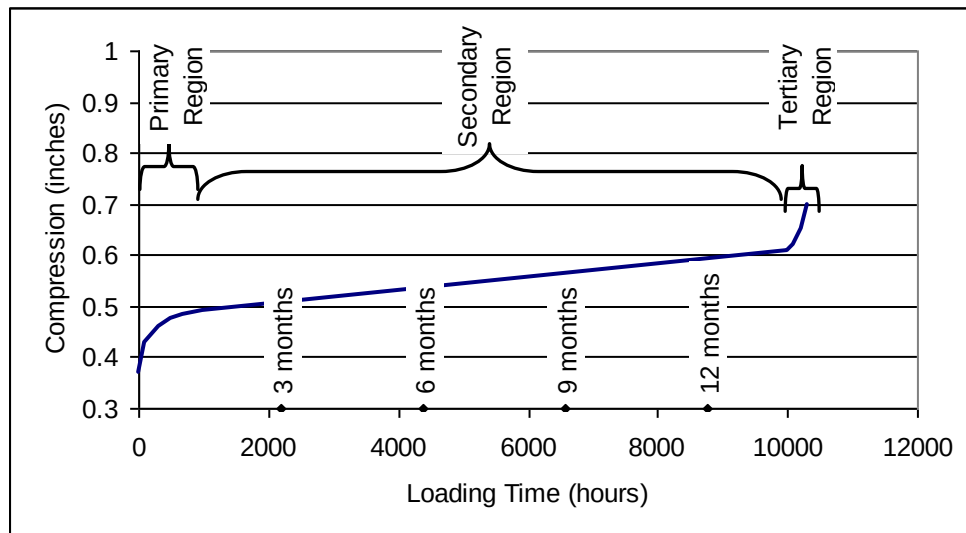


Figure 2.30 Compression profile for three-high stack of empty boxes loaded to 70% of their maximum compression strength (digitised from Koning and Stern 1977).

Koning and Stern (1977) found a logarithmic relationship between the compression rate during the secondary region (Figure 2.30) and the time to failure of boxes in a number of configurations:

- A or C flute
- empty or filled
- normal or water-resistant adhesive
- single boxes or three high stacks
- 22.8°C and 50 %RH or 26.7°C and 90 %RH
- loaded to various levels

Koning and Stern (1977) determined the correlation coefficient (R^2) to be 97.7% for their line of best fit as modelled by equation (2.21), produced using the least squares method. Given the number of configurations studied, the high correlation coefficient indicates the robustness of equation (2.21) for predicting the time to box failure. The drawback of this approach, which required monitoring of only 30 days of the secondary region, is that the total measurement time required for the example in Figure 2.30 was approximately 72 days, allowing for 42 days for the completion of the primary region.

$$TtF = 4988 / SCR^{1.038} \quad (2.21)$$

where TtF = time to failure (hours)
 SCR = secondary region compression rate (in.in⁻¹hr⁻¹)

2.6.5 Cyclic Humidity Conditions

The rate of paper creep has been shown to be dependent on the applied stress and the MC of the sample (Habeger and Coffin 2000). The rate of paper creep can be significantly increased by cycling the MC of the sample by cycling air humidity (Coffin and Habeger 2000; Chalmers 2000; Habeger and Coffin 2000). For example the data in Figure 2.31 demonstrate that increasing the rate of moisture absorption and desorption accelerates the rate of creep.

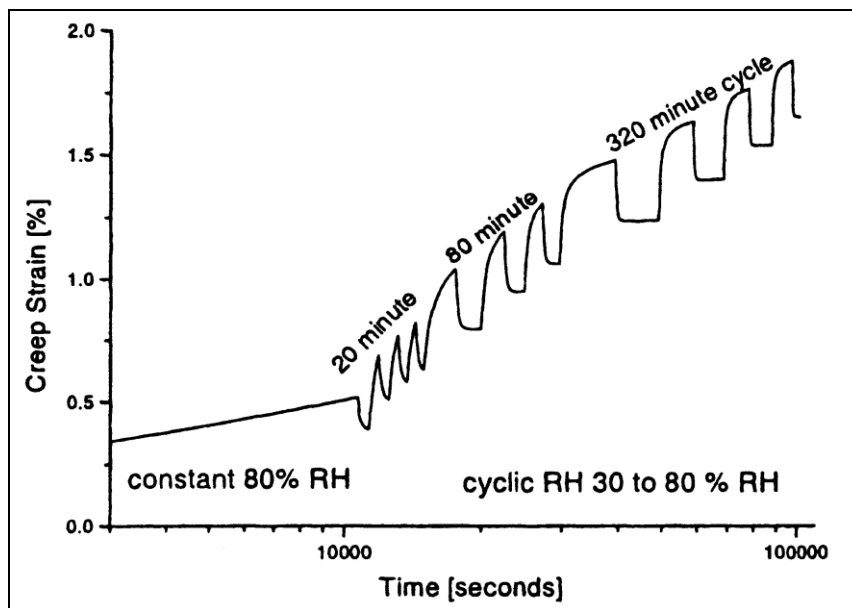


Figure 2.31 Creep of thermo-mechanical pulp paper (Transferred from Coffin and Habeger 2000).

Byrd (1986) stated that Setterholm and Benson (1977) found that the use of water-resistant adhesive reduced the rate of creep of ECT samples in a cyclic humidity environment. The test conditions are presumed to be 35 to 95 %RH in three hour cycles as Byrd (1986) directly compared his data with those of Setterholm and Benson

(1977). Byrd (1986) further investigated this phenomenon and confirmed that the use of water-resistant adhesive bonding lap-joined paperboard samples reduced the rate of creep in a cyclic humidity environment.

2.7 Moisture Sorption Isotherms

2.7.1 Isotherm Equations

2.7.1.1 GAB Equation

The GAB (Guggenheim-Anderson-de Boer) equation (2.22) has been widely used in the food industry to model moisture sorption isotherms and by Eagleton and Marcondes (1994) to model the isotherm of paperbased packaging.

$$M = \frac{M_o C_G . K_G . VP_R}{(1 - K_G . VP_R)(1 - K_G . VP_R + C_G . K_G . VP_R)} \quad (2.22)$$

where

$$VP_R = \frac{VP_{air\theta}}{VP_{sat\theta}} \quad (2.23)$$

M	=	moisture content ratio of fluting medium ($\text{kg}_{\text{water}} \text{kg}_{\text{dry fibre}}^{-1}$)
M_o	=	mono-layer moisture content ratio ($\text{kg}_{\text{water}} \text{kg}_{\text{dry fibre}}^{-1}$)
K_G	=	factor correcting properties of the multi-layer molecules with respect to the bulk liquid (dimensionless)
VP_R	=	vapour pressure ratio (Pa Pa^{-1})
C_G	=	Guggenheim constant (dimensionless)
$VP_{air\theta}$	=	water vapour pressure of the air at temperature θ (Pa)
$VP_{sat\theta}$	=	saturated vapour pressure at temperature θ (Pa)

Many other isotherm equations exist with RH or water activity (a_w) as the only independent variable, however there is little to be gained by trying other equations if the GAB equation fits the relationship adequately.

2.7.1.2 Temperature Compensated Isotherm Equations

Bell and Labuza (2000) stated that, based on the Clausius-Clapeyron equation (2.24), the relationship between the natural log of a_w and the reciprocal of the temperature in Kelvin was linear over narrow temperature ranges. Plotting these parameters enabled the prediction of a shift in a_w due to a temperature change at constant MC. They did not however suggest how to model the slope of the plot as a function of MC.

$$\ln\left(\frac{a_{w2}}{a_{w1}}\right) = \frac{Q_s}{R} \left(\frac{1}{T_1} - \frac{1}{T_2} \right) \quad (2.24)$$

where

a_{w1}	=	water activity of sample 1 at T_1 in Kelvin (dimensionless)
a_{w2}	=	water activity of sample 2 at T_2 in Kelvin (dimensionless)
Q_s	=	heat of sorption (J.mol^{-1})
R	=	gas constant ($8.314 \text{ J.K}^{-1}\text{mol}^{-1}$)
T_1	=	temperature of sample 1 (K)
T_2	=	temperature of sample 2 (K)

Quirijns *et al.* (2005) calculated the 3 GAB coefficients using modified Arrhenius equations (2.25) to (2.27). Their methodology increases the number of coefficients to fit from 3 to 6, but this allows the prediction of the sample MC over a range of temperatures and humidities. Least squares regression was used by Quirijns *et al.* (2005) to fit the six coefficients.

$$M_o = M_o' \exp\left[\frac{\Delta H_M}{RT}\right] \quad (2.25)$$

where

ΔH_M	=	fitted constant to express temperature dependence of M_o (J.mol^{-1})
M_o'	=	fitted constant to express temperature dependence of M_o ($\text{kg}_{\text{water}} \text{ kg}_{\text{dry fibre}}^{-1}$)
T	=	temperature (K)

$$C = C' \exp\left[\frac{\Delta H_C}{RT}\right] \quad (2.26)$$

where ΔH_C = difference in enthalpy between bulk liquid and multilayer, fitted variable (J.mol⁻¹)
 C' = fitted constant to express temperature dependence of C (dimensionless)

$$K = K' \exp\left[\frac{\Delta H_K}{RT}\right] \quad (2.27)$$

where ΔH_K = difference in enthalpy between monolayer and multilayer, fitted (J.mol⁻¹)
 K' = fitted constant to express temperature dependence of K (dimensionless)

Chen (1998a) developed a temperature-compensated isotherm equation (2.28) to predict the MC of food samples. Chen (1998) did not state how to derive the water content dependent function in equation (2.28) but did provide two examples, equations (2.29) and (2.30).

$$RH = \exp\left[-\frac{\phi(MC)}{R.T^{FC_8}}\right] \quad (2.28)$$

where RH = relative humidity (%)
 $\phi(MC)$ = water content dependent function (dimensions not stated)
 FC_8 = fitted constant (dimensions not stated)

$$\phi(MC) = FC_9 \exp(-FC_{10} MC^{FC_{11}}) \quad (2.29)$$

where FC_9, FC_{10}, FC_{11} = fitted constants (dimensions not stated)

$$\phi(MC) = FC_{12} MC^{-FC_{13}} \quad (2.30)$$

where FC_{12}, FC_{13} = fitted constant (dimensions not stated)

2.7.2 Published Isotherms

2.7.2.1 Isotherms Measured at Single Temperatures

Seborg and Stamm (1931) and Seborg *et al.* (1936) measured the adsorption and desorption isotherms of a wide range of samples including: beaten and unbeaten unbleached spruce sulfite pulp, western hemlock sulfite, silver fir sulfite, slash pine Kraft pulp, unbleached and bleached sulfite pulps. Their measurements were limited to between 23 and 25°C and between 11 and 95.3 %RH. Chatterjee *et al.* (1997) measured the moisture adsorption isotherm of bleached Kraft paper from 15 to 90 %RH at 23-24°C, while Bandyopadhyay *et al.* (2000) measured the moisture adsorption and desorption isotherm of bleached Kraft paper board sheet from 14.8 to 90.2 %RH at 23.7°C.

2.7.2.2 Isotherm Measured at Multiple Temperatures

Houtz and McLean (1939) measured the adsorption isotherms of linen rag paper and Kraft paper from 100 to 150°C but only up to 1.7 %RH and a maximum MC of 0.41% (db). These conditions are relevant to paper manufacture, but not to paper performance under cool-store conditions. Foss *et al.* (2003) measured the moisture adsorption isotherm of paper made from bleached Kraft red alder (hardwood) pulp at 7.5, 23 and 40°C from 0 to 95 %RH (Figure 2.32).

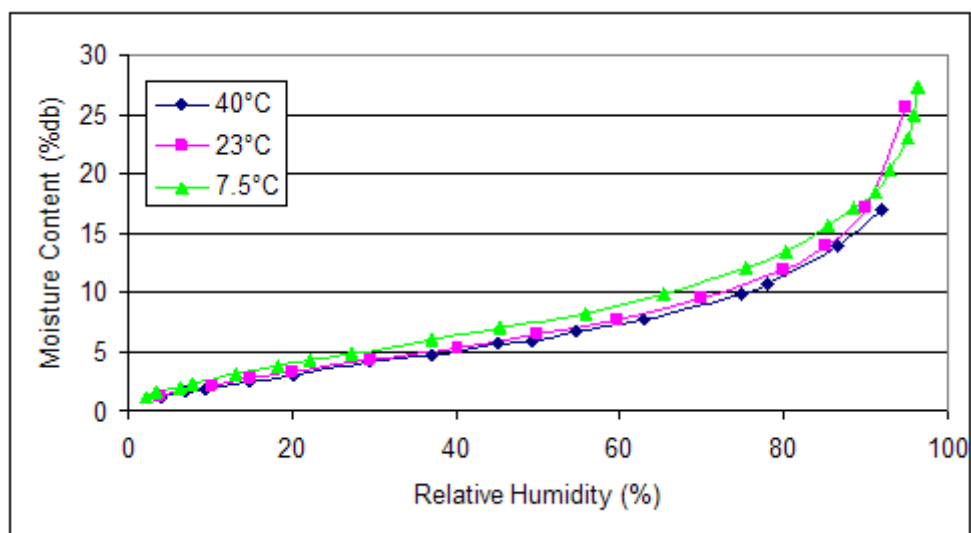


Figure 2.32 Moisture adsorption isotherms (with connecting lines) of paper made from bleached Kraft red alder pulp (Digitised from Foss *et al.* 2003).

Prahl (1968) measured the adsorption and desorption isotherms of Kraft softwood at 22, 35, 50, 65 and 80°C at 20 different points over the range 1 to 99.6% RH (Figures 2.33 and 2.34). Prahl's (1968) isotherms show that at a constant RH, as the temperature increases the equilibrium MC decreases. Also at a constant RH, the desorption isotherm equilibrium MC is higher than that of the adsorption isotherm. The effect of temperature on the difference between the Prahl's (1968) adsorption or desorption isotherms was inconsistent. Below 80% RH as temperature increases the difference between the isotherms decreases, but above 90% RH the difference increases.

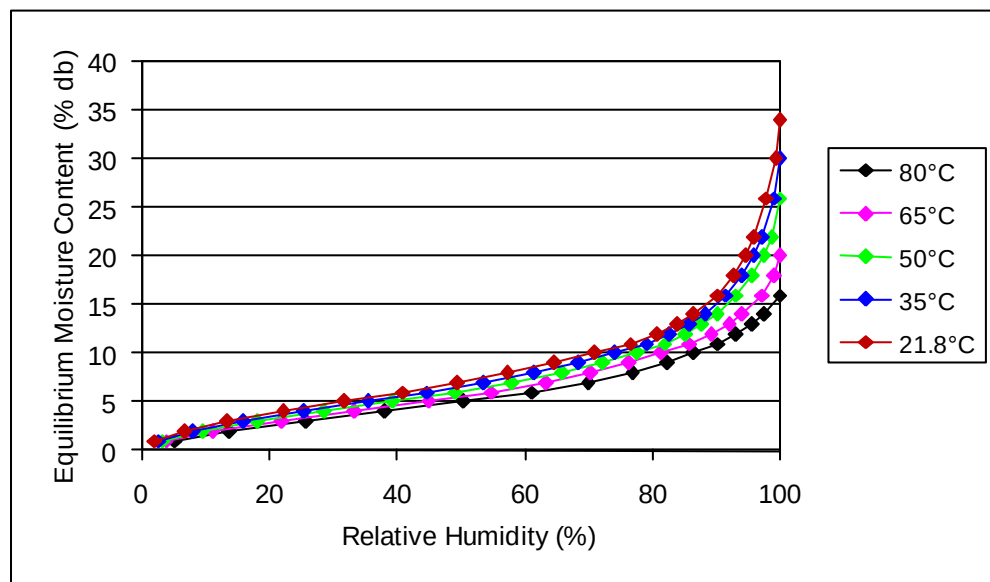


Figure 2.33 Adsorption isotherms (with connecting lines added) of Kraft softwood paper (Data from Prahl 1968)

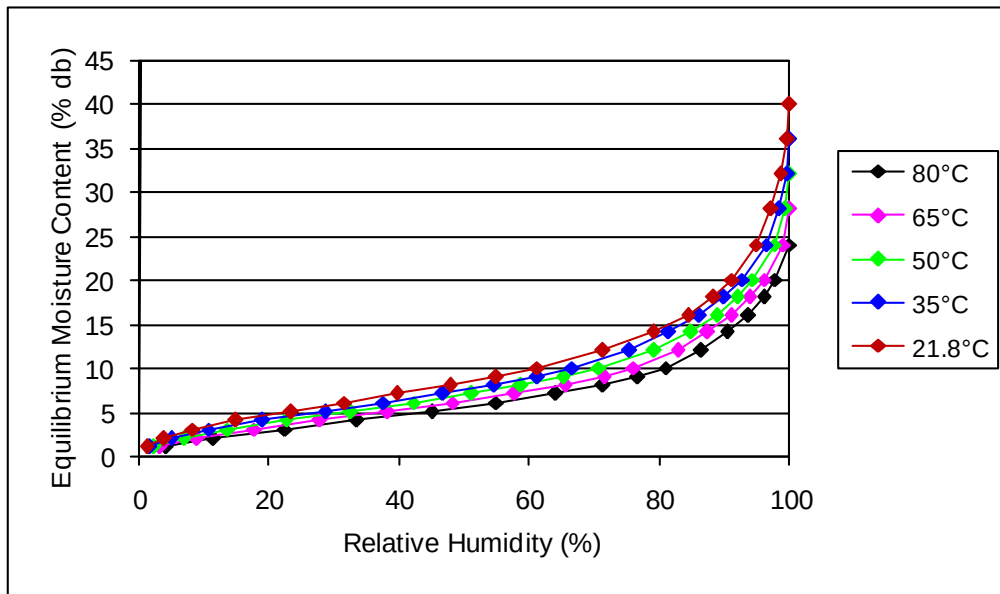


Figure 2.34 Desorption isotherms (with connecting lines added) of Kraft softwood paper (Data from Prahl 1968).

Eagleton and Marcondes (1994) measured the adsorption and desorption isotherm of two types of horticultural corrugated fibreboard and moulded pulp trays. The samples were the components of a telescopic box with moulded pulp trays for the storage and transport of apples. The inner box was manufactured from Kraft linerboard and recycled fluting medium, whereas the outer box was of similar construction except that the outer ply of the outward facing linerboard was bleached Kraft. They characterised the isotherms at 1, 10, 20, 30, 40°C and at approximately 43, 54, 59, 76, 85, 94 %RH (Figure 2.35). They published fitted GAB equation coefficients for the five temperatures but only presented graphs of the measurements and fitted GAB equation lines for the 1 and 40°C datasets.

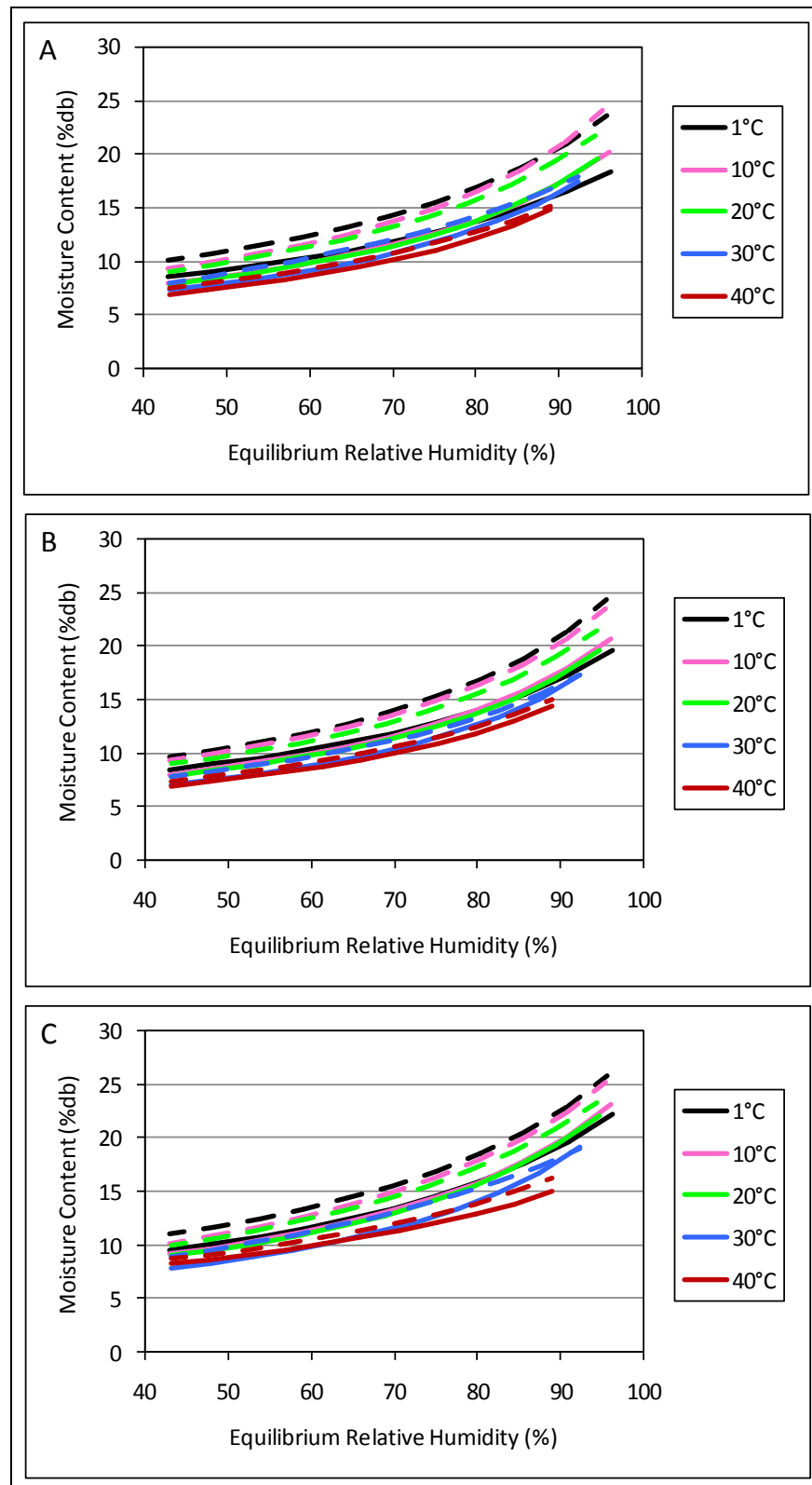


Figure 2.35 Moisture sorption isotherms of the three telescopic box components for apples (A) Inner corrugated sleeve, (B) Outer corrugated sleeve and (C) Moulded pulp tray (Predictive equation from Eagleton and Marcondes 1994). Note: solid lines represent adsorption isotherms and dashed lines the desorption isotherms.

Figure 2.35 shows that as the temperature of the samples is reduced the difference between the desorption and adsorption isotherm increases. The maximum MC difference between the isotherms of the three telescopic box components shown in Figure 2.35 is surprisingly small at less than 4 %(db) given the significant differences between corrugated fibreboard and the moulded pulp trays.

Skogman and Scheie (1969) characterised the adsorption isotherm of Finnish Kraft paper (92% pine and 8% birch pulp) at -20, -5, 5, 20°C and 30, 50, 65, 80, 95 %RH (Figure 2.36). They found an inconsistent trend with respect to temperature, as the highest MC was measured at 5°C and the lowest at -20°C. Skogman and Scheie (1969) did not attempt to explain the reason for the maximum MC at 5°C. The properties of water such as the saturated vapour pressure and the latent heat of condensation do not exhibit any maxima or minima that would explain the trends in Figure 2.36.

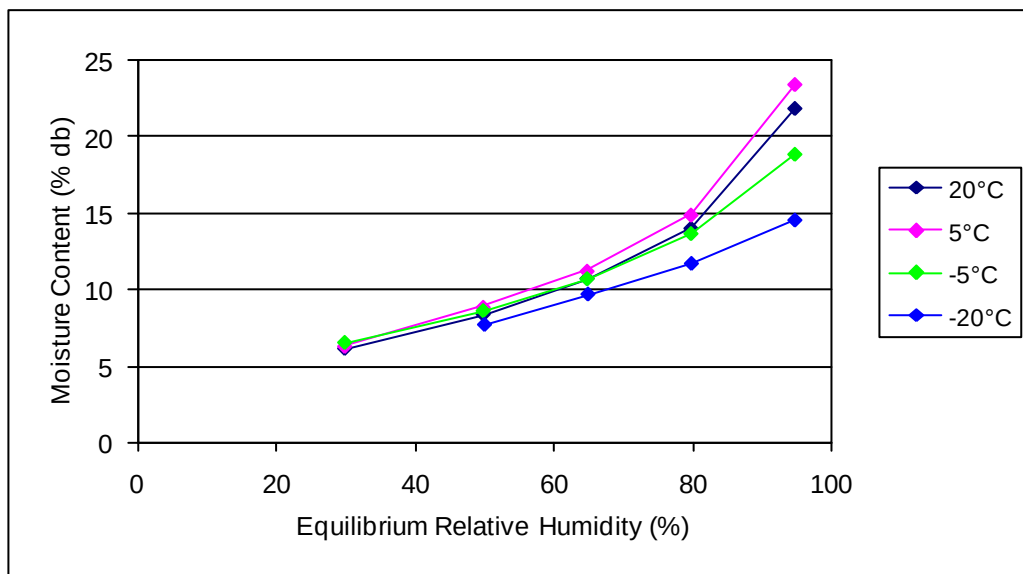


Figure 2.36 Moisture adsorption isotherm of Kraft softwood pulp. Relative humidity values as calculated by Skogman and Scheie (1969).

Decreasing temperature is expected to have a slight effect of the structure of paper, probably causing a slight shrinkage of the paper fibres associated with thermal contraction. Decreasing temperature is also expected to reduce the velocity of the water molecules causing an increase in the activation energy required to release the water molecules from the paper fibres. This increase in activation energy is believed

to be the chief reason for the increase in MC with reducing temperature, at a constant humidity. No transitions in the activation energy are expected to occur until the moisture starts freezing on the paper fibres when the paper is below 0°C and when the partial water vapour pressure is equal to that of ice.

Darling and Belding (1946) presented the moisture sorption isotherms of a number of fibre samples including wool and purified cotton (Figure 2.37). The effect of temperature on these isotherms was similar to that found by Skogman and Scheie (1969) in Figure 2.36. Darling and Belding (1946) used the vapour pressure of water as the basis of the RH calculation for all their samples. Henceforth, the relative humidities of the samples that were below 0°C were recalculated so that they were shown in Figure 2.37 as a percentage of the vapour pressure of pure ice.

Darling and Belding (1946) stated that the shape of the isotherms at low temperatures was due to variations in the heat of adsorption with temperature. They derived equation (2.31) to highlight that the relationship between %RH and the inverse of temperature was dependent on the difference between the heat of adsorption of water vapour onto the adsorbent and heat of condensation of pure water. They hypothesised that as temperature declines from above 0°C, the difference between the heat of condensation of water and adsorption onto the adsorbent reduces to 0.0 Jkg⁻¹ (at approximately -6.7°C for purified cotton) after which the heat of adsorption onto the adsorbent is greater than the heat of condensation of water.

$$CurveSlope = \frac{1}{2.303R_{DB}} (\Delta H_{adsorp} - \Delta H_{cond}) \quad (2.31)$$

where	<i>CurveSlope</i>	=	slope of Log(%RH) versus inverse of temperature (K ⁻¹) curve
	ΔH_{cond}	=	heat of condensation of water (cal.mol ⁻¹)
	ΔH_{adsorp}	=	heat of adsorption of water vapour onto adsorbent (cal.mol ⁻¹)
	R_{DB}	=	gas constant (cal.R ⁻¹ .mol ⁻¹)

Based on equation (2.31) and Figure 2.37, at the highest temperature of 71°C (0.0029 K⁻¹), the heat of condensation would have had to have been greater than the

heat of adsorption on to the purified cotton and vice-versa at the lowest temperature 29°C (0.0041 K⁻¹). This contradicts much published data, where the heat of condensation of water at temperatures above 0°C is always less than the heat of adsorption (Foss *et al.* 2003, Houtz and McLean 1939). Therefore, Darling and Belding's (1946) explanation of the isotherm trends shown in Figure 2.37 is not satisfactory.

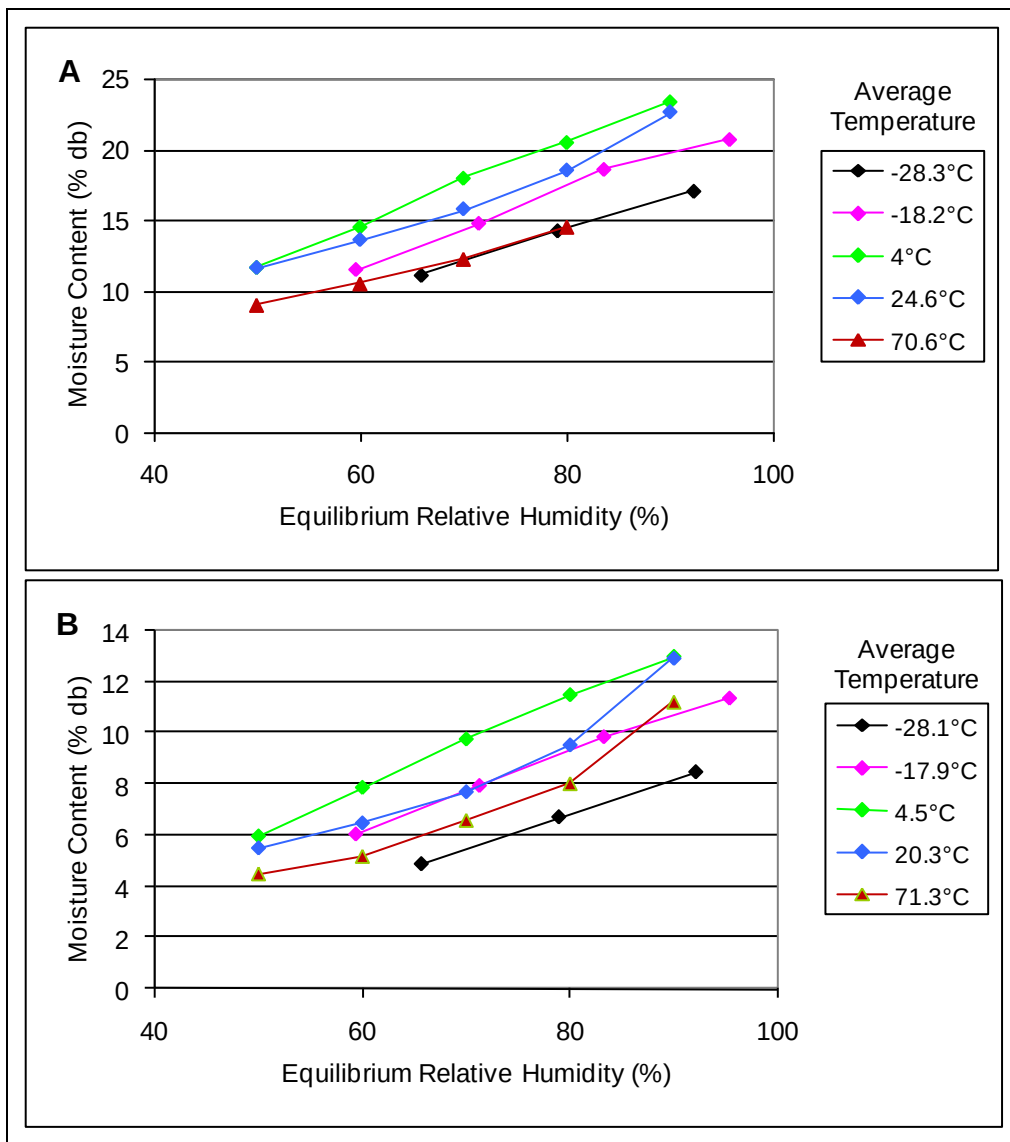


Figure 2.37 Moisture adsorption isotherm measurements with connecting lines of (A) Wool and (B) Purified Cotton (digitised from Darling and Belding 1946) Note: relative humidities of data points for below 0°C were recalculated as Darling and Belding used liquid water vapour pressure as the basis for calculating relative humidities not the vapour pressure of ice as convention in this study.

2.7.3 Established Isotherm Measurement Methods

2.7.3.1 Methods for About and Below Ambient Temperature

The conventional method for measuring moisture sorption isotherms involves placing a sample in a temperature and humidity controlled chamber until the sample mass stabilises. This procedure is performed over a range of relative humidities at the same temperature and occasionally repeated at other temperatures.

Paper samples display hysteresis whereby the MC history can affect the MC attained. An initially moist sample equilibrated to 50 %RH will have a higher MC than an initially dry sample equilibrated to 50 %RH. Therefore, samples are usually preconditioned in either very moist or very dry air prior to measuring desorption and absorption isotherms, respectively. The isotherms characterised following this preconditioning then represent the maximum and minimum achievable MCs.

There are several methods for producing humidified air however most only function well in the range 0 to 40°C:

- 1) Headspace above, or bubbling air through, either saturated salt solutions (Greenspan 1977), glycerol solution (Forney and Brandl 1992) or diluted sulphuric acid (Perry and Green 1984)
- 2) Two- flow method, in which a dry air stream and a saturated air stream or steam are mixed (Lin and Chen 2005)
- 3) Two temperature method, in which a saturated air stream at one temperature is elevated to another temperature (de Young 1983).
- 4) Dewpoint method: an air stream is saturated at one temperature, then reduced to the desired dewpoint temperature, then heated to the test temperature (Skogman and Scheie 1969)
- 5) Two-pressure method, in which an air stream is saturated at high pressure then reduced to atmospheric pressure (de Young 1983)

Generating air by using saturated salt solutions, glycerol solution or diluted sulphuric acid has been limited by the temperature and humidity ranges over which the vapour pressure of the various solutions have been measured. Seborg and Stamm (1931) and Seborg *et al.* (1936) bubbled air through saturated salt solutions at 25°C to generate humid air in order to measure the isotherms for their pulp samples.

Skogman and Scheie (1969) used the dewpoint method when they measured the moisture sorption isotherm of Kraft paper at -20 to 20°C. Bandyopadhyay *et al.* (2000) similarly used the two-flow method to conduct dynamic moisture sorption experiments with paper samples.

Wahba and Nashed (1957) measured desorption and adsorption isotherms of cellulose by exposing the sample to water vapour generated by heating a small water source at a predetermined temperature, with the sample at either 20, 30 or 40°C in a vessel connected to the water source via a glass tube. The sample mass was measured using a calibrated spring balance.

Darling and Belding (1946) generated humid air by passing air over snow or concentrated sulphuric acid in order to measure the isotherms of wool, cotton, rayon and viscose rayon at temperatures from -20 to 40°F (-28.9 to 4.4°C). They passed the air stream through phosphorus pentoxide to gravimetrically measure the humidity of the air stream.

The two-pressure and the two-flow methods appear to be limited to generating humid air between 0 and 100°C.

2.7.3.2 Methods for Elevated Temperatures

Houtz and McLean (1939) measured the adsorption isotherm of linen rag paper and Kraft paper from 100 to 150°C by adding small quantities of water to dry samples. Their methodology appears to be limited to very low MCs as their maximum MC was only 0.41% (db).

Lin and Chen (2005) developed a humidity generator based on the two-flow method to produced humid air at temperatures up to 90°C. Their system required a number of

sensors and controllers including pressure regulators, pressure gauge, flow regulator, mass flow meter, temperature controller and an environmental chamber.

Bassal *et al.* (1993) measured the sorption isotherms of a number of food products at temperatures between 100 and 140°C. They produced a water vapour stream at 100°C, super-heated the vapour to the sample temperature in an environmental chamber and flushed a container with the vapour. Vapour was drawn from the container by a vacuum pump via a valve. Two separate samples were placed in the sealed container; one was used to determine the sample temperature, the other dried to determine the equilibrium MC. Their methodology required temperature and pressure control. While not explicitly stated by Bassal *et al.* (1993), the humidity in the chamber would have been controlled by adjusting the pressure via the pressure regulator. For example by maintaining the environmental chamber and sample temperature at 100°C and reducing the pressure inside the sealed container to 0.5 atm the water vapour pressure would be reduced to the equivalent of humid air at 100°C and 50% humidity.

De Weireld *et al.* (1999) used a gravimetric approach to measure the adsorption isotherms of gases onto adsorbents at temperatures from 30 to 150°C and at pressures from 0 to 10 MPa. Their method utilised an adsorption chamber connected to a pressure control system with all but the vacuum pump placed inside an environmental chamber. The sample was placed in a crucible inside the adsorption chamber. The sample mass was measured by a balance located outside the environmental chamber that was connected to the crucible via a magnetic suspension system that allowed the sample mass to be measured without a physical connection through the adsorption chamber between the crucible and the balance.

Belmabkhout *et al.* (2004) presented the design of a volumetric apparatus for measuring the adsorption isotherms of gases onto adsorbents at temperatures from 5 to 50°C and at pressures from 0 to 4,000 kPa. The apparatus included two connected pressure cells of known volume, one initially containing the adsorbate gas at a predetermined pressure and the other the adsorbent in a vacuum. The valve between two cells is opened and the pressure of the two cells was measured to determine the

quantity of adsorbate gas that has been adsorbed by the adsorbent using either the Redlich-Kwong-Soave or the Benedict-Webb-Rubbin equation of state. The two cells were placed in environmental chamber to control the temperature of the adsorbate gas and adsorbent. They stated that it was extremely important to be able to accurately measure the gas pressure and that the maximum temperature (50°C) was determined by the apparatus used.

2.8 Summary

Of the three equations found in the literature for predicting box compression strength McKee's equation appears most likely to produce the most accurate predictions as Kawanishi's (1989) equation does not incorporate any strength measurements and Kellicutt and Landt's (1952) equation was based primarily on paper rather than the board properties. If McKee's equation is used, the most important corrugated fibreboard parameter is the edgewise compression strength with bending stiffness or thickness as the next most important properties.

The one variable with the greatest potential to influence the corrugated fibreboard edgewise compression strength (and also the bending stiffness) for horticultural product packaging appears to be the MC arising from water adsorption in cool-stores. Paper is a hydrophilic material, the MC of which increases with increasing humidity and declining temperature, meaning cool-stores are a demanding environment in which to use corrugated fibreboard boxes.

To predict the required corrugated fibreboard strength in cool-stores using McKee's equations, two data sets are required: (i) the effect of moisture on corrugated fibreboard strength and (ii) the effect of temperature and humidity on corrugated fibreboard MC. Eagleton and Marcondes (1994) published the most comprehensive set of isotherms for corrugated fibreboard in cool-store conditions. To provide improved understanding however, it is worthwhile to measure the isotherms of the Kraft linerboard and semi-chemical fluting medium, as differences between published isotherms were evident and also to extend the measurements closer to 100 % RH.

Kawanishi (1989) published the only study of the effect of moisture on corrugated fibreboard strength. However Kawanishi's (1989) equations were fitted to the measurements from a number of samples with a wide range of specifications and increased accuracy should be achieved by measuring the effect of moisture on an actual packaging sample, such as the Z-pack inner corrugated fibreboard used for apple boxes.

It appears from the literature that during manufacturing the strength of the corrugated fibreboard could be further improved by reducing the damage to the fluting medium during the fluting process between the corrugated rolls. It had been established that damage does occur during the fluting process and that the properties of the fluting medium could be modified and perhaps optimised through temperature and moisture control. Thus the major objectives of the research programme were to measure the necessary data and to develop the necessary models to predict box compression strength in cool-store conditions and to reduce the corrugated fibreboard strength variability imparted by the corrugated fibreboard manufacturing process. To this end five key components were investigated:

- 1) Moisture sorption isotherms of the constituent paper plies of the apple Z-pack inner corrugated fibreboard and a fluting medium manufactured from recycled pulp.
- 2) The effect of moisture and temperature on the strength properties of the apple Z-pack inner corrugated fibreboard and its constituent paper plies in cool-store conditions.
- 3) The prediction of box compression strength as a function of MC and temperature in cool-store conditions.
- 4) The effect of moisture and temperature on the damage to the tensile properties of the fluting medium in high temperature manufacturing conditions.
- 5) The optimisation of the temperature and MC of the fluting medium just prior to the single-facer of the corrugated fibreboard manufacturing process in order to

minimise damage to the fluting medium and the corresponding corrugated fibreboard.

Chapter 3

Moisture Adsorption Isotherms

3.1 Introduction

Previous studies and practical cool-store experience have shown that moisture has a significant effect on the strength of corrugated fibreboard. The high humidity and low temperature conditions in apple and kiwifruit cool-stores result in the corrugated fibreboard absorbing moisture and losing compression strength. To predict the equilibrium moisture content of corrugated fibreboard, knowledge of the appropriate sorption isotherm and the environmental conditions are required.

No data was found in the literature specifically on the temperature and humidity that corrugated fibreboard was exposed to in apple and kiwifruit cool-stores or the variation in humidity and temperature (from the stated set point). Therefore the first objective of this study was to measure typical conditions in commercial apple and kiwifruit cool-stores. The measurement of the temperature and humidity inside corrugated fibreboard boxes of apples and kiwifruit was left for future studies or for the release of data from other contracted (and therefore, proprietary) experimental work.

The majority of isotherms for paper or fibreboard published in the literature had been measured at ambient temperature (20-25°C, section 2.6.2.1). Eagleton and Marcondes (1994) published the most useful collection of corrugated fibreboard isotherms at 1 to 40°C and 43 to 96 %RH. They found a significant temperature effect, highlighting the need for isotherms to be measured at the appropriate temperature, especially around 0°C for apple and kiwifruit packaging.

The corrugated fibreboard samples used by Eagleton and Marcondes (1994) were manufactured from Australian Kraft linerboards and recycled fluting medium whereas the New Zealand kiwifruit and apple boxes are manufactured from New Zealand Kraft linerboard and semi-chemical fluting medium. As there appears to be a scarcity of

paper isotherms at (or near) 0°C and due to the differences in corrugated fibreboard structures, in this work Kraft linerboard and semi-chemical fluting medium were measured at 20, 10 and 0°C. In addition to the Kraft and semi-chemical samples, the isotherm of recycled fluting medium was also measured to allow for the comparison between these three samples and previous studies.

It was also decided that the isotherms of the linerboard and fluting mediums were to be measured instead of the corrugated fibreboard itself, with the moisture content (MC) of the corrugated fibreboard calculated from the MCs and basis weights of the linerboards and fluting medium, and the take-up factor of the fluting medium. This methodology would allow for the MCs of different corrugated fibreboards manufactured from the same linerboard and fluting medium, but with different basis weights and flute profiles to be calculated.

As an extension to the study, the isotherms of the three samples were also measured at -10 and -20°C to assess the effect of temperature below 0°C. These isotherms would be useful to those food industry sectors that freeze products in corrugated fibreboard boxes such as the New Zealand meat and dairy industries. Data in this region are limited. Skogman and Scheie (1969) measured the adsorption isotherm of Finnish Kraft paper at -20, -5, 5 and 20°C. They found that above 0°C, at a constant humidity, the MC increased with decreasing temperature, which was consistent with the isotherms published by other authors. However below 0°C they found a reversal in the effect of temperature. This was not expected nor was it explained by Skogman and Scheie (1969).

Prediction of the corrugated fibreboard MCs would be assisted by fitting appropriate equations to describe the isotherms. It was therefore planned that individual isotherm equations would be fitted to the data at the target temperatures of 20, 10, 0, -10 and -20°C and more complex equations would be fitted to all the data for each sample.

Accurate measurement of isotherms data points at high humidities (>90 %RH) becomes more difficult due to the long equilibration times. As an alternative the water holding capacities of the samples were measured to determine the apparent end point (at 100 %RH) of the isotherm curves. Measuring the water holding capacities takes

significantly less time than equilibrating a sample to near 100 %RH and would avoid major practical problems such as mould growth.

3.2 Commercial Horticultural Cool-Store Conditions

3.2.1 Introduction

Measurements of the temperature and RH in commercial apple and kiwifruit cool-stores were taken to determine the atmospheric conditions to which corrugated fibreboard boxes are subject while product is stored in New Zealand. This knowledge of typical atmospheric conditions was important in determining the temperature and RH ranges for the characterisation of the corrugated fibreboard moisture sorption isotherms.

Although the combination of 250 g.m⁻² Kraft linerboard and 160 g.m⁻² semi-chemical fluting medium is specific to the manufacture of apple Z-pack inners, Kraft linerboard and semi-chemical fluting medium are also used in the manufacture of kiwifruit packaging. For this reason the temperature and RH conditions for kiwifruit, as well as apple, commercial cool-stores were surveyed.

The measurements of temperature and RH also provided a means of evaluating appropriate testing conditions for cyclic humidity creep tests of corrugated fibreboard and their constituent linerboards and fluting mediums, and of the range of conditions to be expected in commercial cool-stores.

It is worth noting that the primary concern of the apple and kiwifruit industry is the weight and quality of the kiwifruit and consequently the packaging is viewed as a necessary expense but one that must be designed to be able to perform under the cool-store conditions at minimal cost.

3.2.2 Methodology

Between the 7th and 29th of April 2000 the temperature and RH of one commercial apple cool-store in the Hawke's Bay region were recorded every hour. The

temperature and RH were measured and recorded using Tinytag Ultra (Gemini Data Loggers (UK) Ltd. England) that were placed on the internal walls of the cool-stores.

Between the 10th May and 19th July 2001 the temperature and RH of five commercial kiwifruit cool-stores in the Bay of Plenty region were recorded every 20 min. The temperatures and RH in each cool-store was measured and recorded using one Tinytag Ultra in each cool-store. These were placed either on inside of an exterior wall of the cool-store or on the internal steel structure of the cool-store. One additional Bay of Plenty commercial kiwifruit cool-store was monitored in the same manner except the measurements started on the 17th May 2001 and finished on the 19th July 2001.

Between the 20th July and 13th September 2001 the same six kiwifruit cool-stores were monitored in the same manner except the temperature and RH was recorded every 10 min. The monitoring in one of the six kiwifruit cool-stores was restarted on the 23rd May 2001 and finished on the same end date.

The number of on/off and defrost cycles for each kiwifruit cool-store refrigeration system was determined by counting the number of temperature and/or RH profile peaks from data collected over a 24 hour period on day 80, 100 and 120 of monitoring, corresponding to the 29th July, 18th August and 7th September 2001, respectively. The defrost cycles were usually distinguished from the on/off cycles by their larger temperature peaks.

The magnitude of the on/off and defrost cycles in the kiwifruit cool-stores was estimated by visually examining plots of individual temperature measurements over a 24 hour period on day 80, 100 and 120 (counted from the 10th of May). A more quantitative method was not possible due to the intermittent nature of data collection.

The complete data set for these measurements is presented in Appendix A2 (in the accompanying CD).

3.2.3 Measured Cool-Store Conditions

The temperature and RH values measured in the apple cool-store (Figure 3.1) showed the temperature decreased over the duration of the monitoring period from

approximately 1.8 to 0.3°C and the RH increased from approximately 78 to 89%. The temperature trends were probably a result of reduced heat load coinciding with fewer pallets of relatively warm newly packed fruit being placed in the cool-stores, a reduction in the respiration rate of the kiwifruit through a reduction in the fruit temperature and cooler conditions outside the cool-stores. A reduction in forklift traffic would also be expected with increasing storage time, which would reduce the exchange of relatively warm and moist external air with the cool but relatively dry cool-store air. Air exchange would be expected to increase the cool-store temperature and relative humidity (RH).

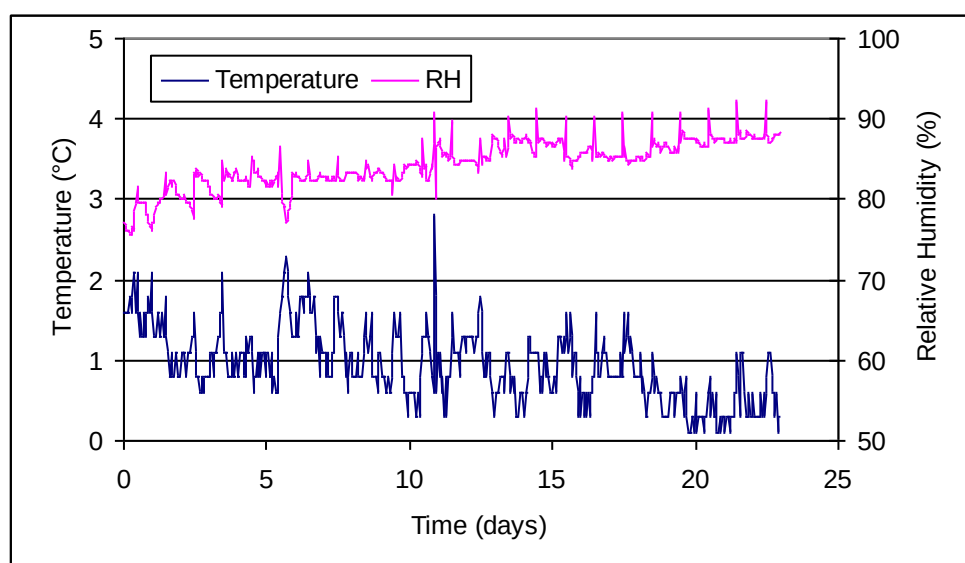


Figure 3.1 Temperature and relative humidity profile of a commercial apple cool-store in the Hawke's Bay region of New Zealand, from 7th to 29th April 2000.

Refrigeration systems operate periodically to reduce wear on the compressor and other components. Usually the control system will allow the air in the refrigerated space to warm up to a set temperature and then turn on the refrigeration system to cool the air down to a lower limit. Refrigeration systems that operate with the evaporator at a temperature below the triple point of water (0.01°C or $\approx 0^\circ\text{C}$) will also usually defrost (or de-ice) the evaporator periodically. The defrost cycle is required as frost (or ice) will build up on evaporators operating below 0°C , which acts as a barrier to heat transfer, reducing the efficiency of the evaporator. However, a consequence of the defrost cycle is that the air in the cool-store transiently increases in temperature. The

one hour measurement period used in the apple cool-store was too large to be able to determine the on/off cycle period of the refrigeration system. This measurement period did indicate that the defrost cycle occurred at least once every 24 hours (Figure 3.2).

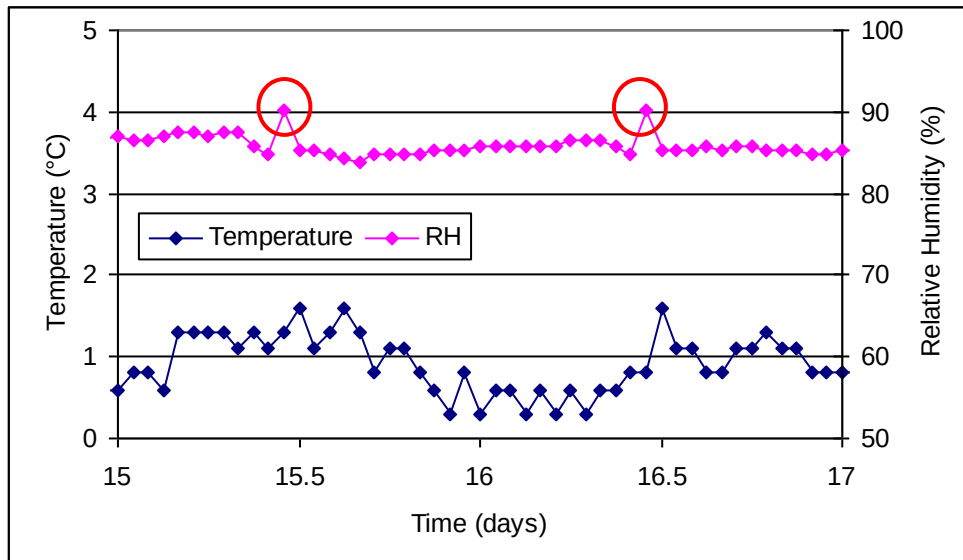


Figure 3.2 Temperature and relative humidity profile of a commercial apple cool-store in the Hawke's Bay region of New Zealand, days 15 to 16 from Figure 3.1. Note: circled points indicate temperature increase during the defrost cycle of the refrigeration system; dots on the temperature and RH profiles represent individual measurements.

The average daily RH profiles of the kiwifruit cool-stores showed considerable variation between cool-stores and a trend of increasing RH over the monitoring period (Figure 3.3A). The average daily temperature profiles of the cool-stores showed less variation and were usually within a 1°C band between 0 and -1°C (e.g. see Figure 3.3B).

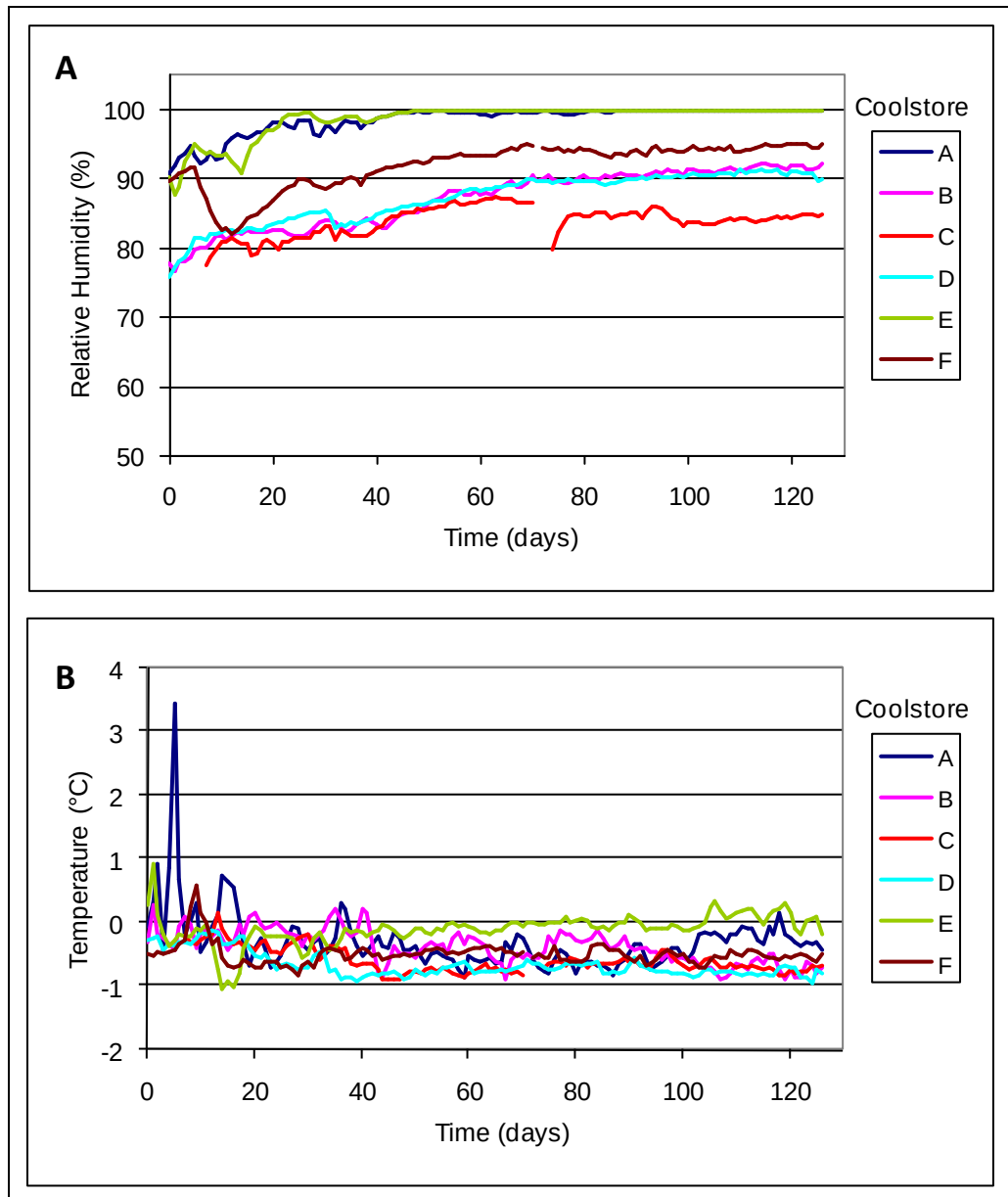


Figure 3.3 Average daily (A) relative humidity and (B) temperature of six commercial kiwifruit cool-stores in the Bay of Plenty region, New Zealand, from the 10th May to the 13th September 2001.

High RH reduces the rate of moisture loss from kiwifruit but also reduces the strength of the corrugated fibreboard due to greater moisture uptake, it also increases the occurrence of mould and fungal growth. The high RH (~100%) in cool-stores A and E would have resulted in the lowest rate of moisture loss from the kiwifruit and the highest probability of mould and fungal growth, whereas the relatively low RH in cool-store C would have had the opposite effect.

The large temperature spike on day 5 for cool-store A corresponded to an unexplained high cool-store temperature over a 29 hour period. The increase in the RH of cool-store C from 79.7 % on day 74 to 84.5 on day 77 also could not be explained as the temperature of cool-store C did not show a corresponding trend.

A plot of the temperature and RH measurement for cool-store B over a 24 hour period (Figure 3.4) shows the number of the on/off cycles (~40) of the refrigeration system and the number of temperature spikes during the defrost cycles (~3). However the shortened measurement period of 10 min still did not permit the recording of all of the temperature and RH profile peaks and troughs and it is recommended that future measurements should be recorded every 1 to 5 min.

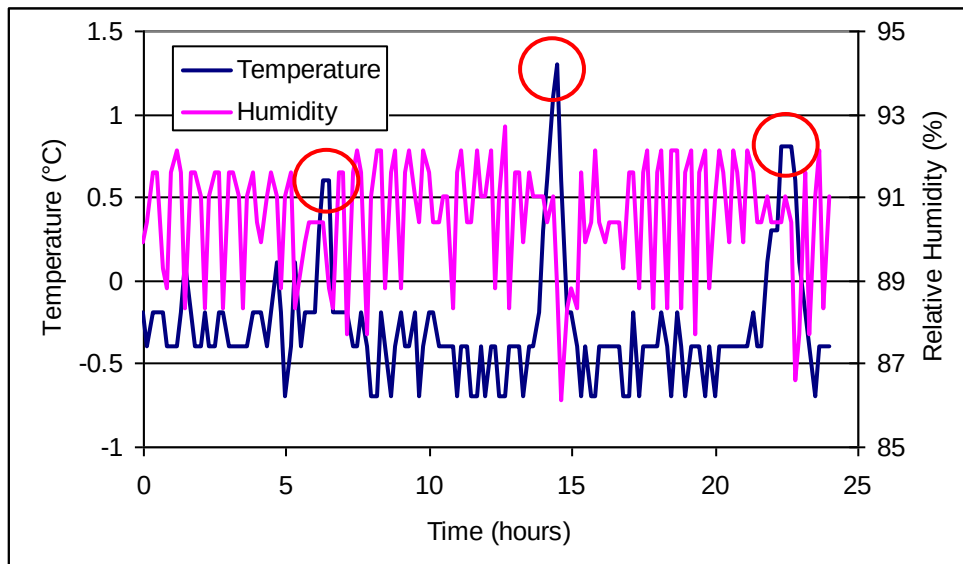


Figure 3.4 Temperature and humidity profile of a commercial cool-store (B) in the Bay of Plenty region, New Zealand on day 79 the 29th July 2001. Note: circled points indicate temperature spikes during the defrost cycle of the refrigeration system.

Of particular note is that the range of the RH cycles, corresponding to the refrigeration on/off cycles and the defrost cycles (Table 3.1), were significantly smaller than the RH cycles used in laboratory cyclic humidity creep tests for paper and corrugated fibreboard. These vary from 10 to 50, 30 to 80 and 50 to 90 %RH (Habeger and Coffin 2000 , Coffin and Habeger 2000, Haraldsson *et al.* 1997). As the cyclic humidity creep is a product of the MC cycles, the laboratory tests are likely to

exaggerate the rate of cyclic humidity creep relative to the rate of creep seen with (more) constant humidity or MC.

Table 3.1 Characteristics of the refrigeration system on/off and defrost cycles for 6 different commercial kiwifruit cool-stores.

Cool-store	On/off cycle			Defrost cycle		
	Mean Number.day ⁻¹	Temperature range (°C)	RH range (%)	Mean Number.day ⁻¹	Temperature range (°C)	RH range (%)
A	37	0.7	*	4	2.1	2.2
B	37	0.8	4.5	3	1.7	6.0
C	44.3	0.7	2.6	4	1.0	+
D	26	0.8	2.7	2	1.0	+
E	27	0.9	*	4	2.9	+
F	43.3	0.6	3.0	3	2.4	5.2

* On/off cycle RH magnitude could not be determined as sensor recorded 100 %RH for the majority of the time.

+ Defrost cycles could not be distinguished from on/off cycles

3.3 Development of a Novel Method for Isotherm Measurement

3.3.1 Introduction

A method was developed to measure the moisture sorption isotherms of the Kraft linerboard, semi-chemical and recycled fluting mediums that eliminated the need for precise control of gas flows and the need for long equilibration times at low or high ERHs. The method involved conditioning samples over a range of MCs at ambient temperature prior to the isotherm measurements. The samples were then placed, individually, into a hermetically sealed chamber with a dry bulb temperature sensor and a dew point temperature sensor. For temperature control, the whole chamber was placed in a temperature-controlled bath.

For most isotherm measurement methods it is critical that the samples reach moisture equilibrium in the control humidity environment. The time to reach equilibrium can be long (10 days for samples at 1 to 40°C, Eagleton and Marcondes 1994) and involves a relatively large quantity of moisture. With the novel method is it only

critical that the chamber air reaches moisture equilibrium with the sample which involves a much smaller quantity of moisture and takes minutes rather than days.

The bath temperature was adjusted to maintain the sample dry bulb temperature at the target temperature. Following the 100 min hold period, the bath was adjusted to heat or cool the sample dry bulb temperature to the next target temperature and this process was repeated for 4 to 5 days with the same sample.

The target dry bulb temperature corresponded to the isotherm temperature. The process was replicated on average 10 times for each sample at each target temperature to ensure the measurements were stable and repeatable.

The sample mass was measured before and after being placed in, and subsequently removed from, the chamber, and was oven dried at the end of each test to determine its MC. The samples were weighed in re-sealable plastic bags to minimise moisture loss or gain. The data from one sample could be used to produce a plot of temperature versus equilibrium relative humidity (ERH), for one MC. From the temperature versus ERH curve for multiple samples, obtained over a range of MCs, multiple isotherms or a surface of isotherms could be produced.

The rate at which this new method was able to measure isotherms was limited by the rate of heat transfer required to adjust the sample temperature to the next target temperature and the holding period required to reach equilibrium at each target temperature. The rate of heat transfer was maximised with the use of a liquid heat transfer medium in preference to air, and the use of a sample chamber made of brass. The length of the holding time was based on the desired number of measurements for each data point on the temperature versus ERH plot.

Future work with this isotherm measurement method should include validating the method by measuring the moisture sorption isotherms of a standard material such as native starch for which there is much published data available.

3.3.2 Laboratory Equipment

The sample chamber is illustrated in Figure 3.5. The dry bulb and dew point temperatures within the chamber were measured by a dew point hygrometer (Michell Series 3000, Cambridge, England). The hygrometer was screwed into the brass housing, with a rubber o-ring to form a hermetic seal (Figure 3.5).

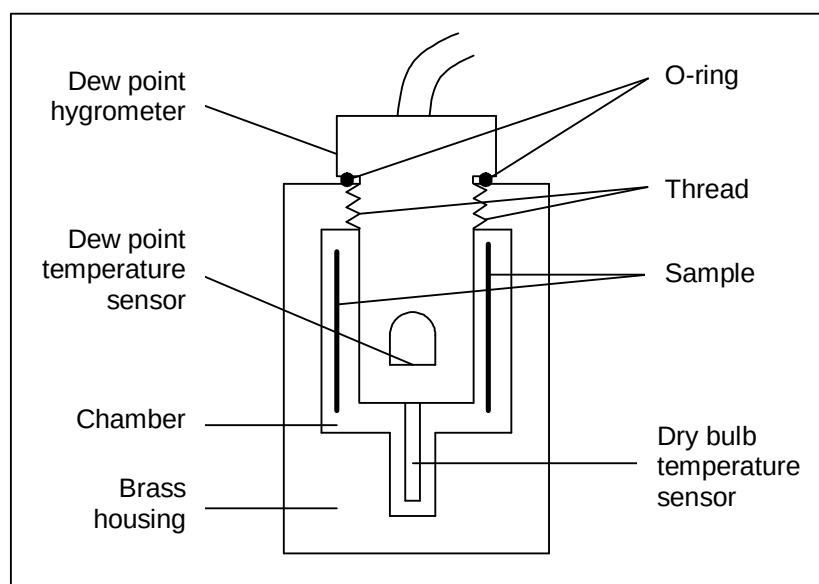


Figure 3.5 Layout of chamber, sample and sensors for the low temperature isotherm measurement system. The chamber overall dimensions were 85×30 mm.

An 85×45 mm sample was placed and sealed in the chamber and the housing was placed into a temperature controlled bath (NESLAB rte-140, Thermo Electron Corporation, USA) containing automotive anti-freeze solution (Figure 3.6). The set point of the controlled temperature bath was controlled by a custom-made LabVIEW™ computer programme (Version 7.0, National Instruments Corporation, USA), presented in Appendix A3 (in the accompanying CD), using the hygrometer dry bulb temperature for feedback.

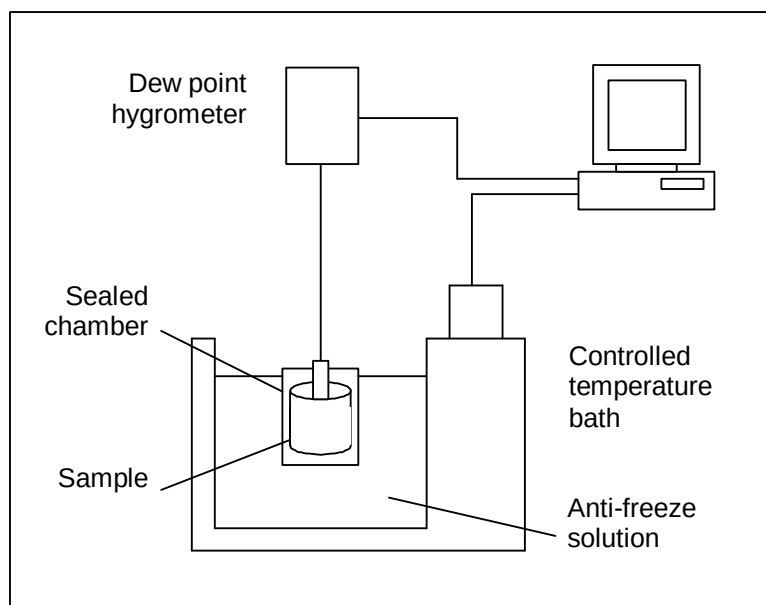


Figure 3.6. Layout of controlled temperature bath, dew point hygrometer and computer.

The computer programme performed two functions: bath temperature control and data recording. The programme required inputs of the target temperatures (20, 10, 0, -10 and -20°C), holding period for each temperature (100 min), and data-logging interval (1 minute). The computer programme adjusted the bath temperature to achieve the target temperature, as measured by the hygrometer's dry bulb temperature sensor, for the duration of the holding period after which the next target temperature was selected and the process repeated. The programme was designed to cycle continuously through the target temperatures with the programme manually stopped when the desired number of replicates had been achieved. The data was saved after each measurement by the program and could be accessed at any time to assess the data quality.

3.3.3 Dew Point Hygrometer Calibration

The hygrometer dew point measurement was calibrated by Mitchell Instruments Ltd. (UK) (Table 3.2). As the temperature error was relatively small and varied between -0.1 and 0.1°C , no adjustment was made to the dew point temperature measurements in the laboratory. The hygrometer dry bulb measurement was calibrated against an ice-water slurry at 0°C . Subsequently an adjustment of $+0.483^{\circ}\text{C}$ were made to the hygrometer dry bulb temperature measurement.

Table 3.2 Dew point hygrometer calibration.

Reference dew point temperature (°C)	Observed dew point temperature (°C)	Difference (°C)
-19.6	-19.5	-0.1
-9.7	-9.8	+0.1
1.2	1.1	+0.1
15.2	15.3	-0.1

3.3.4 Conditioning of Samples

All samples were dried in a container with silica gel for two weeks at 18-20°C prior to conditioning. To achieve a wide range of MCs, samples were placed above saturated salt solutions, distilled water or were soaked in water for 2 min then dried to achieve the desired MC. Samples could be stored indefinitely above saturated solutions. However samples could not be stored above distilled water for more than approximately 10 days due to mould growth.

Kraft samples stored above distilled water achieved a MC of approximately 40 %(db) whereas semi-chemical fluting medium samples achieved a MC of approximately 30 %(db). Some samples were also soaked in water and dried to achieve higher MCs than possible with storage above distilled water. It was assumed that drying the soaked samples would result in the sample exhibiting an ERH on the desorption isotherm. However it was also assumed that at ERH values above 90% the difference between the adsorption and desorption isotherms would be insignificant.

3.3.5 Equilibrium Relative Humidity and Water Activity Calculation

At or above 0.01°C, the dew point hygrometer mirror is cooled until dew forms on the mirror. The temperature of the mirror fluctuates to ensure the mirror temperature is as high as possible while still maintaining dew on the surface. The dew point temperature is the air saturation temperature or the temperature to which the air needs to be cooled for the air to be saturated with moisture. The dew point temperature can be used in combination with published tables or equations to determine the water vapour partial pressure in the air.

Care was taken when interpreting the hygrometer dew point temperature output, as an output of less than 0.01°C indicated that the hygrometer was measuring the frost point temperature. Below 0.01°C , the temperature at the triple point of water, the dew point hygrometer cools the mirror until moisture de-sublimates onto the mirror, forming a frost without first forming dew. The saturated vapour pressure that corresponds to a particular frost point temperature is lower than that for the same dew point temperature (Figure 3.7).

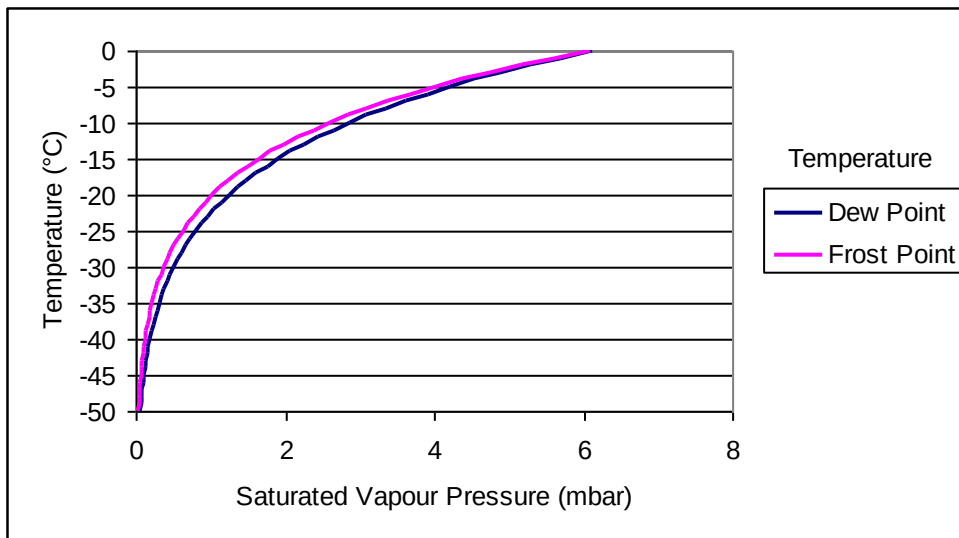


Figure 3.7 Saturated vapour pressure and corresponding dew and frost point temperatures (List, 1951).

The transition temperature of 0.01°C , at which the hygrometer measures the dew point or frost point temperature, was based on the assumptions that the hygrometer's cooled mirror would be relatively clean, so that soluble material would not reduce the freezing temperature, and that there would also be adequate nucleation sites for ice crystallisation without significant super-cooling.

List (1951) presented two equations to calculate the saturated vapour pressure of pure water (equation 3.1) and pure ice (equation 3.2). Equation (3.1) underestimates the vapour pressure of pure water by 0.007 to 0.12 % based on the tabulated values presented by List (1951) over the temperature range 0 to 25°C . Equation (3.2) underestimates the vapour pressure of pure ice by 0.07 to 0.13%, based on the tabulated values presented by List (1951) over the temperature range -50 to 0°C .

$$\begin{aligned}
\log_{10} P_{sat,T} = & -7.90298 \left(\frac{373.16}{T} - 1 \right) + 5.02808 \times \log_{10} \left(\frac{373.16}{T} \right) \\
& - 1.3816 \times 10^{-7} \left(10^{11.344 \left(1 - \frac{T}{373.16} \right)} - 1 \right) \\
& + 8.1328 \times 10^{-3} \left(10^{-3.19149 \left(\frac{373.16}{T} - 1 \right)} - 1 \right) + \log_{10}(1013.246)
\end{aligned}$$

for 273 K $\leq$ T $\leq$ 373 K

(3.1)

where P_{satT} = saturated water vapour pressure T Kelvin (mbar)

$$\begin{aligned}
\log_{10} P_{ice,T} = & -9.09718 \left(\frac{273.16}{T} - 1 \right) - 3.56654 \times \log_{10} \left(\frac{273.16}{T} \right) \\
& + 0.876793 \left(1 - \frac{T}{273.16} \right) + \log_{10}(6.1071)
\end{aligned}$$

for 223 K $\leq$ T $\leq$ 273 K

(3.2)

where P_{iceT} = vapour pressure of pure ice at T Kelvin (mbar)

The availability of water in a sample of paper or corrugated fibreboard is given by its water activity (a_w). The water activity is a ratio of the water vapour partial pressure of the sample and the saturated vapour pressure of pure water at the same temperature (equation 3.3). The water activity can be determined by measuring the equilibrium relative humidity (ERH) of a sample, which is the humidity of the air space surrounding and in equilibrium with the sample. The ERH is calculated from the samples humidity and the maximum water vapour pressure (equations 3.4 & 3.5). The maximum water vapour pressure is based on the saturated vapour pressure of pure water above 0.01°C and the saturated vapour pressure of ice below 0.01°C. Therefore above 0.01°C the ERH is 100 times greater than the a_w .

$$a_w = \frac{P_{sample, \theta}}{P_{sat, \theta}} \quad (3.3)$$

where $0 \leq a_w \leq 1$

$$ERH = \frac{P_{sample, \theta}}{P_{sat, \theta}} \times 100\%$$

for dew point $\theta \geq 0.01^\circ\text{C}$

where $0 \leq ERH_1 \leq 100\%$

(3.4)

where ERH = equilibrium relative humidity
 $P_{sample, \theta}$ = water vapour partial pressure exerted by the sample at $\theta^\circ\text{C}$ (Pa)
 $P_{sat, \theta}$ = saturated water vapour pressure at $\theta^\circ\text{C}$ (Pa)
 where a_w = sample water activity (dimensionless)

$$ERH = \frac{P_{sample, \theta}}{P_{ice, \theta}} \times 100\%$$

for dew point $\theta < 0.01^\circ\text{C}$

where $0 \leq ERH \leq 100\%$

(3.5)

where $P_{ice, \theta}$ = vapour pressure of pure ice at $\theta^\circ\text{C}$ (Pa)

The equations (3.6 to 3.8) for calculating the ERH and a_w in this study were based on the conventions regarding the basis of the ERH and a_w calculations outlined above and the output of the temperature outputs of the dew point hygrometer, dry bulb temperature and dew point temperature output. The term ‘dew point temperature output’ is used as a general term for when the dew point hygrometer output was above or below 0.01°C i.e. when the dew point hygrometer was displaying a dew point temperature or frost point temperature, irrespectively. Equations (3.1) and (3.2) were

used to calculate the saturated vapour pressure of water and the vapour pressure of pure ice.

$$ERH = \frac{P_{sat, sample dp \theta}}{P_{sat, sample db \theta}} \times 100\%$$

for dew point θ output $\geq 0.01^\circ\text{C}$

where $0 \leq ERH \leq 100\%$

(3.6)

where $P_{sat, sample dp \theta}$ = saturated water vapour pressure at the hygrometer dew point temperature output (Pa)
 $P_{sat, sample db \theta}$ = saturated water vapour pressure at the sample dry bulb temperature (Pa)

$$a_w = \frac{P_{sat, sample dp \theta}}{P_{sat, sample db \theta}}$$

(3.7)

where $0 \leq a_w \leq 1$

$$ERH = \frac{P_{ice, sample dp \theta}}{P_{ice, db \theta}} \times 100\%$$

for dew point θ output $< 0.01^\circ\text{C}$

where $0 \leq ERH_2 \leq 100\%$

(3.8)

where $P_{ice, sample dp \theta}$ = vapour pressure of pure ice at the hygrometer dew point temperature output (Pa)
 $P_{ice, sample db \theta}$ = vapour pressure of pure ice at the sample dry bulb temperature (Pa)

3.3.6 Maximum Water Activity

The maximum ERH as calculated by equations (3.6) and (3.8) is 100% at any temperature. The maximum a_w as calculated by equation (3.7) for dry bulb temperatures equal to or greater than 0.01°C is 1.0. The maximum a_w as calculated by equation (3.7) for dry bulb temperatures less than 0.01°C is less than 1.0 and is

dependent on the dry bulb temperature (Figure 3.8). This phenomenon is due to the maximum water vapour partial pressure of a sample being equal to the vapour pressure of pure ice, which is less than the saturated vapour pressure of water at the same temperature (Figure 3.7).

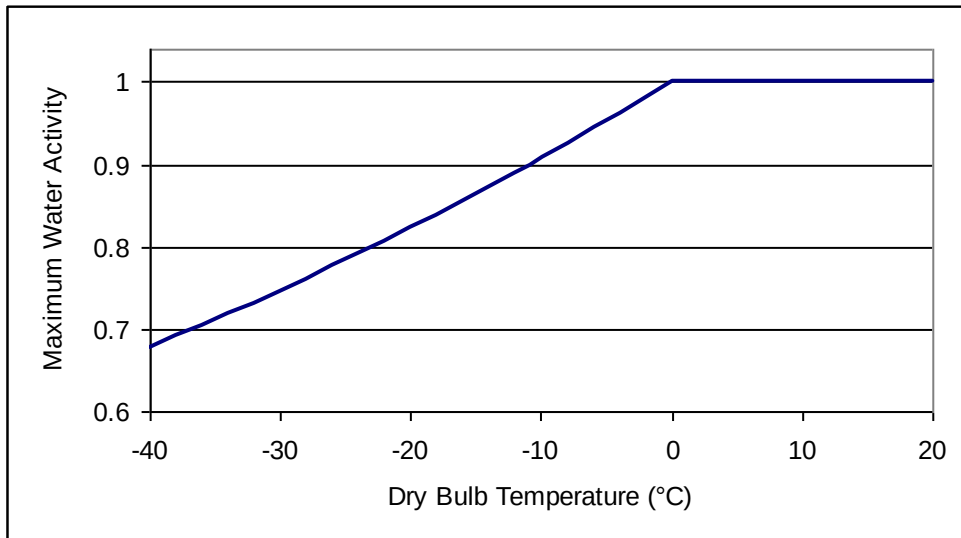


Figure 3.8 Maximum water activity as a function of the dry bulb temperature.

3.3.7 Sensitivity Analysis

A sensitivity analysis of the ERH equations (3.6) and (3.8) was conducted to determine the required accuracy in terms of the dew or frost point and dry bulb temperature measurements in order to produce acceptable moisture sorption isotherms. The sensitivity analysis involved first calculating the dew point temperatures using equations (3.1) and (3.2) over the dry bulb temperature range -20 to 20°C that gave a RH of 90%. Secondly, 0.25, 0.5 and 1°C was added to or subtracted from either the dew point or dry bulb temperature and the RH was recalculated. The RH of 90% was chosen as the ERH calculation was more sensitive to errors at higher relative humidities.

Figures 3.9 and 3.10 indicate that a 1.0°C error in either the dew point or dry bulb temperatures will have a significant effect on the resulting ERH calculation. Dew point or dry bulb temperature measurement errors of no more than 0.25°C produce acceptable errors of $\pm 2\%$ ERH. The shift in the absolute error shown in Figures 3.9

and 3.10 arises from the ERH calculation shifting from a ratio of the vapour pressure of ice at the dew point temperature to the vapour pressure of water at the dry bulb temperature, to a ratio of the vapour pressure of water at the dew point temperature over the vapour pressure of water at the dry bulb temperature.

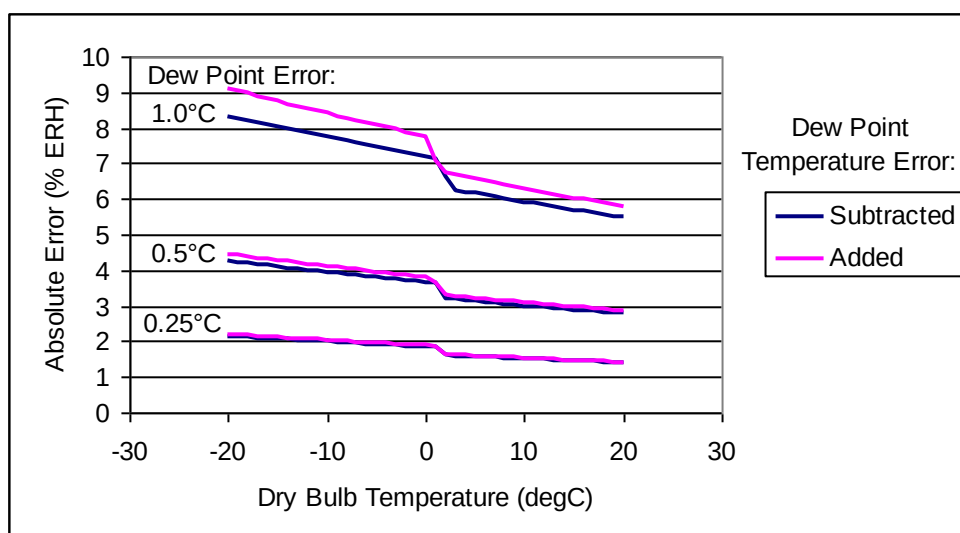


Figure 3.9 Effect of dew point temperature errors on the ERH at 90 %.

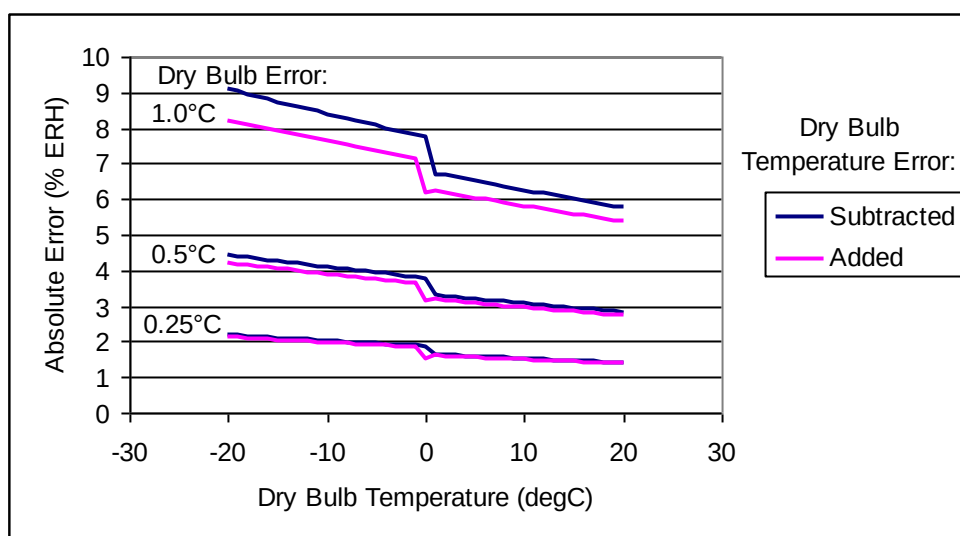


Figure 3.10 Effect of dry bulb temperature errors on the ERH at 90 %.

3.3.8 Effect of Pressure

The effect of pressure changes on the a_w of a substance was quantified by Okos *et al.* (1992) and Bell and Labuza (2000) using equation (3.9).

$$\ln\left(\frac{a_{w3}}{a_{w4}}\right) = \frac{V_L}{R_O T} (TP_3 - TP_4) \quad (3.9)$$

where a_{w3} and a_{w4} = water activity at T and TP_3 and T and TP_4 respectively (dimensionless)
 V_L = molar volume of water ($18 \text{ m}^3 \cdot \text{gmol}^{-1}$)
 R_O = gas constant ($82.05 \text{ cm}^3 \cdot \text{atm} \cdot \text{gmol}^{-1} \cdot \text{K}^{-1}$)
 TP_3 and TP_4 = total pressure of conditions 3 and 4 respectively (atm)

As the sample was loaded into the brass housing at atmospheric pressure at approximately 20°C and the sample was only ever cooled below this temperature, the pressure in the brass housing would vary between 1.0 and 0.0 atm. The maximum reduction in a_w at -20°C with a reduction in pressure of 1.0 atm was 0.087 % of the a_w at 1.0 atm, as calculated using equation (3.9). It was therefore be concluded that the effect of likely pressure fluctuations on a_w would have been insignificant and were disregarded.

3.3.9 Influence of Moisture Transfer Between the Chamber Space and Sample

Moisture transfer occurred between the sample and the chamber space after loading of the sample, unless the ERH of the sample was equal to that of the laboratory and hence the empty chamber. The chamber space ($1.46 \times 10^{-5} \text{ m}^3$) would hold a maximum of $2.526 \times 10^{-7} \text{ g}$ of water based on the saturated vapour pressure at 20°C. If this quantity of water was adsorbed by a sample ($0.085 \times 0.045 \text{ m}$ and $160 \text{ g} \cdot \text{m}^{-2}$) with a dry mass of 0.570 g, the sample MC would increase by $4.54 \times 10^{-5} \text{ \% (db)}$, which is an acceptably small error.

3.3.10 Moisture Transfer Between the Sample and Mirror

During the operation of the dew point hygrometer, moisture condenses on the mirror removing moisture from the surrounding air and, possibly, from the sample. The mass of moisture condensing on the mirror was measured by weighing (Mettler Toledo PG503-S, Switzerland) the tip of a dry cotton bud, removing the moisture from the mirror with the cotton bud and reweighing the cotton bud. The hygrometer was

located in an air conditioned laboratory ($\sim 18^{\circ}\text{C}$ and 50%RH) and the procedure was repeated 10 times no more than once every 10 min.

The quantity of moisture removed using the cotton bud varied from 0 to 0.004g which would reduce the MC of a paper sample ($0.085 \times 0.045 \text{ m}$ and 160 g.m^{-2}) by up to 0.71 %(db). Hence the significance of the transfer of moisture from the sample to the mirror would depend on the sample MC. The transfer of moisture to the mirror could be reduced by using a hygrometer with a smaller mirror.

3.3.11 Data Processing

Each time the LabVIEW™ (Version 7.0, National Instruments Corporation, USA) computer programme was run, a text file was produced with data in the following columns:

1.	Measurement number	7.	Seconds (GMT +12h)
2.	Bath temperature	8.	Min (GMT +12h)
3.	Dew point temperature	9.	Hours (GMT +12h)
4.	Dry bulb temperature	10.	Day (GMT +12h)
5.	Set point temperature	11.	Month (GMT +12h)
6.	Target temperature	12.	Year (GMT +12h)

During the 100 min hold period where the dry bulb target temperature remained constant, the sample was first heated or cooled to the target temperature at which the sample then remained for the rest of the hold period (Figure 3.11). It was found that the samples reached the target temperature after approximately 20 min and stabilise after 40 min, therefore the data from the remaining 60 min of the hold period were used to produce the moisture sorption isotherms. The first step of the data processing was to remove the first 40 min of data for each hold period.

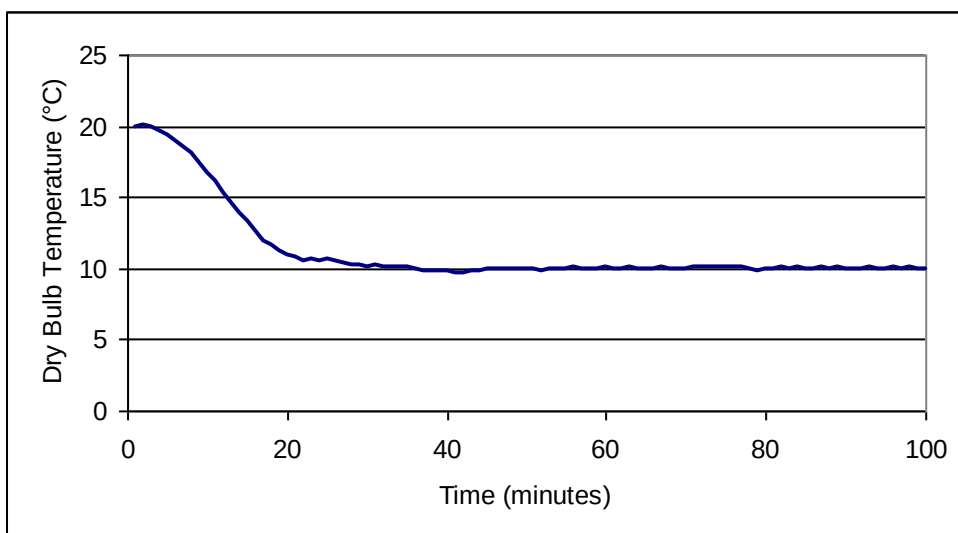


Figure 3.11 Example of a dry bulb temperature profile, as measured by the hygrometer during one 100-min hold period.

The dew point hygrometer had an ‘automatic balance compensation’ (ABC) operation, whereby the mirror was heated up to evaporate all the moisture and the hygrometer determined the level of dirt on the mirror, which was then compensated for in the subsequent measurements. The ABC operation occurred approximately 9 times per day and lasted 1 to 2 min (Figure 3.12). The second data processing step was used to remove the rows of data corresponding to the ABC operation.

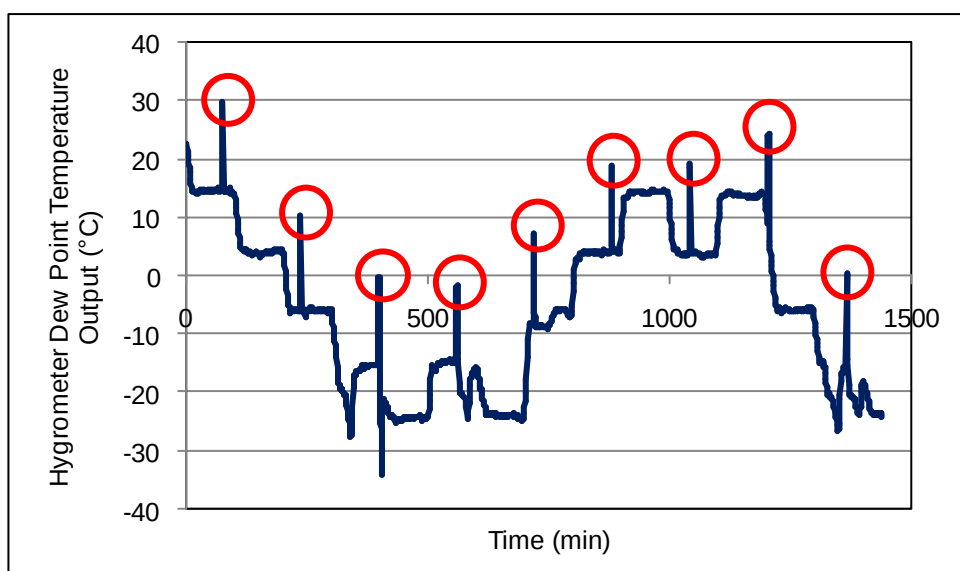


Figure 3.12 Example of a dew point temperature profile, as measured by the hygrometer over 24 hours with 14 hold periods and 9 ABC operations. Note: circles signify ABC operation.

Occasionally the hygrometer dew point temperature output would be unstable (e.g. Figure 3.13). No reason could be identified for this behaviour which occurred approximately 10% of samples below 0°C. A third data processing step was used to remove any rows of data with unstable dew point temperature measurements.

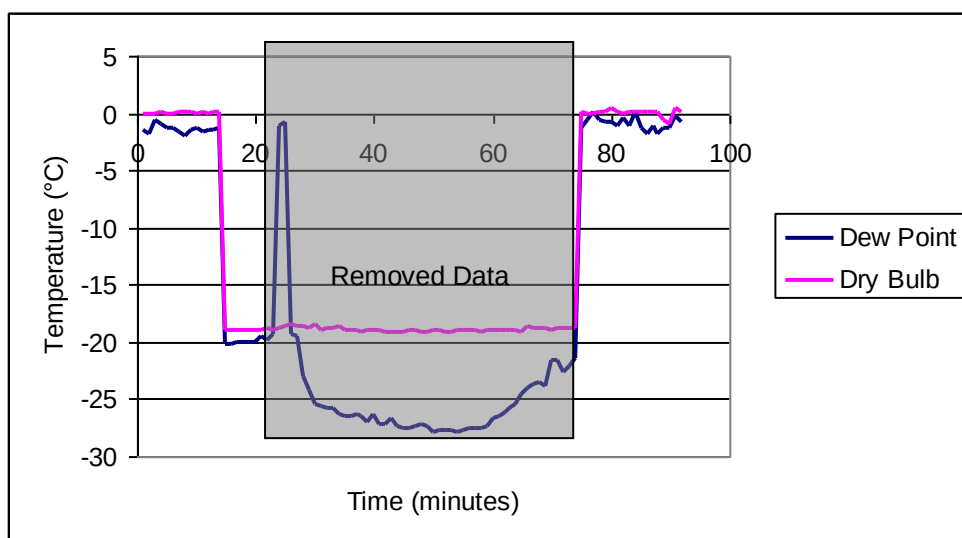


Figure 3.13 Example of a dew point and dry bulb temperature profile with an ABC operation and an unstable dew point temperature, both of which were removed.

The fourth data processing step was to calculate the average dew point and dry bulb temperatures, and count the number of measurements for each hold period. The number of measurements could have been reduced by the occurrence of a hygrometer ABC operation or an unstable dew point temperature during the hold period, hence the reason for the tally of measurements for each hold period.

The fifth data processing step was to remove the data sets with less than 40 min worth of measurements. The sixth data processing step was to calculate the a_w and ERH for each hold period.

The seventh data processing step was to calculate the average dry bulb temperature, a_w and ERH for all the replicate measurements at the same target temperature for each sample. This reduced the data to one a_w and ERH value for each of the five target temperatures for each sample. The number of hold period replicates at each target temperature was also tallied.

The eighth data processing step removed the data with less than 5 hold period replicates. Ideally from the 4-5 days of measurements for an individual sample, 10 hold period replicates per temperature would be recorded. However, with the removal of data coinciding with the ABC operation or instable dew point temperature measurements the number of hold period replicates could be reduced from the target of 10 to below the minimum of 5. This was the final step to prepare the data for the fitting of the moisture sorption isotherm equations.

3.3.12 Measurement Limitation

Assuming the hygrometer maintained a constant level of accuracy in terms of the dry bulb and dew point temperature measurement, the accuracy of the RH values calculated from the two temperature measurement declined with increasing humidity. This arises because of the difference between the dry bulb and dew point temperatures decreases with increasing humidity (Figure 3.14).

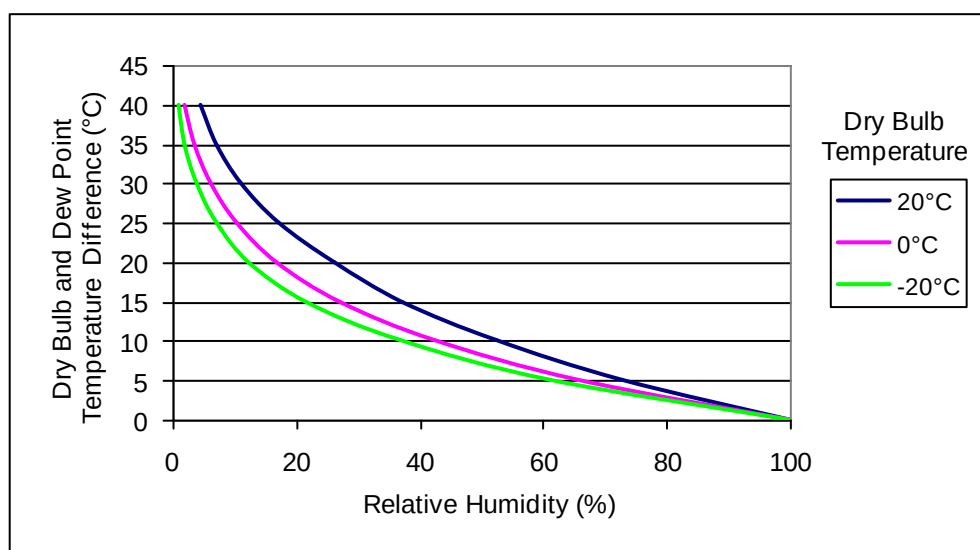


Figure 3.14 Difference between dry bulb and dew point temperature of humid air.

3.3.13 Heat Transfer Problem

During the measurement of the Kraft and the initial recycled moisture sorption isotherms the temperature-controlled bath was not always able to achieve or maintain the sample at 0, -10 and -20°C. The temperature-controlled bath was able to cool the automotive anti-freeze solution below the target temperatures, however the dry bulb

temperature, as recorded by the dew point hygrometer, did not always follow the anti-freeze solution temperature (Figure 3.15).

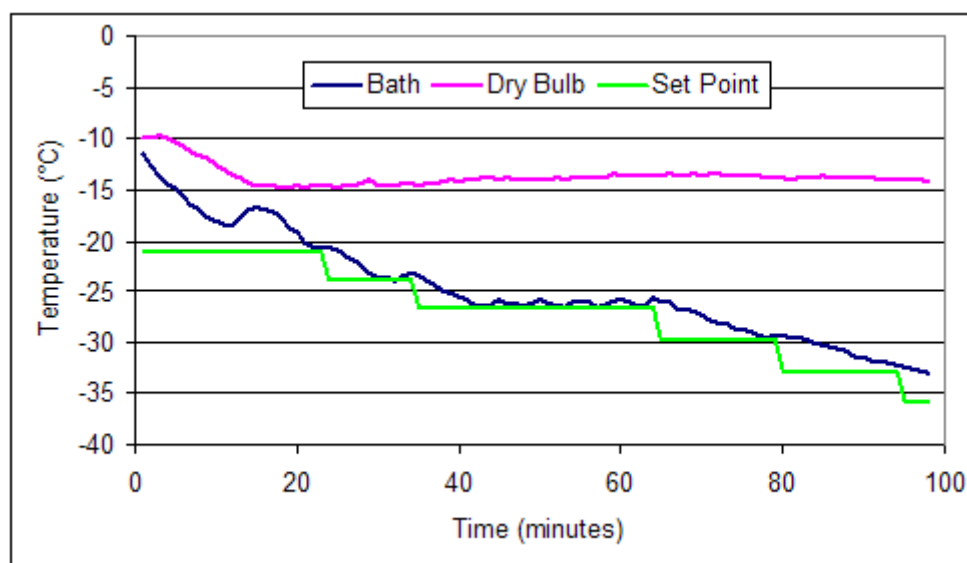


Figure 3.15 Temperature profile during one hold period with a target temperature of -20°C .

Freezing of the automotive anti-freeze solution was not considered as the reason for the behaviour illustrated in Figure 3.15, as freezing of the solution should have affected the bath temperature, which continued to follow the set point temperature. However during the measurement of the recycled fluting medium samples the anti-freeze solution was replaced and the problem ceased.

This heat transfer problem led to a wide distribution of measurements from 0 to -20°C (Table 3.3) for the Kraft linerboard and recycled fluting medium samples. Isotherms were normally fitted to measurements from narrow temperature ranges (e.g. $\pm 1^{\circ}\text{C}$), therefore the data collected for the Kraft linerboard was more suited towards fitting individual isotherms at 20, 10 0, -10 and -17°C . The majority of the recycled fluting medium average sample temperatures were at the target temperatures, 20, 10 0, -10 and -20°C . Temperature-compensated isotherms could still be fitted to predict MCs at -20 to 20°C as all the data could be used.

Table 3.3 Distribution of measurements relative to the dry bulb temperatures

Temperature Range (°C)	Sample		
	Kraft	Semi-chemical	Recycled
	Number of Measurements within Temperature Range		
-21.5 to -20.5	0	2	0
-20.5 to -19.5	24	183	38
-19.5 to -18.5	13	4	1
-18.5 to -17.5	42	0	0
-17.5 to -16.5	47	0	8
-16.5 to -15.5	11	0	16
-15.5 to -14.5	23	0	27
-14.5 to -13.5	14	0	16
-13.5 to -12.5	10	0	28
-12.5 to -11.5	19	0	5
-11.5 to -10.5	31	3	27
-10.5 to -9.5	92	140	64
-9.5 to -8.5	0	0	3
-6.5 to -5.5	0	0	1
-4.5 to -3.5	6	0	1
-3.5 to -2.5	7	0	3
-2.5 to -1.5	6	0	11
-1.5 to -0.5	14	2	5
-0.5 to 0.5	136	197	91
9.5 to 10.5	207	234	138
19.5 to 20.5	204	226	140
20.5 to 21.5	0	3	0

3.4 Isotherm Measurements

The complete isotherm dataset can be viewed in Appendix A4 (in the accompanying CD).

3.4.1 Variation in Sample Mass

The majority of the isotherm samples lost or gained moisture between the pre- and post-isotherm measurement (Figure 3.16). The relative moisture loss tended to be more significant for those samples with low MCs (Figure 3.17). As a similar time was required to load and unload the sample into the equipment, the average of the two measured MCs was used in the data analysis, as no justification could be found for selecting either the pre- or post-measurement values.

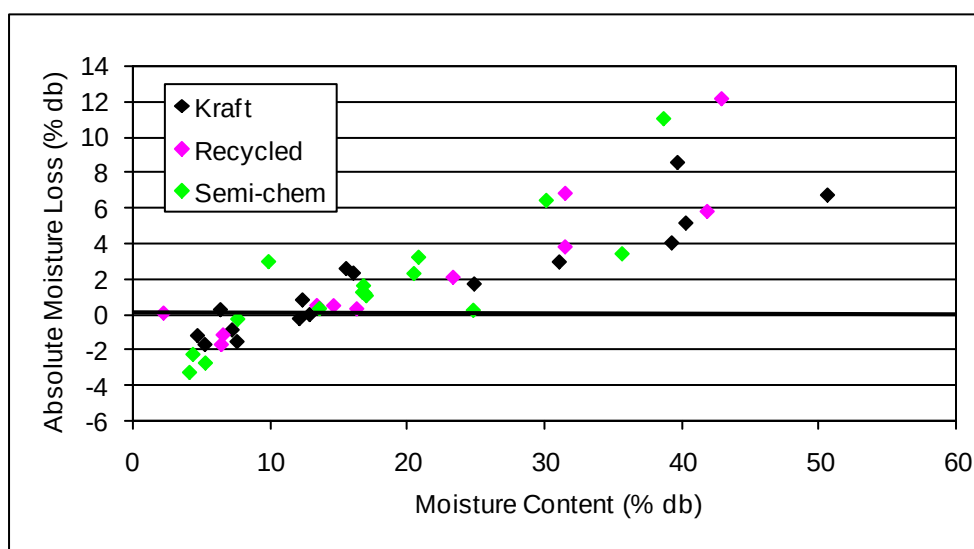


Figure 3.16 Absolute moisture loss or gain of Kraft linerboard, recycled and semi-chemical fluting medium isotherm samples.

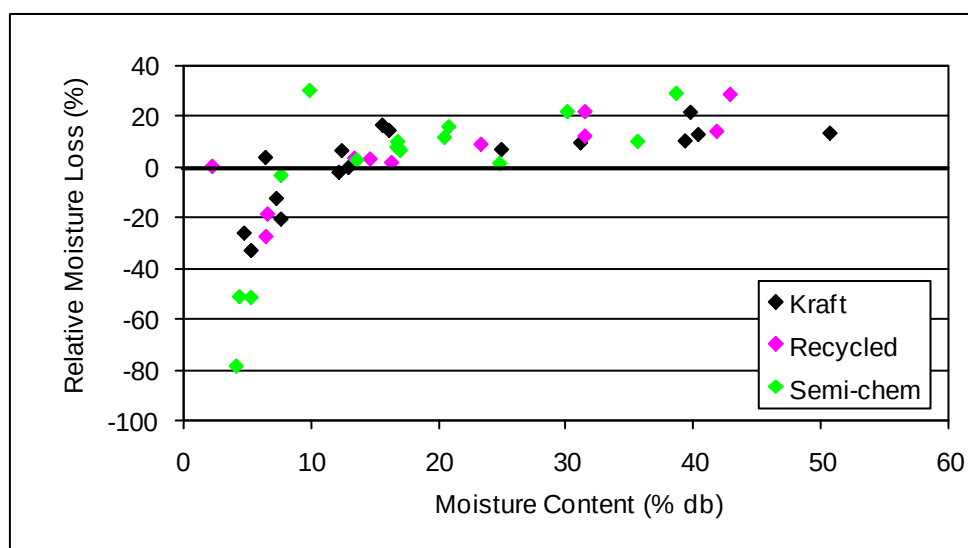


Figure 3.17 Moisture gain or loss relative to average moisture content of Kraft linerboard, recycled and semi-chemical fluting medium isotherm samples.

The variation in sample mass between the pre- and post-isotherm measurements was most likely a result of moisture transfer between the sample and the laboratory air while the samples were being transferred from the re-sealable plastic bags to the brass housing and from the brass housing to the plastic bag to be weighed. The sample mass variation could have been minimised by manufacturing a number of identical brass housing units. This would have enabled the samples to be conditioned inside the brass housing then hermetically sealed with a bung for weighing; the bung could have been

replaced with the hygrometer probe to measure the isotherms. Following the isotherm measurement the hygrometer could have been removed and the sample resealed with the bung and weighed. This method would have reduced the time that the sample would be exposed to the laboratory air and hence minimised the moisture loss or gain. However it was not economically practical to produce more brass units.

3.4.2 Isotherm Dataset

The adsorption measurements for the Kraft, semi-chemical and recycled samples are shown in Figure 3.18. Scattering of the measurements at individual MCs at relative humidities up to approximately 70% were probably a result of the relatively low slope of the isotherm trend, i.e. large changes in ERH resulted from small changes in MC. Above 70% RH the precision of the ERH measurement is reduced by the relatively small difference between the dry bulb and dew point temperatures (Figure 3.14).

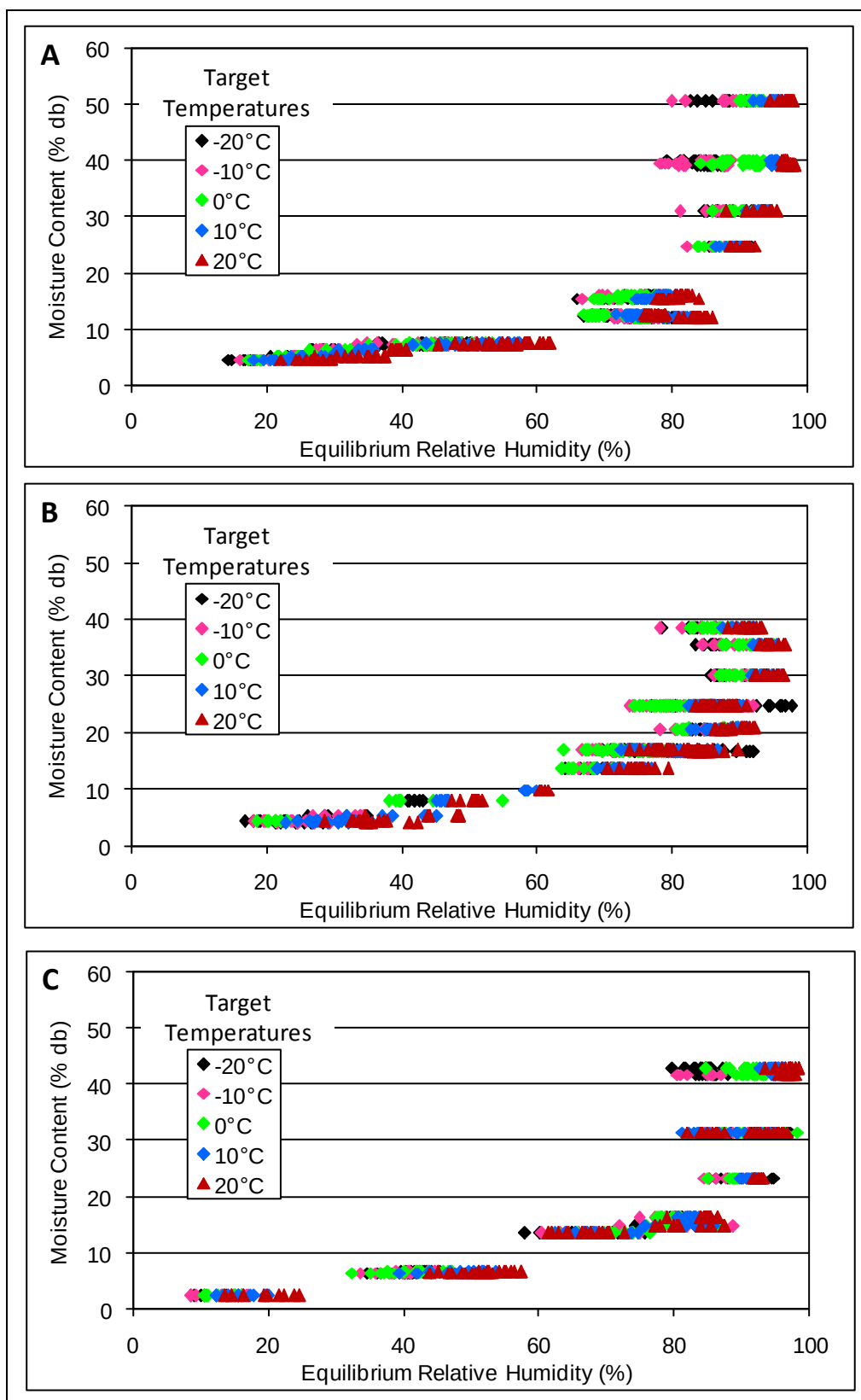


Figure 3.18 Moisture adsorption isotherm measurements for (A) 250g.m⁻² Kraft linerboard, (B) 160g.m⁻² semi-chemical fluting medium and (C) 160 g.m⁻² recycled fluting medium, all manufactured at the Carter Holt Harvey Ltd. Kinleith pulp and paper mill.

The isotherms for all three samples follow similar trends for a given (nominal) temperature (Figure 3.19).

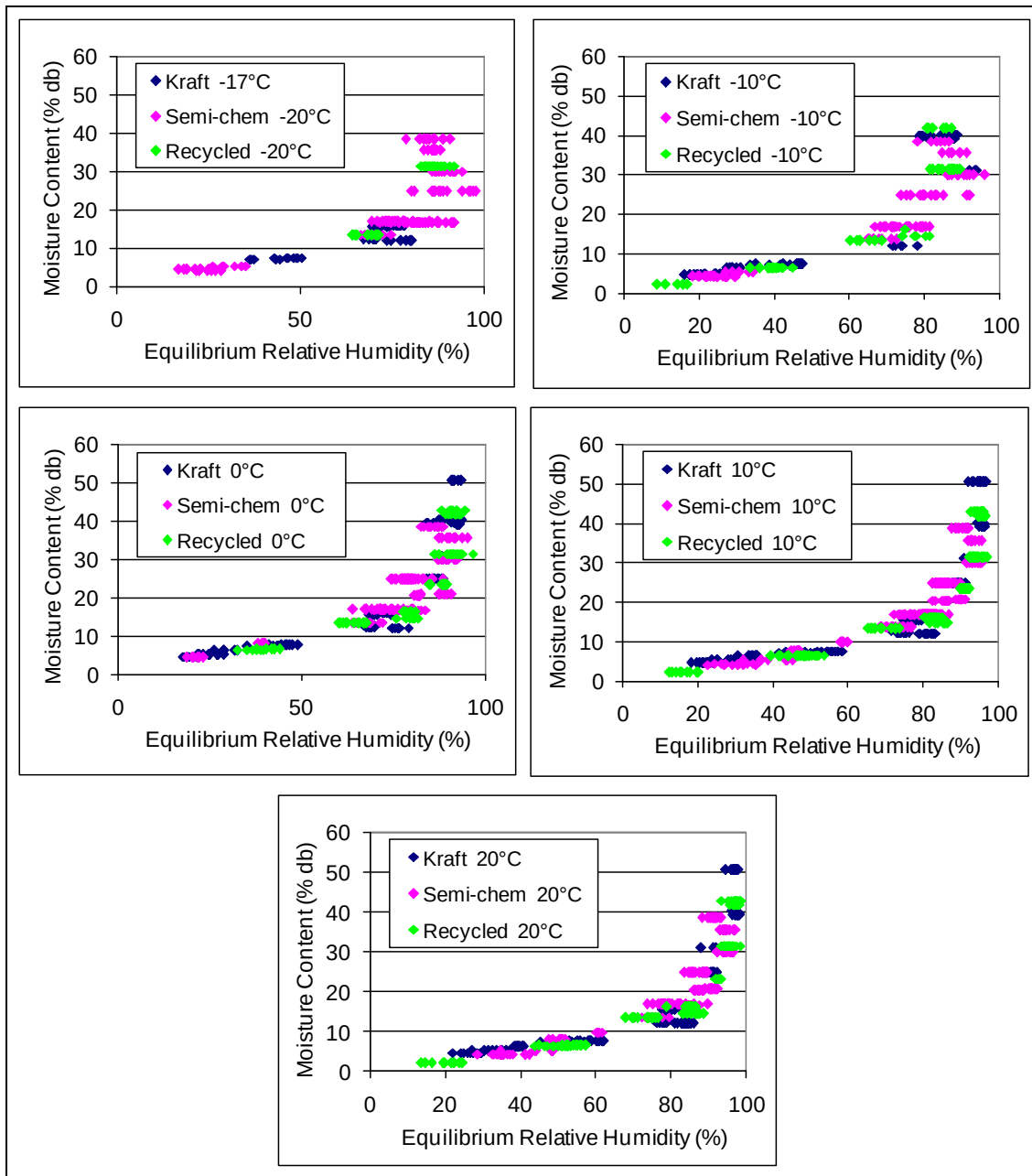


Figure 3.19 Moisture adsorption isotherm measurements for 250g.m^{-2} Kraft linerboard, 160g.m^{-2} semi-chemical fluting medium and 160g.m^{-2} recycled fluting medium at the same or similar temperatures.

3.4.3 Comparison with Published Isotherms

Above 90 %RH, the difference between the adsorption isotherm data measured during this study at 20°C and from eight previous studies at 20 to 25°C increases significantly (Figure 3.20). There are few data above 96 %RH available from previous studies and it is possible that their samples conditioned to high humidities were not given enough time to reach their equilibrium MCs. This would have led to an underestimation of the isotherm MC at high humidities. Below 80 %RH however, the isotherm data from this study and previous studies are in good agreement.

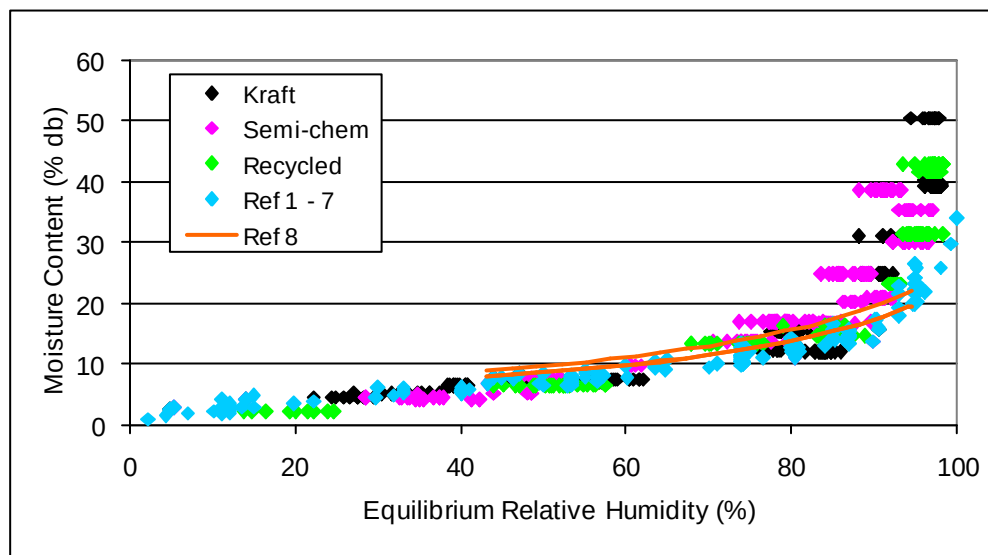


Figure 3.20 Comparison between moisture adsorption data at 20°C from this study and from Ref 1 (25°C - Seborg and Stamm 1931), Ref 2 (25°C - Seborg, *et al.* 1936), Ref 3* (20°C - Skogman and Scheie 1969), Ref 4 (21.8°C - Prahl 1968), Ref 5 (23°C - Foss *et al.* 2003), Ref 6** (23.7°C - Bandyopadhyay *et al.* 2000), Ref 7 Andersson and Berkyto (1951b) and Ref 8*** (20°C - Eagleton and Marcondes, 1994).
 * the original moisture content values were given in $\text{mg}_{\text{water}} \cdot \text{g}_{\text{paper}}^{-1}$ and the calculation basis was assumed to be grams of oven dried paper.
 ** Bandyopadhyay, *et.al.* (2000) stated that their moisture contents units were $\text{gmol}_{\text{water}} \cdot \text{g}_{\text{drypaper}}^{-1}$, however it was assumed that the units were actually $\text{g}_{\text{water}} \cdot \text{g}_{\text{drypaper}}^{-1} \times 100\%$ as conversion of their data with units $\text{gmol}_{\text{water}} \cdot \text{g}_{\text{drypaper}}^{-1}$ to % db yields excessively high values.
 *** Eagleton and Marcondes' (1994) data included fitted GAB lines for corrugated fibreboard outer and inner, which are very similar and moulded pulp trays with the highest moisture content.

It was assumed that when conditioning the samples at relative humidities above 90 % that the difference between the desorption and adsorption isotherms would be insignificant. Eagleton and Marconde's (1994) found that the difference between the desorption and adsorption isotherms significantly increased with declining temperature, from 40 to 0°C. Prahl (1968) found the opposite trend and the effect of temperature was less significant. Hysteresis could explain why the ERH of the high MC Kraft, semi-chemical and recycled samples were not as high as that of the previously published measurements.

Eagleton and Marconde's (1994) GAB equations predicted MCs lower than the measured values for Kraft linerboard, semi-chemical and recycled fluting medium at RHs greater than 80% for the 0 and 10°C data (Figure 3.21) and greater than 90% for the 20°C data (Figure 3.20). Skogman and Scheie's (1969) MC measurements were also below those produced by this study (Figure 3.22). It is likely that if the dew point hygrometer underreported the humidities above 80% at 20°C, the hygrometer would also have underreported the humidities at lower temperatures.

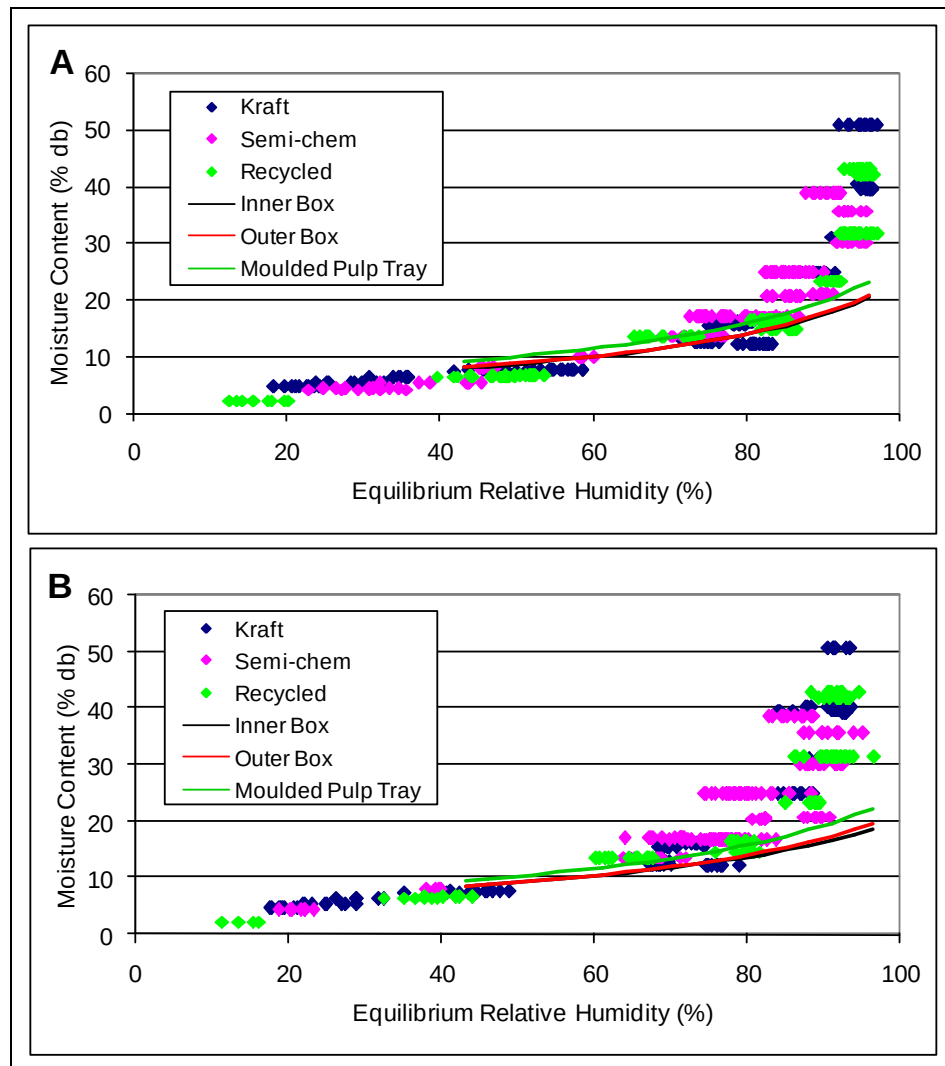


Figure 3.21 Comparison between moisture adsorption data from this study at (A) 10°C and (B) 0°C and fitted GAB equation lines from Eagleton and Marcondes (1994) at (A) 10°C and (B) 1°C.

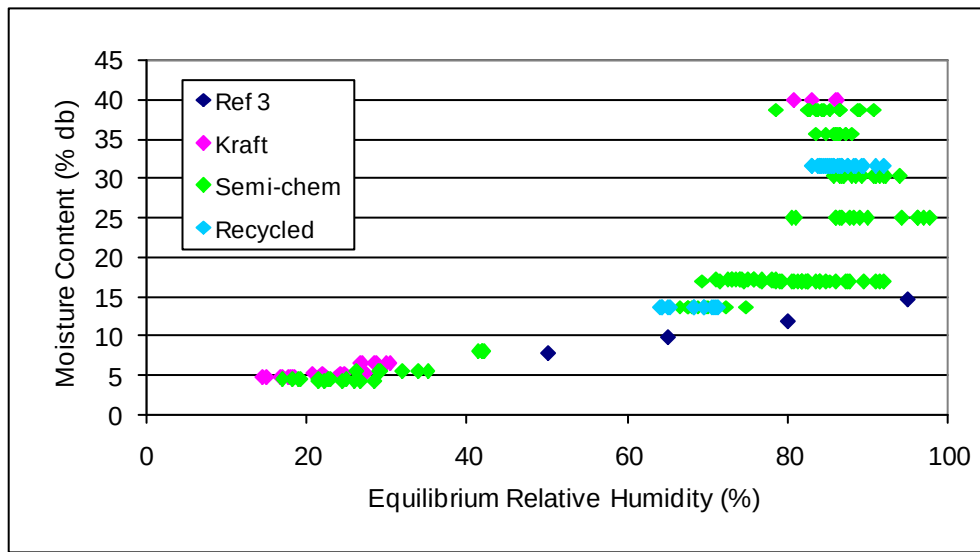


Figure 3.22 Comparison between adsorption isotherm measurements from this study at $-20 \pm 0.5^\circ\text{C}$ and Ref 3 (-20°C - Skogman and Scheie, 1969).

3.5 Fitting GAB Equation Coefficients

3.5.1 Fitting Model Coefficients

The coefficients of a model can be selected using a statistical or spreadsheet computer program which optimises the coefficients by minimising or maximising a calculated measure of the model fit. A standard measure of model fit is the sum of squared residuals (or error sum of squares - equation 3.10), which can be transformed into a correlation coefficient value (R^2) (3.11). The technique of fitting coefficients by minimising the sum of squared residuals is often called ‘least squares regression’. GAB coefficients were presented with correlation coefficients by Eagleton and Marcondes (1994) and Vazquez *et al.* (2003).

$$SSE = \sum_{i=1}^n \left(y_i - \hat{y}_i \right)^2 \quad (3.10)$$

where	SSE	=	error sum of squares (dimensions vary)
	n	=	number of measurements (count)
	i	=	i^{th} measurement
	y	=	measured dependent variable value (dimensions vary)
	$\hat{y}$	=	estimated dependent variable value (dimensions vary)

$$\begin{aligned}
R^2 &= \left(1 - \frac{SSE}{SST}\right) \times 100\% \\
SSE &= \sum \left(y_i - \hat{y}_i\right)^2 \\
SST &= \sum y_i^2 - \frac{(\sum y_i)^2}{n}
\end{aligned}
\tag{3.11}$$

where R^2 = correlation coefficient (%)

The Solver Tool in Microsoft® Office Excel® was used to select the GAB equation coefficients by minimising the sum of squared residuals. Care was required to ensure that the Solver Tool did not select a local minima as opposed to the optimum result. Labuza and Altunakar (2007) stated that the coefficients for GAB equation should lie within specific limits i.e. $0.007 \leq K_G \leq 0.01$ (when using %ERH as an input) and $1 \leq C_G \leq 20$. While not stated by Labuza and Altunakar (2007), it is expected that the M_o would be greater than 0 (when using MC %db as an input). These constraints were incorporated into the Solver Tool.

3.5.2 Fitted GAB Isotherm Equations

The GAB equation was fitted to the semi-chemical and recycled fluting medium data measured within 0.5°C of 20, 10, 0, -10 and -20°C and for the Kraft linerboard measurements within 0.5°C of 20, 10, 0, -10 and -17°C in accordance with the distribution of data as shown in Table 3.3. The correlation coefficients for the Kraft linerboard and recycled fluting medium fitted GAB equations ranged from 77.5 to 93.8 % and 80.8 to 93.5 %, respectively, and were higher than that for semi-chemical fluting medium (57.4 to 79.4%; Table 3.4).

Table 3.4 Coefficients for fitted GAB equations, correlation coefficients (R^2) and number of measurements. Note: water holding capacity moisture contents not included in data sets.

Temperature (°C)	R^2 (%)	Number of Measurements ¹	M_0 (% db)	C	K
Kraft GAB Coefficients - % <i>ERH</i> basis ²					
-17	77.5	43	8.552	3.826	0.007000
-10	84.1	78	23.76	1.000	0.007000
0	90.5	134	4.924	10.12	0.009580
10	93.0	207	3.841	20.00	0.009509
20	93.8	420	3.660	20.00	0.009400
Kraft GAB Coefficients - a_w basis ³					
-17	78.4	43	11.91	2.638	0.7000
-10	84.1	78	25.12	1.000	0.7533
Semi-chemical GAB Coefficients - % <i>ERH</i> basis					
-20	57.4	135	14.27	1.593	0.007000
-10	78.7	97	18.63	1.000	0.007073
0	66.7	166	12.37	1.240	0.007824
10	79.4	205	5.53	3.842	0.008984
20	78.9	203	5.40	2.780	0.008930
Semi-chemical GAB Coefficients - a_w basis					
-20	57.8	135	24.03	1.000	0.7255
-10	78.6	97	18.68	1.000	0.7781
Recycled GAB Coefficients - % <i>ERH</i> basis					
-20	87.6	38	12.61	1.000	0.008188
-10	82.6	57	12.31	1.000	0.008485
0	80.8	86	6.411	2.468	0.009032
10	91.0	138	3.681	14.38	0.009468
20	93.5	138	3.426	15.10	0.009403
Recycled GAB Coefficients - a_w basis					
-20	87.8	38	12.54	1.000	0.9957
-10	82.4	57	12.39	1.000	0.9333

1 - Each measurement consisted of the average of 40 to 60 min of dry bulb and dew point temperature recordings at a rate of one recording per minute (section 3.3.11).

2 - Percentage *ERH* substituted in for the vapour pressure ratio in equation 2.23

3 - Coefficients for fitted GAB equations at 0, 10 and 20°C - a_w basis were not included in the table as the only the GAB *K* coefficients order of magnitude was affected by the use of a_w in place of *ERH*.

Not all of the data for the high MC (>30 %db) semi-chemical fluting medium samples followed the prevailing trend of increasing MC with increasing *ERH* (Figure 3.23).

This discontinuity in the trend would explain the relatively low correlation coefficients for the semi-chemical samples. The high MC samples were conditioned by wetting and drying them to a target MC (section 3.3.4), this appears to have affected the *ERH*

measurements. This discontinuity was not as marked in the Kraft or recycled data sets (Figures 3.24 and 3.25).

For the three pulp types, the correlation coefficients listed in Table 3.4 tended to decrease with decreasing temperature. This was consistent with the scatter of the measurements around the fitted GAB equation lines in Figures 3.23 to 3.25. This trend could be partly due to the decreasing number of measurements with decreasing temperature. The -10°C plot in Figure 3.24 shows how the fitting of the GAB equation was biased towards the clusters of data with more measurements. The reduction in measurements was due to the dew point hygrometer being less stable at the lower temperatures.

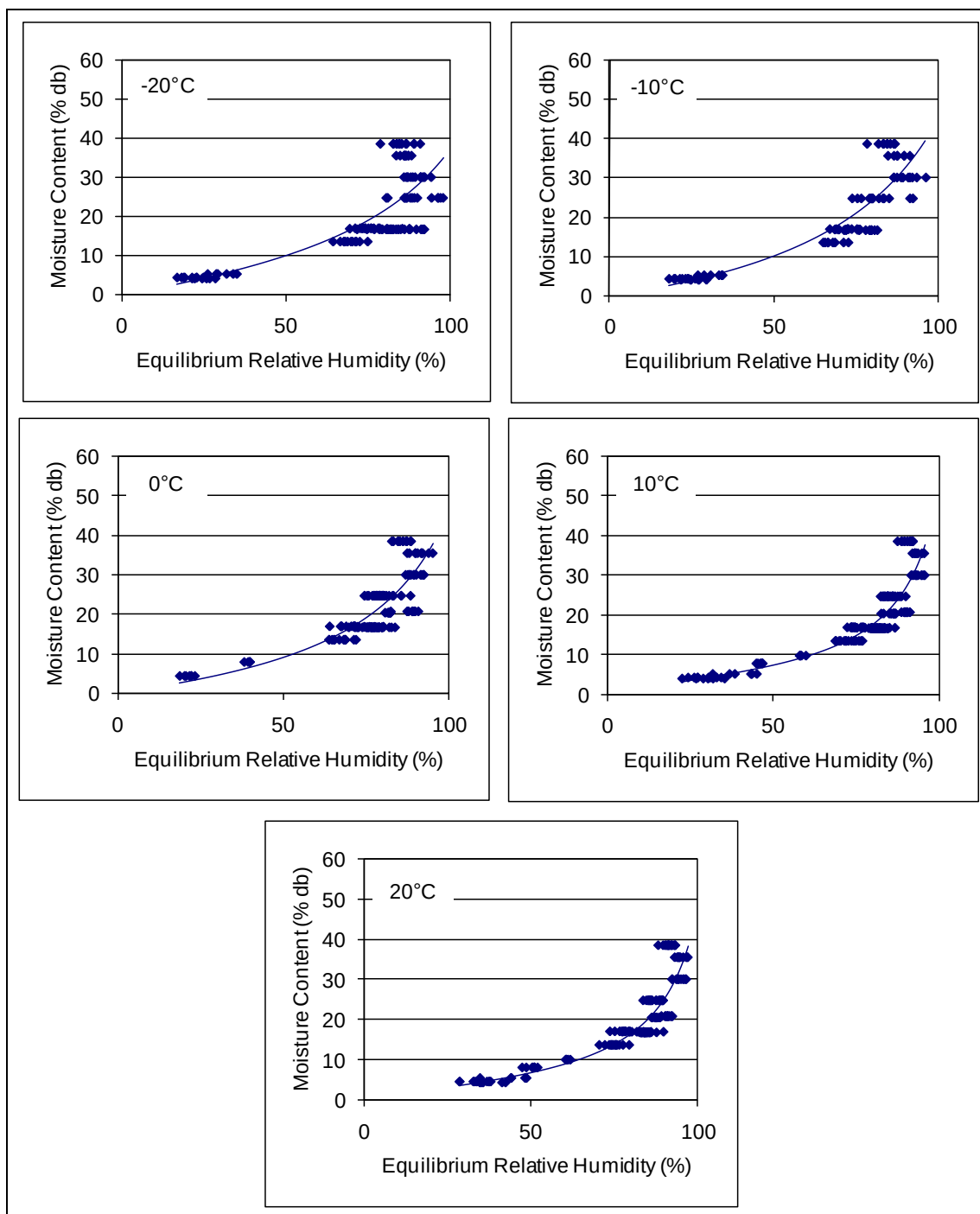


Figure 3.23 Moisture adsorption isotherms of 160 g.m^{-2} semi-chemical fluting medium manufactured by Carter Holt Harvey Ltd. Kinleith Mill, New Zealand. Note: these GAB equations were fitted individually to the data sets corresponding to the one of the five target temperatures.

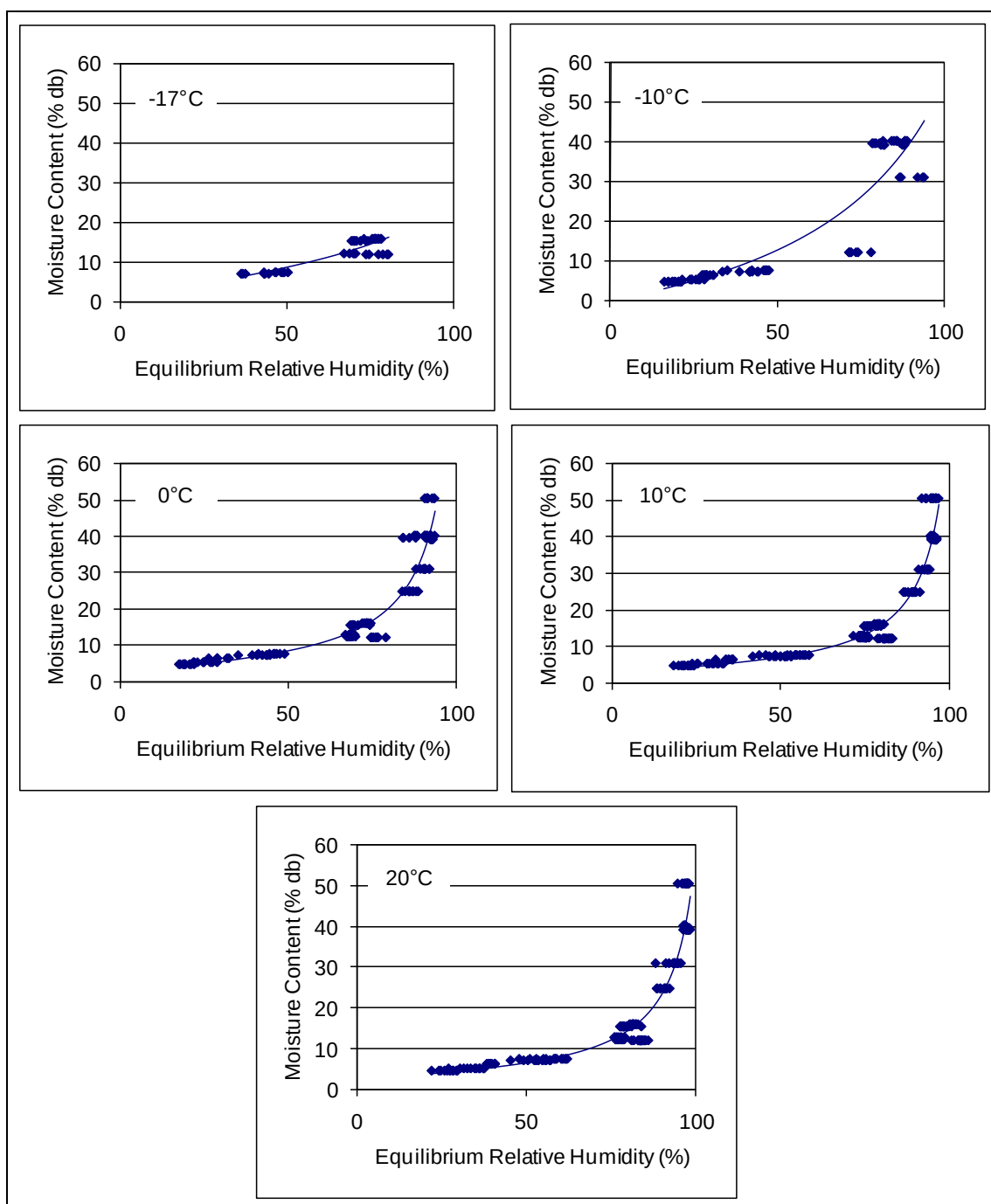


Figure 3.24 Moisture adsorption isotherms of 250 g.m^{-2} Kraft linerboard manufactured by Carter Holt Harvey Ltd. Kinleith Mill, New Zealand with fitted GAB equation lines. Note: these GAB equations were fitted individually to the data sets corresponding to the one of the five target temperatures.

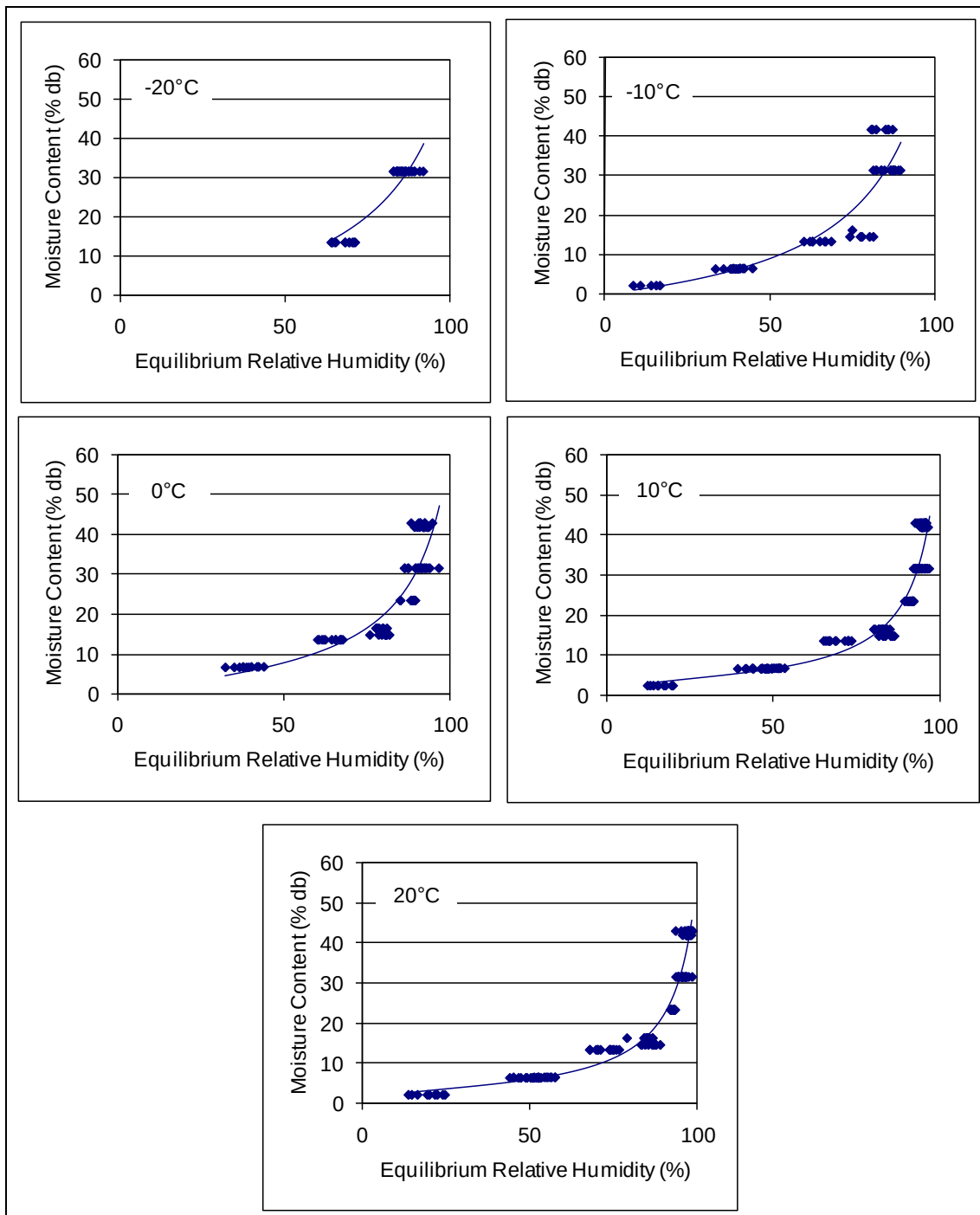


Figure 3.25 Moisture adsorption isotherms of 160 g.m^{-2} recycled fluting medium manufactured by Carter Holt Harvey Ltd. Kinleith Mill, New Zealand. Note: these GAB equations were fitted individually to the data sets corresponding to the one of the five target temperatures.

The M_0 and K GAB coefficients presented in Table 3.4 are of the same order of magnitude to those fitted by Eagleton and Marcondes (1994) (Table 3.5). The C coefficients fitted by Eagleton and Marcondes (1994) however, vary significantly and

inconsistently with temperature. Eagleton and Marcondes (1994) C coefficients are outside the bounds as stated by Labuza and Altunakar (2007) and indicate that above these bounds their effect is minimal.

Table 3.5 GAB equation coefficients fitted to paper based packaging by Eagleton and Marcondes (1994)*.

Temperature (°C)	M ₀ (% db)	C	K
Inner Corrugated Sleeve			
1	6.022	80000	0.700
10	5.336	103000	0.768
20	5.260	212000	0.774
30	4.879	25600	0.782
40	4.668	22400	0.770
Outer Corrugated Sleeve			
1	5.848	58400	0.729
10	5.376	106000	0.771
20	5.262	106000	0.773
30	4.666	29400	0.791
40	4.698	35200	0.758
Moulded pulp tray			
1	6.537	54900	0.733
10	6.155	18600	0.764
20	6.016	22600	0.769
30	5.168	44600	0.792
40	5.849	2690	0.686

* Eagleton and Marcondes (1994) used water activity in the GAB equation which results in an increase in K by a factor of 100 relative to when using REH.

The effect of using either ERH or a_w can be seen in Figure 3.26, where the a_w isotherms at -20 and -10°C are shifted to the left as a result of the isotherms becoming asymptotic at their maximum water activities of 0.91 and 0.82, respectively (section 3.3.6).

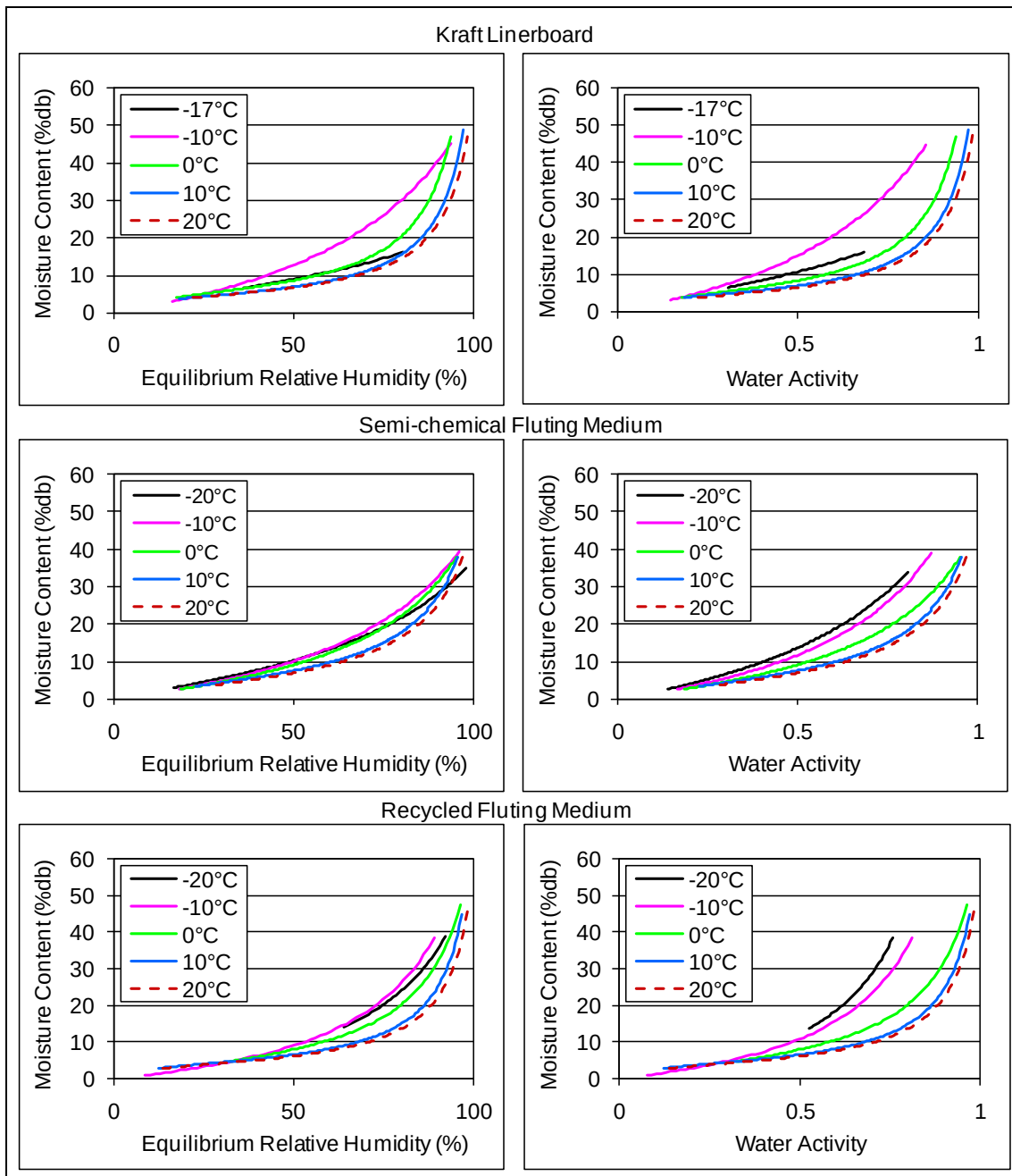


Figure 3.26 Fitted GAB moisture adsorption lines of 250g.m^{-2} Kraft linerboard 160g.m^{-2} semi-chemical fluting medium and 160g.m^{-2} recycled fluting medium manufactured by Carter Holt Harvey Ltd Kinleith Mill, New Zealand.

The fitted GAB lines for the -20 and -10°C semi-chemical measurements do not exhibit the same level of curvature as for the 0 , 10 and 20°C fitted lines (Figure 3.26). This is probably a result of the ERH values of the samples with MCs greater than $35\text{ \%db}$ being equal to or less than the samples with approximately 30% moisture (Figure 3.23).

Figure 3.26 shows that the general trend between 20 and -10°C for the fitted GAB lines with respect to the effect of temperature is for the MC to decrease with increasing temperature at a constant humidity. This trend was not consistent with the effect of temperature as published by Skogman and Scheie (1969) and Darling and Belding (1946). Their isotherms showed a reversal of the temperature effect at approximately 0°C. The fitted GAB line for the data at -17 and -20°C did not follow the temperature trend of the high temperatures. This was a result of the relatively few data points for -17 and -20°C that were not all spread over the ERH range making modelling fitting less accurate.

The Kraft linerboard heat of sorption was calculated using Hossain's *et al.* (2001) method. They integrated the Clausius-Clayperon equation to produce equation (3.12) which can be used to determine the heat of sorption by calculating the slope of the $\ln(RH)$ vs $1/T$ curve.

$$\ln(RH) = -\left(\frac{Q_s}{R}\right)\frac{1}{T} + FC_{14} \quad (3.12)$$

where Q_s = heat of sorption (J.mol^{-1})
 FC_{14} = fitted constant (dimensionless)

The $\ln(RH)$ vs $1/T$ data (Figure 3.27) showed some non-linearity however the correlation coefficient (R^2) for the linear equations fitted to the data were adequately high (>86.9%, Table 3.6). The corresponding plot of the heats of sorption as a function of moisture content showed a non-linear relationship (Figure 3.28). Using least squares regression a logarithmic function was fitted to the heat of sorption data (equation (3.13), $R^2 = 100\%$).

Table 3.6 Kraft linerboard heat of sorption data

MC (%db)	Slope (K)	R^2 (%)	Q_s (J.mol^{-1})
40	-204.0	98.4	1696
30	-408.7	92.3	3398
20	-729.9	86.9	6069
10	-1240	90.3	10313

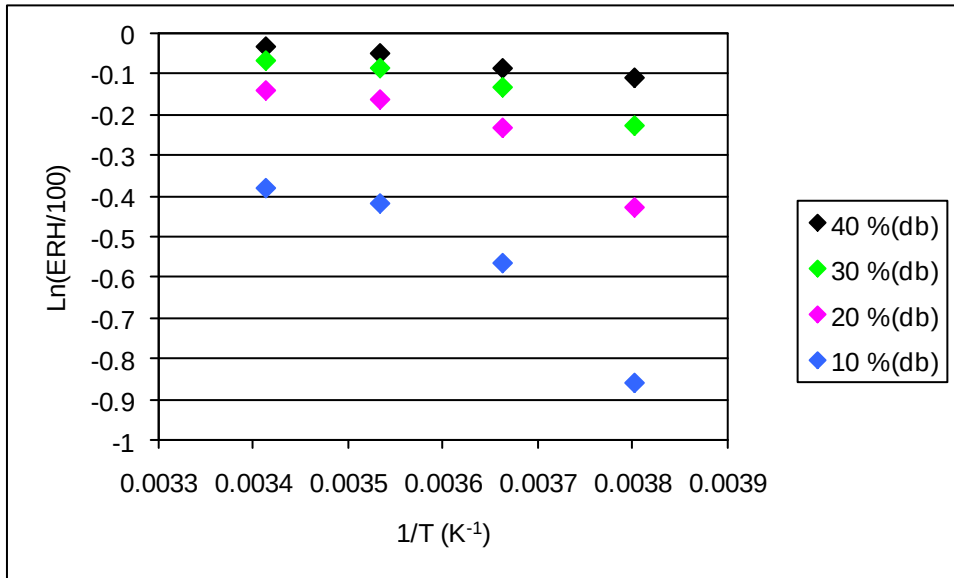


Figure 3.27 Plot of slope of the $\ln(RH)$ vs $1/T$ for Kraft linerboard based on fitted GAB equations (Table 3.4)

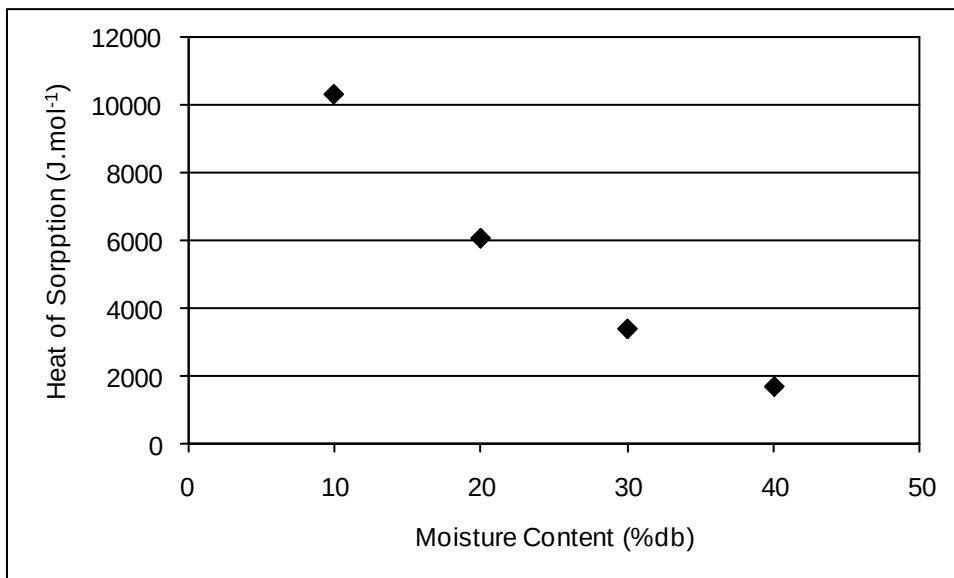


Figure 3.28 Heat of sorption for Kraft linerboard based on slope of linear equations fitted to data in Figure 3.27.

$$Q_s = -6246 \ln(MC) + 24714 \quad (3.13)$$

The humidity ranges for the prediction of sample MCs using the GAB equation (2.24) and GAB coefficients in Table 3.4 are presented in Table 3.7. The ERH range for the Kraft samples at -17°C and recycled samples at -20°C is significantly less than all the

other ranges due to the heat transfer problem experienced when measuring the data as outlined in section 3.3.13. However, all cover the ranges observed in commercial cool-stores.

Table 3.7 Humidity range for prediction of sample moisture contents

Temperature (°C)	Equilibrium Relative Humidity (%)	
	Maximum	Minimum
Kraft Linerboard		
-17	80.34	36.15
-10	93.78	16.12
0	93.58	17.45
10	96.93	18.20
20	98.17	22.10
Semi-chemical Fluting Medium		
-20	97.66	16.82
-10	95.93	18.09
0	95.08	18.58
10	95.69	22.82
20	97.00	28.54
Recycled Fluting Medium		
-20	91.94	63.98
-10	89.34	8.74
0	96.56	32.39
10	96.99	12.47
20	98.41	13.69

3.5.3 Parameter Units

The choice of units for MC (i.e. mass ratio or percentage, wet basis or dry basis) and RH (i.e. vapour pressure ratio or percentage) was investigated for their effect on the values of the fitted GAB coefficients. The analysis was performed by fitting the GAB coefficients to the Kraft 20°C isotherm data following selection of the units of MC and ERH. It was found that the correlation coefficient (R^2) was not affected by the choice of units.

Using a vapour pressure ratio in place of a percentage for ERH resulted in the GAB K coefficient increasing by a factor of 100. Using a mass ratio in place of a percentage for MC resulted in the mono-layer MC coefficient decreasing by a factor of 100.

Using ratios for both variables had an additive effect on the mono-layer MC and K coefficient. The choice of units did not affect the GAB C coefficient.

3.5.4 Comparison Between Samples

The fitted GAB equations for the three samples were very similar at 20 and 10°C (Figure 3.29) differing in MC by no more than 5 %(db) (Figure 3.30). The difference between the fitted GAB equations at 0°C increased significantly but only above 90 %RH. The fitted GAB equations at -20 or -17 and -10°C show the least consistency. This was probably due to the lower number of measurements at -20 or -17 and -10°C which did not provide an even spread of data over which to fit the GAB isotherms.

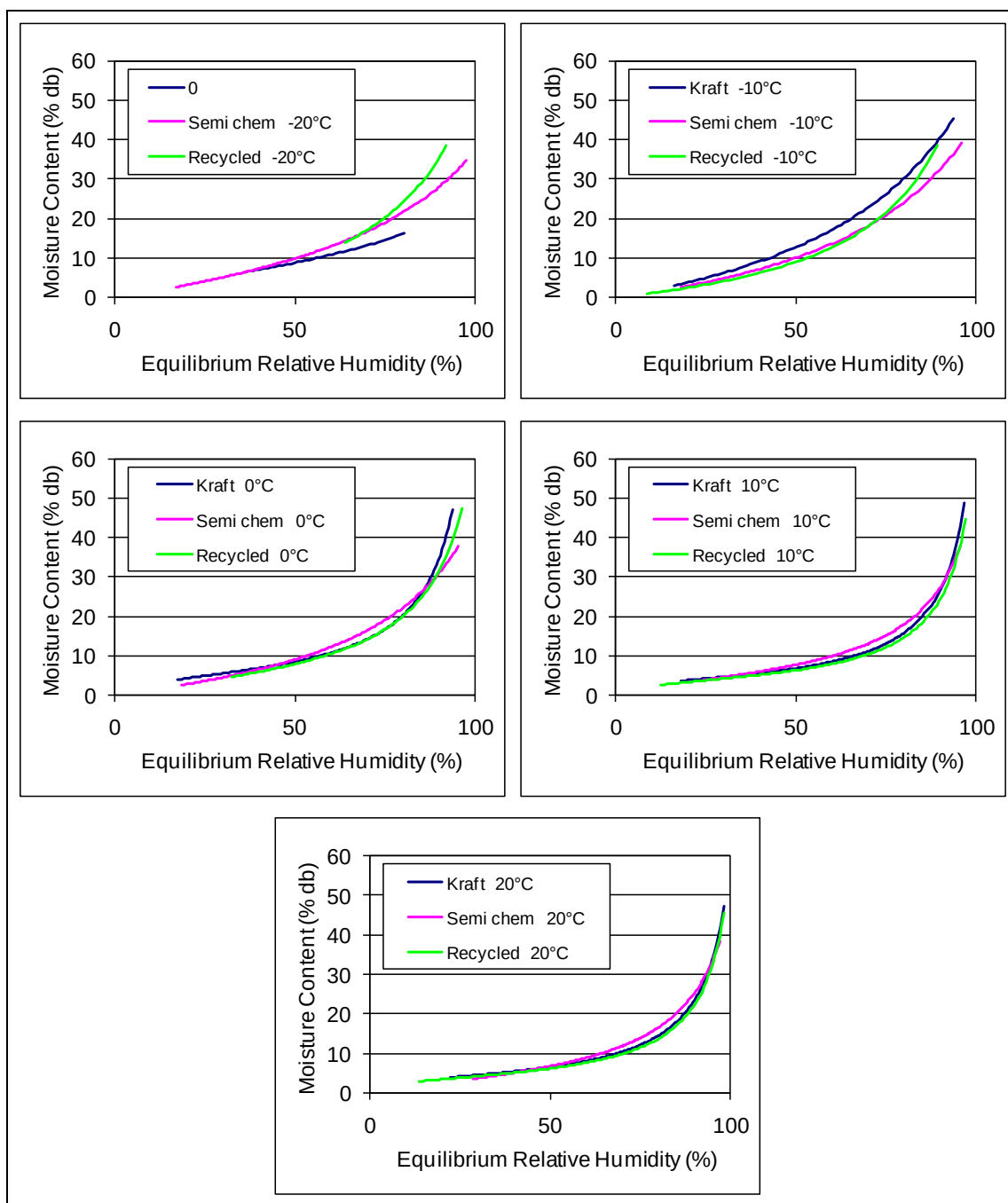


Figure 3.29 Comparison between fitted GAB equation lines of 250 g.m^{-2} Kraft linerboard, 160 g.m^{-2} semi-chemical fluting medium and 160 g.m^{-2} recycled fluting medium.

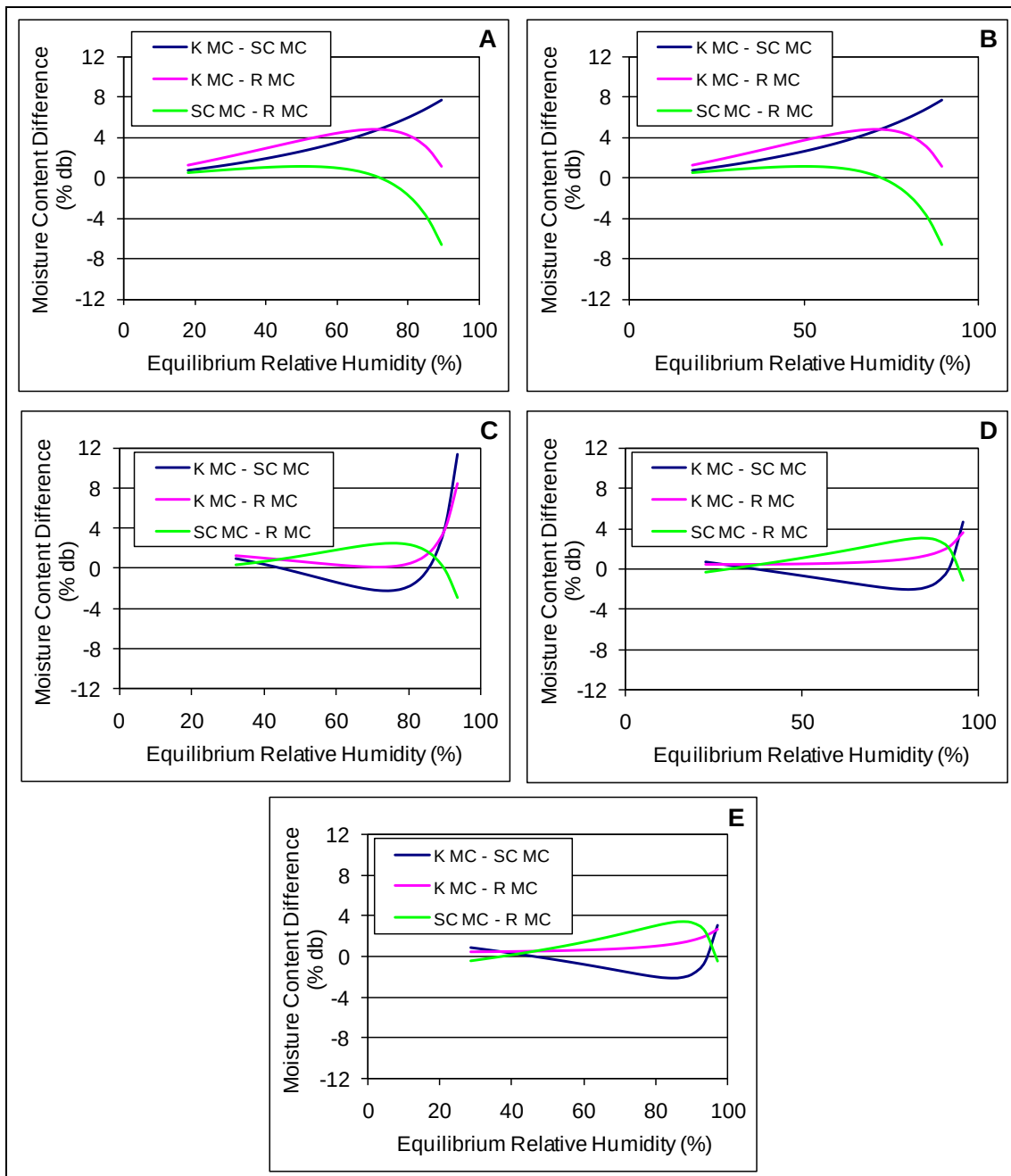


Figure 3.30 Absolute differences between fitted GAB equation lines of 250 g.m^{-2} Kraft linerboard, 160 g.m^{-2} semi-chemical fluting medium and 160 g.m^{-2} recycled fluting medium. Note for (A) -17°C for Kraft and -20°C for Semi-chemical and Recycled samples, (B) -10°C, (C) 0°C, (D) 10°C, (E) 20°C and K – Kraft, SC – semi-chemical, R – recycled and MC moisture Content.

3.5.5 Comparison Against Other Published Isotherms

At high humidities (90% at 20°C and 80% at 0°C) the fitted GAB isotherm equations predicted significantly higher MCs than the isotherm equations published by Prahl, (1968) and Eagleton and Marcondes, (1994) (Figure 3.31). This could be a result of Prahl, (1968) and Eagleton and Marcondes, (1994) not allowing their samples enough time to reach to their equilibrium MCs.

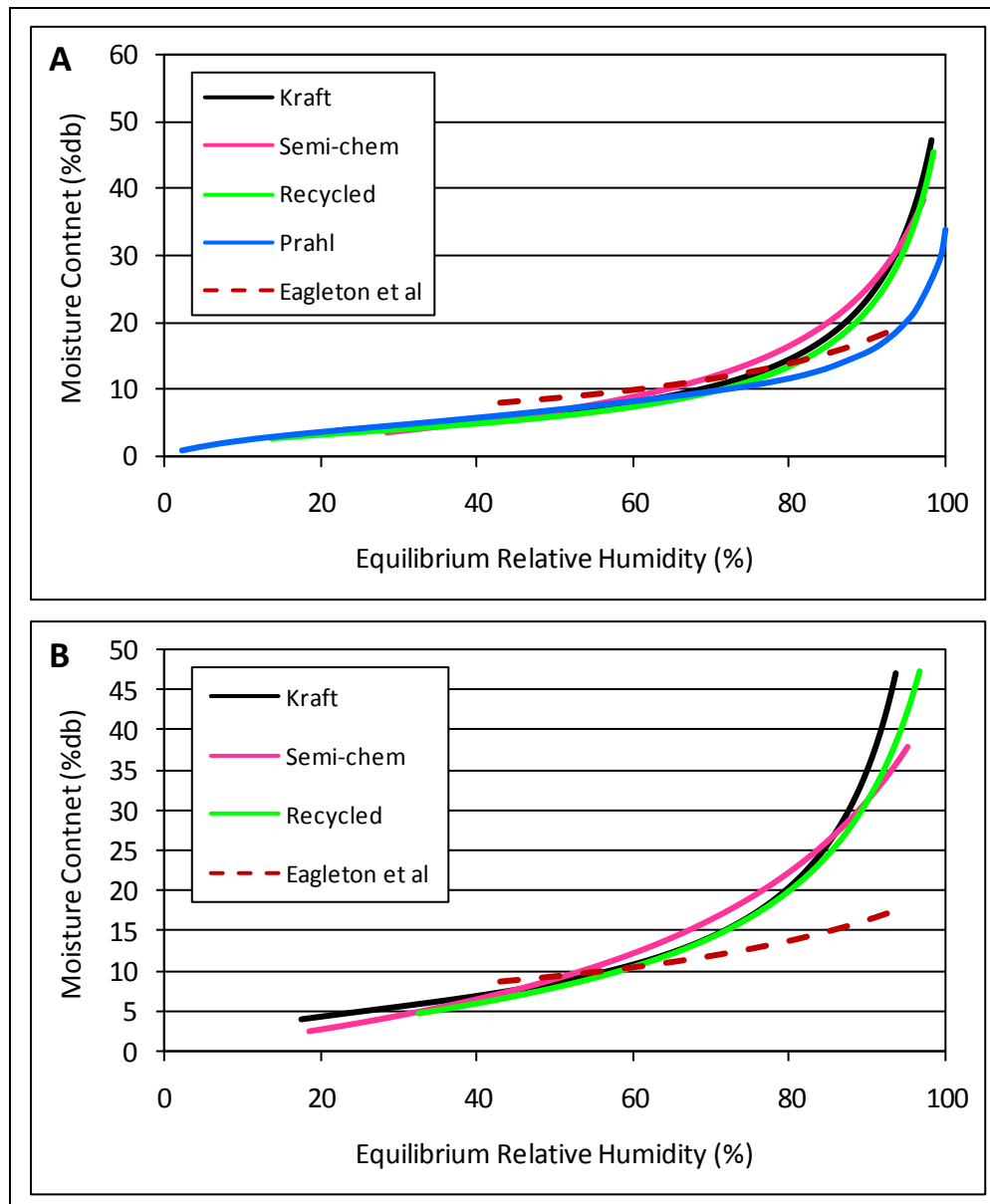


Figure 3.31 Comparison between equilibrium moisture content predictions from fitted GAB adsorption isotherms (A 20°C and B 0°C) and by Prahl, (1968) (A 21.8°C), and Eagleton and Marcondes, (1994)* (A 20°C and B 1°C) adsorption equations.
* only predictions for corrugated fibreboard inner shown.

3.5.6 Sensitivity Analysis

Sensitivity analysis was conducted on the GAB coefficients of the three data sets with target temperatures of 20°C by calculating the effect of a 1% increase or decrease in their respective sum of residuals squared. The sensitivity analysis demonstrated that the sum of residuals squared was not significantly affected by a change of 1% to the

GAB C coefficients (Table 3.8), whereas changes to the GAB K coefficient had the most significant effect. The sum of residuals squared of the semi-chemical data was significantly less sensitive to changes to the GAB K coefficient than the other two samples. This may have been due to GAB K coefficient for the semi-chemical data being slightly smaller than those of the Kraft and Recycled data.

Table 3.8 Relative increase in the sum of squares following an increase or decrease of a single GAB equation coefficients using the Kraft linerboard, semi-chemical and recycled fluting medium 20°C data sets.

Coefficient increase or decrease	Relative change to the sum of residuals squared ¹ (%)		
	M_o	C	K
Kraft Linerboard ¹			
-1%	0.47	<±0.1%	35
+1%	0.47	<±0.1%	52
Semi-chemical Fluting Medium			
-1%	1.1	<±0.1%	7.9
+1%	-0.63	<±0.1%	1.0
Recycled Fluting Medium			
-1%	0.55	<±0.1%	9.9
+1%	0.55	<±0.1%	59.8

1. Percentage values calculated using default sum of squares values for Kraft linerboard, semi-chemical and recycled fluting medium values which were 2594, 6483 and 1637 respectively.

The effect of the variation of the sample mass shown in Figure 3.16 and Figure 3.17 on the fitted GAB equations for the Kraft data set was investigated. Using the initial (pre-test) or final (post-test) sample MCs caused small changes to the three GAB coefficients (Tables 3.4 and 3.9). These changes to the GAB coefficients did shift the MC isotherms (Figure 3.32) with the maximum deviation from the equation fitted with the average MCs of 4.3 and -4.2 %db at 10°C and 96.9 %RH (Figure 3.33). Figure 4.13 shows that at high humidities and their corresponding MCs, the effect of a 4.3 %(db) change in MC is unlikely to significantly affect the strength properties of corrugated fibreboard. As there was no justification to select the initial or final MCs over the average MCs, and the choice would not have a significant effect on the predicted corrugated fibreboard properties, the GAB isotherm equations fitted to the data sets with the average sample MC are presented as the best available.

Table 3.9 Coefficients for fitted GAB equations and correlation coefficients (R^2) for equations fitted against initial and final moisture contents.

Temperature (°C)	R^2 (%)	M_0 (% db)	C	K
Kraft GAB Coefficients - % <i>ERH</i> basis – Using Initial Sample Moisture Contents				
-17	73.5	10.24	2.224	0.007000
-10	82.5	24.35	1.000	0.007105
0	89.7	5.543	3.712	0.009545
10	92.9	3.905	13.78	0.009561
20	93.9	3.821	7.395	0.009431
Kraft GAB Coefficients - % <i>ERH</i> basis – Using Final Sample Moisture Contents				
-17	82.9	7.262	8.303	0.007000
-10	83.2	24.35	1.000	0.007000
0	91.0	4.697	20.00	0.009536
10	92.6	3.847	20.00	0.009432
20	93.3	3.666	20.00	0.009328

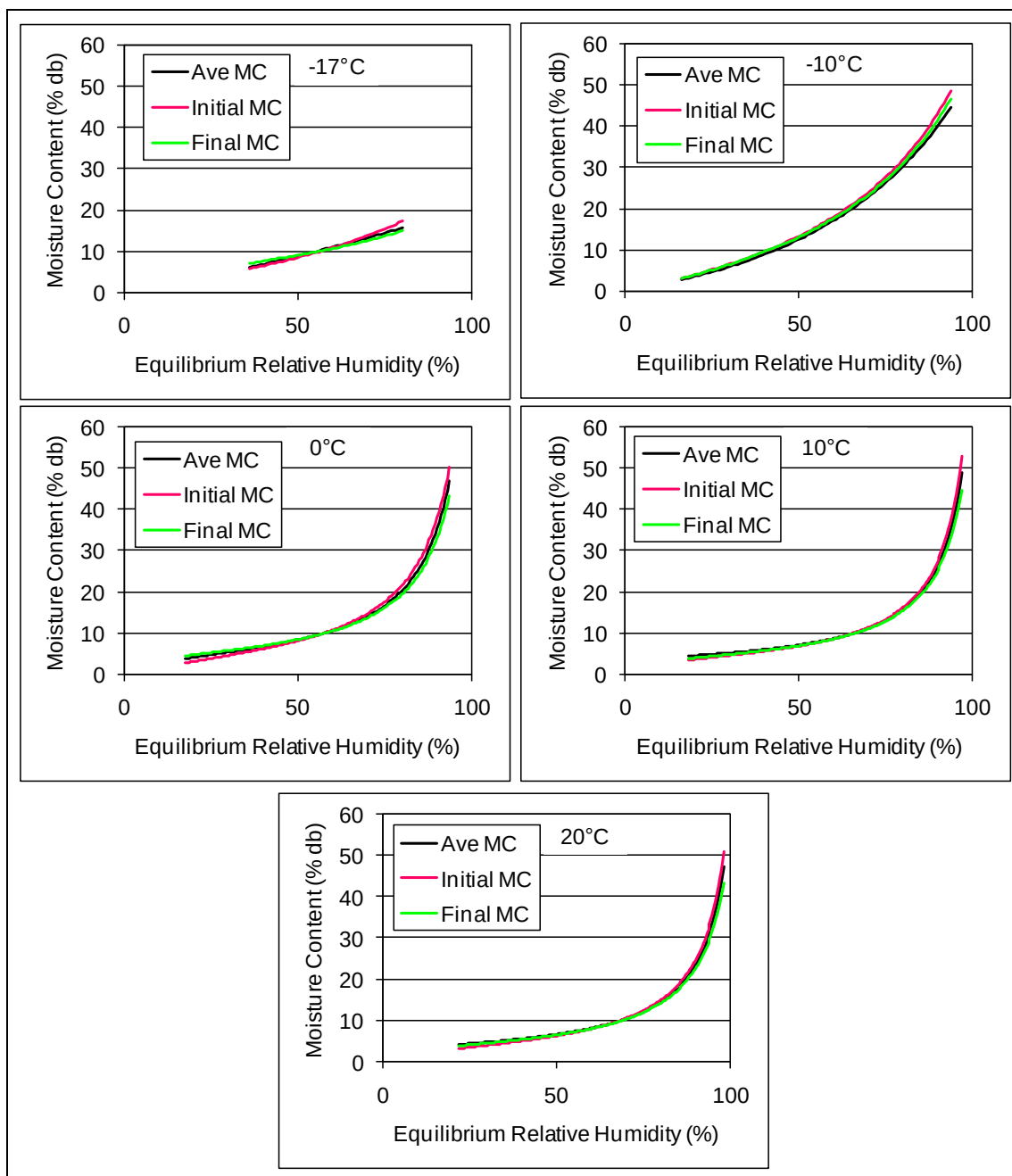


Figure 3.32 Fitted Kraft linerboard GAB adsorption equations using average, initial and final moisture contents.

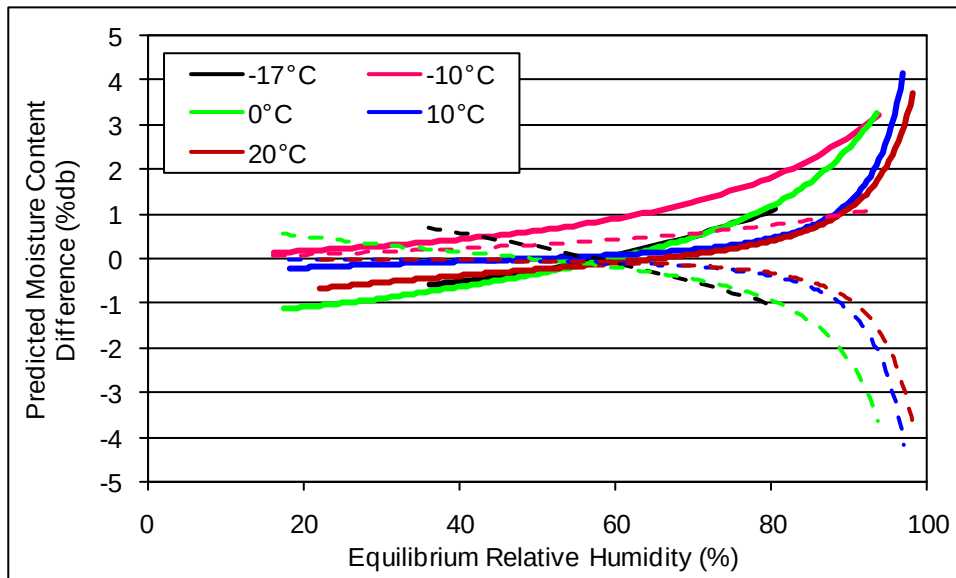


Figure 3.33 Difference between fitted Kraft GAB adsorption equations using average sample moisture content and (solid lines) initial moisture contents and (dashed lines) final moisture contents.

3.6 Modelling Moisture Content as a Function of Temperature and Humidity

3.6.1 Introduction

A single equation to predict the MC of the samples from their temperature and surrounding humidity would be useful in dynamic modelling applications. However, it is unlikely that a single equation could adequately describe the declining maximum a_w below 0°C, therefore an equation will be developed with the ERH as the independent variable and not the a_w as calculated in section 3.3.5.

When fitting moisture sorption isotherm equation coefficients to measured data, only data that was measured at or near the chosen isotherm temperature (i.e. $20 \pm 0.5^\circ\text{C}$) could be used. In contrast, when fitting the GAB isotherm model incorporating the temperature compensation of the coefficients, data at any dry bulb temperature could be used. This increases the number of Kraft linerboard and recycled fluting medium measurements that can be used in the model development, especially those between 0 and -20°C .

Three temperature-compensated isotherm equations used by Quirijns *et al.* (2005) and Chen (1998) were found in the literature (section 2.7.1.2) and were used as a starting

point for the modelling of the isotherm data.

3.6.2 Fitted Temperature-Compensated Isotherm Equations

The three equations outlined in section 2.7.1.2 were fitted to the Kraft linerboard, semi-chemical and recycled fluting medium data sets using the Microsoft® Office Excel® Solver tool to minimise the sum of squares. No constraints were incorporated into the Solver tool as the coefficients have a different meaning in Quirijns *et al.* (2005) isotherm equations than the equivalent terms in the GAB equation.

The correlation coefficients for Chen's (1998) equation (2.30 and 2.32) fitted to the semi-chemical fluting medium data (Table 3.10 to Table 3.12) were significantly less than the correlation coefficients for the fitted GAB equations in section 3.5. All the other correlation coefficients presented in Table 3.10 to 3.12 were similar to those presented in Table 3.1. Based on the correlation coefficients presented in Table 3.10 to 3.12, none of the three equations are significantly better than the other two. However given the wider use of the GAB equation, the temperature-compensated GAB equation is preferred.

Table 3.10 Coefficients for fitted temperature-compensated GAB adsorption isotherm equation (2.24 and 2.27 to 2.29) with correlation coefficients.

Sample	R^2	Number of Measurements	Coefficients					
			M_o'	ΔH_M	C'	ΔH_C	K'	ΔH_K
Kraft	82.5	908	4.746	829.8	1.326	136.0	0.005263	1257
Semi-chemical	66.1	895	8.516	829.8	1.303	136.0	0.004298	1257
Recycled	76.4	623	3.749	829.8	15.157	136.0	0.005260	1257

Table 3.11 Coefficients for Chen's (1998) temperature-compensated isotherm equation (2.30 and 2.31) with correlation coefficients.

Sample	Coefficients				R^2
	FC_8	FC_9	FC_{10}	FC_{11}	
Kraft	8.041	5.105×10^{21}	1.517	0.3476	81.0
Semi-chemical	2.155	5.105×10^{21}	31.24	0.0594	62.5
Recycled	8.298	5.105×10^{21}	0.5091	0.5723	77.3

Table 3.12 Coefficients for Chen's (1998) temperature-compensated isotherm equation (2.30 and 2.32) with correlation coefficients.

Sample	Coefficients			R^2
	FC_8	FC_{12}	FC_{13}	
Kraft	1.617	3.155×10 ²¹	7.868	79.8
Semi-chemical	2.731	3.155×10 ²¹	7.256	54.3
Recycled	1.874	3.155×10 ²¹	7.737	74.8

The predictions made using Chen's (1998) equations either over predicted the MC at low relative humidities or predicted a relatively large temperature effect at humidities below 70% RH (Figure 3.34 to Figure 3.36). Eagleton and Marcondes' (1994) fitted GAB equations tended to run parallel to each other up to 70 %RH, above which the effect of temperature was less consistent. The effect of temperature on Prah's (1968) isotherm measures increased with increasing RH.

The temperature-compensated GAB equations predicted diverging isotherms with increasing RH and the predictions appeared to trend towards a finite MC, whereas Chen's (1998) equations tended to become asymptotic when approaching 100 %RH.

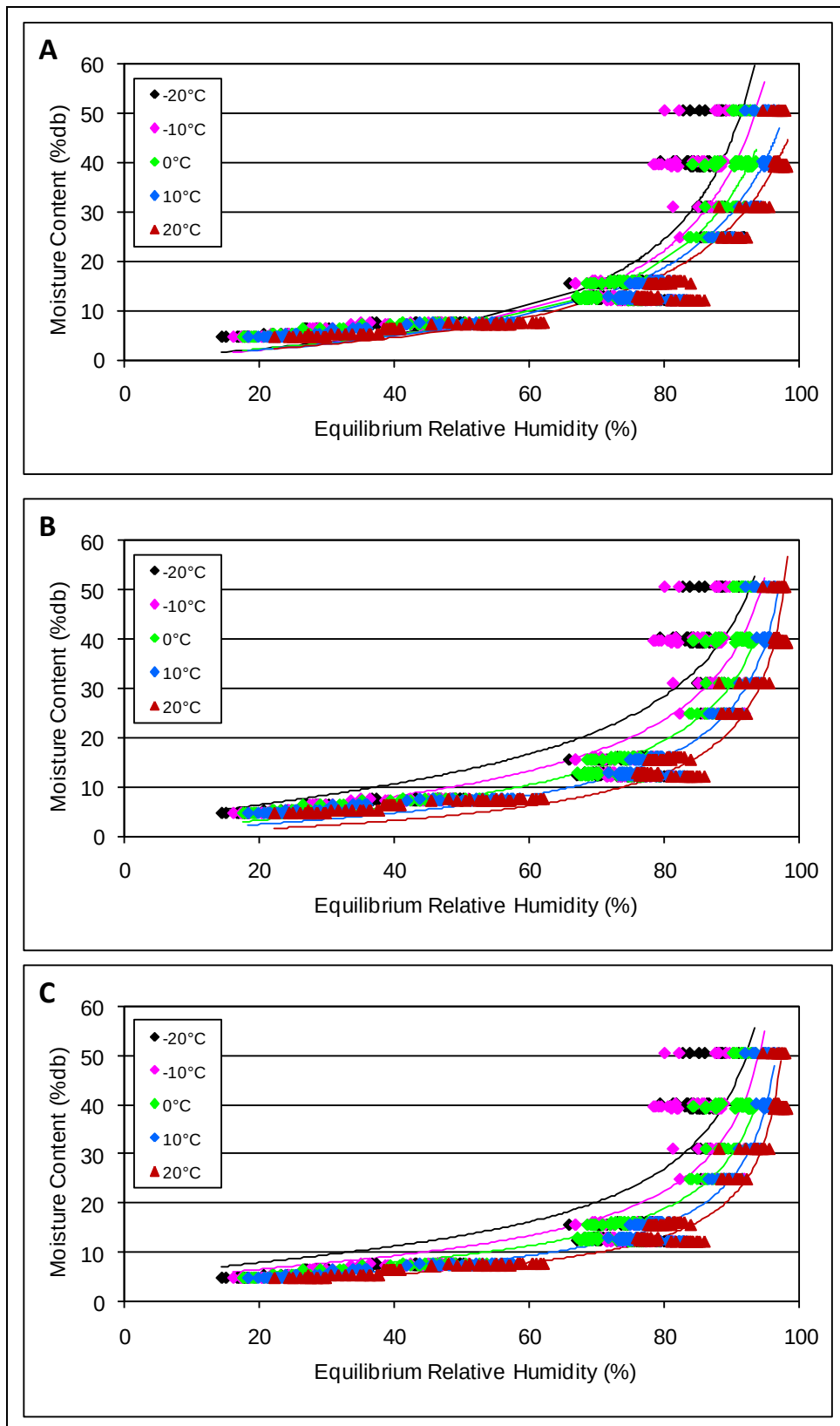


Figure 3.34 Kraft linerboard isotherm data and fitted equations (A) temperature-compensated GAB equation (2.24 and 2.27 to 2.29), (B) Chen's (1998) equation (2.30 and 2.31) and (C) Chen's (1998) equation (2.30 and 2.32).

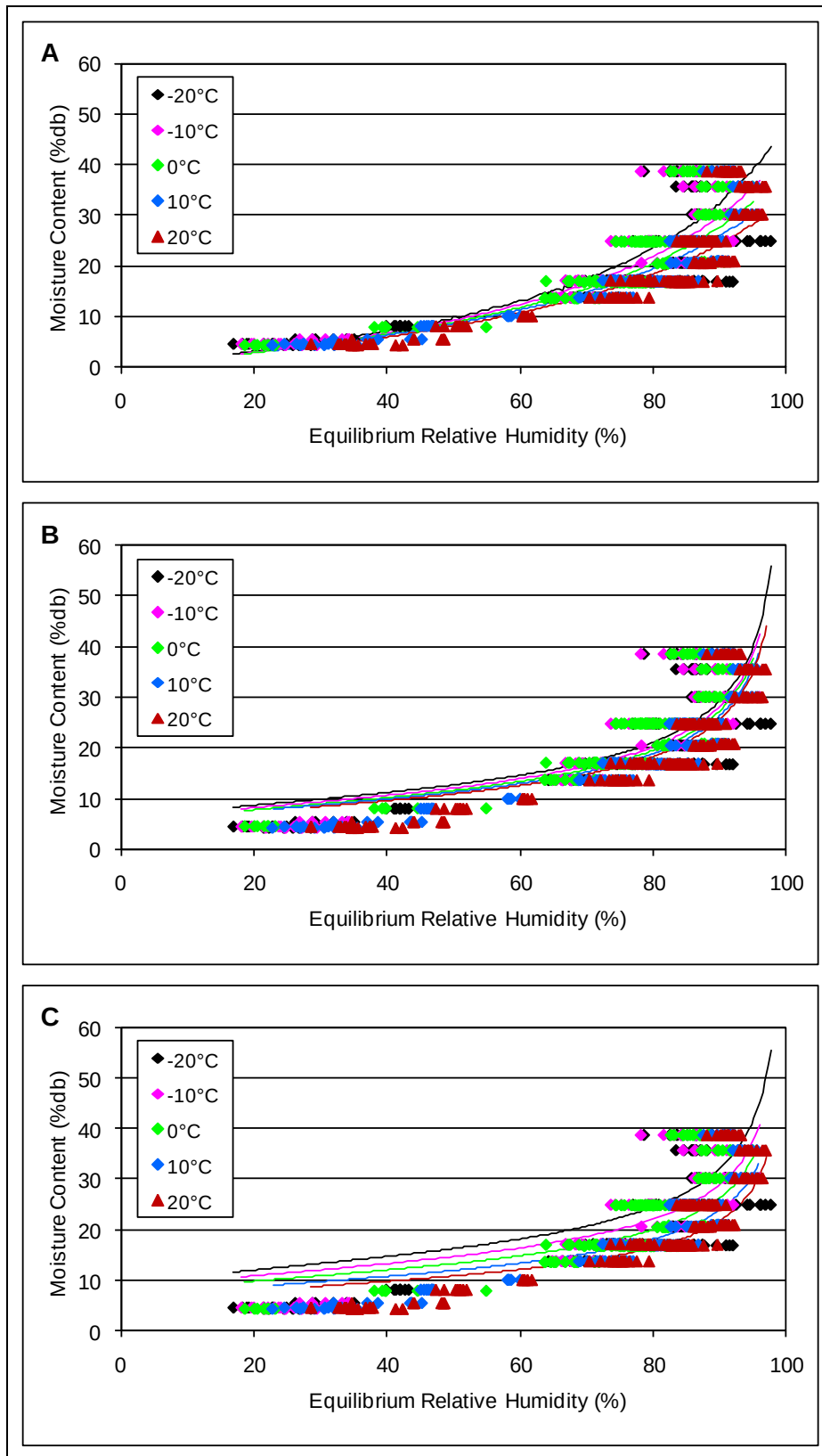


Figure 3.35 Semi-chemical fluting medium isotherm data and fitted equations (A) temperature-compensated GAB equation (2.24 and 2.27 to 2.29), (B) Chen's (1998) equation (2.30 and 2.31) and (C) Chen's (1998) equation (2.30 and 2.32).

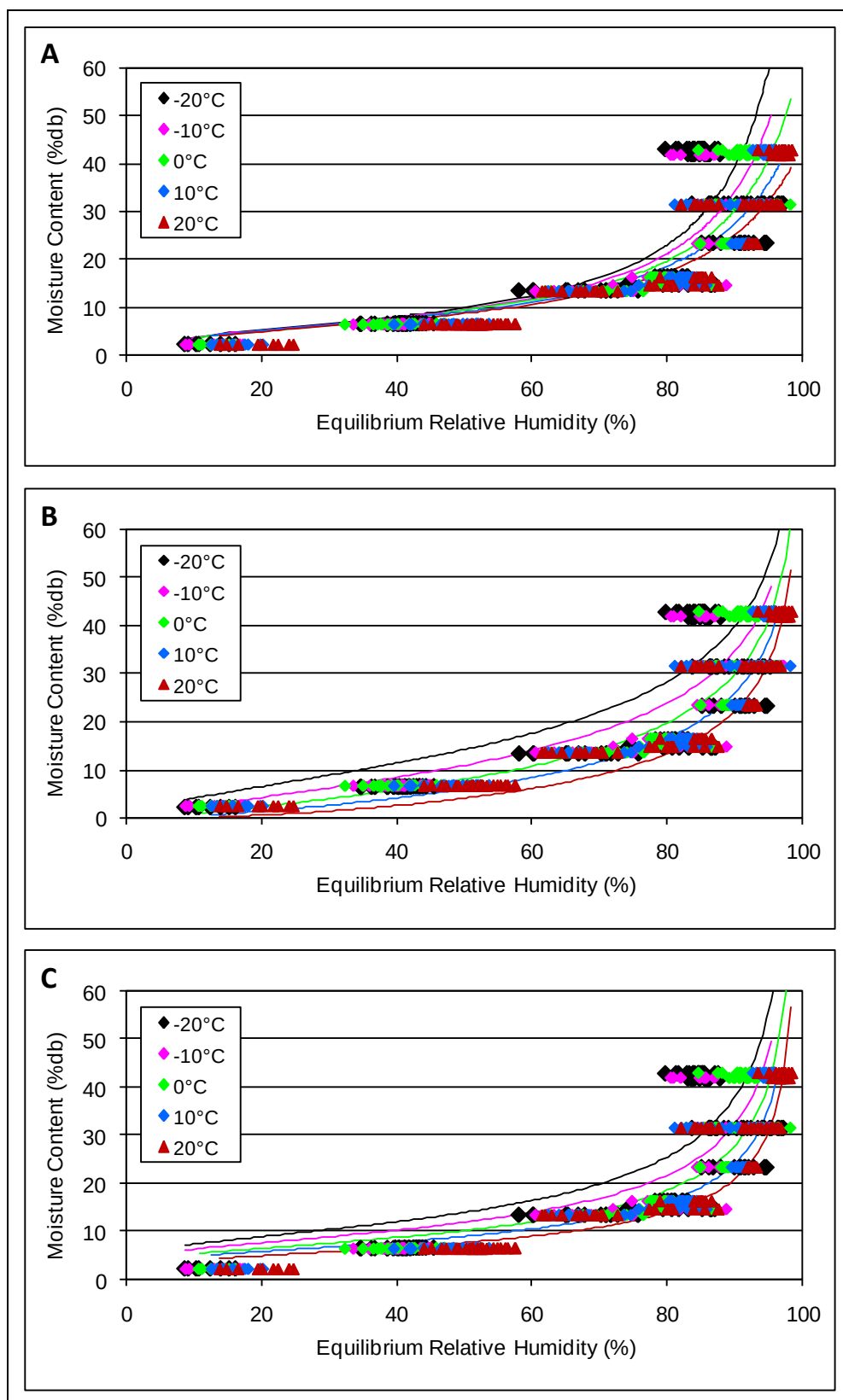


Figure 3.36 Recycled fluting medium isotherm data and fitted equations (A) temperature-compensated GAB equation (2.24 and 2.27 to 2.29), (B) Chen's (1998) equation (2.30 and 2.31) and (C) Chen's (1998) equation (2.30 and 2.32).

The humidity ranges over which the temperature-compensated isotherm equations can be used were wider than the humidity ranges for the single temperature isotherm equations (Table 3.13). This is because all the isotherm measurements, regardless of temperature, were used to determine the temperature-compensated isotherm equation coefficients.

Table 3.13 Humidity range for prediction of sample moisture contents.

Temperature (°C)	Equilibrium Relative Humidity (%)	
	Minimum	Maximum
Kraft Linerboard		
-20	14.4	86.1
-10	16.1	93.8
0	17.5	93.6
10	18.2	96.9
20	22.1	98.2
Semi-chemical Fluting Medium		
-20	16.8	97.7
-10	18.1	95.9
0	18.6	95.1
10	22.8	95.7
20	28.5	97.0
Recycled Fluting Medium		
-20	8.5	94.8
-10	8.7	89.3
0	11.2	96.6
10	12.5	97.0
20	13.7	98.4

The conditions listed in Table 3.13 cover the majority of the conditions to which corrugated fibreboard will be subjected to in horticultural cool-stores. Measurements of 100 %RH were recorded in two of the cool-stores surveyed (section 3.2.3). In severe and commercially undesirable cases like these, the humidities fall outside those used to fit the GAB equations.

3.6.3 Comparison Between Samples

The differences between the predicted MCs of the Kraft linerboard, semi-chemical and recycled fluting medium varied across the humidity range (Figure 3.37 plot A). Over the humidity range of interest for storage of horticultural produce, i.e. 80% RH and greater, the temperature-compensated GAB equations (2.24 and 2.27 to 2.29) and the

coefficients in Table 3.10 predicted a higher MC for the Kraft linerboard, with the difference between the Kraft and other paper increasing with increasing RH.

However the relative difference between the predicted MCs of the three samples (i.e. the difference expressed as a percentage of the average MC) was greater at the lower MCs, although it also became significant at >90% RH (Figure 3.37). Figure 3.37 indicates that there would be a significant loss in accuracy if a single temperature-compensated GAB equation were to be used to predict the MC of all three samples at humidities greater than 90% and lower than 60%.

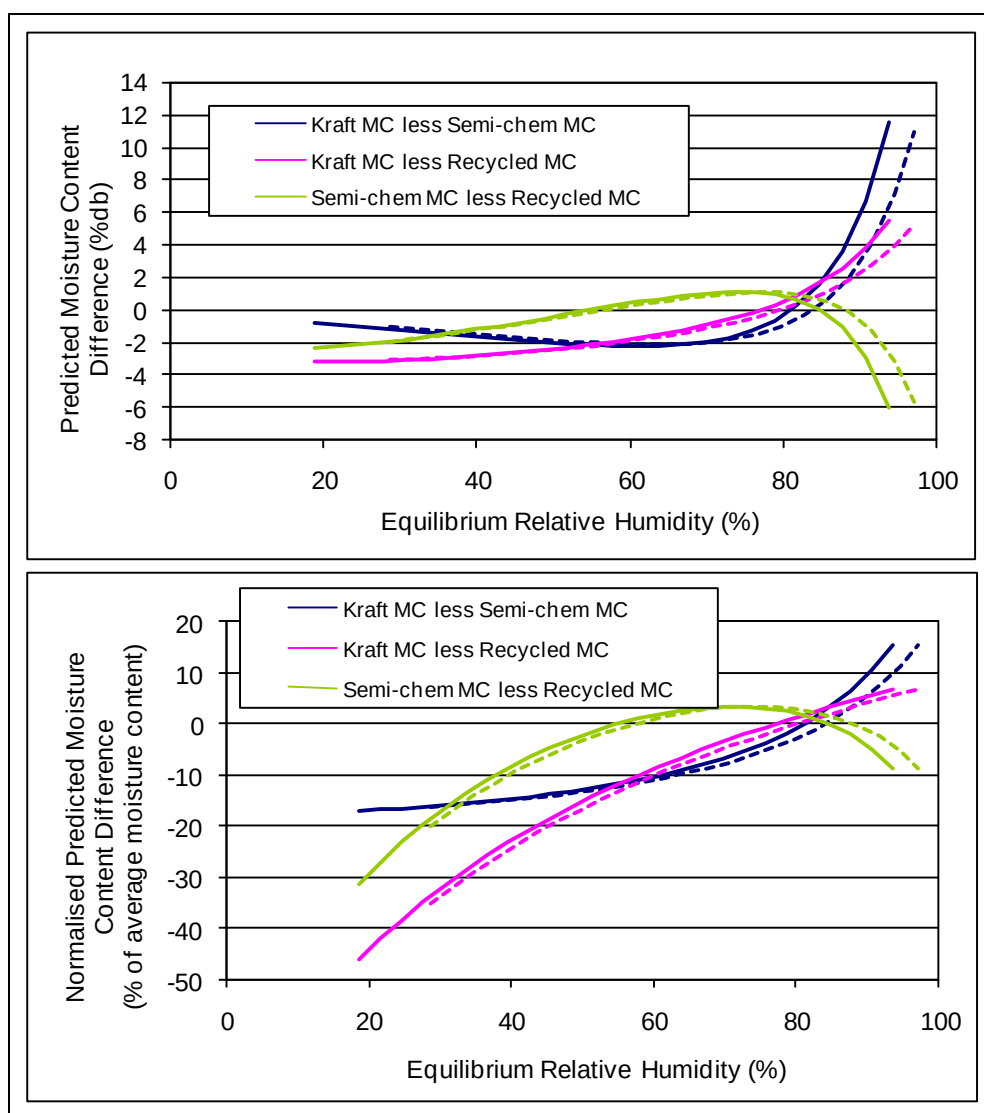


Figure 3.37 Comparison between sample moisture contents as predicted by equations (2.24) and (2.27) to (2.29) and the coefficients in Table 3.10. Note: solid and dashed lines represent comparison between predictions at 0 and 20°C respectively. The average moisture content for normalised plot calculated from the predicted moisture content at the selected *ERH* value of the two samples being compared.

3.6.4 Comparison Between Temperature-Compensated GAB Equations and Single Temperature GAB Equations

This section compares the predictions using the GAB equations and fitted coefficients from sections 3.5 and 3.6. The difference between the MC predictions was generally less than 5 %(db), with larger differences seen at the high relative humidities and for the -10°C Kraft predictions (Figure 3.38). The difference between the 10 and 20°C prediction was found to be very similar, which was probably due to a larger number of more consistent measurements.

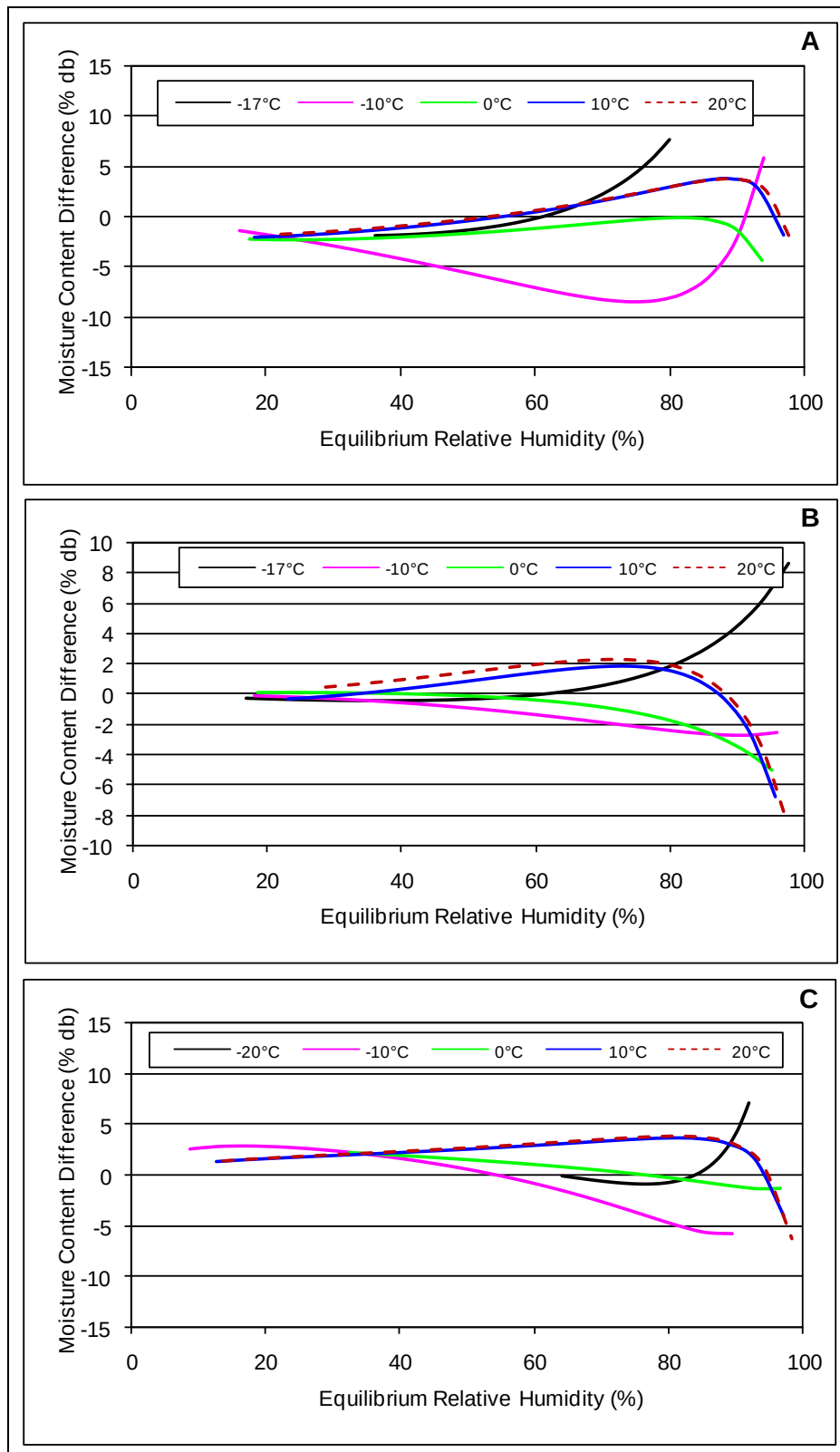


Figure 3.38 Comparison between predicted moisture content using fitted temperature-compensated GAB equations and GAB equations fitted to data sets from the five target temperatures. Note: A Kraft linerboard, B semi-chemical fluting medium and C recycled fluting medium.

3.6.5 Comparison Against Other Published Isotherms

At 20°C the temperature-compensated GAB equation equilibrium MC predictions are within 10 %db up to approximately 95 %RH (Figure 3.39 A). Above 95 %RH the difference becomes much larger as the temperature-compensated GAB equation predictions increase more rapidly than those from Prahl's (1968) and Eagleton and Marcondes (1994) isotherm equations. At 0°C the difference between the predictions from the temperature-compensated GAB equations and Eagleton and Marcondes (1994) isotherm equation increases above 65 %RH (Figure 3.39 B). As stated in section 3.5.5 the difference in the equilibrium predictions is possibly due to Prahl, (1968) and Eagleton and Marcondes, (1994) not allowing their samples enough time to reach their actual equilibrium MC.

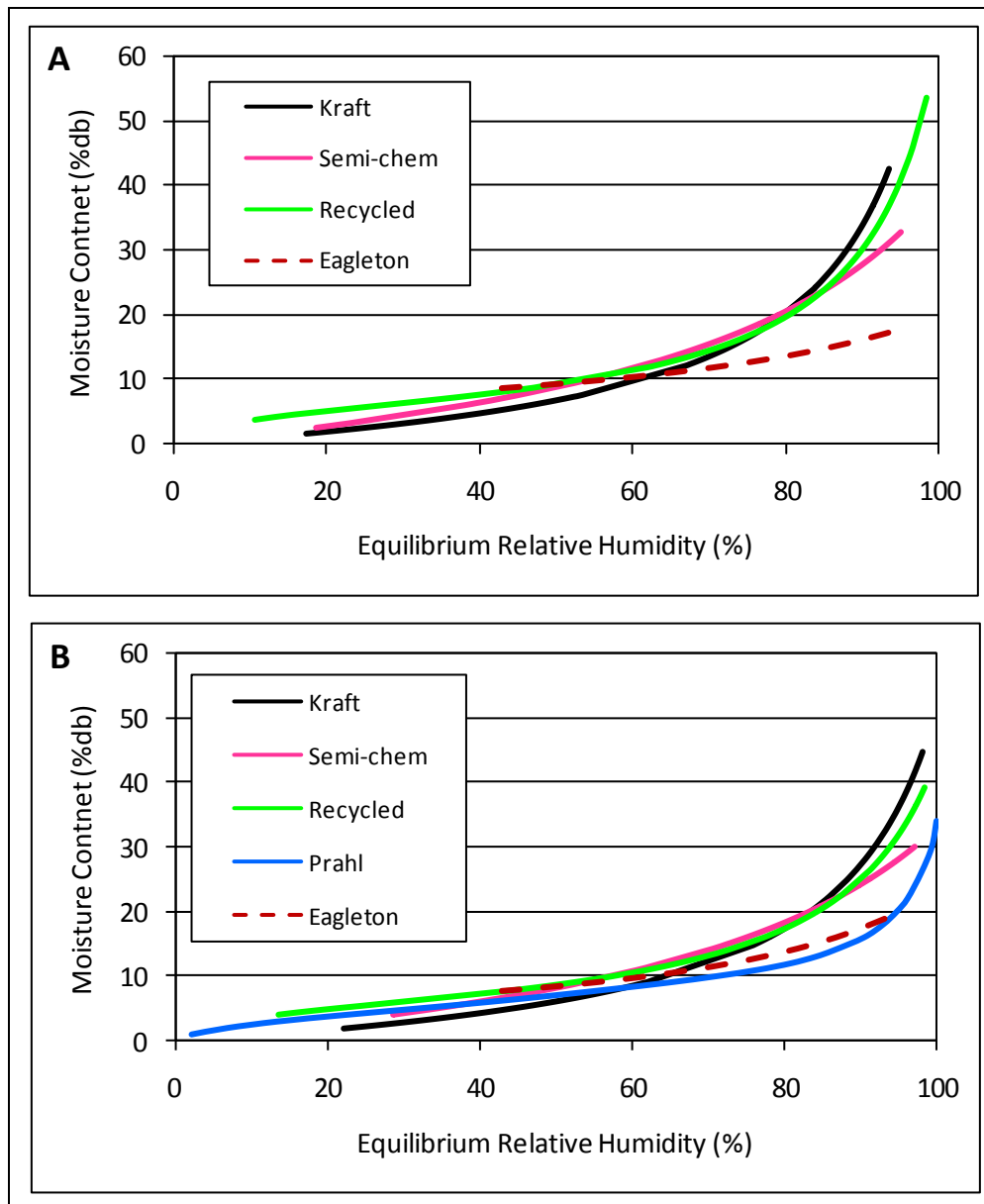


Figure 3.39 Comparison between equilibrium moisture content predictions from fitted temperature-compensated GAB equation (equations 2.24 and 2.27 to 2.29 and Table 3.10) and predictions from Prahl, (1968) (A 21.8°C), and Eagleton and Marcondes, (1994)* (A 20°C and B 1°C) adsorption equations.
* only predictions for corrugated fibreboard inner shown.

3.6.6 Sensitivity Analysis of Temperature-Compensated GAB Equation

The sensitivity of the temperature-compensated GAB equation to changes to the six coefficients was determined by individually increasing and reducing each coefficient by 0.1, 1, 10 and 50% and calculating the increase in the sum of residuals squared for each paper type. The default GAB coefficients were given in Table 3.10. The

analysis showed that the sum of squares was less sensitive to changes in the C' and ΔH_C coefficients than the other four coefficients (Table 3.14 to 3.16). The sum of squares was found to be most sensitive to changes to the K' and ΔH_k coefficients. The sensitivity analysis indicates that the temperature-compensated GAB equation could be simplified by removing the ΔH_C coefficient i.e. removing the temperature dependency of the GAB C coefficient.

Table 3.14 Relative change to the sum of squares following a change to one of the Kraft temperature-compensated GAB equation coefficients relative to the default sum of squares.

Coefficient increase or decrease	GAB equation coefficients					
	C'	ΔH_C	K'	ΔH_k	M_o'	ΔH_M
	Percentage change to sum of squares					
-1%	<±0.1	<±0.1	4.77	1.57	0.150	<±0.1
+1%	<±0.1	<±0.1	5.93	1.60	0.173	<±0.1
-10%	0.414	<±0.1	>100	91.9	16.0	2.17
+10%	0.357	<±0.1	>100	>100	16.2	2.05
-50%	25.5	0.540	>100	>100	>100	44.1
+50%	6.27	0.615	>100	>100	>100	64.9

Table 3.15 Relative change to the sum of squares following a change to one of the semi-chemical temperature-compensated GAB equation coefficients relative to the default sum of squares.

Coefficient increase or decrease	GAB equation coefficients					
	C'	ΔH_C	K'	ΔH_k	M_o'	ΔH_M
	Percentage change to sum of squares					
-1%	<±0.1	<±0.1	2.3	0.9	0.1	<±0.1
+1%	<±0.1	<±0.1	2.6	1.3	0.1	<±0.1
-10%	1.9	<±0.1	<100	67.5	14.4	1.7
+10%	1.5	<±0.1	<100	<100	14.3	2.1
-50%	91.1	0.1	<100	<100	<100	39.1
+50%	24.4	0.2	<100	<100	<100	57.8

Table 3.16 Relative change to the sum of squares following a change to one of the recycled temperature-compensated GAB equation coefficients relative to the default sum of squares.

Coefficient increase or decrease	GAB equation coefficients					
	C'	ΔH_C	K'	ΔH_k	M_o'	ΔH_M
	Percentage change to sum of squares					
-1%	<±0.1	<±0.1	3.23	0.902	0.131	<±0.1
+1%	<±0.1	<±0.1	4.03	1.30	0.145	<±0.1
-10%	-0.199	<±0.1	<100	61.0	13.7	1.71
+10%	0.184	<±0.1	<100	<100	13.9	1.93
-50%	-0.999	<±0.1	<100	<100	<100	37.8
+50%	0.777	<±0.1	<100	<100	<100	55.0

3.6.7 Simplification of the Temperature-Compensated GAB Equation

The sensitivity analysis of the temperature-compensated GAB equation indicated that the ΔH_C coefficient could possibly be removed from the equation without significantly affect the equation's predictions. To determine if the number of coefficients could be reduced without a significant loss in accuracy, the temperature-compensated GAB equation was modified by removing the temperature dependency of one, two, or all of the GAB equation coefficients. The Microsoft® Office Excel® Solver Tool was used to optimise the remaining coefficients by minimising the sum of residuals squared.

As expected, the analysis showed that the ΔH_C coefficient could be removed from the Kraft linerboard temperature-compensated GAB equation without significantly affecting the sum of residuals squared (Table 3.17). The removal of the ΔH_K and the ΔH_C coefficient from the semi-chemical fluting medium temperature-compensated GAB equation was found to significantly improve the sum of residuals squared. The ΔH_M and the ΔH_C coefficients could be removed from the recycled fluting medium temperature-compensated GAB equation without significantly affecting the sum of residuals squared.

Table 3.17 Relative change in the sum of squared residuals following the removal of the temperature dependency terms for one or more of the GAB equation coefficients.

Sample	Temperature-compensated GAB Equation Coefficients						
	C'	K'	M_o'	C and M_o'	C' and K'	K' and M_o'	C', K' and M_o'
	Percentage increase to sum of squared residuals						
Kraft	<±0.1	29.6	2.4	2.6	30.4	39.8	37.9
Semi-chemical	-0.2	-7.0	-1.3	-1.4	-6.9	-4.3	-4.3
Recycled	<±0.1	11.5	0.3	0.2	11.4	16.7	16.6

The removal of the temperature dependence of some of the temperature-compensated GAB equations reduces the number of coefficients down to 4 for the three equations (Table 3.18). Such simplification of the equations would render them slightly easier to use.

Table 3.18 Coefficients of simplified temperature-compensated GAB equations. Correlation coefficients of full temperature-compensated GAB equations shown in parenthesis.

Kraft Linerboard*	
C	2.291
K'	0.005360
ΔH_K	1257
M_o	5.785
R^2	82.1 (82.5)
Semi-chemical Fluting Medium	
C	1.136
K	0.007668
M_o'	8.477
ΔH_M	829.8
R^2	68.5 (66.2)
Recycled Fluting Medium	
C	15.16
K'	0.005266
ΔH_K	1257
M_o	5.353
R^2	76.3 (76.4)

* the absence of enthalpy coefficients signifies that the simplified model does not include temperature dependence for GAB C coefficient.

3.7 Water Holding Capacity

3.7.1 Introduction

As the ERH of a samples approaches 100%, theoretically the sample's MC should increase asymptotically, as only pure water has an ERH of 100%. However the chemical bonding between the paper fibres and the water molecules will weaken as the distance between the water paper fibres and water molecules increases. Eventually the bonding between the paper fibres and more distant water molecules will not be strong enough to resist gravitational force and hence a maximum water holding capacity will be reached.

The measurement of the water holding capacities should provide useful information as to the MC that the isotherm equations should predict upon reaching 100 % RH. No methodologies published by ASTM or TAPPI were found for measuring the water holding capacity of paper, therefore a new method was developed. The water holding

capacity of recycled fluting medium was also measured to assess how the property changed with different pulp types.

3.7.2 Methodology

The method involved a number of steps:

1. Soak a labelled sample (100×50mm) in water at approximately 20°C for at least 10 min to quickly moisten the sample
2. Remove the sample from the water

Shake the sample once by hand to remove excess surface moisture (The sample was held in a pair of tweezers and the excess water was removed by one flicking action)

3. Weigh the sample on a balance (Mettler Toledo PG 503-S, Switzerland)
4. Place the sample on the hook at the end of a 1.0 m length of string with approximately 13 g of weights at the hook end
5. Swing the sample in a circle by hand in a 1.0 m radius at a rate of approximately 1.0 Hz for 10 cycles
6. Remove the sample from the hook and reweigh the sample
7. Repeat steps 5 to 7 one (standard) or more times

Limiting the procedure to steps 1 to 4 would have produced erroneously high water holding capacity values. The swinging of the sample in the 1 m circle was designed to remove the excess moisture from the sample.

To assess the effect of the number of times the samples were swung in the 1m radius, steps 5 to 7 were repeated 7 or 8 times for two samples each of 250 g.m⁻² Kraft linerboard, 160g.m⁻² semi-chemical fluting medium and 160 g.m⁻² recycled fluting medium.

Ten samples each of 250 g.m^{-2} Kraft linerboard, 160 g.m^{-2} semi-chemical fluting medium and 160 g.m^{-2} recycled fluting medium were used to determine the water holding capacity MC for the each sample type. The initial MC of all samples was assumed to be 7.5 %(db) based on the MC of samples stored in the same laboratory (as used in section 3.4). Any errors in the initial MC would result in relatively small errors in the water holding capacity values.

3.7.3 Water Holding Capacity Measurements

There was a significant reduction in the MC of the samples after the initial ten 1.0 m radius spinning cycles (Figure 3.40). A linear relationship was found between the number of times a sample was spun in a 1.0 meter radius and the sample's MC after the first set of ten cycles. The continual decline in the sample's MCs was probably due to evaporation of water from the samples.

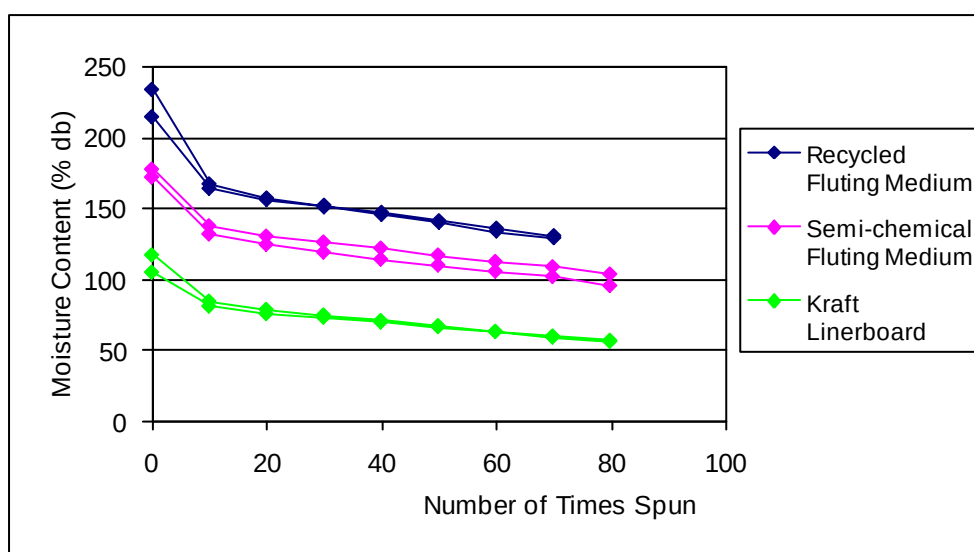


Figure 3.40 Effect of number of time a sample was spun in a 1.0 m radius at approximately 1 Hz on the moisture content of Kraft linerboard, semi-chemical and recycled fluting medium samples.

Some water was left on the balance weighing dish after the recycled and semi-chemical samples were removed following the first set of ten cycles. No moisture was left after the second set of ten cycles. Following this observation the MCs of the recycled and semi-chemical sample's based on the masses measured after the second set of ten cycles were used as the estimate of the maximum water holding capacity.

No water was left on the balance weighing dish after the Kraft samples were removed following the first set of ten cycles. Therefore the MCs of the Kraft samples based on the mass measured after the first set of ten cycles was used as the water holding capacity values.

From the ten replicate samples (Figure 3.41) the mean water holding capacity and 95% confidence intervals of the Kraft linerboard, recycled fluting medium and semi-chemical fluting medium were 81.8 ± 3.3 , 147.7 ± 2.3 and 124.6 ± 2.3 %(db), respectively. The standard deviation of the average values was 4.6, 3.2 and 3.2 %(db), respectively. An error of 1 %(db) in the assumed initial MC would have resulted in an error of less than 1.7, 2.3 and 2.1 %(db) for the water holding capacity values of the Kraft, recycled and semi-chemical samples, respectively. These errors were small relative to the magnitude of the water holding capacity values, therefore it was not regarded as necessary to increase the accuracy to the initial MC estimate.

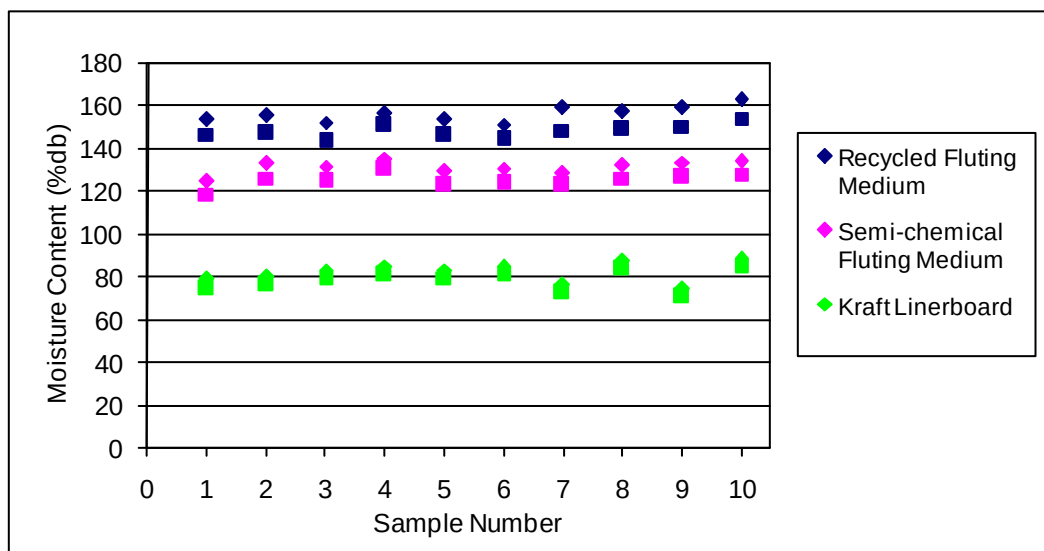


Figure 3.41 Water holding capacity of individual samples. Note: diamonds correspond to moisture content after 1 set of ten cycles; squares correspond to moisture content after 2 sets of ten cycles.

The measured water holding capacity values of the three samples suggests that the moisture adsorption isotherm published by the previous authors were in fact tending to under predict the MCs at high humidities. The water holding capacity values support the possibility that the measured Kraft, semi-chemical and recycled paper isotherms should have been higher than previously published isotherms.

After conducting the water holding capacity measurements it was noted that evaporation compensated water holding capacities could be produced from the data in Figure 3.40. To determine the water holding capacity without the surplus moisture lost after the first 10 spins and without the effect of moisture loss due to evaporation, a linear equation was fitted to the moisture content vs number of spins data set from the 10th spin onwards. The equations were then used extrapolate the moisture content back to 0 spins or the y axis of Figure 3.40 (Figure 3.42). The correlation coefficients (R^2 values) for these linear equations were extremely high at between 98.9 and 99.6%. The water holding capacity determined using this method were 84.8, 137.5 and 169.4 %(db) for the Kraft, semi-chemical and recycled samples respectively.

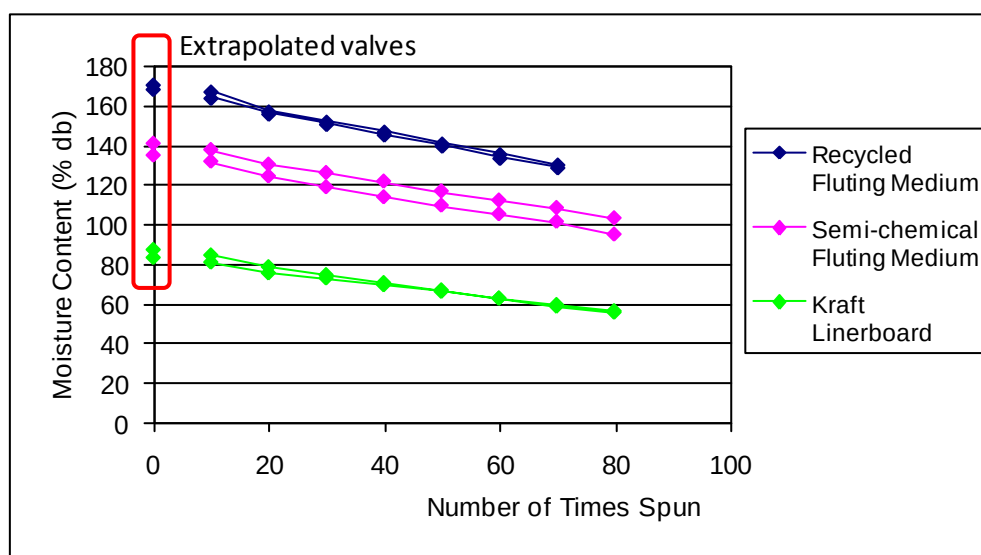


Figure 3.42 Effect of number of time a sample was spun in a 1.0 m radius at approximately 1 Hz on the moisture content of Kraft linerboard, semi-chemical and recycled fluting medium samples with extrapolated values.

The evaporation compensated water holding capacities as would be expected were higher than those obtained from the data in Figure 3.41 the relative difference in these values were 4.6 9.8 13.7 for Kraft, semi-chemical and recycled samples respectively. The evaporation compensated water holding capacities were used in the following section.

3.7.4 Effect of Water Holding Capacity Values on Fitted Isotherm Equations

Least squares regression was used to fit the temperature-compensated GAB equation to the Kraft isotherm measurements including five additional values, namely one water holding capacity value for each temperature. Figure 3.43 shows that the fitted temperature-compensated equation predictions do not converge at the water holding capacity values. To determine if this was due to the small number of measurement at 100 RH% (i.e. five, one for each target temperature) the least squares regression was repeated with additional weighting applied to the difference between the MC predictions at for 100 %RH and the water holding capacity values. It was found that increasing the weighting to a factor of 100 did not improve the convergence of the MC predictions. It is therefore unlikely that the temperature-compensated GAB equations would converge at a single MC value at 100 %RH.

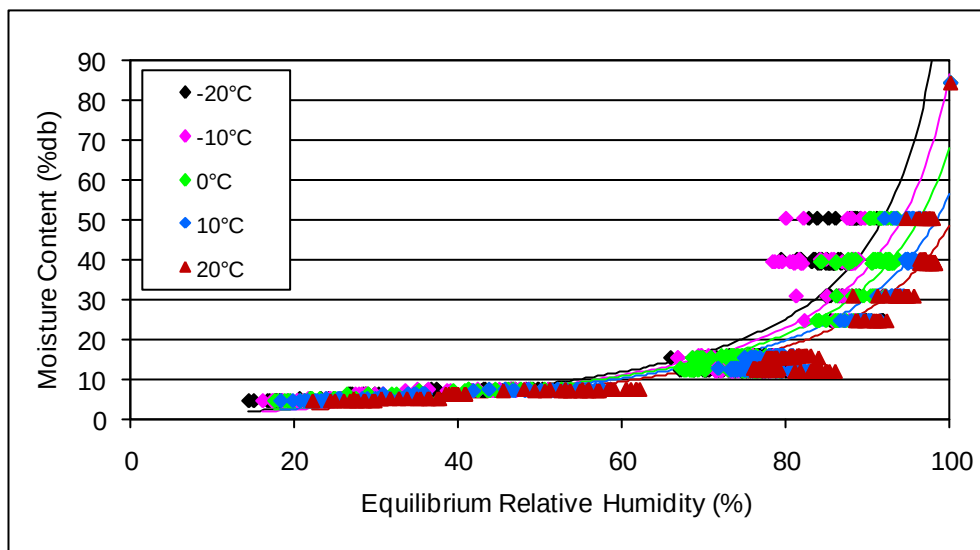


Figure 3.43 Kraft linerboard isotherm data with water holding capacity values and fitted temperature-compensated GAB equation (2.24 and 2.27 to 2.29).

Least squares regression was used to fit the coefficients for Chen's (1998) two isotherm equations (2.30 to 2.32) (Figure 3.44). Unlike the temperature-compensated GAB equation, the predictions made using Chen's (1998) two isotherm equations do converge at or near the water holding capacity values. However the fitted equations either over estimate the effect of temperature or over estimate the MC below 80 %RH.

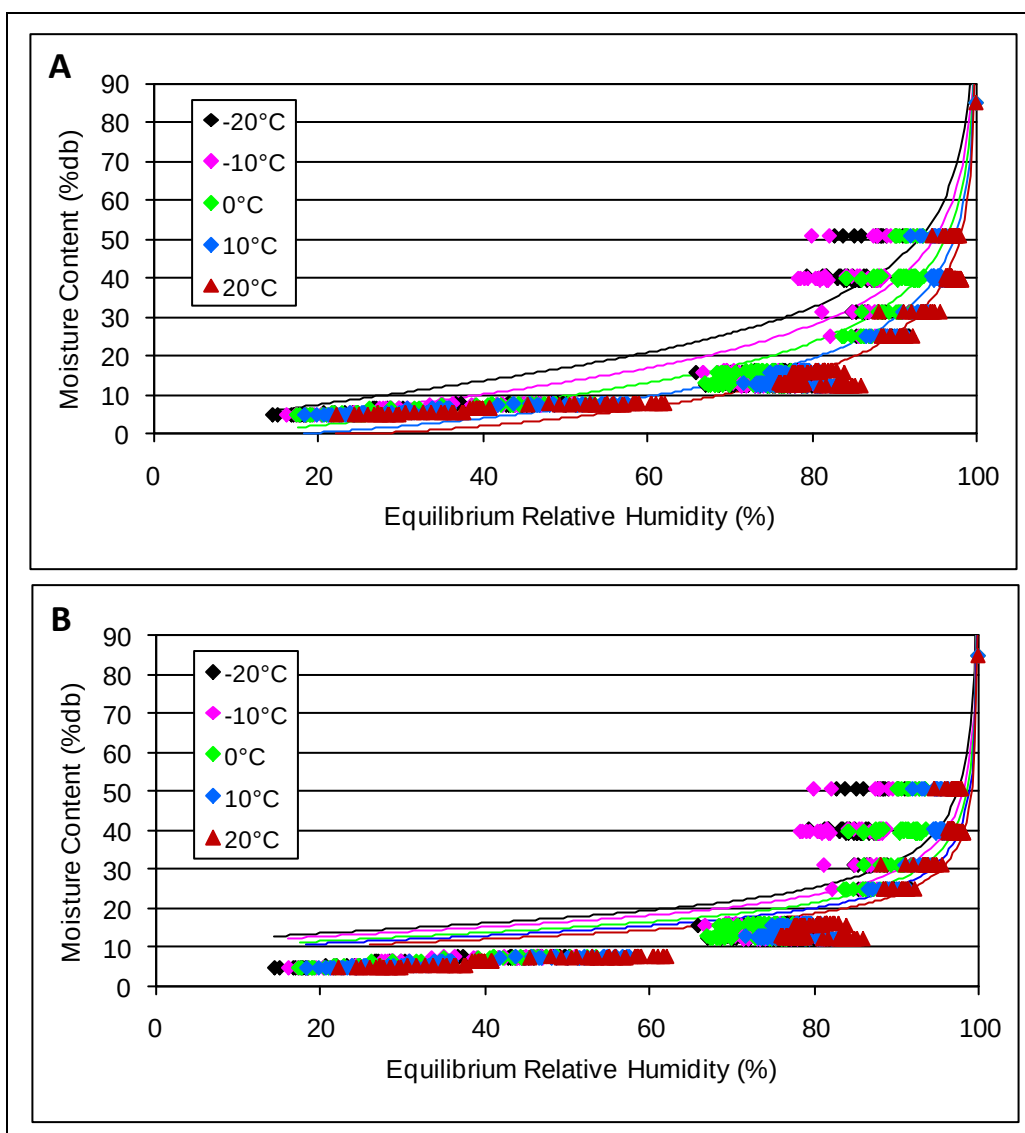


Figure 3.44 Kraft linerboard isotherm data with water holding capacity values and fitted equations (A) Chen's (1998) equation (2.30 and 2.31) and (B) Chen's (1998) equation (2.30 and 2.32).

Further work is required to assess the accuracy of the water holding capacity measurement technique and to assess the effect of temperature on the water holding capacity. Further work is also required to develop an equation to accurately model the moisture sorption isotherms over the range of conditions measured in the apple and kiwifruit cool-stores.

3.8 Overall Discussion and Conclusions

Measurements of the kiwifruit cool-stores air humidity and temperature found a wide range of conditions. In the kiwifruit six cool-stores studied, the humidity and temperatures varied between 76 to 100 % and 1.0 to -1.0°C. While high humidity reduces moisture loss from kiwi-fruit, humidities as high as 100% would present a high fruit rot risk and present an extremely demanding environment for obtaining acceptable performance from corrugated fibreboard packaging. The conditions of the single apple cool-store studied varied between 75 and 93 %RH and 2.8 and 0.1°C.

Periodic cycles in RH and temperature were exhibited by all seven cool-stores. The cool-store humidity cycles were smaller in magnitude and more frequent than humidity cycles used in laboratory compressive creep experiments. The difference may lead to the laboratory experiments over estimating the rate of cyclic humidity compressive creep. No other cool-store temperature and humidity profiles were found in the literature, therefore this study has provided one of the few (if not the first) published datasets of commercial cool-store conditions.

The 20 min recording interval was found to be too long to clearly identify the on/off and defrost cycles of the cool-store refrigeration systems and a recording interval of 1 to 5 min is recommended. Measurement of the humidity and temperature inside pallets of apples and kiwifruit is also recommended as this data would be necessary to improve the predictions of the corrugated fibreboard MC.

A novel isotherm measurement method was developed to enable the rapid measurement of paper isotherms. The novel isotherm measurement method incorporated two significant advances, the ability to measure isotherms at low temperatures and the elimination of the need for the sample to reach equilibrium with the humidity controlled environment. With the novel method, is it only critical that the air in the chamber surrounding the sample, reaches equilibrium. For the air to achieve this equilibrium a relatively small quantity of moisture transfer is required relative to equilibrating a sample in a humid environment. The majority of methods are unable to measure isotherms at temperatures below freezing (0°C).

The adsorption isotherm measurements at 20°C were consistent with previously published measurements at 20 to 25°C up to 80 %RH. Above 80 %RH, the measurements were higher than in previous studies and the differences increase with increasing humidity. This may have been caused by either the samples in previous studies not being allowed enough time to reach equilibrium or by the way in which the high MC samples in this study were conditioned i.e. by soaking and drying the samples. Irradiating the samples and their conditioning chamber would prevent the growth of mould on samples conditioned at high humidity. Other methods involving treating samples with anti-mould agents could be used providing the treatment did not affect the moisture sorption properties of the samples. This may allow the preparation of high MC samples (>30 %db) without having to soak the samples in water as was necessary in this study.

The data and fitted GAB equations between 20 and -10°C showed that at a constant humidity, the sample's MC increases with decreasing temperature. This was the expected trend based on the much published trend above 0°C and based on the absence of any other related properties that show a reversal in their temperature dependence at or near 0°C. The temperature dependence, near and below 0°C, of the isotherms measured in this study contradicted the only other study found in the literature by Skogman and Scheie (1969) on the isotherms of paper above and below 0°C, where there was a maximum MC at about 0°C (section 2.7.2.2).

The isotherms of the three samples were found to be very similar at 20 and 10°C, differing in MC by no more than 5 %(db). At 0°C the three isotherms were also very similar but only below 90 %RH, and below 0°C the isotherms were less consistent. The differences may be a result of the pulps used in the manufacture of the three samples as the ratio of cellulose to hemicelluloses and lignin may affect the moisture adsorption properties. Temperature-compensated GAB equations were judged to be the most suitable equations to model the whole adsorption isotherm dataset of each of the three samples. Following sensitivity analysis, it was found that one or two of the temperature dependent terms could be removed from the temperature-compensated GAB equations without a significant loss of accuracy.

The fitted temperature-compensated GAB equation would allow for the prediction of the corrugated fibreboard MC over a range of humidities and temperatures. This could be achieved by first predicting the equilibrium MC of each of the constituent linerboards and the fluting medium based on the air humidity and sample temperature. Then the corrugated fibreboard MC can be calculated from the MCs and basis weights of the linerboards and fluting medium, and the fluting medium take-up factor.

The temperature-compensated GAB equations developed in this study are an important addition to the literature as only one other set of isotherms by Eagleton and Marcondes, (1994) covers the standard laboratory testing and cool-store temperatures, 23 and 0°C, respectively. Also, only one other set of paper isotherms by Skogman and Scheie (1969) were found in the literature to cover temperatures above and below 0°C.

The ability to predict the corrugated fibreboard equilibrium MC as a function of air humidity and sample temperature is useful as the study of cool-store conditions showed that the humidity fluctuations are usually accompanied by air temperature fluctuations as well. It was also shown in the literature by Foss *et al.* (2000) that adsorption of moisture also results in an increase in paper temperature due to the transfer of latent heat.

A novel method was developed to measure the water holding capacity MCs of the Kraft, semi-chemical and recycled samples in order to provide an indication of the maximum possible MC and a finite value for 100 %RH. The measured values 81.8, 147.7 and 124.6 %(db) for the Kraft, semi-chemical and recycled samples respectively indicate that the isotherms measured in previous studies may be too low and the values support the high MCs measured in this study.

The novel isotherm measurement method developed in this study could be used to measure the isotherms of corrugated fibreboard or any other hydrophilic sample following modification to the hermetically sealed cylinder. Isotherms could be measured over a greater temperature range, limited only by the operating range of the dew point hygrometer.

It would be advantageous for the novel isotherm measurement method to be validated by measuring the moisture sorption isotherms of a standard material such as native starch for which there is much published data available.

Chapter 4

Effect of Moisture and Temperature on the Strength Properties of Paper-Based Packaging

4.1 Introduction

Although the majority of recent literature on paper and corrugated fibreboard performance focuses on the phenomenon commonly referred to as ‘cyclic humidity creep’, this is only one piece of the puzzle of optimising box design. Palletising boxes will lead to buffering of the temperature and humidity cycles inside the pallet of packaged fruit and where corrugated fibreboard moisture content (MC) cycles are relatively small, other variables such as compression load, time, corrugated fibreboard temperature and MC, will all play important roles in the box performance.

No studies were found from a survey of literature on the relative effect of the deformation of corrugated fibreboard under constant stress in stable conditions compared to the deformation of corrugated fibreboard under constant stress in cyclic conditions that were a fair reflection of apple and kiwifruit cool-store conditions. All studies on the effect of cyclic humidity creep used humidity cycles that were significantly larger (e.g. 30 to 80, 50 to 90 or 10 to 50 %RH) than what would be expected or was measured in cool-stores (refer to section 3.2).

Previous studies of the effect of moisture on paper-based packaging strength have usually focused on the properties of either the corrugated fibreboard or the constituent linerboards and fluting mediums. While it was widely believed that the properties of the constituent linerboards and fluting mediums relate directly to the corrugated fibreboard strength properties (section 2.3), the nature of these relationships has not been widely tested (in the open literature) and was worth further investigation.

Equations published by four authors were found in the literature to predict the compression strength of corrugated fibreboard boxes (section 2.2). More complex and accurate models were expected to have been developed but not published. Of the four

equations, McKee's *et al.* (1963) two equations were judged to be the most appropriate for predicting the compression strength of Z-Pack apple boxes and related horticultural packaging. McKee's equations predict the box compression strength from laboratory measurement of edgewise compression strength (ECT) and bending stiffness (BS), or the box perimeter. Therefore to predict the compression strength of boxes in cool-store conditions using McKee's equation, the ECT strength and BS of samples with the same MCs and temperature are required.

It is widely recognised that temperature and moisture affect the strength properties of paper and corrugated fibreboard. However these effects are not well covered in the literature as previous studies have tended not to cover all the properties and/or to use different samples. Only one study by Kawanishi (1989) was found to have measured the effect of moisture on the strength properties of corrugated fibreboard, and only one study (by Chalmers 1998) looked at the effect of relative humidity (RH) on the compression and the tensile properties of paper. The published trends also varied with Benson (1971) measuring a linear relationship between paper maximum tensile stress and MC (section 2.5.3), whereas Andersson and Berkyto (1951b) and Salmen and Back (1980) found non-linear relationships (section 2.4.7).

Of the four studies found on the effect of temperature (section 2.4.6), only one study looked at the effect of temperature over a range of MCs and all of the studies measured only the tensile properties of their paper samples. The effect on the compression strength of corrugated fibreboard of cooling samples from the standard testing temperature of 23°C to the cool-store temperature of 0°C was not found in the literature.

The objective of the work in this chapter was to provide more information for the prediction of Z-Pack compression strength in cool-store conditions. This would be achieved by measuring the properties of Z-Pack inner corrugated fibreboard and its constituent linerboard and fluting medium plies at a range of MCs and temperatures.

4.2 Effect of Moisture on the Strength of Kraft Linerboard and Semi-Chemical Fluting Medium

4.2.1 Introduction

This section examines the effect of MC at 23°C on the short span compressive strength and tensile strength of 250 g.m⁻² Kraft linerboard and 160 g.m⁻² semi-chemical fluting medium, manufactured by Carter Holt Harvey Ltd., Kinleith, New Zealand. The properties of the linerboard and fluting medium are compared with the properties of the corrugated fibreboard in section 4.3.6.

The complete data set for the measurements is presented in Appendix A5 (in the accompanying CD).

4.2.2 Methodology

Samples (15×250 mm) of Kraft linerboard and semi-chemical fluting medium were cut in the machine and cross-machine direction with an L and W strip punch (AB Lorentzen and Wettre, Sweden). Batches of 35 samples (except for Kraft machine direction for which n = 28) were placed in sealable plastic containers above four different saturated salt solutions (NaCl, K₂SO₄, KCl and BaCl₂) at 20°C for two weeks. The headspace of each saturated salt solution produced a specified RH at 20°C (Table 4.1). In addition, one batch per pulp type and direction was preconditioned (33% RH, 30°C, 24 hours) and then conditioned (50% RH, 23°C, 24 hours) prior to testing. The two pulp types, cut in the two directions, conditioned to 5 different relative humidities produced a total of 20 treatments.

Table 4.1 Relative humidity above saturated salt solutions at 23°C (Greenspan, 1977)

Salt	Relative humidity
NaCl	75.5
KCl	85.1
BaCl ₂	90.0
K ₂ SO ₄	98.0

The samples conditioned above salt solutions were sealed in weighed (Mettler Toledo PG 503-S, Switzerland) and labelled metalised film bags. The bagged samples were

weighed prior to testing (Mettler Toledo PG 503-S, Switzerland). The samples were removed from their bags just prior to testing and were resealed in their respective bags immediately after testing and then weighed again to determine their MC and moisture loss.

The mass of the samples conditioned to 50 %RH were not measured before testing as the samples were stored and tested in the same standard conditions (50 %RH and 23°C). These samples were sealed in weighed and labelled metalised film bags following testing. Ten randomly selected samples from each of the 20 treatments were dried at 105°C to determine their MCs, from which the average MC for each batch was calculated.

From the batches of 35 (or 28), 15 samples (or 12 for the Kraft machine direction group) were tested using an L and W Compression Strength Tester STFI (AB Lorentzen and Wettre, Sweden) with a clamp speed of 3 mm.min⁻¹. The length of the samples enabled each sample to be tested at four different locations. The remaining 20 samples (or 16 for the Kraft machine direction) were tested using an Alwetron TH1 Tensile Tester (AB Lorentzen and Wettre, Sweden). The test span was 100 mm and the clamp speed was 10 mm.minute⁻¹. The length of the samples enabled each sample to be tested at two different locations.

The Alwetron TH1 Tensile Tester outputted tensile strength in N.m⁻¹ and tensile stiffness in N.m⁻¹. The tensile strength was calculated from the maximum force divided by the sample width. The tensile stiffness was determined by the tester using equation (4.1).

$$\text{Tensile Stiffness (N.m}^{-1}\text{)} = \frac{\left(\text{Change in} \left(\frac{\text{Force (N)}}{\text{Sample width (m)}} \right) \right)}{\left(\frac{\text{Change in (Sample Length) (m)}}{\text{Original Sample Length (m)}} \right)}$$

(4.1)

4.2.3 Results and Discussion

4.2.3.1 Sample Moisture Loss

Moisture loss from the samples during the measurements increased with increasing average MC (Figure 4.1 A). This trend is probably a result of the high MC samples possessing a larger driving force for moisture transfer between the samples and laboratory air (i.e. a greater water vapour pressure difference). The scatter shown in Figure 4.1 is probably a result of variation in the time taken to test each sample which would have a direct effect on the moisture loss.

The relative loss (loss as a % of the average MC) from the samples also increased with increasing MC (Figure 4.1 B). This is most likely a result of the non-linear relationship between MC and sample vapour pressure as shown by the adsorption isotherms in Chapter 3.

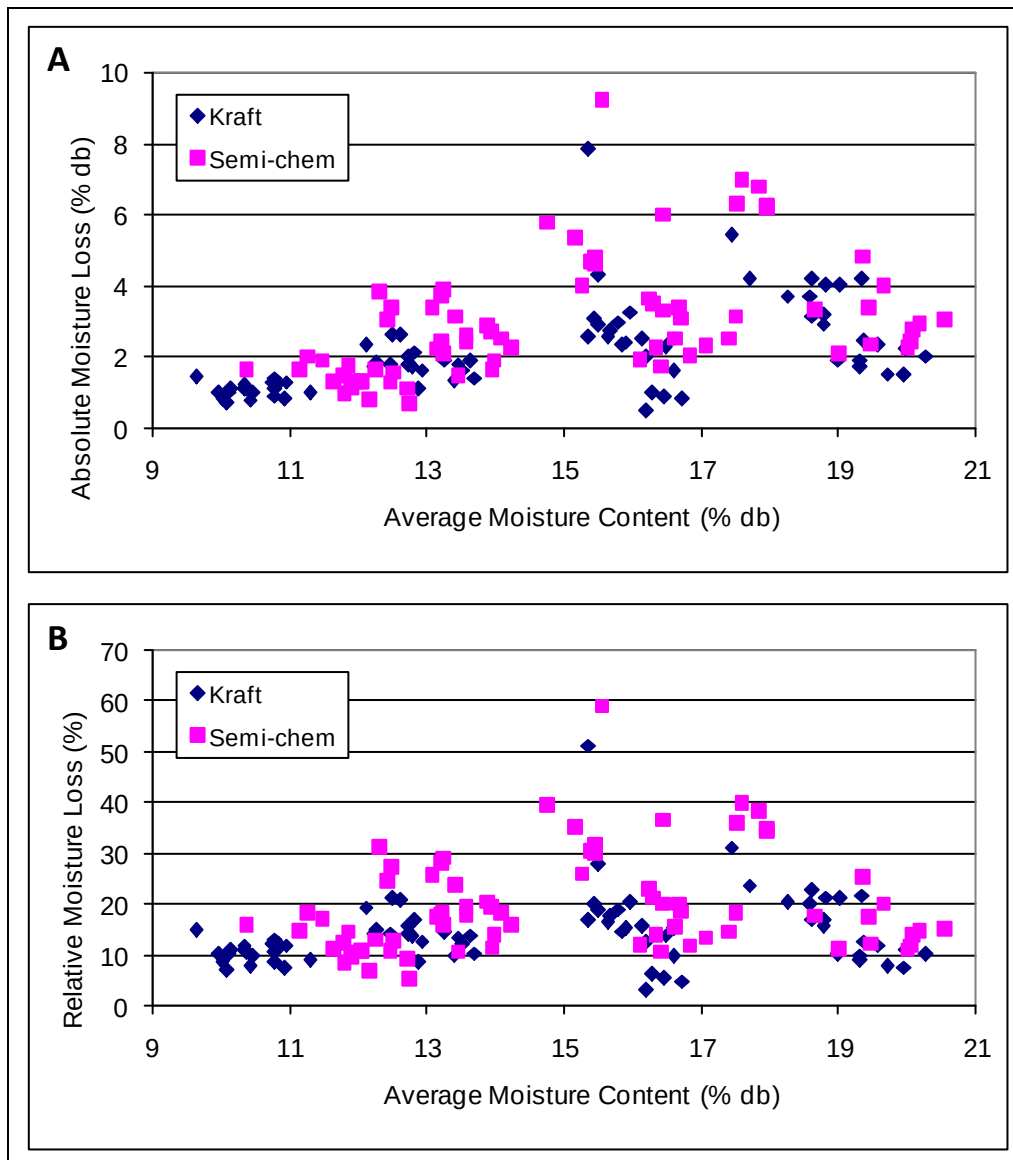


Figure 4.1 Absolute (A) and relative (B) moisture loss during strength testing from the Kraft linerboard and semi-chemical fluting medium samples that were selected to be oven dried to determine their moisture contents. The average sample moisture content was used as the basis for the relative moisture loss calculation.

4.2.3.2 Measurements

The compression tester and tensile testers did not output the force-displacement curves, hence the analysis is limited to the recorded maximum strengths and tensile stiffness. The data analysis utilised the average of the four and two measurements per sample for the short span compression and tensile tests, respectively. Approximately equal time was taken to load and unload the samples and therefore it was assumed that

the average of the before and after MCs was the most appropriate value to use in the data analysis.

The short span compressive strength measurements followed an exponential trend with significant but expected differences between the results for the machine and cross-machine direction (Figure 4.2 and Table 4.2). On a mass basis the 160 g.m⁻² semi-chemical fluting medium was stronger than the 250 g.m⁻² Kraft linerboard (Figure 4.3). Kline (1991) stated that longer fibres generally impart greater strength however the semi-chemical pulping process leaves more lignin and hemi-cellulose which contribute to the stiffness of the fluting medium. This would explain the higher specific compression strength of the semi-chemical fluting medium and the higher tensile strength of the Kraft linerboard (Figure 4.5). The specific compression strength was calculated by dividing the short span compression strength by the samples basis weight.

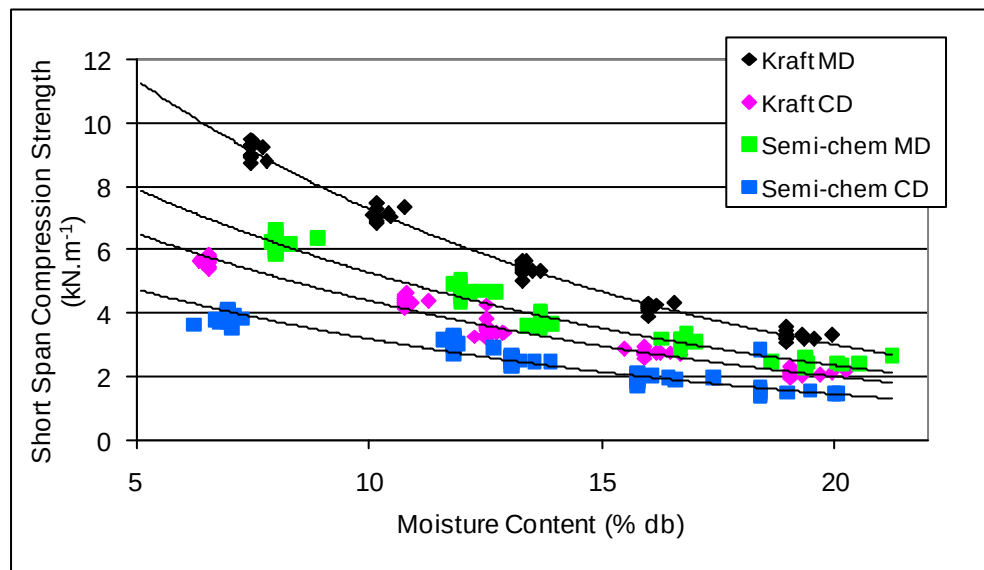


Figure 4.2 Short span compression strength of 250 g.m⁻² Kraft linerboard and 160 g.m⁻² semi-chemical fluting medium over a range of moisture contents, at 23°C with fitted exponential equation (Table 4.2). Note: each data points represents the average of the 4 measurements from a single sample.

Table 4.2 Fitted exponential equations relating the short span compression strength and moisture content of Kraft and semi-chemical paper at 23°C. Correlation coefficient (R^2) included.

Sample	Equation*	R^2 (%)
Kraft MD	$SSCS = \exp(2.878 - 0.08883 \times MC)$	99.0
Kraft CD	$SSCS = \exp(2.274 - 0.07914 \times MC)$	97.2
Semi-chem MD	$SSCS = \exp(2.479 - 0.08135 \times MC)$	97.1
Semi-chem CD	$SSCS = \exp(2.052 - 0.08300 \times MC)$	90.1

* where $SSCS$ = short span compression strength (kN.m^{-1})
 MC = moisture content (% db)

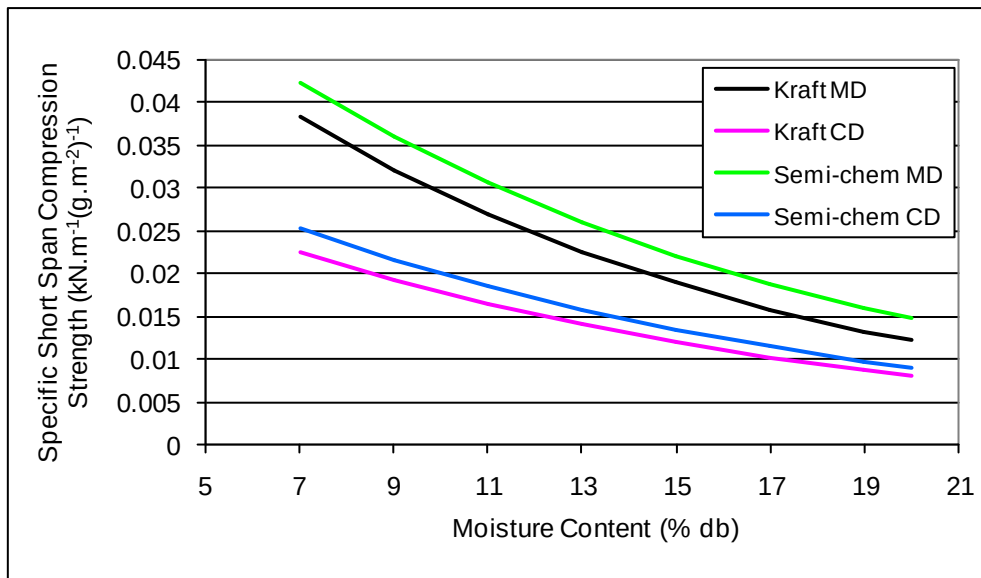


Figure 4.3 Calculated specific (per unit basis weight) short span compression strength for 250 g.m^{-2} Kraft linerboard and 160 g.m^{-2} semi-chemical fluting medium at 23°C. Short span compression strength was estimated using equations in Table 4.2.

No other study of paper compression strength as a function of MC was found to make a comparison with. However this data set will be compared to the corrugated board edgewise compression strength in section 4.3.6.

The tensile strength measurements followed a linear trend, again with significant but expected differences between the results for the machine and cross-machine directions (Figure 4.4 and Table 4.3). In contrast to the compression test results, on a mass basis the Kraft linerboard was stronger than the semi-chemical fluting medium (Figure 4.5). This was probably a result of the longer and higher proportion of softwood fibres in the Kraft pulp providing better bonding between fibres and hence better tensile strength over the 50 mm test span.

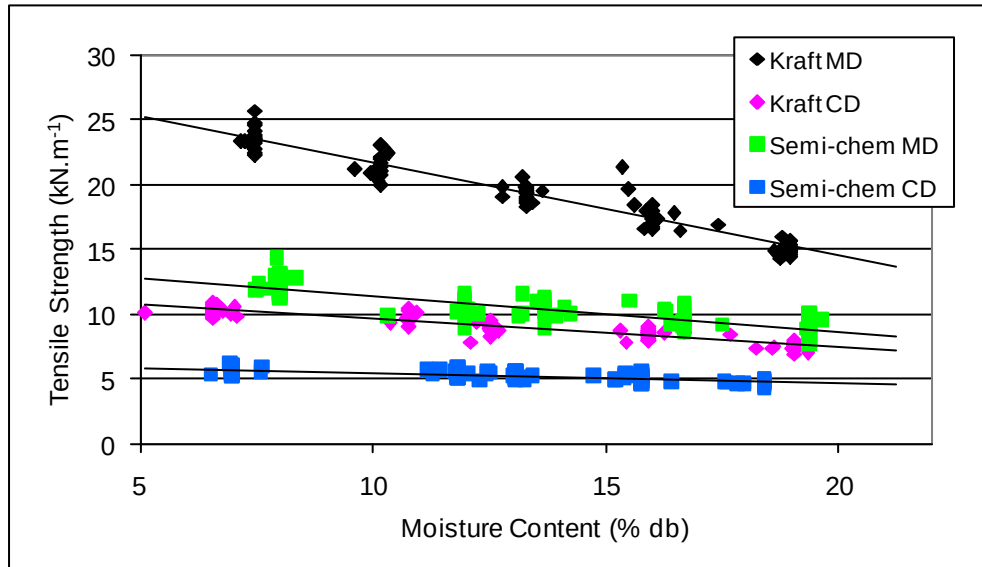


Figure 4.4. Tensile strength of 250 g.m⁻² Kraft linerboard and 160 g.m⁻² semi-chemical fluting medium over a range of moisture contents, at 23°C. Equations for fitted linear lines given in Table 4.3. Data points represent average of the 2 measurements per sample.

Table 4.3 Best fit linear equations for the tensile strength and moisture content of Kraft and Semi-chemical paper at 23°C.

Sample	Equation*	R^2 value
Kraft MD	$TS_{gth} = 28.95 - 0.7195 \times MC$	92.4
Kraft CD	$TS_{gth} = 11.86 - 0.2244 \times MC$	87.2
Semi-chem MD	$TS_{gth} = 14.28 - 0.2854 \times MC$	71.1
Semi-chem CD	$TS_{gth} = 6.268 - 0.0838 \times MC$	63.7

* where TS_{gth} = tensile strength (kN.m⁻¹)

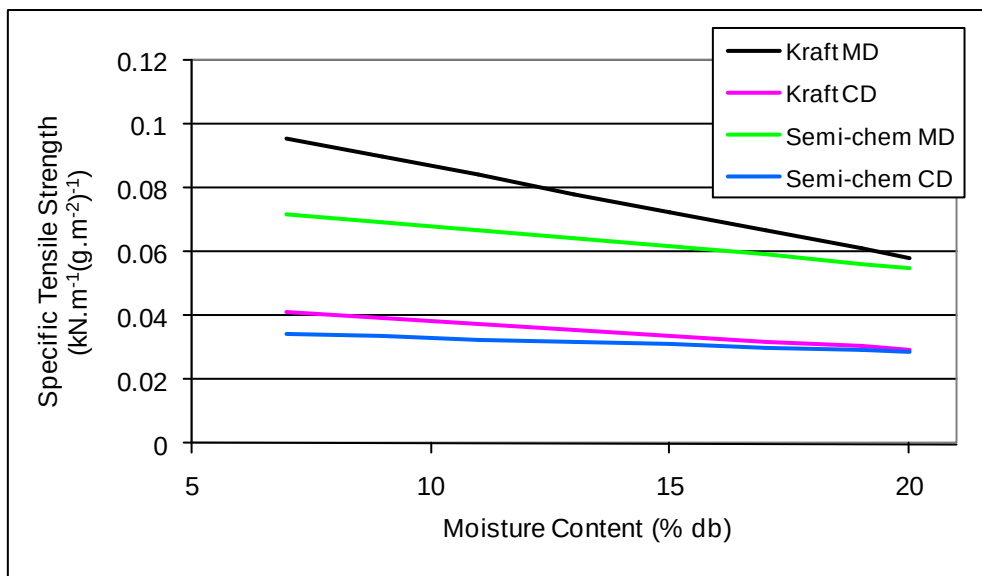


Figure 4.5 Calculated specific (per unit basis weight) tensile strength for 250 g.m⁻² Kraft linerboard and 160 g.m⁻² semi-chemical fluting medium. Tensile strength was estimated using the equations in Table 4.3.

Measurements that are dependent on moisture content can be normalised to show relative to one another how they are affected by moisture. In this study the predicted paper and corrugated fibreboard strength properties were normalised dividing the predictions over their respective moisture content range by the prediction at 7 %(db). The moisture content of 7 %(db) represent the moisture content expected at standard testing conditions (50 %RH at 23°C).

There was an insignificant difference between the short span compression strength values for the Kraft and semi-chemical samples in both directions (Figure 4.6), when the data were normalised at 7 %(db), the approximate MC following conditioning to standard laboratory conditions (50 %RH, 23°C). The close agreement of the data in Figure 4.6 suggests that it may not be necessary to measure the short span compression strength of all samples over the MC range. A more efficient process would be to measure compression strength of each paper type in the machine direction over the whole MC range and at one MC for the cross-machine direction. The moisture dependency of the compression strength in the cross-machine direction would then be calculated from the moisture dependency in the machine direction. However the appropriateness of this procedure will need to be verified for other paper types.

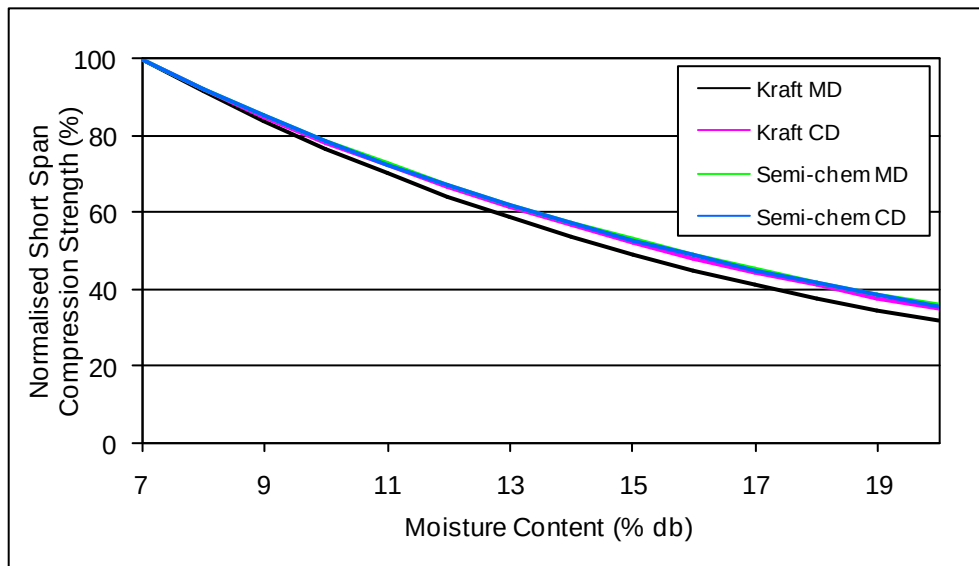


Figure 4.6 Normalised short span compression strength of 250 g.m⁻² Kraft linerboard and 160 g.m⁻² semi-chemical fluting medium over a range of moisture contents, at 23°C. Values normalised at 7 %(db) moisture using equations from Table 4.2.

The Kraft linerboard tensile strength was slightly more sensitive than the semi-chemical fluting medium to increased MC, but the same relative trend was observed for the tensile strength of the samples in the machine and the cross-machine directions (Figure 4.7). The effect of moisture on the normalised tensile strength measurements was less than that observed for the normalised compression strength.

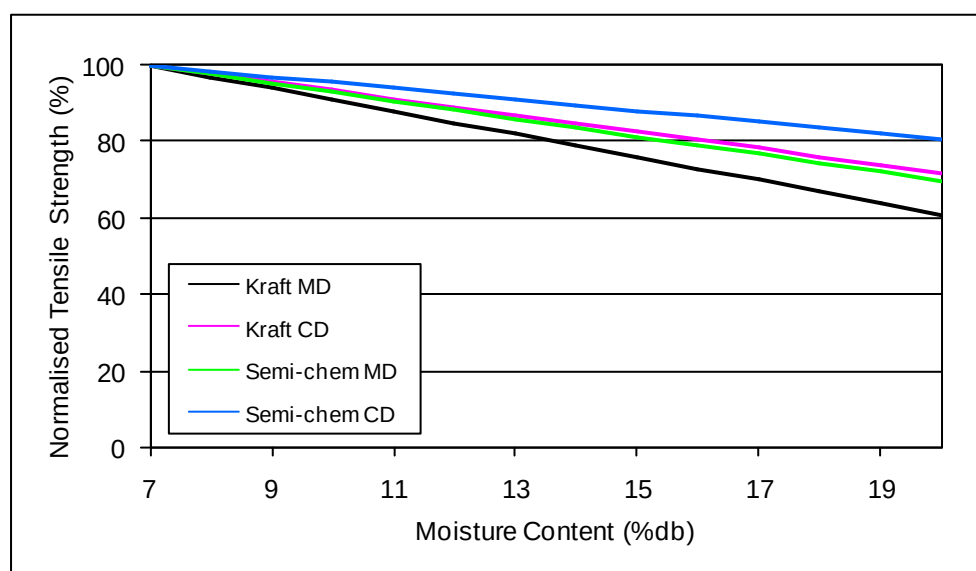


Figure 4.7. Normalised tensile strength of 250 g.m^{-2} Kraft linerboard and 160 g.m^{-2} semi-chemical fluting medium over a range of moisture contents, at 23°C . Values normalised at 7 % (db) moisture using equations from Table 4.3.

The tensile stiffness of the Kraft and semi-chemical samples followed a linear trend with respect to changes in MC (Figure 4.8 and Table 4.4).

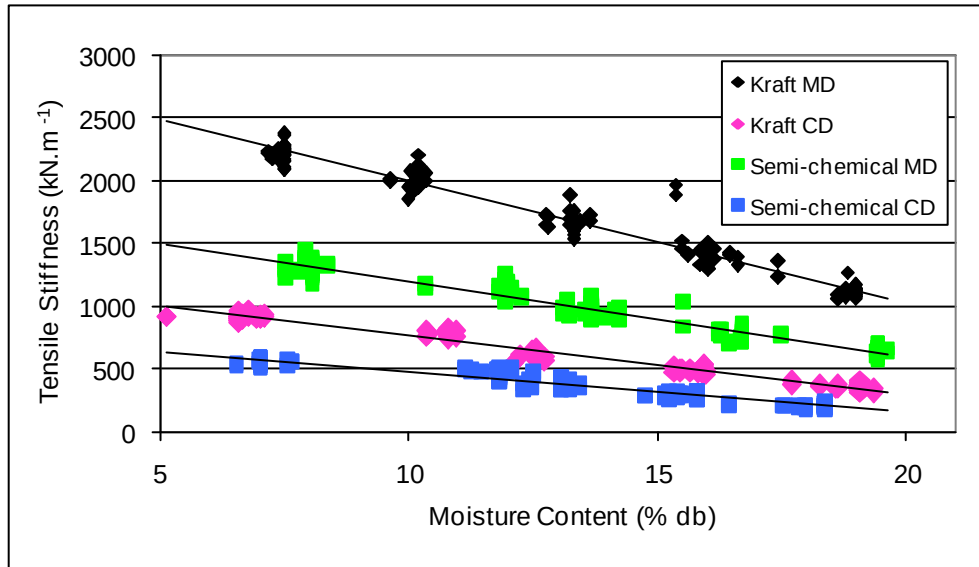


Figure 4.8 Tensile stiffness of 250 g.m⁻² Kraft linerboard and 160 g.m⁻² semi-chemical fluting medium over a range of moisture contents, at 23°C with fitted linear equations (Table 4.4)

Table 4.4 Coefficients for the fitted linear equations to estimate the sample tensile stiffness from its moisture content. Correlation coefficients (R^2) included.

Parameters	Kraft MD	Semi-chemical MD	Kraft CD	Semi-chemical CD
Slope (kN.m ⁻¹ .(%db) ⁻¹)	-97.46	-60.11	-47.08	-32.10
Intercept (kN.m ⁻¹)	2979	1798	1240	796.2
R^2 (%)	95.94	95.12	96.21	92.46

Figure 4.9 shows that the tensile stiffness measurements of the Kraft linerboard and semi-chemical fluting medium were significantly more affected by increasing MC than the tensile strength measurements.

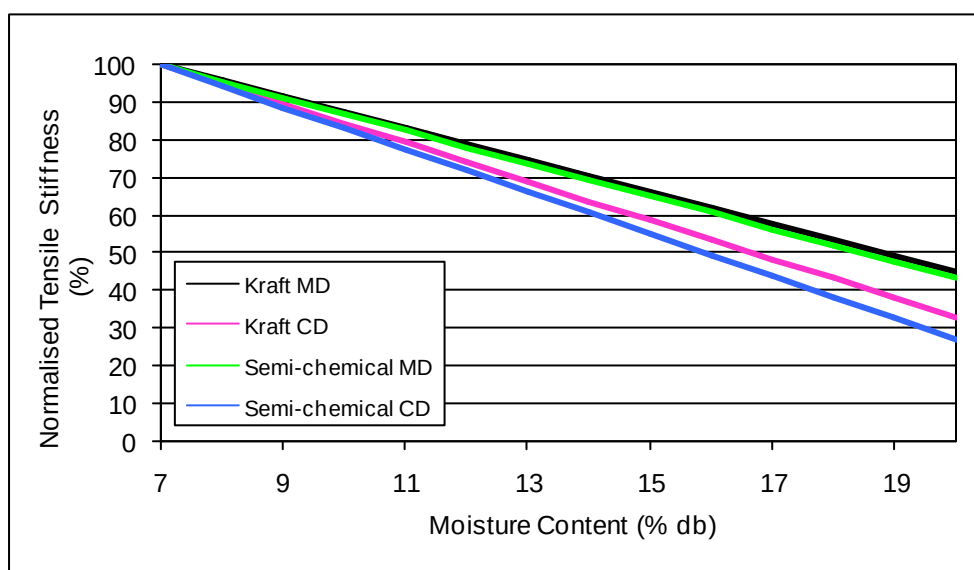


Figure 4.9 Normalised tensile stiffness of 250 g.m^{-2} Kraft linerboard and 160 g.m^{-2} semi-chemical fluting medium over a range of moisture contents, at 23°C . Values normalised at 7 % (db) moisture using equations from Table 4.4.

4.2.4 Comparison with Previous Studies

The linear relationship between tensile strength and MC (Figure 4.4) and tensile stiffness and MC (Figure 4.8) were consistent with the trends measured by Benson (1971) for maximum tensile stress vs. MC and elastic modulus vs. MC. Relative to the maximum tensile strength or stress at 7 % (db) moisture, Benson's (1971) samples (unbleached Kraft linerboards) were significantly more degraded by moisture uptake than the Kraft and semi-chemical samples used in this study. An increase in moisture from 7 to 17 % (db) saw Benson's (1971) samples decline in their maximum tensile stress by 51 to 59% (Figure 4.10), whereas the tensile strength of the Kraft and semi-chemical samples declined by between 20 and 40% (Figure 4.7).

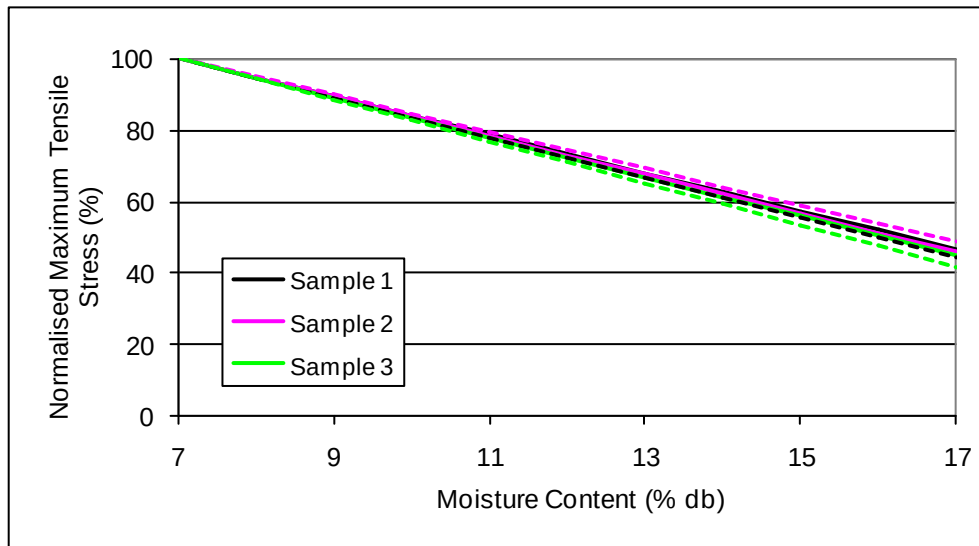


Figure 4.10 Normalised tensile strength of Benson's (1971) three unbleached Kraft paper samples. Values normalised at 7 % (db) moisture using equations from Table 4.5. Note: solid lines - machine direction, dashed lines - cross-machine direction

Table 4.5 Coefficients for the linear equations fitted to Benson's (1971) maximum tensile stress measurements.

	Machine Direction			Cross-machine Direction		
Sample Number	1	2	3	1	2	3
Slope ($\text{kg.cm}^{-2} \cdot (\% \text{MC})^{-1}$)	-27.69	-27.13	-27.81	-12.00	-11.57	-15.57
Intercept (kg.cm^{-2})	710.0	688.4	695.9	299.2	305.8	375.4
R^2 (%)	98.8	98.7	99.0	99.2	97.0	98.3

Salmen and Back (1980) measured a non-linear relationship between specific modulus of elasticity and MC (Figure 2.22). They stated that the drop in specific modulus of elasticity between 5 and 20 % (db) moisture was a result of the increase in moisture causing the amorphous components of the fibres to change from the glassy state at low MCs to the rubbery state at high MCs. The hemicellulose and lignin are both amorphous materials and together with the amorphous component of wood cellulose are expected exhibit significant changes in their strength properties when going through a glass transition phase change. As the change in short span compression strength, tensile strength and stiffness did not exhibit a relatively rapid change at any MC, it appears that the Kraft and semi-chemical sample did not undergo such a phase change.

The reduction in specific modulus of elasticity of Salmen and Back's (1980) samples (Figure 4.11) was very similar to the reduction in the tensile stiffness of the Kraft and semi-chemical samples.

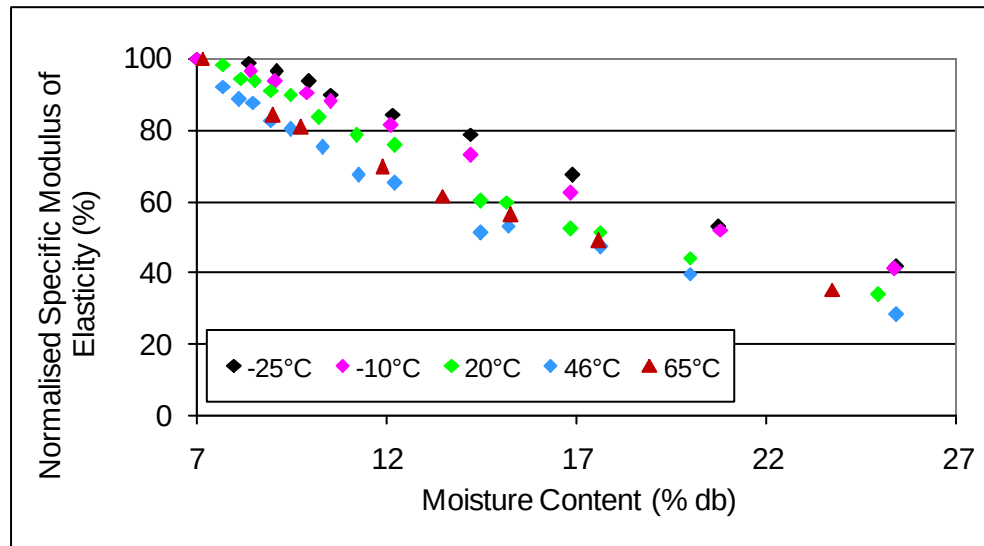


Figure 4.11 Normalised specific modulus of elasticity of Kraft sack paper from Salmen and Back, (1980). Note: values were normalised using the measurement with approximately 7 %(db) moisture.

Salmen and Back (1980) stated that the crystallinity of their Kraft samples was approximately 70%. Based on the relationship between glass transition temperature and MC presented by Back and Salmen (1981) (Figure 2.24), the crystallinity of the samples used in this study would appear to have been extremely low (<20%), as no rapid drop in compression or tensile properties was seen. The crystallinity of the samples could be measured using X-ray diffraction (Back and Salmen 1981, density determination, IR spectroscopy or other by chemical and adsorption methods (Roberts 1996) but such measurements were outside the scope of the current work.

4.3 Effect of Moisture on Corrugated Fibreboard Strength

4.3.1 Introduction

This section examines the effect of MC at 23°C on the properties of C-flute corrugated fibreboard comprising 250g.m⁻² Kraft linerboard, 160 g.m⁻² semi-chemical fluting medium, and 250g.m⁻² Kraft linerboard, manufactured by Carter Holt Harvey Ltd. at

Kinleith, New Zealand. The properties of the linerboard and fluting medium will be compared with the properties of the corrugated fibreboard presented in section 4.2.

The complete data set for the measurements is presented in Appendix A6 (in the accompanying CD).

4.3.2 Methodology

The tests conducted on the corrugated fibreboard samples are listed in Table 4.6 with their respective dimensions, platen speeds and batch sizes. Platens with groves were used to provide support for the edge of the edgewise compression test (ECT) sample. The 200 mm span used for the 3 point BS test was the longest span possible. All of the samples were cut prior to being conditioned in sealed plastic containers above saturated salt solutions.

Table 4.6 Corrugated fibreboard tests with sample dimensions

Test	Dimension	Platen speed	Number of Blanks*	Samples per Blank per RH
Edgewise compression	100×30 mm	12.5 mm.min ⁻¹	3	10
3 point bending stiffness MD and CD	300×50 mm	10 mm.min ⁻¹	3	5
Flat crush and hardness	50 cm ²	12.5 mm.min ⁻¹	4	8
Liner adhesion	50 × 55 mm (MD × CD) (650 mm of glue line)	12.5 mm.min ⁻¹	3	10

* Blanks, rectangular sections of corrugated fibreboard are the unit output of the corrugator.

Four of every five samples were placed in sealable containers above four different saturated salt solutions (NaCl, KCl, BaCl₂ K₂SO₄; refer to Table 4.1) at 20°C for 4 weeks. The equilibration time was not critical to the study as it was the moisture content vs strength relationship that was important not the ERH vs strength relationship.

The remaining samples were pre-conditioned (33% RH, 30°C, 24 hours) and then conditioned (50% RH, 23°C, 24 hours) just prior to testing. The samples conditioned

above salt solutions were sealed in metalised film bags and weighed prior to testing. Samples were removed from the bag just prior to testing, then resealed in the bags just after testing and weighed again.

Four additional corrugated fibreboard samples were cut from each blank and oven dried at 105°C to determine the MC of each blank prior to conditioning of the samples. The MC of the samples before conditioning was used along with the sample masses before and after testing to determine the MC during testing.

4.3.3 Results and Discussion

4.3.3.1 Moisture Loss

Moisture transfer from the samples during testing varied from a moisture gain of 1.3 %(db) to a moisture loss of 2.3 %(db) (Figure 4.12). The moisture gains were possibly a result of the samples absorbing skin oils or moisture while being handled and from errors incurred in estimating the initial MC of the samples from separate samples from the blanks. The moisture transfer from the corrugated fibreboard samples was significantly less than that from the Kraft linerboard and semi-chemical fluting medium samples (Figure 4.1).

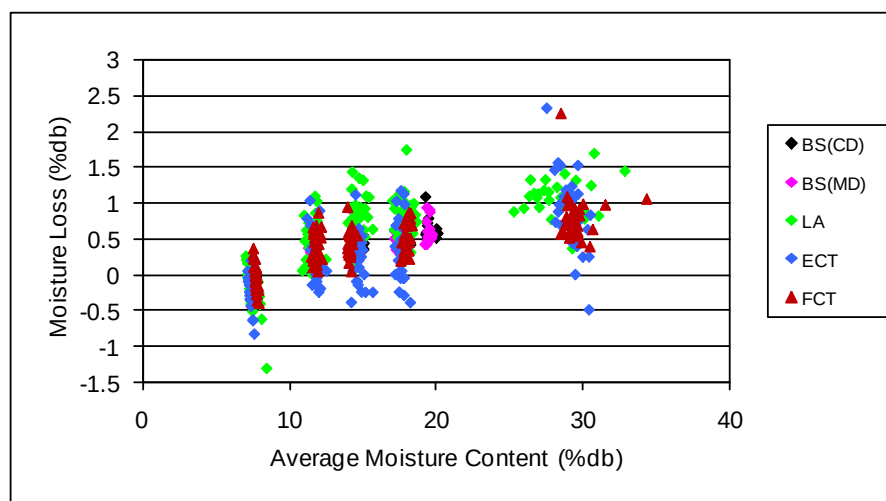


Figure 4.12 Moisture loss during testing of corrugated fibreboard samples (BS(CD)-bending stiffness cross-machine direction, BS(MD)-bending stiffness machine direction, LA-liner adhesion, ECT-edgewise compression test, FCT-flat crush test). Note: negative moisture loss represents a moisture gain during testing.

4.3.3.2 Measurements

The corrugated fibreboard samples conditioned above a saturated salt solution of K_2SO_4 (98 %RH headspace humidity) after four weeks reached a MC of approximately 30 %(db), with the exception of the BS samples. In contrast the Kraft linerboard and semi-chemical fluting medium samples conditioned above a saturated salt solution of K_2SO_4 for only two weeks reached a MC of approximately 20 %(db). The differences in MC highlights the importance of allowing sufficient time for the equilibration of samples when measuring moisture sorption isotherms.

The ECT, flat crush, hardness and liner adhesion results (Figures 4.13 to 4.16) all decreased following an exponential trend with increasing MC. There was good agreement between replicate samples. The BS decreased following a linear trend with increasing MC (Figures 4.17 and 4.18). The equations for the trend lines are given in Table 4.7. The coefficients for these equations were determined by minimising the error sum of squares term (equation 3.17) with the correlation coefficient (R^2) calculated using equation 3.18.

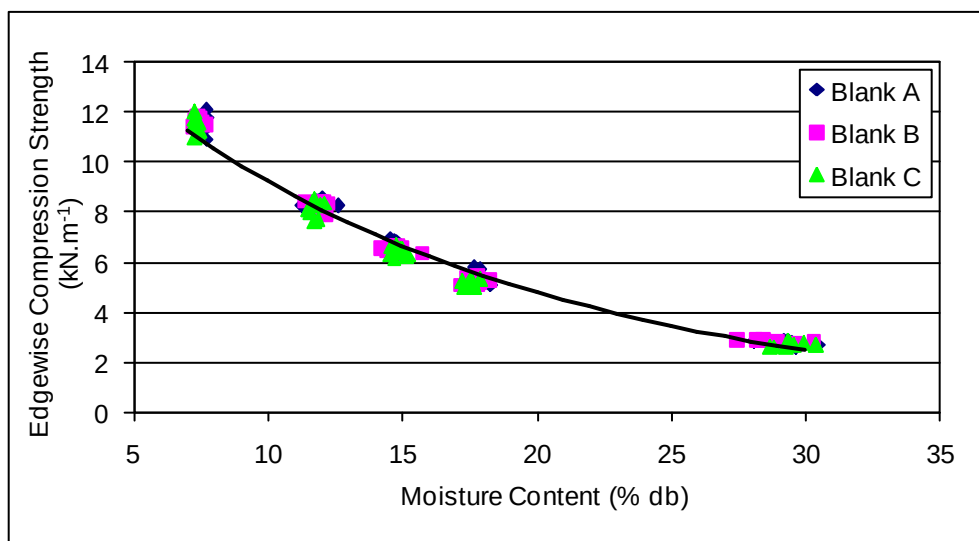


Figure 4.13 Relationship between corrugated fibreboard edgewise compression strength and moisture content at 23°C fitted with an exponential curve.

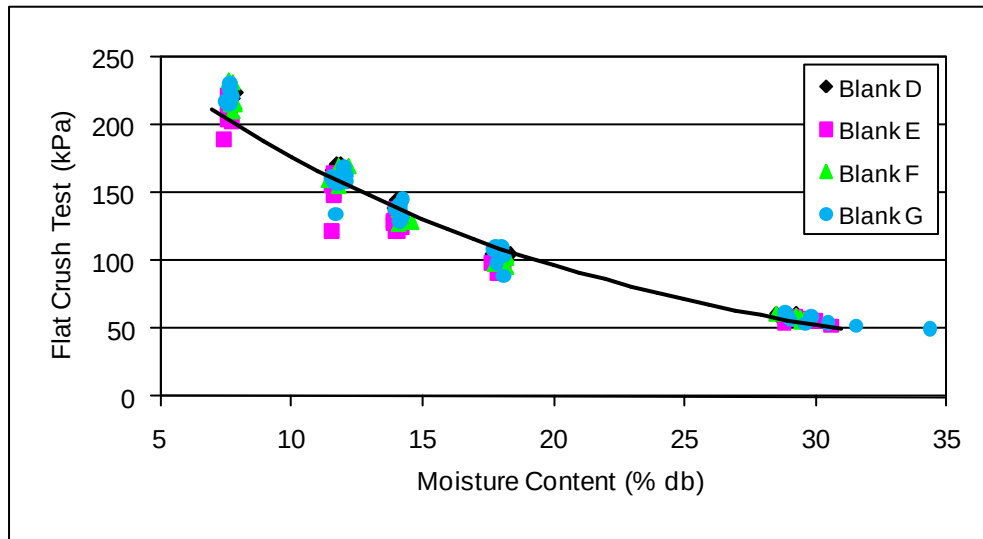


Figure 4.14 Relationship between corrugated fibreboard flat crush test and moisture content at 23°C fitted with an exponential curve.

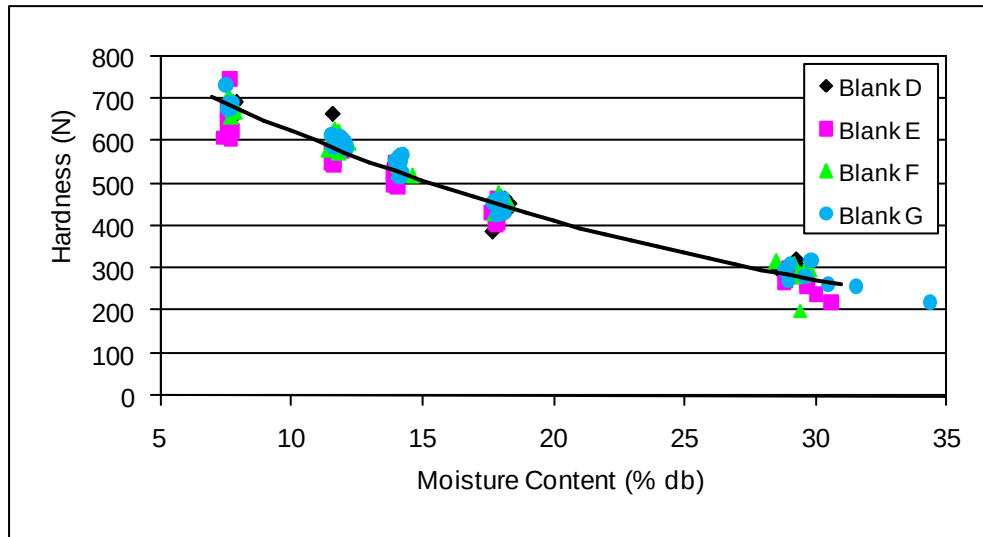


Figure 4.15 Relationship between corrugated fibreboard hardness and moisture content at 23°C fitted with an exponential curve.

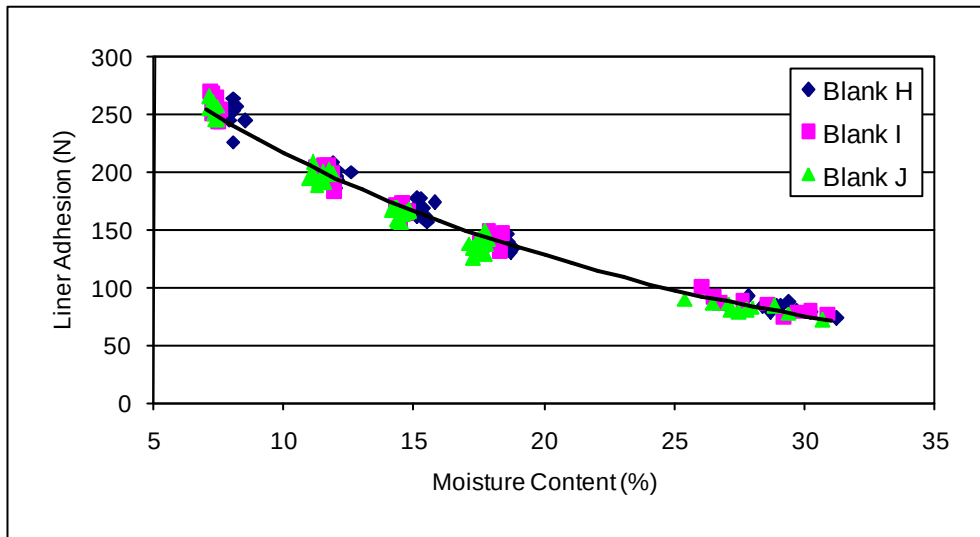


Figure 4.16 Relationship between corrugated fibreboard liner adhesion and moisture content at 23°C fitted with an exponential curve.

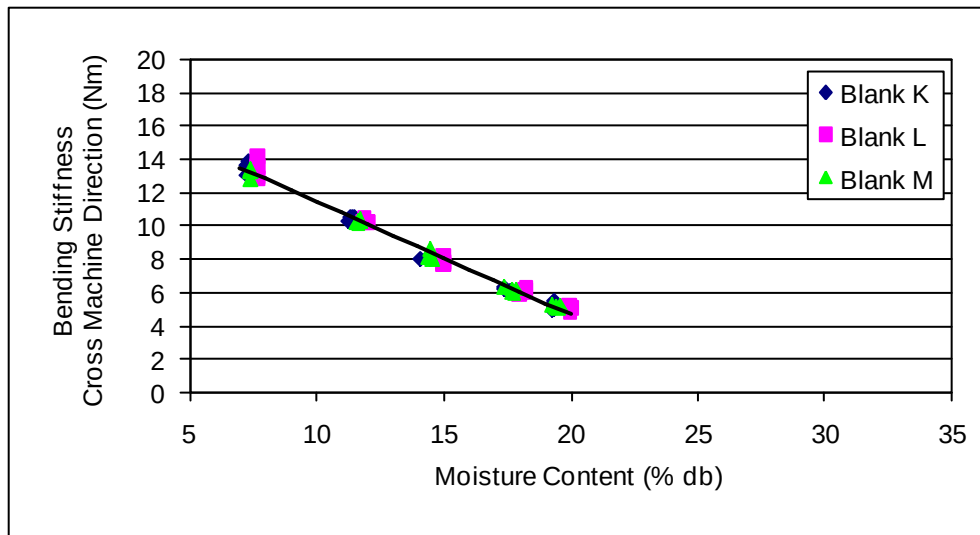


Figure 4.17 Relationship between corrugated fibreboard bending stiffness (cross-machine direction) and moisture content at 23°C fitted with a linear model.

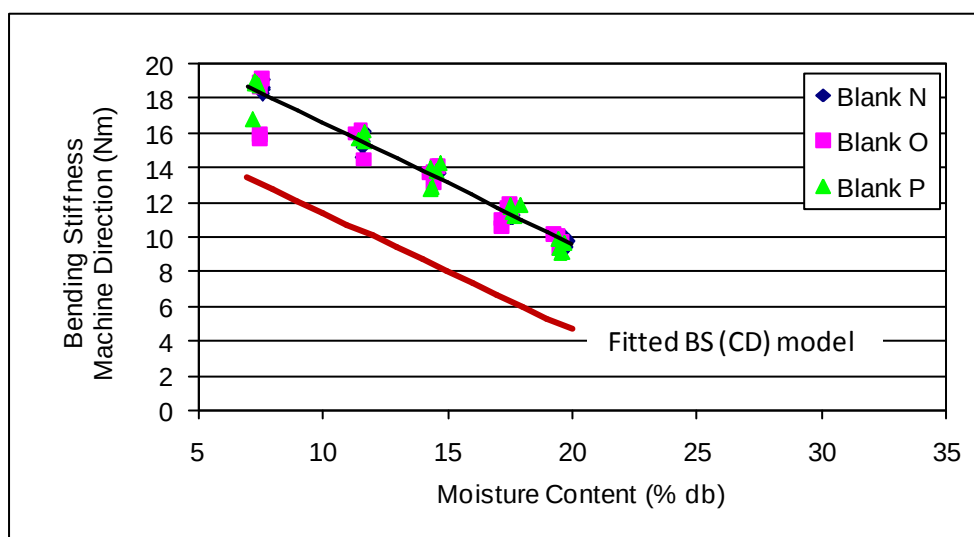


Figure 4.18 Relationship between corrugated fibreboard bending stiffness (machine direction) and moisture content at 23°C fitted with a linear model and the fitted linear model for the cross-machine direction.

The MC range of the BS samples was not as wide as the other samples. This was probably a result of there being a greater mass of corrugated fibreboard in the containers above the saturated salt solution relative to the other samples. Based on the sample size and number of replicates, 1.64 kg of BS samples were conditioned as opposed to 0.23 to 0.33 kg for the other three sample types. The greater mass of corrugated fibreboard would require a longer time to reach the moisture equilibrium content.

Based on the linear trends in Figures 4.17 and 4.18 it could be concluded that the BS was primarily related to the Kraft linerboard tensile stiffness which also had a linear relationship with moisture (Figure 4.8). However the data for the other corrugated fibreboard test below 20 %(db) could also be modelled with a linear equation with similar correlation coefficients. Therefore it is not possible to draw such a conclusion without measuring the BS of the corrugated fibreboard at higher MCs (~30 %db).

Table 4.7 Exponential and linear equations fitted to corrugated fibreboard properties measurements at 23°C

Measurements	Equation	R ² value
Edgewise compression (kN.m ⁻¹)	$ECT = 19.57 \times \exp(-0.07326 \times MC)$	98.8
Flat crush (kPa)	$FCT = 358.3 \times \exp(-0.06761 \times MC)$	97.1
Hardness (N)	$H = 932.6 \times \exp(-0.04035 \times MC)$	95.4
Liner adhesion (N)	$LA = 381.7 \times \exp(-0.05551 \times MC)$	98.1
Bending stiffness (CD) (Nm)	$BS_{CD} = 18.20 - 0.6783 \times MC$	99.0
Bending stiffness (MD) (Nm)	$BS_{MD} = 23.68 - 0.7034 \times MC$	93.8

To analyse the effect of moisture on the strain to failure of the edgewise compression strength samples, it was necessary to standardise the displacement of the force-displacement curves. Examples of the force-displacement curves show significant variation in the point where the universal compression tester started recording a compression resistance (Figure 4.19). This variation is probably a result of slight variation in the height, shape or positioning of the ECT samples.

Figure 4.19 also shows what appears to be a two stage process where there is a significant change in slope of the force-displacement curve at approximately 200 N. This trend could not be explained and no other examples were found in the literature.

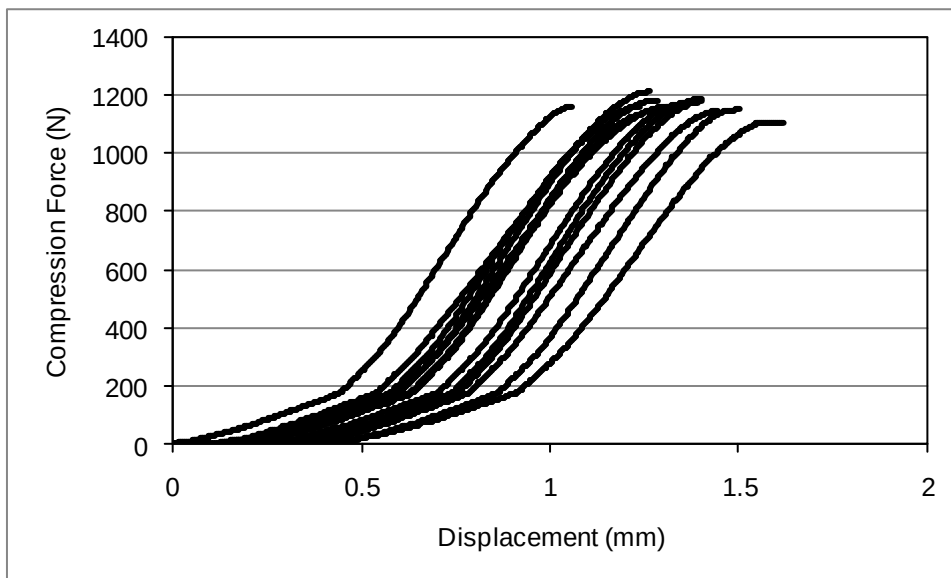


Figure 4.19 Examples of force-displacement curves of edgewise compression strength measurements

Following standardisation, the force-displacement curves show that moisture has the additional effect of reducing the strain-to-failure as well as reducing the edgewise

compression strength (Figure 4.20). Each curve was standardised by effectively shifting the data along the x axis so that at 200 N or 2 kN.m⁻¹ the displacement was equal to 0.0 m.

Figure 4.20 shows good agreement between the replicate samples at each nominal MC. The relationship between the MC and strain to failure was not modelled as it was decided that modelling the relationship would be inappropriate following the standardisation of the displacement.

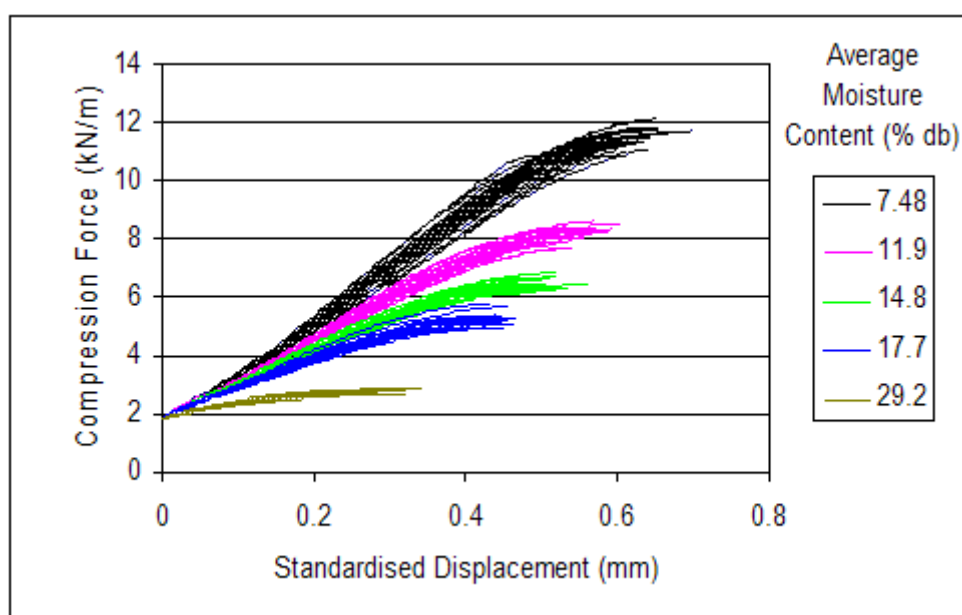


Figure 4.20 Force-displacement curves for edgewise compression test strength measurements.

4.3.4 Board Properties as a Function of Humidity

To illustrate the effect of RH on the properties of corrugated fibreboard the measurements from this study were plotted against equilibrium RH (Figure 4.21). The corrugated fibreboard properties in Figure 4.21 were calculated using the equations in Table 4.7, with the MCs required by these equations calculated using the Kraft and semi-chemical temperature compensated isotherm equations from Chapter 3 (for 0°C) and equation (4.2).

$$MC_{CFB} = \frac{MC_{LB1}BW_{LB1} + MC_{FM}BW_{FM}TF + MC_{LB2}BW_{LB2}}{BW_{LB1} + BW_{FM}TF + BW_{LB2}} \quad (4.2)$$

where BW = basis weight (gm^{-2})
 Subscripts CFB = corrugated fibreboard
 $LB1$ = single-facer linerboard
 FM = fluting medium
 $LB2$ = double-backer linerboard

Figure 4.21 shows that as the equilibrium RH increases the rate of decline of the corrugated fibreboard strength properties increases. This differs from the effect of moisture where the rate of decline of the corrugated fibreboard strength properties (except bending stiffness) slows with increasing MC (Figures 4.13 to 4.16). The rapid increase in the equilibrium MC at high relative humidities (>80%) is responsible for the difference in the effect of moisture and humidity on the corrugated fibreboard properties.

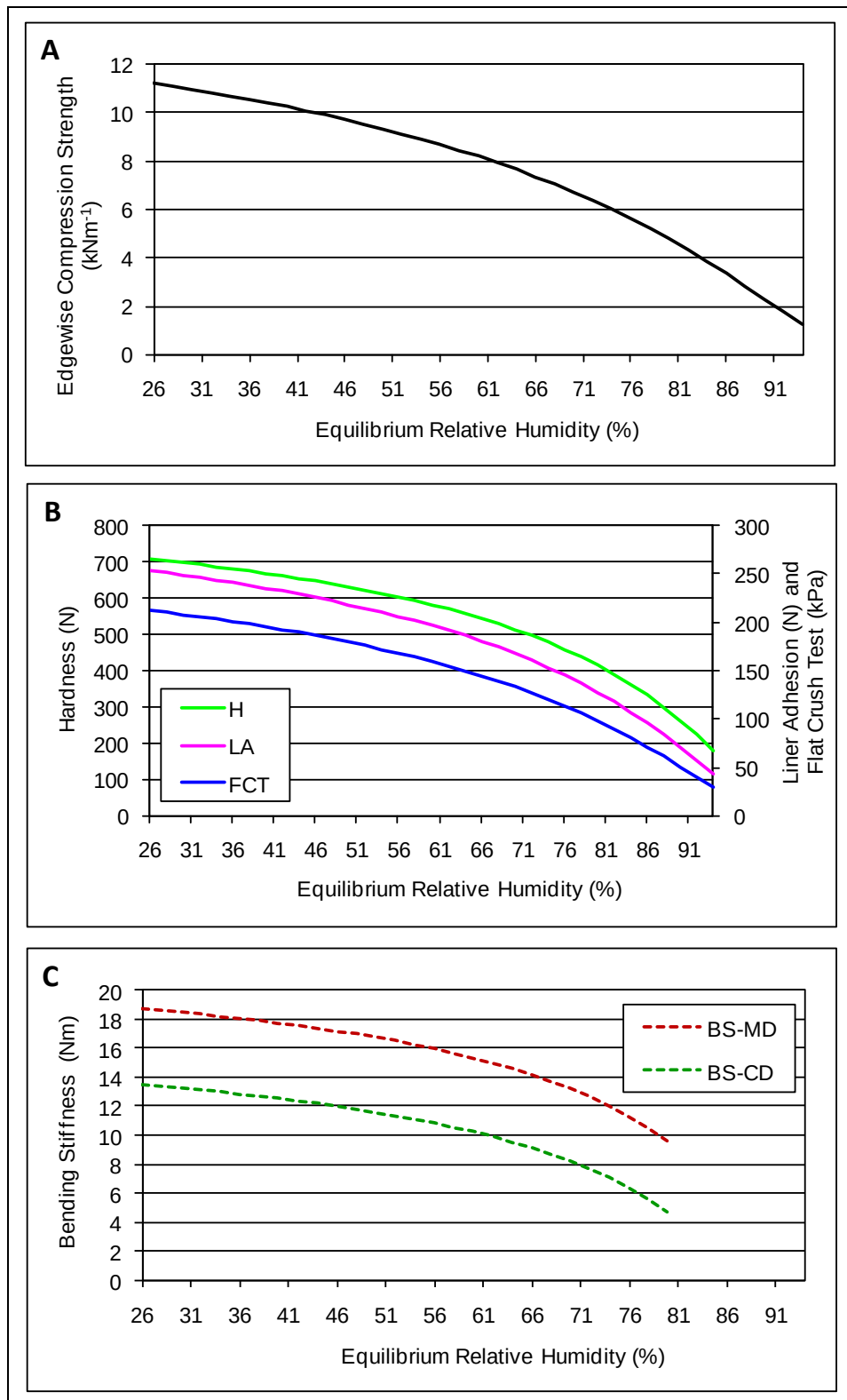


Figure 4.21 Corrugated fibreboard properties as a function of equilibrium relative humidity at 20°C. A edgewise compression strength, B hardness, liner adhesion and flat crush test, C bending stiffness (MD and CD)

4.3.5 Comparison with Previous Studies

Kawanishi (1989) measured the effect of moisture on the edgewise compression strength of a number of AB, A and B flute corrugated fibreboards. Kawanishi (1989) found the edgewise compression strength – MC relationships followed a logarithmic trend and were modelled by power law equations (4.3) and (4.4)

$$ECT_{AB} = 0.917^{MC_{UKB}} \times FC_{15} \quad (4.3)$$

$$ECT_A = 0.917^{MC_{UKB}} \times FC_{16} \quad (4.4)$$

where

ECT_{AB}	=	edgewise compression strength of AB-flute corrugated fibreboard (kgf.cm ⁻¹)
ECT_A	=	edgewise compression strength of A-flute corrugated fibreboard (kgf.cm ⁻¹)
FC_{15}	=	fitted constant – value unknown (dimensions not stated)
FC_{16}	=	fitted constant – value unknown (dimensions not stated)

As the fitted constants of equations (4.3) and (4.4) were not stated, only a comparison of normalised trends can be made. Whether Kawanishi (1989) used wet or dry basis MC was inconsequential as the plot of the normalised fitted trend line from Figure 4.13 and Kawanishi's (1989) equations (4.3) and (4.4) were in agreement with a maximum difference of 6.2 % (normalised edgewise compression strength) (Figure 4.22).

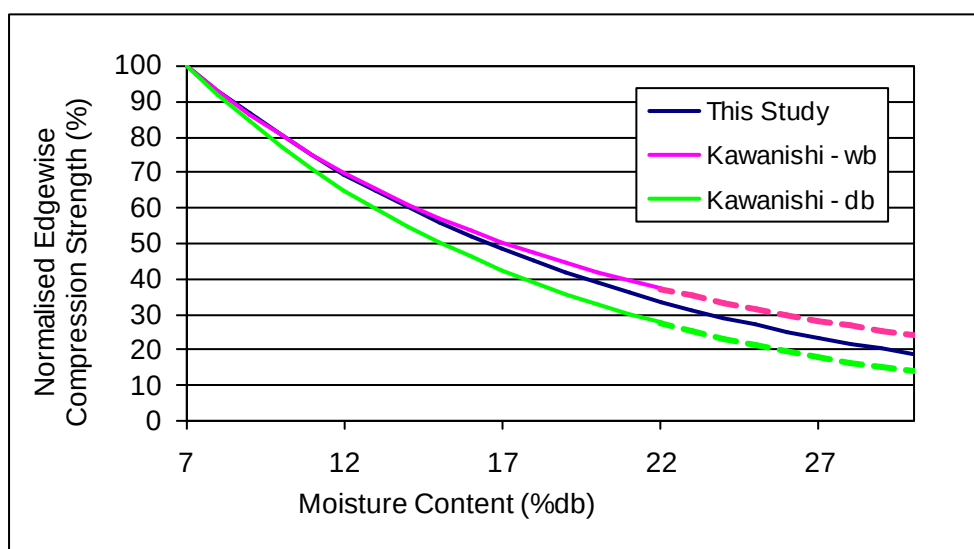


Figure 4.22 Comparison between the normalised edgewise compression strength as predicted by the equation in Table 4.7 and by Kawanishi (1989). Strength at 7 %db used to calculate normalised values. Kawanishi - wb and Kawanishi - db lines calculated assuming Kawanishi's model uses moisture content in % wet basis (wb) and % dry basis (db), respectively. Note: dashed lines are extrapolation of Kawanishi's model.

4.3.6 Comparison with Paper Properties

From a comparison of the normalised the corrugated fibreboard properties, the edgewise compression strength and the cross-machine direction BS appear to be the most susceptible to increasing MC (Figure 4.23) although there is little difference between the ECT and flat crush test (FCT). Overall the edgewise compression strength could be used as an approximate guide as to how the other properties would respond to an increase in MC. This would remove the need to measure the effect of moisture on all the corrugated fibreboard properties.

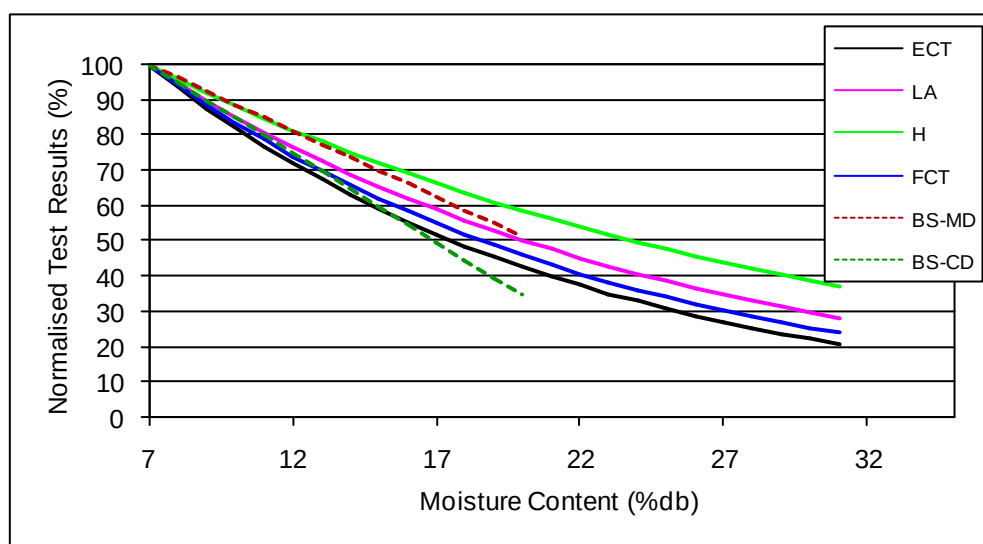


Figure 4.23 Relationship between normalised corrugated fibreboard test results and moisture content modelled from their respective exponential or linear equations (refer to Table 4.7 for abbreviations used in graph key). The normalised values were calculated using the equations in Table 4.7, with the strength at 7 %db used as the basis of the calculation.

The normalised edgewise compression strength was slightly less influenced by increasing MC than the Kraft linerboard and semi-chemical fluting medium short span compression strengths (Figure 4.24). This may have been result of the linerboard and fluting medium having not been subjected to the stresses of the corrugating process. The difference may also be a result of the water resistant adhesive used to form the corrugated board reducing the MC by being less hydrophilic than the linerboard and fluting medium. The way in which the samples were tested may also have influenced the results; for example, the short span compression test involved the grips holding the sample 1.0 mm apart, whereas the ECT sample was 30 mm high.

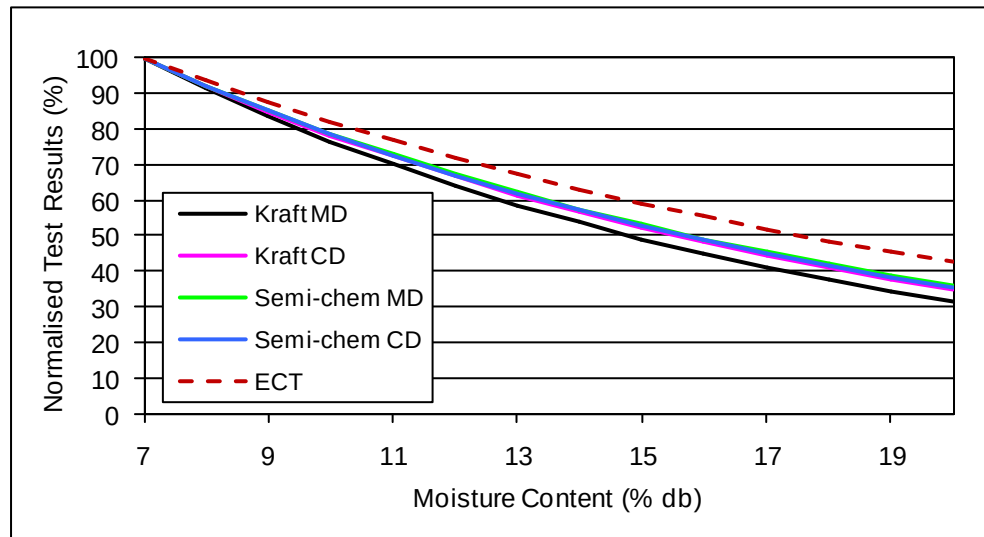


Figure 4.24 Relationship between normalised short span compression strength of Kraft and semi-chemical paper and corrugated fibreboard edgewise compression test (ECT) results and moisture content based on their respective equations (MD – Machine Direction, CD – Cross-machine Direction). The normalised values for were calculated using the equations from Tables 4.2 and 4.7, with the strength at 7 %db used as the basis of the calculation.

4.4 Effect of Chilling and Freezing Temperatures on Edgewise Compression Strength

4.4.1 Introduction

This section examines the effect of moisture and sub-ambient temperature (ambient 20°C, cool-store 0°C and freezer -20°C) on the edgewise compression strength of apple Z-Pack inner corrugated fibreboard. While it is not common to store horticultural products in freezers it is however common to store meat, fish and dairy products in corrugated fibreboard boxes in freezers. The Z-Pack inner was used in the study of the effect of freezing temperatures to maintain consistency with the rest of the study.

4.4.2 Methodology

Ten corrugated fibreboard ECT samples (30×100mm) were placed in an air tight container above a saturated salt solution of K_2SO_4 at 20°C with a headspace RH of 98% (Greenspan, 1977) for 1 week. The ten samples were then placed in labelled

individual metalised plastic bags and sealed. An additional 40 ECT samples, previously stored in an air-conditioned laboratory (approximately 20°C and 50% RH), were placed in labelled individual metalised plastic bags.

The ten samples stored above K_2SO_4 and ten randomly selected samples from the set of 40 were stored in a -30°C freezer for two days. Ten other randomly selected samples from the set of 40 were stored in a 0°C chiller for two days and the remaining 20 samples were stored in the testing laboratory at 20°C.

Two square slabs of acetal plastic were machined to fit onto the cylindrical stainless steel platens (200mm wide). A groove (4.5 mm wide by 5.0 mm deep) was milled out of the acetal slabs to provide edge support during the ECT (Figure 4.25). One acetal slab was fixed to the base of the testing machine and the other slab was fixed to the crosshead which traverses up and down. Before loading the samples the crosshead was lowered so that there was 35mm gap between the base of the grooves in the acetal slabs.

To reduce heat uptake during testing the stainless steel platens, acetal slabs and aluminum strips were also stored with the samples in the freezer, chiller or testing laboratory. Each sample, while in the freezer, chiller or testing laboratory, was placed between two pre-cooled 15×5×120 mm aluminum strips. The samples remained between the aluminum strips during testing to minimize heat uptake by the samples from the testing laboratory air (Figure 4.25).

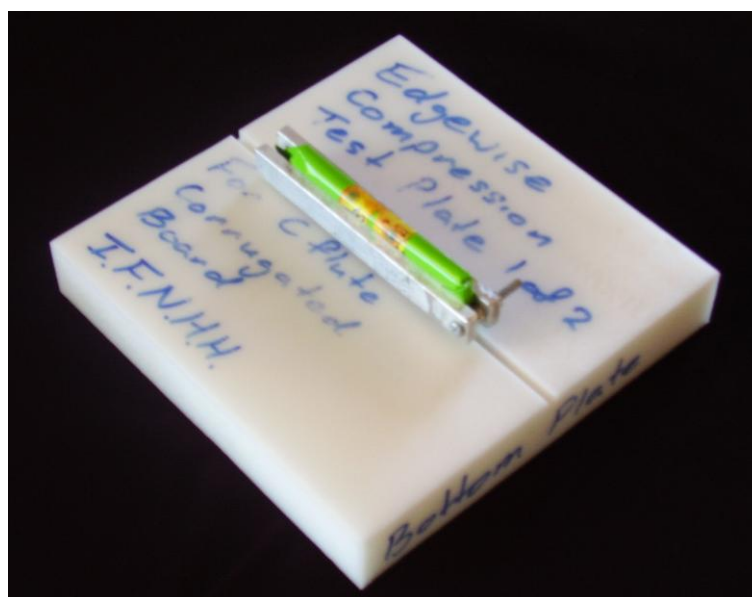


Figure 4.25 One of the two acetal slabs with bagged sample, sitting in the groove which provides edge support, between two aluminium strips.

Ten samples were randomly selected from the 20°C treatment and were removed from their bags just prior to testing and returned and resealed in their bags immediately after testing. The remaining ten samples from the 20°C treatment were tested in their bags. A comparison between the 20°C samples tested with and without the metalised plastic bags was used to determine if the bags influenced the ECT results. All the samples conditioned in the -30 and 0°C rooms were tested in their bags to minimise moisture transfer to and from the surrounding air.

The ECT was performed on an Instron universal compression tester (Series 4500, USA) with a platen speed of 10 mm.min⁻¹. The MC of each sample was determined by measuring the mass of the empty bag, the bag with sample before and after testing, and the oven dried (105°C) mass of the sample after testing.

The temperature of the samples was determined by inserting a PT100 temperature sensor attached to a data logger recording every second (Tinytag, Gemini Data Loggers (UK) Ltd) into two samples at each temperature immediately following testing. After 10 seconds, the sensor was removed and placed into a container of water. The purpose of placing the sensor into water was to induce a large temperature step which allowed for the time during which the sensor was measuring the sample temperature to be accurately identified. The temperature sensor and data logger were

cooled with the samples to reduce the effect of the thermal mass of the sensor influencing the temperature measurement.

One sample conditioned to 0°C was damaged before testing, hence the number of samples conditioned to 0°C was reduced to 9.

4.4.3 Results and Discussion

The average edgewise compression strength of the samples tested at 20°C in the metalised plastic bags were slightly higher than the samples tested without the bags (Table 4.8 and Figure 4.26). The difference in the average edgewise compression strengths was statistically significant based on a t-test for difference between sample means at a 0.05 level of significance (degrees of freedom = 18, t critical = 2.101 (Freund 1988) and a t statistic (t_{stat}) of 2.868 (equation 4.4).

$$t_{stat} = \frac{\bar{X}_1 - \bar{X}_2 - \delta}{\sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2} \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} \quad (4.5)$$

where	t_{stat}	=	t statistic for two-sample t test (dimensionless)
	$\bar{x}_1$	=	average of sample 1 (dimensions vary)
	$\bar{x}_2$	=	average of sample 2 (dimensions vary)
	δ	=	0.0 for difference between two means (dimensions vary)
	n_1	=	sample size for sample 1 (count)
	n_2	=	sample size for sample 2 (count)
	s_1^2	=	variance for sample 1 (dimensions vary)
	s_2^2	=	variance for sample 2 (dimensions vary)

It was not possible to determine whether the difference in the average edgewise compression strength of treatments 1 and 2 was a result of testing the samples in bags or the difference in the average MCs. Using the same level of significance for the previous t-test, the t statistic for the average MCs was 3.452, which was greater than the t critical value of 2.101. The difference in average MC cannot be disregarded as it was shown in section 4.3 that moisture has a significant effect on the strength of corrugated fibreboard.

Table 4.8 Edgewise compression tests on samples at nominal temperatures of 23 to -21°C and 8 and 21 %(db) moisture.

Treatment Number	Actual Temperature ¹	Average Moisture Content (% db)	Average Edgewise Compression Test (kN.m ⁻¹)	Increase relative to ECT at 23°C ²
1	21°C	8.1	10.3	
2	21°C No Bag	8.2	9.5	
3	1.88°C	8.1	10.8	- 0.1 %
4	-23.8°C	8.3	13.7	+ 28 %
5	-25.9°C	21.1	6.9	+ 65 %

1 All samples were tested in bags unless otherwise stated.

2 Edgewise compression test results for data at 23°C calculated using the ECT equation in Table 4.7.

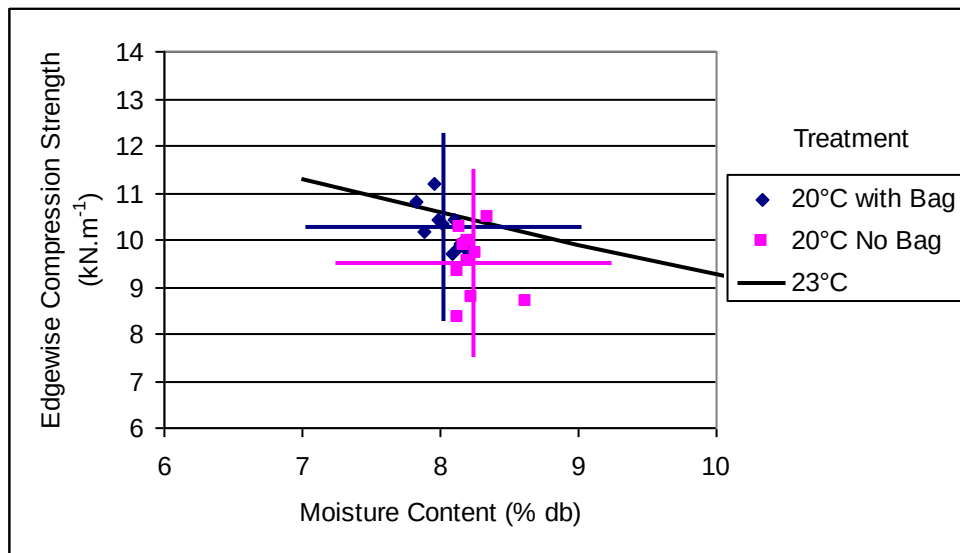


Figure 4.26 Edgewise compression test results of corrugated fibreboard (C-flute 250g.m⁻² Kraft linerboard - 160 g.m⁻² semi-chemical fluting medium - 250 g.m⁻² Kraft linerboard) with corresponding moisture contents for samples tested at 20°C and fitted curve for samples tested at 23°C from section 4.2. The intersection of the two sets of crossed lines represents the average moisture content and edgewise compression strength for treatments 1 and 2.

The average MC of treatment 3 was not statistically different from that of treatments 1 and 4 based on t-test for difference between sample means (Table 4.9). However, the average MC of treatment 1 was found to be statistically different from that of treatment 4. As moisture has been shown to have a significant effect on the strength of corrugated fibreboard (section 4.3), comparisons can only be made between treatments 1 and 3 and treatments 3 and 4. As expected, the *t* statistic values for

comparisons with treatment 5, the only treatment with an average MC of 21.1 %(db), were very large.

Table 4.9 Comparison between average treatment moisture content values and edgewise compression test strength values using t-test for difference between means using equation (4.5) and t critical values from Freund (1988).

Treatment numbers	Treatment numbers		
	3 (1.88°C)	4 (-23.8°C)	5 (-25.9°C)
	t statistic values for average moisture contents		
1 (21°C)	0.433 (2.110)	3.202 (2.101)	124.3 (2.101)
3 (1.88°C)		1.241 (2.110)	75.90 (2.110)
4 (-23.8°C)			106.3 (2.101)
Treatment numbers	Treatment numbers		
	3 (1.88°C)	4 (-23.8°C)	5 (-25.9°C)
	t statistic values for average edgewise compression test strengths		
1 (21°C)	2.341 (2.110)	13.90 (2.101)	11.90 (2.101)
3 (1.88°C)		10.09 (2.110)	12.46 (2.110)
4 (-23.8°C)			21.99 (2.101)

t critical values for 0.05 level of significance in parentheses

The t statistic values for comparison of the average ECT strengths of treatments 3 and 1 and treatments 3 and 4 indicate that cooling of the samples from 21 to 2°C and from 2 to -24°C has a statistically significant effect on the ECT strength (Table 4.9). Figure 4.27 shows that there is a substantial difference between the ECT values of treatment 5 and the ECT values of the samples measured at 23°C. The increase in ECT with decreasing temperature is probably a result of the paper fibres stiffening up as they are cooled similar to the trends shown in Figure 2.19 and 2.20.

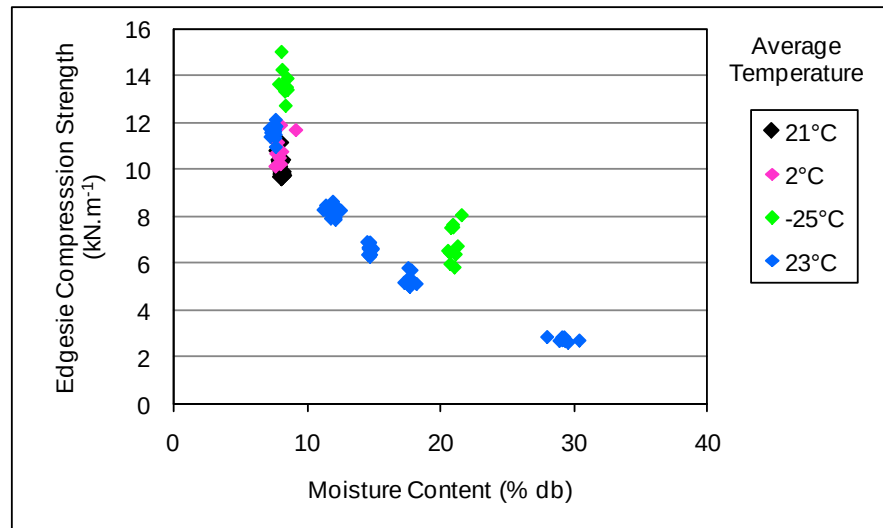


Figure 4.27 Edgewise compression test results of corrugated fibreboard (C-flute 250g.m⁻² Kraft linerboard - 160 g.m⁻² semi-chemical fluting medium - 250 g.m⁻² Kraft linerboard) with corresponding moisture contents for samples tested at temperatures between -25 and 21°C and measurements at 23°C from section 4.2.

Based on the isotherms measurements in Chapter 3, it is unlikely that corrugated fibreboard samples at -25°C with 21.1 %(db) moisture contained ice as based on the isotherm measurements the equilibrium RH would be less than 100% which precludes the possibility of ice formation on the samples. This is important as the presence of ice may affect the strength properties of corrugated fibreboard.

The temperature dependence of the ECT results cannot be explained by the existence of a glass transition temperature. Figure 4.28 shows that it is unlikely that a cellulose based material with a MC of 8% (db) and a glass transition temperature between 2 and -21°C, would also have a glass transition temperature between 23 and -21°C and a MC of 21% (db). The crystallinity is expected to be a fixed property and not change with temperature or MC.

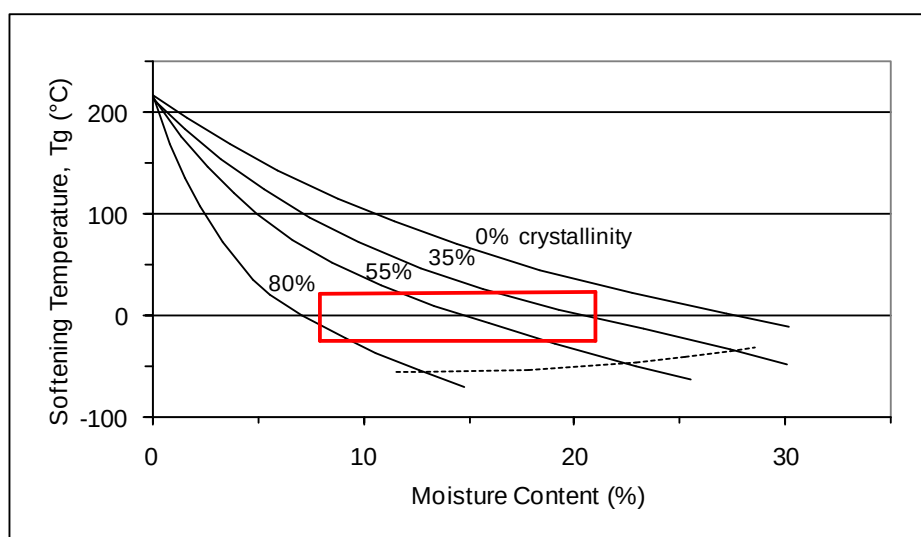


Figure 4.28 Influence of water on the glass transition temperature of cellulose for different degrees of crystallinity (digitised from Back and Salmen, 1981). Dashed line indicates completely swollen cellulose. The red rectangle indicates temperature and moisture content range of treatments 1, 3, 4, 5 and the samples from section 4.2.

The strength properties of the corrugated fibreboard would be expected to rapidly increase when the amorphous phase underwent a change from the rubbery state to the glassy state upon cooling below the glass transition temperature as illustrated by Figure 2.24. The absence of a glass transition phase change would probably lead to the strength properties of the corrugated fibreboard changing along a linear or simple curved (e.g. exponential) trend, as has been shown by all plots of linerboard, fluting medium and corrugated fibreboard properties presented in this chapter.

A more thorough study into the effect of cooling corrugated fibreboard to cool-store temperatures around 0°C over a range of MCs is required before a conclusion on the effect of temperature on corrugated fibreboard boxes can be drawn. This work should be conducted using those board types likely to be found in those boxes used for freezing of food materials.

4.4.4 Comparison with Previous Studies

Andersson and Berkyto (1951a) measured a linear relationship between temperature and tensile strength properties of dry machine-glazed Kraft (basis weight not stated) (Figure 2.19) as opposed to a non-linear relationship measured in this study. They

found that cooling machine direction samples from 23 to 2°C and -25°C caused an increase in tensile strength of 8.8 and 20.1%, respectively, based on the strength of the samples at 23°C. Cooling of their cross-machine direction samples caused a 7.7 and 17.6% increase in tensile strength based on the strength of the samples at 23°C.

The difference between Andersson and Berkyto's (1951a) machine and cross-machine direction measurements indicates that the effect of temperature may be slightly less for the cross-machine direction. Andersson and Berkyto's (1951a) measured a larger temperature effect for their dry cross-machine direction samples at 2°C than was measured in this study for the 8.1 %(db) moisture samples, 8 versus 4%. However their temperature effect at -25°C was much smaller than measured for the 8.3 and 21.1 %(db) moisture samples in this study (18 versus 32 and 53%, respectively).

4.4.5 Comparison Between the Effects of Moisture and Temperature

When making a comparison between the effect of two independent variables on one dependent variable, a decision must be made regarding the ranges (i.e. maximum and minimum values) of the two independent variables that will be used during the comparison. The choice of ranges is important as it may affect the outcome of the comparison. In this case the comparison will be made between the MC and temperature of corrugated fibreboard at standard testing conditions (7 %(db) and 23°C) and cool-store conditions (20 %(db) and 0°C). The MC of corrugated fibreboard has previously been measured in commercial cool-store trials conducted by the author and was found to be as high as 20 %(db) (Tanner and Nevins 2000).

Figure 4.23 showed that an increase in MC from 7 to 20 %(db) caused a 61% reduction in ECT. Table 4.8 shows that a reduction in temperature from 21 to 2°C did not have substantial effect on ECT and that a reduction in temperature down to below -20°C would have a substantial effect relative to samples of equal moisture content at 23°C. However, Table 4.8 also showed that an 14.1 %(db) (21.2 – 7 %(db)) in moisture content still had a detrimental effect on ECT even with a 48.9°C drop in temperature.

Under freezer conditions, the effect of the lower temperature will be to reduce the loss of corrugated fibreboard edgewise compression strength caused by the uptake of moisture by approximately 50 to 83% for relatively dry samples (8.3 %db) and moist samples (21.1 %db), respectively.

4.5 Conclusions

An increase in MC was found to reduce the compression strength of Kraft linerboard and semi-chemical fluting medium following a non-linear trend, whereas the effect on the tensile strength and stiffness followed a linear trend. Benson (1971) also measured a linear tensile strength trend but only between 4 and 14 %(db) moisture, above which the relationship becomes non-linear.

The tensile stiffness of the samples decreased following a linear trend with increasing MC. This was consistent with Benson's (1971) elastic modulus trends, however Salmen and Back (1980) measured a non-linear relationship between elastic modulus and MC. Kraft linerboard and semi-chemical fluting medium tensile properties may exhibit curvature when measured over a wider MC range. No studies of the effect of moisture content on paper short span compression strength were found for comparison.

Exponential and linear equations were fitted to predict the short span compression strength and tensile strength, respectively, of the Kraft linerboard and fluting medium in the machine and cross-machine directions.

As expected, the Kraft linerboard had a higher compression and tensile strength than the semi-chemical fluting medium and the machine direction measurements were greater than those in the cross-machine direction. Also the tensile strength was greater than the compression strength, all of which was consistent with measurements by Chalmers (1998).

The compression strength of the semi-chemical fluting medium was however, found to be higher per unit basis weight than the Kraft linerboard, whereas the opposite was true for the tensile strength. Moisture was found to have a similar effect on the compression strength of the two samples in both directions relative to their strength at 7 %MC(db). However, relative to the tensile strength at 7%MC(db), the Kraft linerboard tensile strength was more affected by moisture than the semi-chemical fluting medium and the machine direction tensile strength of both samples was more affected than the cross machine direction tensile strength .

Moisture was found to reduce the ECT, liner adhesion, flat crush and hardness values of the apple box corrugated fibreboard following exponential trends. Whereas the BS values, in machine and cross-machine directions, followed linear trends, although over a smaller MC range, 7 to 19 %(db) as opposed to 7 to 30 %(db). Kawanishi (1989) also measured a non-linear relationship between ECT and MC.

There was only a small difference in the normalised edgewise compression strength values of Kawanishi (1989) samples and the samples from this study. If this trend were a universal relationship, the moisture susceptibility of new corrugated fibreboard samples could be estimated based on their edgewise compression strength in standard testing conditions and a common normalised curve.

Cooling corrugated fibreboard samples from 21 to 2°C did not appear to have a significant effect on the edgewise compression strength or stiffness values. However further cooling to -25°C caused an increase in the edgewise compression strength of samples with 8.3 and 21 %(db) moisture of 28.5 and 64 %, respectively, relative to the values at 23°C. Salmen and Back's, (1980) also measured an almost linear temperature effect at constant MCs. They found that the effect of temperature increased from 0 to approximately 14.3 %(db), above which the effect stabilised.

Transferring corrugated fibreboard samples from standard laboratory testing conditions (23°C and 50 %RH) to cool-store conditions (0°C) would lead to a reduction in strength of the edgewise compression strength of 61% through the adsorption of moisture, assuming a final MC of 20 %(db). Two scenarios were examined for the combined effect of cooling and moisture adsorption. Either the

effect of temperature would reduce the loss of strength to approximately 40% or the effect of temperature would not have a significant effect.

The comparison of the effect of moisture content on the corrugated fibreboard properties indicated that the relationship between MC and edgewise compression strength could be used to estimate the effect of moisture on the other corrugated fibreboard properties. Therefore, the number of samples can be reduced to replicates for each test/property at the standard laboratory conditions and ECT samples conditioned over the target humidity range. The effect of moisture on the samples can be estimated from the ECT results normalised at the common humidity/MC.

The measurements presented in this chapter represents one of the few if not the only data set including the effect of moisture on the corrugated fibreboard and the constituent linerboard and fluting medium properties. This data will be analysed in Chapter 5 to determine if the strength of corrugated fibreboard can be predicted from the linerboard and fluting medium properties. A positive relationship between the sets of properties would enable the corrugated fibreboard properties to be estimated prior to manufacture of the board.

Chapter 5

Estimating Horticultural Box Compression Strength

5.1 Introduction

The development of models providing accurate predictions of the vertical compression strength of horticultural boxes would allow the manufactures and users of these boxes to better assess the effect of modifications to the corrugated fibreboard without costly (cool-store) trials. Such predictions require information on the effect of cyclic conditions, moisture and compression load on corrugated fibreboard to be well understood.

Estimates of box vertical compression strength can be made using either of McKee's *et al.* (1963) two equations. McKee's *et al.* (1963) equations estimate the box strength from the corrugated fibreboard edgewise compression (ECT) strength, bending stiffness (BS) or board thickness, and box perimeter. The effect of moisture which has been shown to be significant in Chapter 4, was not factored into either of McKee's *et al.* (1963) equations.

In this chapter the information presented in the two previous chapters has been combined in order to estimate the vertical box compression strength (BCS) using McKee's *et al.* (1963) equations modified to include the effects of temperature and equilibrium relative humidity. While a temperature effect on the corrugated fibreboard strength was not conclusively shown in Chapter 4, temperature was shown to have a significant effect on the moisture adsorption isotherms in Chapter 3 and therefore has an important indirect effect.

Allerby *et al.* (1985) presented alternative exponents for McKee's *et al.* (1963) equations based on their more recent study. Analysis of the two versions of McKee's *et al.* (1963) equations was conducted to determine which was more appropriate for the estimation of the Z-Pack apple BCS.

It has been widely stated that there is a direct relationship between the compression strength of the constituent linerboards and fluting medium and the resulting corrugated fibreboard (section 2.3). This theory was analysed using the measurements of Kraft linerboard, semi-chemical fluting medium and corrugated fibreboard strength measurements from sections 4.2 and 4.3.

5.2 Assessment of BCS Equations

Data supplied by Scion was used to assess the accuracy of McKee's equation. Samples of Z-Pack inners could not be tested as the testing facilities were not available at Scion at the time of this research. Also as the Scion data set did not include measurements of bending stiffness only McKee's simplified equation (2.2) could be assessed and not McKee's original equation (2.1) nor Allerby's BCS equation (2.4).

The C-flute samples were manufactured from Kraft and Kraft white top linerboard (approx. 180 g.m^{-2}) and recycled fluting medium (approx 150 g.m^{-1}). The box dimensions were $295 \times 480 \times 200 \text{ mm}$ (W×L×H) and the platen speed was 10 mm.min^{-1} .

McKee's equation (2.2) was found to underestimate the actual box compression strength by an average of 36.7 % (Figure 5.1). This indicates that McKee's equations provide very conservative estimates of the box compression strength. Adjusting the estimates from McKee's equation would be unwise as the data shown in Figure 5.1 represents only a small sample size over a relatively narrow range of equation inputs.

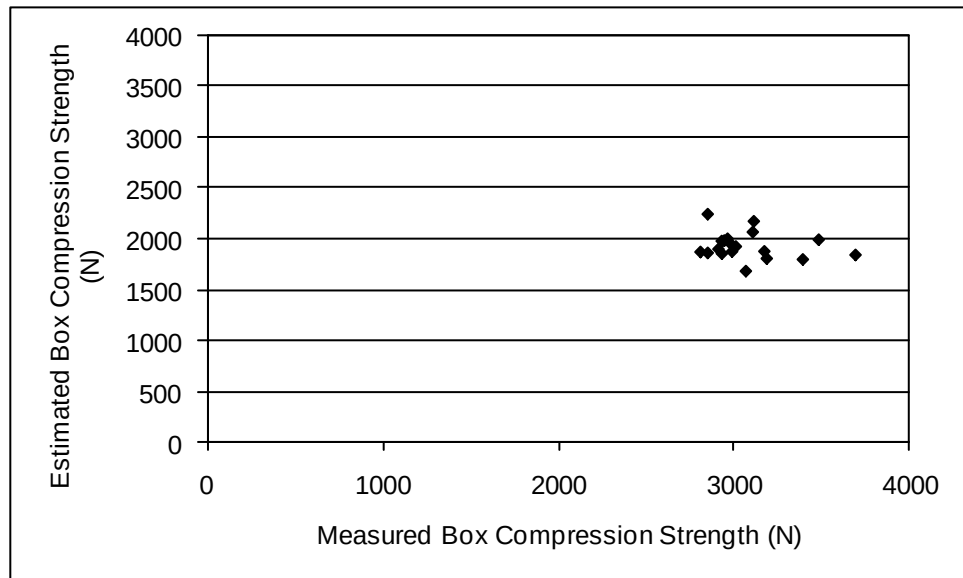


Figure 5.1 Comparison between estimated and measured box compression strength, Scion data set - using McKee's *et al.* (1963) box compression strength equation (2.2).

Figures 5.2 and 5.3 show substantial differences between the predictions of McKee's *et al.* (1963) equations (2.1 and 2.2) from those of Allerby's *et al.* (1985) BCS equation (2.4).

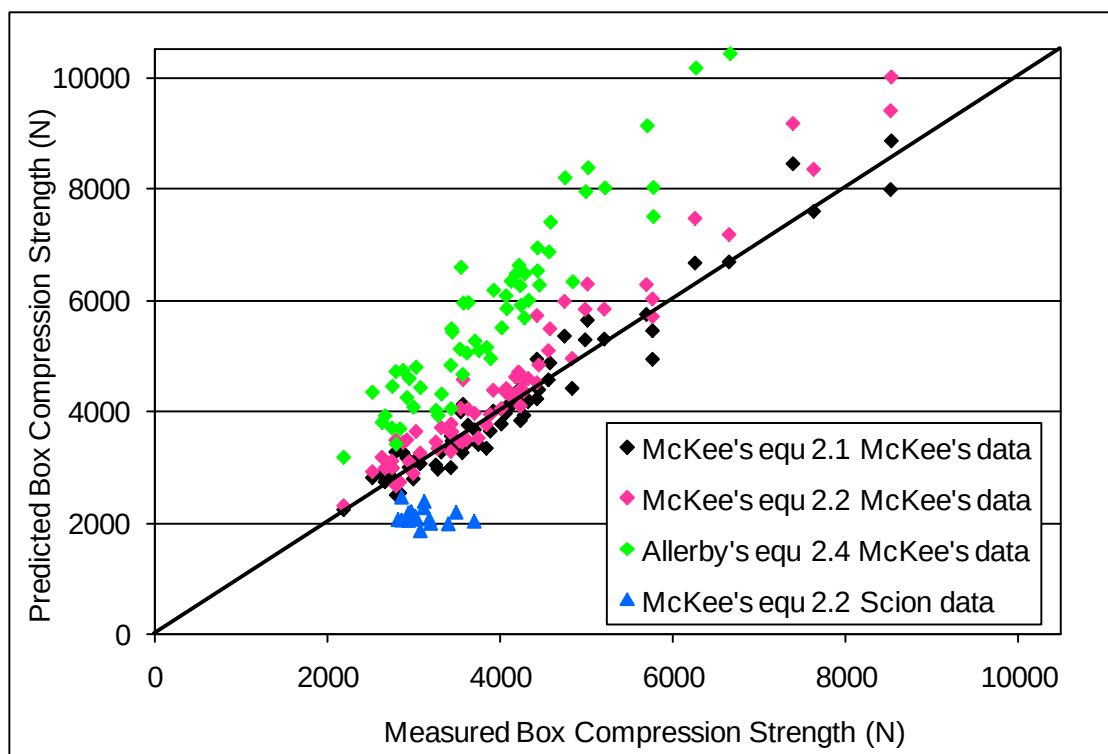


Figure 5.2 Comparison between BCS predictions from McKee's *et al.* (1963) two equations (2.1 and 2.2) and Allerby's *et al.* (1985) equation (2.4) using McKee's *et al.* (1963) data set of corrugated fibreboard and BCS measurements. Scion data set shown as well. The drawn line represents $x = y$.

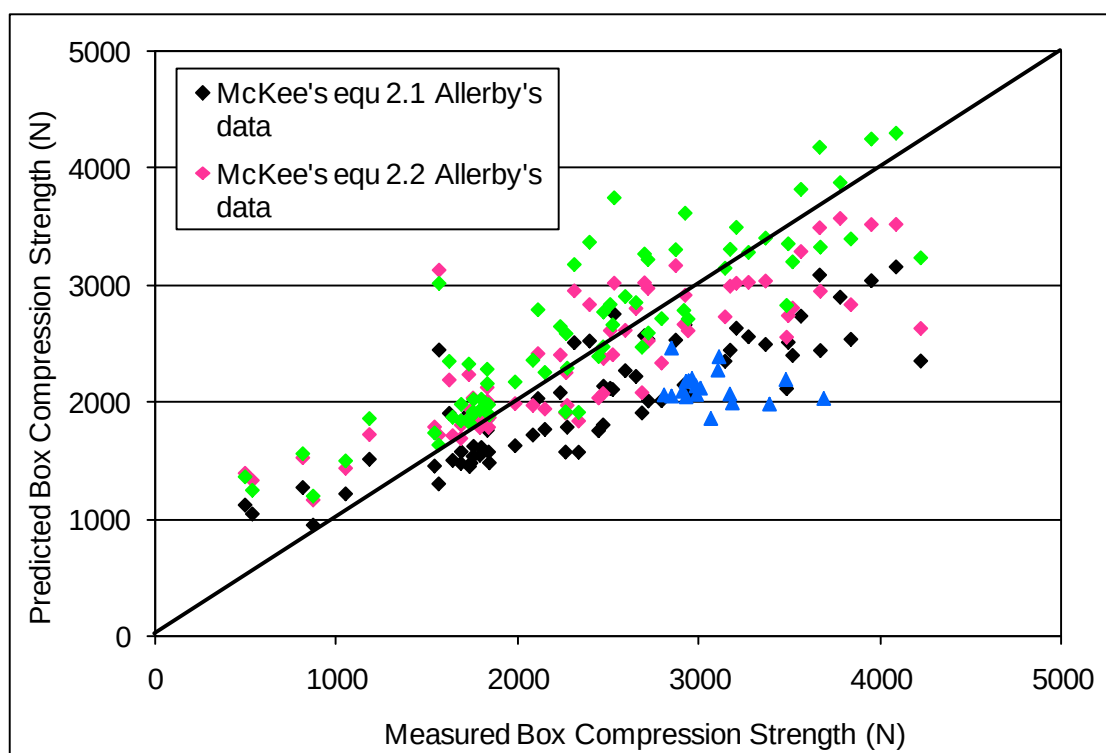


Figure 5.3 Comparison between BCS predictions from McKee's *et al.* (1963) two equations (2.1 and 2.2) and Allerby's *et al.* (1985) equation (2.4) using Allerby's *et al.* (1985) data set of corrugated fibreboard and BCS measurements. Scion data set shown as well. The drawn line represents $x = y$.

Based on the substantial differences between the measured and predicted Scion BCS and Figures 5.2 and 5.3 it was concluded that McKee's *et al.* (1963) two BCS equations should only be used to provide indicative values. Allerby's *et al.* (1985) BCS equations does not represent a significant improvement to McKee's *et al.* (1963) equations as the Z-Pack corrugated fibreboard properties presented Chapter 4 were higher than in the range of data used by Allerby's *et al.* (1985) to develop their BCS equation.

5.3 Estimation of Box Compression Strength

5.3.1 BCS as a Function of Moisture Content

Relationship between MC and edgewise compression strength and the BS in the machine- and cross-machine directions from the equations in Table 4.7 were incorporated into McKee's *et al.* (1963) equations (2.1 and 2.2). This yields equations (5.1) and (5.2) which allow estimation of the box compression strength (BCS) over a

range of MCs (7 – 19 % db). It must be remembered that equations (5.1) and (5.2) are only suitable for estimating the box compression strength for the tested combination of C-flute 250g.m⁻² Kraft linerboard - 160g.m⁻² semi-chemical fluting medium - 250g.m⁻² Kraft linerboard corrugated fibreboard.

$$BCS = 578.9[\exp(-0.07326 MC)]^{0.746} \times [(23.71 - 0.7052 MC)(18.20 - 0.6783 MC)]^{0.127} BP^{0.492} \quad (5.1)$$

$$BCS = 114954 \exp(-0.07326 MC) C^{0.508} BP^{0.492} \quad (5.2)$$

There was no more than 5% difference between the box compression strength estimates of equations (5.1) and the simplified form equation (5.2) (Figure 5.4). The decline in estimated box compression strength was very close to that of the decline in the estimated sample edgewise compression strength (Figure 5.4). This indicates the greater significance of the edgewise compression strength over that of the BS in McKee's *et al.* (1963) equation (2.1) and the modified McKee's *et al.* (1963) equation (5.1). The predictions in using equation (5.1) in Figure 5.4 are limited by the MC range of the BS samples (7 to 19 %db).

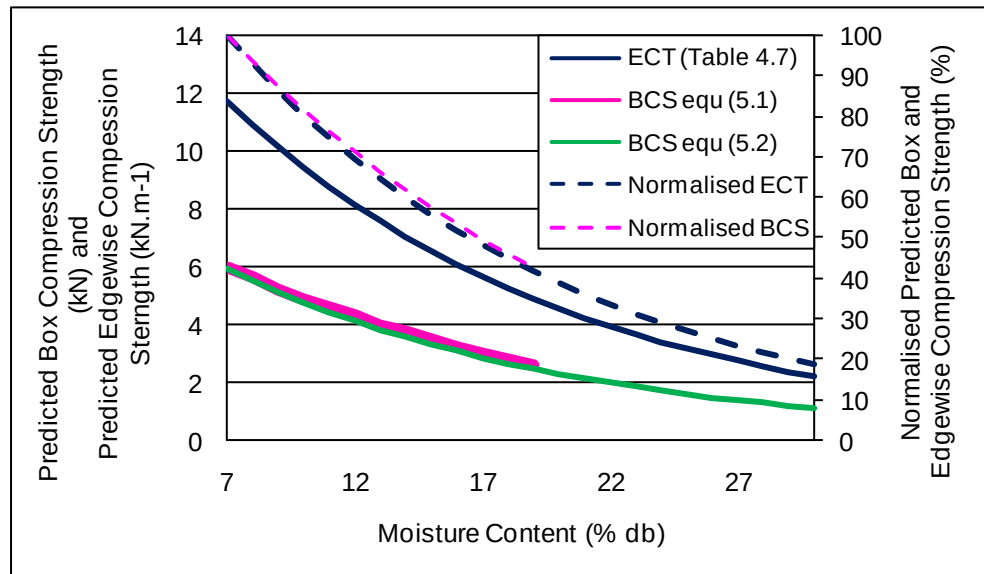


Figure 5.4 Comparison between actual (solid lines) and normalised (dashed lines) predicted box compression strength (BCS) and edgewise compression test strength (ECT). Note: strength at 7 %(db) moisture used as basis to calculate normalised values and normalised values for equation (5.2) were identical to the normalised ECT values.

5.3.2 BCS as a Function of Relative Humidity

The box compression strength can be estimated from the box equilibrium relative humidity (ERH) and temperature using the modified McKee's equations (5.1) and (5.2) and the moisture sorption isotherms (Chapter 3) of the constituent linerboards and fluting medium. Where there is not a significant difference between the moisture sorption isotherms of the constituent linerboard and fluting medium, the MC of the corrugated fibreboard can be estimated from either of the isotherms.

With the Kraft linerboard and semi-chemical fluting medium there was a substantial difference between the isotherms above 85 %RH at 0°C (Figure 3.30). Therefore it is believed that the corrugated fibreboard MC should be estimated from both isotherms on a mass basis (equation 4.1). The quantity of adhesive used to attach the flute tips to the linerboards was assumed to be insignificant relative to the mass of the linerboard and fluting medium and therefore was not factored into the MC calculation.

The relationship between the predicted box compression strength and ERH (Figure 5.5) shows how the effect of temperature on the moisture sorption isotherms affects the prediction of box compression strength.

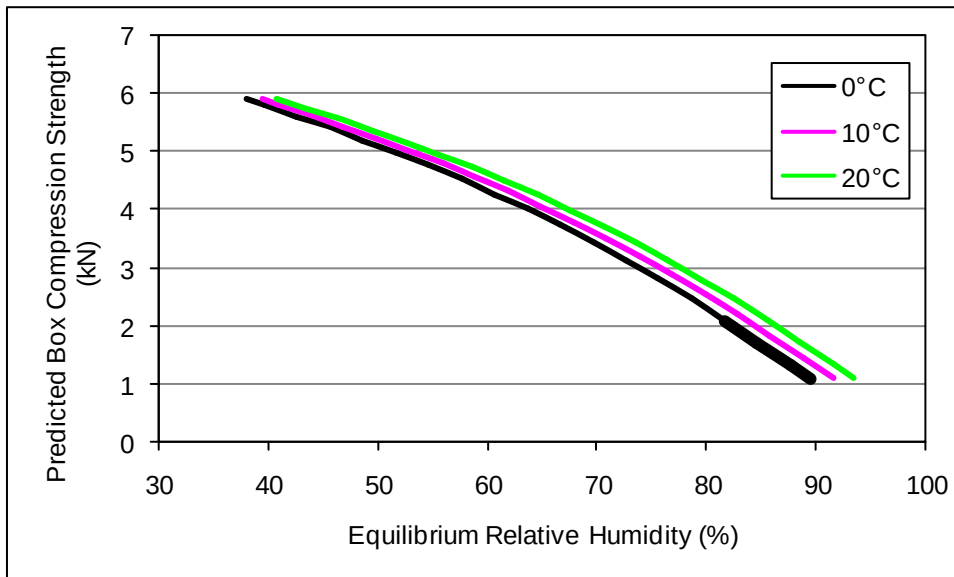


Figure 5.5 Relationship between predicted box compression strength and equilibrium relative humidity at different temperatures as predicted by equations (2.24), (2.27) to (2.29), (5.2) and Table (3.9). Note: (1) 0.0045 m and 1.8 m used as the corrugated fibreboard calliper and box perimeter, respectively, (2) thick section on 0°C line indicates cool-store conditions.

The application of the modified McKee's equations are limited by the MC range over which the edgewise compression strength and BS were measured as well as the humidity range over which the isotherms were measured. Equation (5.2) was used to plot Figure 5.5 as it has already been shown in Figure 5.4 that the predictions from equation (5.2) are very close to those from equation (5.1). Equation (5.2) is easier to use as it requires less data, i.e. no bending stiffness values.

The application of these equations is also limited to situations where the linerboards and fluting medium are in equilibrium with respect to their MCs. In situations where there may be significant humidity and temperature differences on either side of the corrugated fibreboard causing a MC gradient, the accuracy of the predictions may be reduced. A moisture gradient is expected to exist from the centre to the outside of pallets of fruit that have not been packaged in poly-liners. The performance

characteristics of corrugated fibreboard with a moisture gradient through the thickness of the linerboard was not found in the literature and may be worthwhile investigating.

5.4 Estimation of Edgewise Compression Strength

Seth (1985) and Allerby *et al.* (1985) stated that the edgewise compression strength can be estimated from the short span compression strength of the fluting medium and linerboards (equation 2.8) and fluting medium take-up factor. Seth (1985) referred to the edgewise compression strength calculated from the cross-machine-direction short span compression strength of the linerboard and the fluting medium as the accumulative intrinsic edgewise compression strength (AIECS). Equation 2.8 was one of three similar equations found in the literature that link the edgewise compression strength of the corrugated fibreboard to those of the linerboards and fluting medium (section 2.3).

This proposed relationship was tested for the board structure used in apples Z-Pack inners and the results are plotted in Figure 5.6. This show that the short span compression test results of the linerboard and fluting medium should not be used to estimate the edgewise compression strength as the application equation (2.8) overestimates the edgewise compression strength by between 29 and 54% (Figure 5.6). In contrast, Allerby *et al.* (1985) adjusted edgewise compression strength equation (2.10) predicted the edgewise compression strength of the Kraft and semi-chemical corrugated fibreboard from 7 to 19% (db) moisture, to within 7% (Figure 5.6).

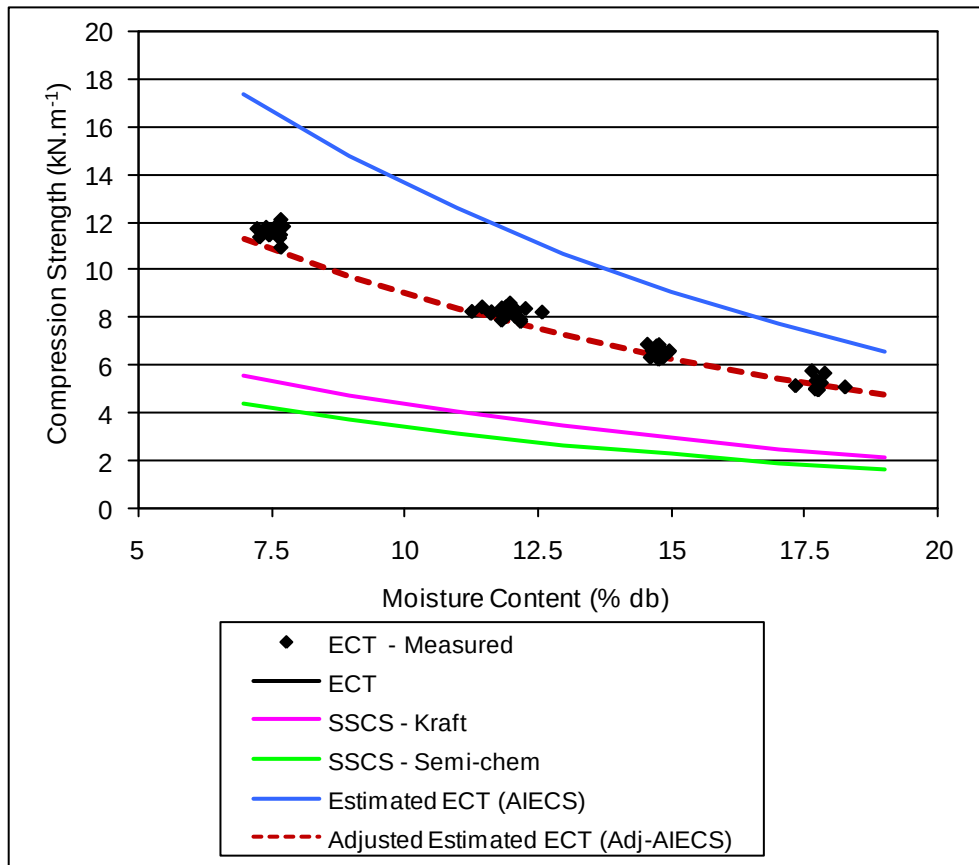


Figure 5.6 Comparison of measured edgewise compression strength (Figure 4.13), cross-machine-direction short span compression strength (SSCS, Table 4.2) of Kraft linerboard and semi-chemical fluting medium. Note: the estimated accumulative intrinsic edgewise compression strength (*AIECS*) calculated using equation (2.8) and the adjusted accumulative intrinsic estimated edgewise compression strength (*Adj-AIECS*) calculated using equation (2.10).

5.5 Conclusions

McKee's *et al.* (1963) equations were judged to be more appropriate than Allerby's *et al.* (1985) for predicting the compression strength of the apple Z-Pack inner boxes, based on the similar range of corrugated fibreboard properties shown in section 4.3 and measured by McKee *et al.* (1963). McKee's *et al.* (1963) equation (2.2) was found however to substantially underestimate the box by 36.7% relative to a small data set provided by Scion. The BCS predictions from McKee's *et al.* (1963) equations can therefore only be used as very conservative and indicative values.

McKee's *et al.* (1963) equations were modified to allow for the estimation of the box compression strength over a range of MCs. There was very little difference between the two modified McKee's equations, both of which required the edgewise compression strength. The only difference between the equations is that (5.1) requires the BS values and (5.2) requires the board thickness. The application of the equations were limited to the MCs over which the edgewise compression strength (7 to 30 %db) and BS were measured (7 to 19 %db).

An equation (4.1) was presented in Chapter 4 to calculate the MC of the corrugated fibreboard based from the MCs and masses of the linerboards and fluting medium. This equation, in conjunction with the modified McKee's equations and adsorption isotherms, allow the estimation of box compression strength accounting for the ERH and temperature.

The edgewise compression strength was estimated to within 7% from; the linerboard and fluting medium compression strength and basis weight, take-up factor, Seth (1985) accumulative intrinsic edgewise compression strength equation and equation (2.10) developed by Allerby *et al.* (1985). While the close relationship between the compression strength of the constituent linerboard and fluting medium and compression strength of the corrugated fibreboard had widely been stated, no data had previously been found in the literature confirming the relationship.

The combination of Seth's (1985) accumulative intrinsic edgewise compression strength equation (2.8) and Allerby's *et al.* (1985) adjusted accumulative intrinsic edgewise compression strength equation (2.10) as a means of estimating edgewise compression strength should be tested against other combinations of linerboard and fluting mediums by other researchers. A more comprehensive validation of these two equations would facilitate comparisons of different board components on the ultimate box strength without requiring the boards to be manufactured and tested.

Chapter 6

Semi-Chemical Fluting Medium Properties at High Temperatures

6.1 Introduction

In the manufacture of corrugated fibreboard, the fluting medium is subjected to high mechanical forces during the flute formation process. This has been shown by Whitsitt and Sprague (1987) to reduce the fluting medium short span compression strength in both the machine and cross-machine directions. As these influence edgewise compression strength (Chapter 5), ultimately box strength will be influenced by the conditions prevailing in the corrugating machine. Similarly both temperature and moisture content (MC) have been shown by Andersson and Berkyto (1951), Andersson and Berkyto (1951b) and Salmen and Back (1980) to affect the strength properties of paper. The purpose of the work presented in this chapter was to characterise the properties of the fluting medium (160 g.m^{-2} semi-chemical) as a function of MC and high temperature. This was hoped to enable the MC and temperature of the fluting medium entering the single-facer to be controlled to minimise the damage to the fluting medium during the flute formation process.

Two important sets of properties are required to be measured if models to minimise the damage to the fluting medium were to be developed: the moisture sorption isotherms and the tensile properties of the fluting medium, both over the appropriate temperature and MC ranges. The damage to the fluting medium will be dependent on its tensile properties and these will be affected by temperature and MC.

In order to determine the temperature range for isotherm and tensile properties measurements, the fluting medium temperature was measured as close to the preconditioner as possible. The MC of the 160 g.m^{-1} semi-chemical fluting medium shipped from the Carter Holt Harvey Ltd. Kinleith pulp and paper mill was 9.9 %(db). There were no moisture sensors on the corrugator and it was not possible to take fluting medium samples from the corrugator to determine the MC due to the rate of

evaporation of moisture from the fluting medium. Therefore in the absence of MC data for the fluting medium between the preconditioner and the single-facer and allowing for a possible increase in moisture following the steam shower, the high temperature isotherms and tensile properties should be characterised over the MC range 0 to 12 %(db).

Of the published paper isotherms outlined in section 2.7, only the isotherms presented by Houtz and McLean (1939) exceeded 100°C, however their Kraft isotherms were not measured above 1.7 %RH. Prah1 (1968) published the widest range of isotherms but only from 22 to 80°C. As the maximum fluting medium temperature was likely to extend beyond the temperature range of Prah1's (1968) isotherms, an attempt was made to develop a method of measuring isotherms above 100°C. However it was found during the calibration phase that the high temperature humidity sensor (HMM30C, Vaisala, Finland) was unable to provide the required accuracy to measure the moisture sorption isotherms. Therefore, Prah1's (1968) isotherms were used to model the relationship between temperature, humidity and MC of the fluting medium in the mathematical model presented in Chapter 7.

Andersson and Berkyto (1951) and Andersson and Berkyto (1951b) found that the effect on the stress-strain relationship to increasing temperature and MC can vary significantly between pulp types (section 2.5). Salmen and Back, (1980) produced the most comprehensive study found on the effect of moisture and temperature on paper properties (specific modulus of elasticity), however their temperature (-25 to 65°C) range did not extend over the temperature range expected at the entrance to the single-facer (section 2.5). It was therefore necessary to measure the tensile properties of the fluting medium from 20°C to the maximum fluting medium temperature of approximately 188°C (based on the steam pressure in the preconditioner rolls). The fluting medium temperature was measured to refine the temperature range over which the semi-chemical fluting medium tensile strengths were to be measured over.

A preliminary trial was conducted to determine the effect of the conversion process on the corrugated fibreboard properties. The conversion process processes the corrugated fibreboard blanks produced by the corrugator, by creasing the blanks to form the

vertical box corners, cutting out the air vents and hand holds and printing the graphic on the outer surface. The trial determined that it was possible for the blanks to be converted without any significant changes to the corrugated fibreboard properties (Appendix 7). The trial confirms that the fluting formation process should be investigated in order to improve the corrugated fibreboard strength and consistency.

6.2 Fluting Medium Temperature Profile

6.2.1 Introduction

The purpose of measuring the fluting medium temperature profile was to establish the temperature range over which the measurements of the strength properties should cover. Due to design of the single-facer and the health and safety regulations of Carter Holt Harvey Ltd. (New Zealand) the fluting medium temperature could only be measured between the preconditioner and the steam shower (Figure A1.1). A corrugated fibreboard production run incorporating 160 g.m^{-2} semi-chemical fluting medium was chosen for analysis as the corrugated fibreboard of interest to this study utilises the same fluting medium. An additional production run incorporating 120 g.m^{-2} semi-chemical fluting medium was also chosen to provide additional information as only a single run incorporating 160 g.m^{-2} fluting medium was scheduled during the time at which the temperature measurements were taken.

6.2.2 Methodology

The fluting medium temperature was measured using an infrared temperature sensor (Minolta/Land Cyclops Compac 3, Land Infrared Ltd. England), placed under the fluting medium between the steam-shower and preconditioner, 0.5m from the preconditioner. The infrared temperature sensor measured the temperature over a diameter of 34 to 40 mm. The emissivity setting of the infrared temperature sensor (0.88) was set to the middle of the emissivity range for paper (0.80 to 0.95) as stated by the sensor manual.

The RS232 output of the infrared temperature sensor and measurement times were recorded by a computer. The speed of the single-facer and measurement time were recorded by a data logger (Series 1250, Remote Squirrel meter/logger, Grant

Instruments (Cambridge) Limited England) connected in parallel to the input of the speed display on the single-facer control panel. The running speed of the fluting medium prior to the single-facer was equal to the single-facer speed multiplied by the take-up factor ($1.42 \text{ m}_{\text{fluting medium}} \cdot \text{m}_{\text{corrugated fibreboard}}^{-1}$) (CHH 1995)

For the 160 and 120 $\text{g} \cdot \text{m}^{-2}$ semi-chemical fluting medium runs, the temperature and speed measurements were recorded for 105 and 31 min, respectively, during which approximately 13,700 and 1,850 m, respectively, of corrugated fibreboard was produced.

6.2.3 Temperature Profiles

Measurements of the bottom surface temperature of the 160 and 120 $\text{g} \cdot \text{m}^{-2}$ semi-chemical fluting medium between the preconditioner and the single facer and the fluting medium speed shows a temperature range of 34 to 164°C (Figure 6.1 and Figure 6.2).

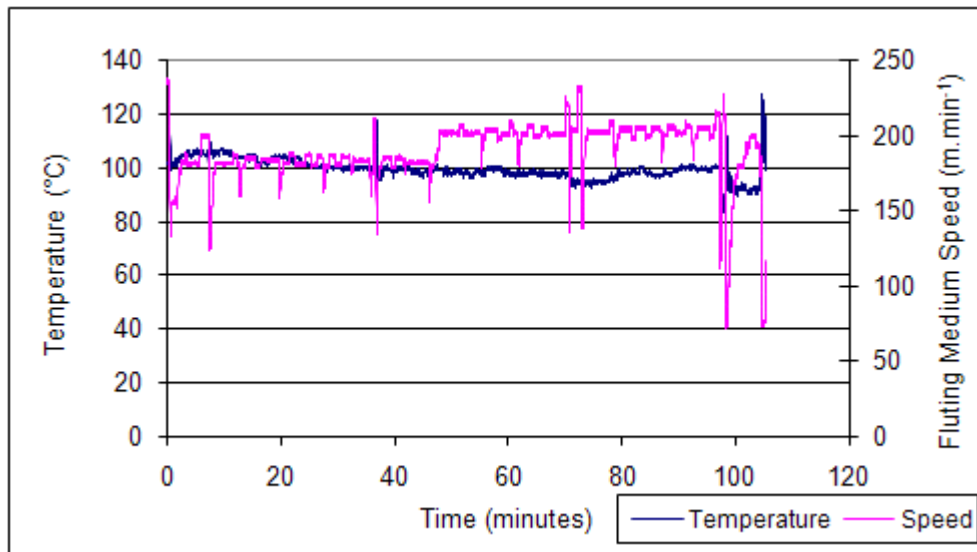


Figure 6.1 Profile of 160 $\text{g} \cdot \text{m}^{-2}$ semi-chemical fluting medium bottom surface temperature and corresponding speed during commercial production of corrugated fibreboard.

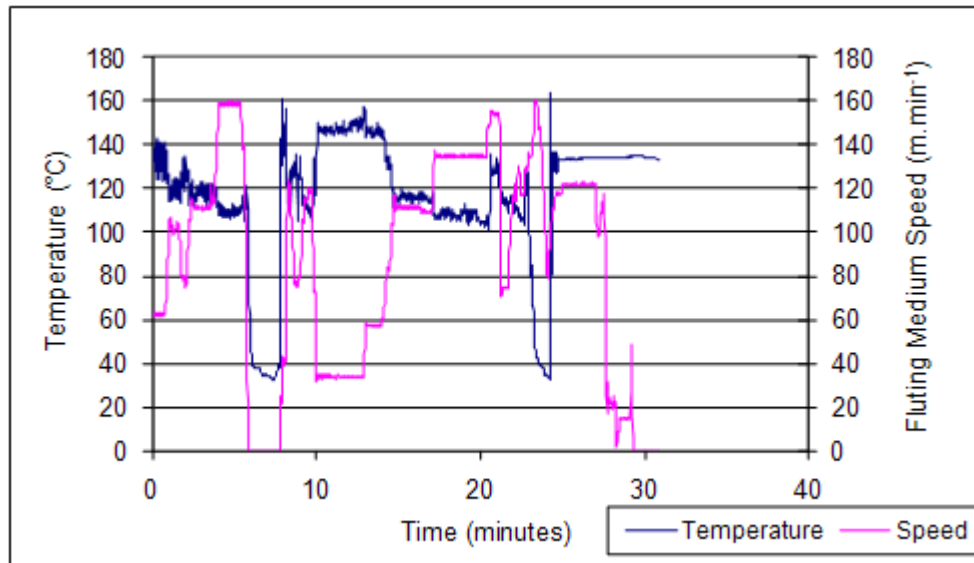


Figure 6.2 Profile of 120g.m⁻² semi-chemical fluting medium bottom surface temperature and corresponding speed during commercial production of corrugated fibreboard.

Figure 6.1 and Figure 6.2 indicate that the strength properties of 160 g.m⁻² semi-chemical fluting medium should be characterised over the temperature range of 20 (ambient) to 164°C. This temperature range encompasses the temperature of the steam exiting the steam shower, 154°C. The steam was released at 12 bar pressure, would equilibrate to atmospheric pressure and, assuming the steam maintains a constant enthalpy, the steam temperature would drop to 154°C. The pressure and temperature of the steam inside the preconditioner cylinders was 12 bar and 188°C. Rapid heat loss via evaporation of moisture and convection would be expected from the fluting medium between the second preconditioner roll and the measurement point. Therefore the temperature range for characterising the fluting medium properties was extended to 180°C.

6.3 Effect of Temperatures on Fluting Medium Tensile Properties

6.3.1 Introduction

The objective of this section was to determine the effect of moisture (0 to 12 %db) and temperature (20 to 180°C) on the tensile properties of 160 g.m⁻² semi-chemical fluting medium manufactured by Carter Holt Harvey Ltd., Kinleith, New Zealand. The tensile

properties of the fluting medium were measured in the machine direction, as this was the direction of primary stress on the fluting medium during the corrugating process.

6.3.2 Methodology

The experimental plan was to develop a method of measuring the tensile strength and stiffness of semi-chemical fluting medium samples, then to assess the method using samples with temperatures ranging 20 to 100°C with very low and high moisture contents. If the methodology proved successful in producing repeatable results with suitable temperature and moisture control then the temperature range would be extended to 180°C and the MC range reduced to 0 to 12 %(db).

For the initial testing 100 samples each of 15 × 150 mm (cross-machine × machine direction) were cut from one sheet of 160 g.m⁻² semi-chemical fluting medium. Replicates of 10 samples were cut for each temperature-moisture combination (20, 40, 60, 80 and 100°C and low and high MC). The samples were conditioned for two weeks above either distilled water with fungicide (CuSO₄) (100 %RH) or desiccant (silica crystals) (0 %RH) in sealed plastic containers producing average moisture contents of 2.7 and 39.6% for the low and high MC samples.

Individual foil-laminate bags (200 × 30mm) were made for each sample, labelled and weighed. Following conditioning, the samples were placed into the foil-laminate bags and sealed. A method using the following steps was developed to allow the sample to be tested in the bags without the tensile strength of the bag affecting the measurement:

1. The sample was placed between two rigid plastic strips (200×20×3 mm) (Figure 6.3, A)
2. The sample and plastic strips were placed in a foil laminate bag (Figure 6.3, B)
3. The laminate bag was shortened at the centre and the bag was clamped to hold the concertina fold (Figure 6.3, C)
4. The plastic strips were removed with the sample remaining in the foil laminate bag and the end of the bag was heat sealed (Figure 6.3, D)

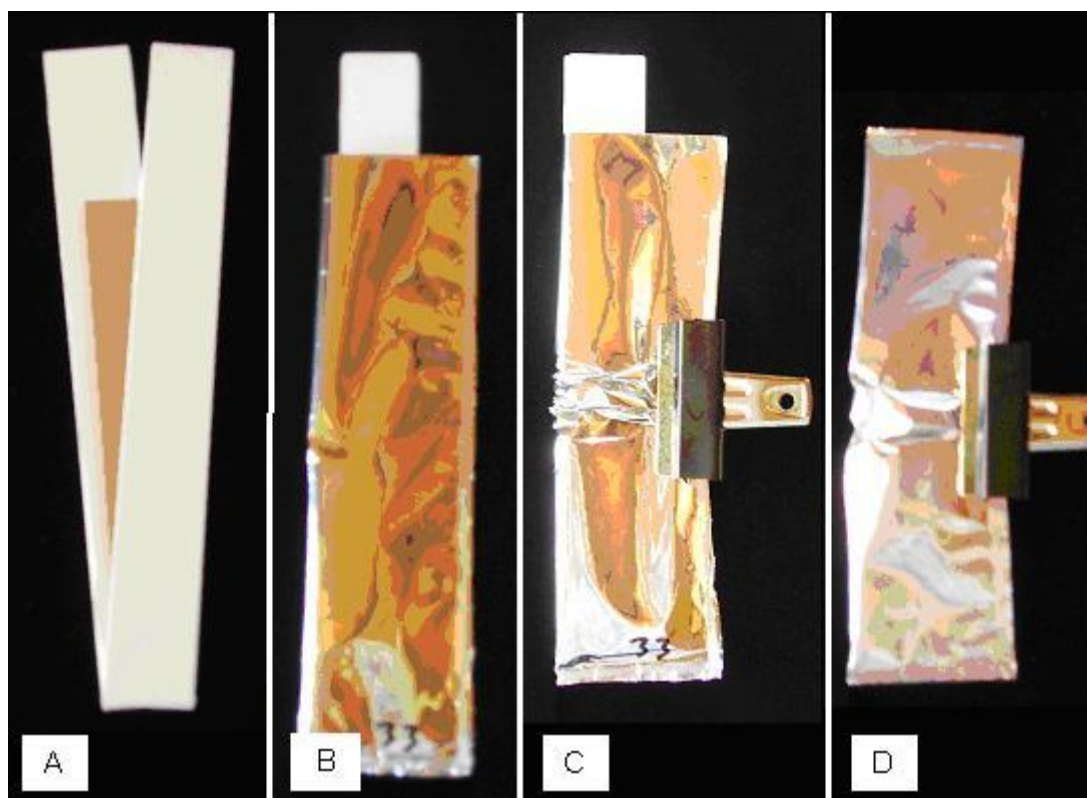


Figure 6.3 Preparation of samples for high temperature tensile testing strength testing of fluting medium samples (160g.m^{-2} semi-chemical pulp)

It was necessary to place the samples between the plastic strips to allow the bag length to be shortened by forming a concertina fold, without creasing the sample. The bag concertina fold was necessary to ensure that the bag did not impart a significant resistance during the tensile strength testing (Figure 6.4).

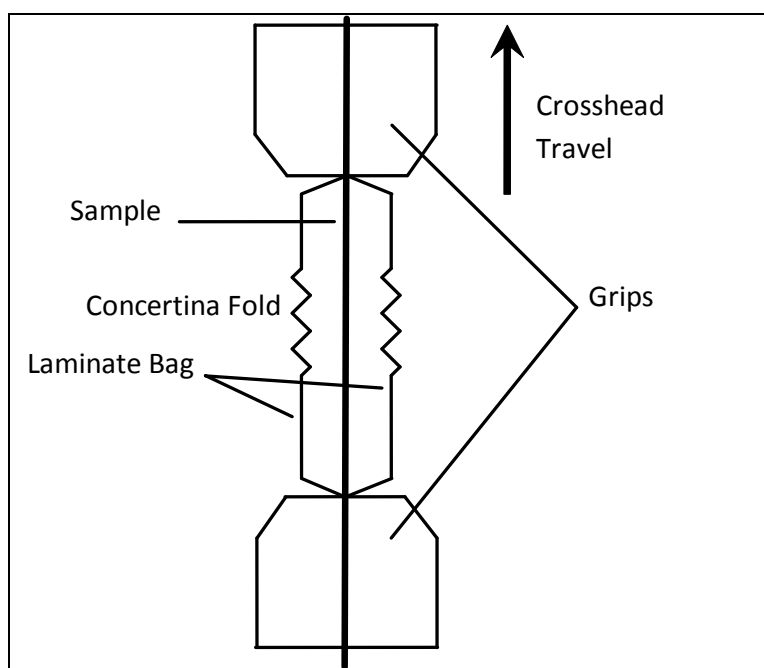


Figure 6.4 Tensile strength testing of fluting medium sample in a laminate bag with concertina fold.

The tensile testing was conducted on an Instron Universal Testing Machine (Series 4500), with slide action pneumatic grips, inside a temperature control cabinet (Instron, model 5889R) with the controller set to 20, 40, 60, 80 or 100°C. The test span was 50 mm and the crosshead speed was 5.0 mm.min⁻¹.

The samples, at ambient temperature, were individually loaded into the Instron grips and allowed to equilibrate to the testing temperature (Table 6.1). The time to equilibrate to the test temperature was determined by placing a thermocouple between two 15×150 mm samples of semi-chemical fluting in a foil laminate bag and recording the time taken to reach within 0.5°C of the cabinet temperature. The procedure to determine the required equilibration time was performed once for each of the five test temperatures.

Table 6.1 Equilibration time for samples

Temperature (°C)	Time (minutes)
20	0
40	1.5
60	2
80	3
100	4

Additional samples were conditioned and tested without being sealed in foil-laminate bags at 20°C to assess whether the foil-laminate bags affected the strength measurements. These samples were sealed in metalised plastic bags after conditioning, removed from the bags just prior to testing, and then resealed in the bags following testing. Testing without the foil-laminate bags was only conducted at 20°C as higher temperatures would have significantly affected the sample MC.

The masses of the samples in the bags was measured before and after testing and the samples were removed from the bags and oven dried at 105°C to determine their dry masses and MC.

The maximum tensile strength for each sample was determined by converting the maximum force into a tensile strength value using equation (6.1). The tensile strength measurements were not converted into tensile stress values as the standard instrument for measuring the thickness of the samples was not available.

$$\text{Tensile Strength (N.m}^{-1}\text{)} = \frac{\text{Maximum Force (N)}}{\text{Sample Width (m)}} \quad (6.1)$$

The force-displacement data generated by the tensile testing on the Instron Universal Testing Machine required standardising with respect to the x axis to calculate the tensile stiffness of each sample. Figure 6.5 shows that for an example like Case 1, minimal crosshead travel was required to stress the sample; for Case 2, the crosshead had to travel a relatively large distance (0.3 mm or 24% of the strain to failure) before exerting stress on the sample. Calculating the tensile stiffness from the force displacement curves of Case 1 and 2 at the onset of the crosshead travel would not have produced useful data.

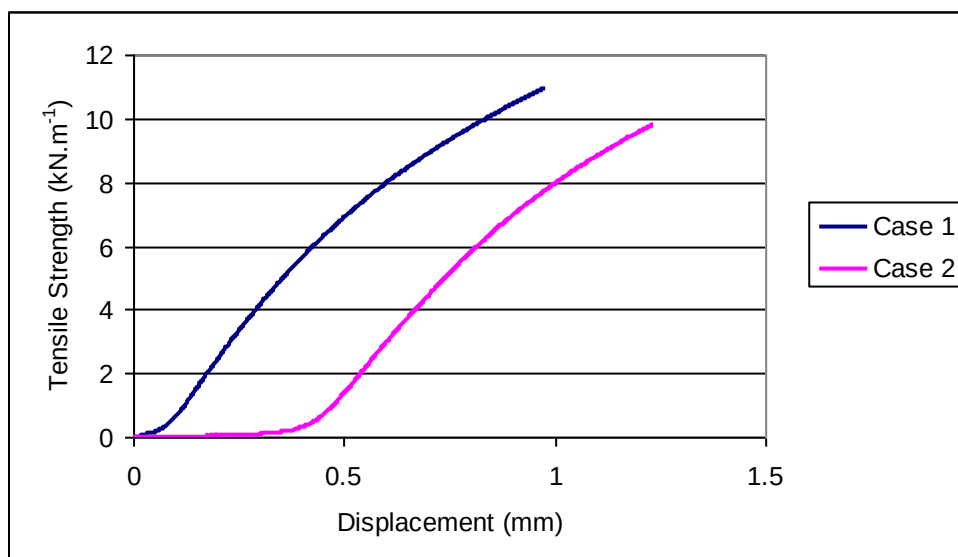


Figure 6.5 Examples of force-displacement curves from tensile testing.

To assess the repeatability and allow for comparison of the data measured at different temperatures all the force displacement data sets were standardised at a tensile strength of 0.5 kNm^{-1} , where the displacement was reset to 0 mm. The tensile stiffness values of the samples were then calculated using equation (4.1) from the slope of the compression curve over a range of $\pm 0.025 \text{ mm}$, at the standardised displacement of 0.5 mm and the sample width.

6.3.3 Results

The average moisture contents of the bagged and non-bagged moist samples at 20°C were not statistically different however their average tensile strengths and stiffness values were statistically different (Table 6.2). The opposite was true for the dry samples at 20°C . In the case of the moist samples at 20°C the bagged samples tests, measured on average, lower tensile strength and stiffness values. This indicates that the use of bags will be successful in minimising moisture loss from moist samples but at the same time the bags will reduce the measured tensile strength and stiffness. While this was not the desired outcome, the investigation was continued as a better method of maintaining the MC of paper samples at elevated temperatures ($>20^\circ\text{C}$) was not developed.

Table 6.2 Average tensile strength, tensile stiffness and moisture content values for the 20°C bagged and non-bagged 160 g.m⁻² semi-chemical fluting medium samples and a comparison between the values using t-test for difference between means using equation (4.5). $t_{critical} = 2.110$ (Freund, 1988).

Property	Moist Samples		Dry Samples	
	Bagged	No Bag	Bagged	No Bag
Moisture Content (% db)	39.6	39.7	2.45	3.98
	$t_{stat} = 0.207 < t_{critical}$		$t_{stat} = 5.201 > t_{critical}$	
Tensile Strength (kN.m ⁻¹)	2.74	3.26	12.9	13.1
	$t_{stat} = 6.027 > t_{critical}$		$t_{stat} = 0.300 > t_{critical}$	
Tensile Stiffness (MN.m ⁻²)	1.70	1.99	11.6	11.0
	$t_{stat} = 3.447 > t_{critical}$		$t_{stat} = 0.933 < t_{critical}$	
Number of Samples	9	10	10	9

The tensile property measurements at the five temperatures and two moisture contents showed that the methodology was suitable for indicate general trends but was not structured enough to accurately model the relationship between tensile properties and MC at elevated temperatures (Table 6.3, Figure 6.6 and Figure 6.7). The 95% confidence intervals for the dry samples were found to a similar order of magnitude to those for the moist samples, however the confidence intervals for the tensile strength and stiffness values were approximately ten times larger than those of the moist sample.

Table 6.3 Tensile properties of 160 g.m⁻² semi-chemical fluting medium over range of temperature and two moisture contents with 95% confidence intervals in parentheses.

Temperature (°C)	Average Moisture Content (% db)	Average Tensile Strength (kN.m ⁻¹)	Average Tensile Stiffness (MN.m ⁻²)
Dry Samples			
20	2.45 (±0.457)	12.9 (±0.802)	11.6 (±1.06)
40	4.22 (±1.08)	9.4 (±1.15)	9.82 (±1.24)
60	3.66 (±0.86)	9.39 (±1.33)	8.7 (±0.608)
80	3.33 (±0.729)	9.05 (±0.767)	7.09 (±1.17)
100	4.3 (±0.884)	8.72 (±0.959)	6.88 (±0.547)
Moist Samples			
20	39.6 (±0.467)	2.74 (±0.137)	1.7 (±0.154)
40	38.5 (±1.51)	1.93 (±0.173)	1.18 (±0.13)
60	37.9 (±0.822)	1.78 (±0.0971)	1.11 (±0.116)
80	32.1 (±0.82)	2.34 (±0.32)	1.36 (±0.102)
100	28.6 (±0.674)	3.98 (±0.308)	2.01 (±0.18)

The tensile strength and stiffness measurements show a significant difference between the dry samples at 20°C and 100°C (Figure 6.6 and Figure 6.7). The tensile strength and stiffness measurements of the moist samples indicate that the effect of moisture is greater than the effect of temperature at high moisture contents (25 – 40 %db). The measurements from section 4.2 included in Figure 6.6 and Figure 6.7 indicates that the measurements of samples in the bags on the Instron Universal Testing Machine were consistent with those tested on the instrument regarded as the industry standard the L and W Compression Strength Tester, STFI.

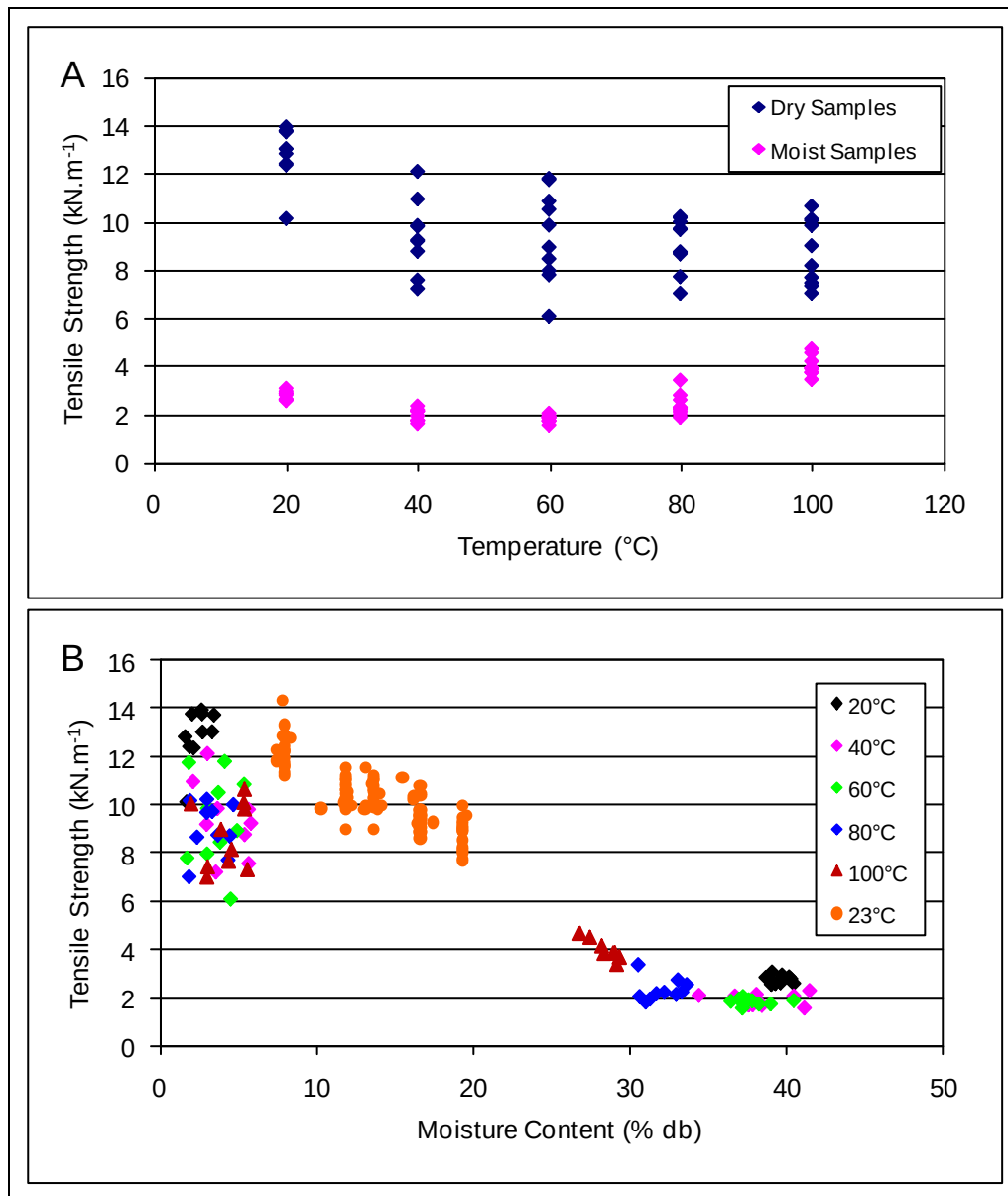


Figure 6.6 Machine direction tensile strength of 160 g.m⁻² semi-chemical fluting medium. Note: data for 23°C was taken from section 4.2.

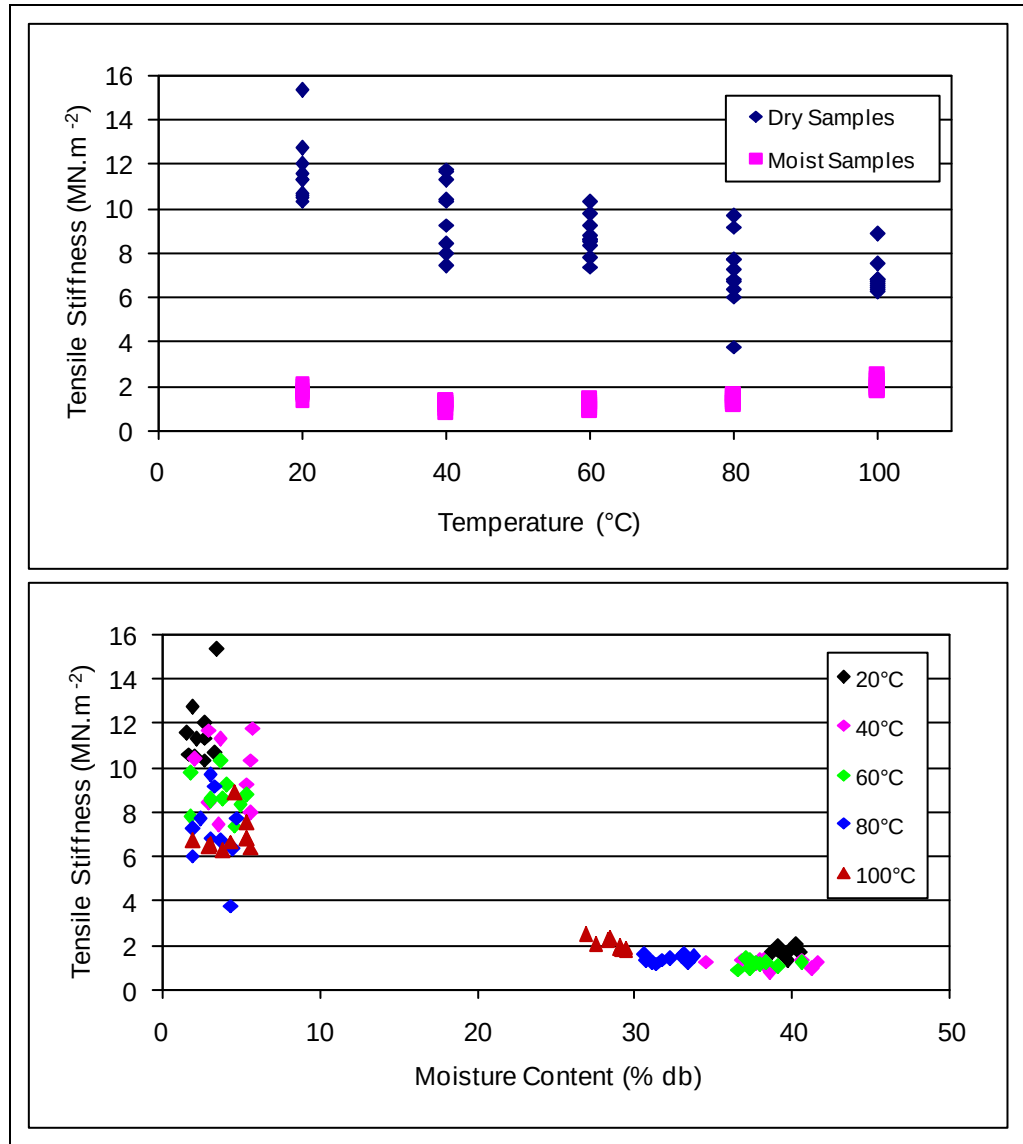


Figure 6.7 Machine direction tensile stiffness of 160 g.m⁻² semi-chemical fluting medium. Tensile stiffness calculated at displacement of 0.5 mm after sample achieved tensile strength measurement of 0.5 kN.m⁻¹ and over a range of ± 0.025 mm.

A method of reducing the variability in the moisture contents of the samples between 0 and 10% moisture (db) was not found. Therefore the measurements were not repeated at higher temperatures.

6.4 Conclusion and Discussion

The measurement of the fluting medium temperature established that the moisture sorption isotherms and fluting medium tensile properties were required between 20 and 164°C. However the temperature range was extended to 180°C to allow for the

rapid temperature drop expected between the second preconditioner roll, with an internal temperature of 188°C, and the measurement point.

As it was not possible for the tensile properties of the 160 g.m⁻² semi-chemical fluting medium to be accurately modelled in this study, optimisation of the fluting medium properties just prior to the single-facer would need to be conducted using a combination of mathematical model predictions of fluting medium temperature and MC and measurements of corrugated fibreboard properties.

The methodology developed to measure the relationship between temperature, moisture and tensile strength properties was only able to indicate general trends. The possibility of using a dynamic mechanical thermal analyser (DMTA) was investigated in order to measure the necessary data. However the available DMTA owned by Forest Research Ltd. was unable to control the humidity of the test chamber, hence the sample MC. Also if humidity control was installed, it would not be possible to pressurise the test chamber which would lead to a decline in the maximum relative humidity with increasing temperature (Figure 6.8). The reduced humidity range would limit the MC range over which the DMTA could measure the paper properties over. There could also be difficulty in relating the DMTA outputs into the fluting medium performance and it may be that the DMTA measurements are only used to evaluate the relative effects of moisture and temperature on the fluting medium properties.

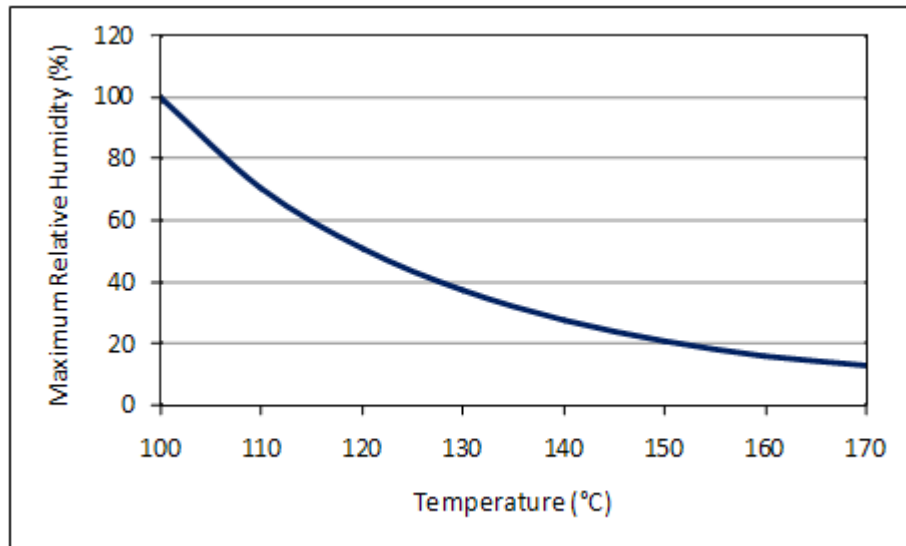


Figure 6.8 Maximum relative humidity at atmospheric pressure.

While it has been proven difficult to measure the effect of moisture and temperature on the properties of fluting medium it would be worthwhile for other researchers to persevere as it is highly likely that the way in which the corrugating machine is operated can be optimised to reduce the damage to the fluting medium improving the performance of the resulting corrugated fibreboard boxes. The solution may include a testing machine in a pressurised chamber to enable temperature and humidity control.

Chapter 7

Development of a Predictive Model of Fluting Medium Temperature and Moisture Content

7.0 Introduction

It had been established in the literature (sections 2.5 and 2.6) as well in Chapter 4 that moisture and temperature have a significant effect on the strength properties of semi-chemical fluting-medium. Intuitively factors such as corrugator machine speed, steaming, preconditioner residence time, etc. would influence the moisture content (MC) and temperature, and therefore the strength properties of the fluting-medium, just prior to the single-facer. This in turn should influence the final board and ultimately box properties. Anecdotal evidence also suggested that the corrugator produced corrugated fibreboard with significant strength variation (Forthsyth per. comm. 2000).

As it was not possible to measure the relationship between fluting medium temperature, MC and strength properties (section 6.4), the effect of changes to the fluting medium temperature and MC on the damage to the fluting medium during the fluting process had to be assessed by directly measuring the properties of the corrugated fibreboard.

To understand these effects it would be desirable to directly measure the fluting medium temperature and MC on the corrugator. This was not possible as there were no temperature or moisture sensors on the corrugator in the section of interest prior to the single-facer nor was there an inexpensive commercial moisture sensor available. Temperature could not be used as an indicator of fluting medium MC as this was tested by Taylor (1999) and found to be unsuccessful. To address this, a capacitance based moisture sensor was developed and successfully calibrated in the laboratory with fluting medium samples (Appendix A8). *In situ* calibration was however required as the sensor was shown to be affected by the presence of steel within a 1 m radius of the sensor. An adequate *in situ* calibration method was not able to be

developed; hence the moisture sensor could only be used for indicating relative changes in fluting medium MC rather than an absolute measure.

A mathematical model was developed to determine the operation of the single-facer on the temperature and moisture content of the fluting medium. The situation where extremes in temperature and moisture content occur could be determined by the model and the model could be indirectly validated by comparing predicted changes to the fluting-medium temperature and MC against the corrugated fibreboard properties.

7.1 Review of Published Models

No models was found in the literature that predicted the fluting medium temperature and MC just prior to the single-facer nor was any suitable data found. However there are many published models that predict paper temperature and MC in the dryer sections of paper machines. The fluting medium possesses a narrower and lower MC range relative to paper in the dryer section of a paper machine. As the dryer section dries a paper web that is initially saturated with moisture to produce the relatively dry material that is later supplied to the corrugator. For example Reardon (1994) modelled the drying of newsprint entering the dryer at 138 %(db) and exiting at 10.0 %(db), whereas the 160 g.m⁻² semi-chemical is supplied by Carter Holt Harvey Ltd. was 9.9 %(db) and was not expected to increase significantly above this initial value as the steam shower was the only operation that could add moisture although only over a short residence time, approximately 0.36 to 0.07 s.

Lee and Hinds (1981) used heat and mass balances to model the temperature and MC of paper drying over a hotplate. They stated that there was no measurable movement of liquid water in paper when the MC is below approximately 15 %(db). As it was unlikely that the fluting medium will reach MCs greater than 15 %(db), transfer of liquid water would not need to be included into the model for the fluting medium.

Lee and Hinds (1981) used Fick's law to calculate the rate of diffusion of water vapour in the paper web. As they did not anticipate the temperature of the paper exceeding that of the boiling point of water, they did not provide a means of calculating the movement of water vapour driven by a total pressure difference

(henceforth referred to as pressure-driven bulk flow). To calculate the rate of heat transfer they multiplied each mass flow by its respective enthalpy and added a conduction term.

Hinds and Neogi (1983), using Lee and Hinds' (1981) model, were able to predict the drying rate in a dryer section to within -20% and $+19\%$. They predicted the steam consumption rate to within -5% to $+50\%$. The steam consumption rate was seen as the most important variable as steam was the largest energy input to the dryer section of the paper machine.

Reardon (1994) used the same approach as Lee and Hinds (1981), with an additional term based on Darcy's Law for the pressure-driven bulk flow of water vapour.

Reardon's (1994) presented two comparisons between predicted and measured paper MCs at the exit of the dryer section of a newsprint paper machine, one prediction was 0.01% (db) below the actual MC of 10.0% (db) and the second was 0.02% (db) below the actual MC of 8.8% (db). Reardon's (1994) steam consumption rate predictions were between 99.5 and 101.3% of the actual consumption.

Nilsson (2004) modelled heat and moisture transfer from the surface of paper in the dryer section. Nilsson's (2004) model proved suitable for paper webs with basis weights ranging from 56 to $159\text{ g}_{\text{dryfibre}}\cdot\text{m}^{-2}$, however the model did not perform well for paper webs with basis weights ranging from 189 to $390\text{ g}_{\text{dryfibre}}\cdot\text{m}^{-2}$. This was attributed to the assumption of homogenous moisture constant and temperature through out the paper web. As the fluting medium of interest possesses a basis weight of $149\text{ g}_{\text{dryfibre}}\cdot\text{m}^{-2}$, which is at the top end of the acceptable range of Nilsson (2004) model, a model incorporating the internal mass and heat transfer resistances should be used.

Karlsson and Stenstrom (2005) used the same approach as Reardon (1994) except they used Stefan's Equation to model the transfer of water vapour from the fibre surface to the gas phase within the paper web and they applied their model to unsteady state conditions. Karlsson and Stenstrom (2005b) subsequently employed this model and were able to predict the MC of paper in a dryer section to within $+2.5$ to -7.1% (db) moisture, while the paper was dried from 164 to 10% (db).

In balancing the need for accuracy and efficiency, in terms of development and computing time, a model based on Reardon's (1994) model was developed. Internal mass and heat transfer processes were included, but not the transfer of liquid water in the paper web due to the low MC of the fluting medium ($< \%db.$)

7.2 Review of the Process to be Modelled

The 160 g.m^{-2} fluting medium had a dry basis weight of $149 \text{ g}_{\text{dryfibre.m}^{-2}}$ and a thickness of 0.157 mm . The average, maximum and minimum operating speeds of the corrugator were approximately 180 , 200 and 100 m.min^{-1} , respectively, for single-face board. This equates to fluting medium speeds of 261 , 290 and 145 m.min^{-1} , respectively, with a take-up-factor of 1.45 (CHH 1995).

The fluting medium was pulled off a roll on the roll-stand, passed over two steam heated rolls that constitute the preconditioner and passed over a steam shower and pulled into the single-facer (Figure 7.1). The process consists of seven stages (Table 7.1) that require only four different boundary conditions (Figures 7.2 and 7.3).

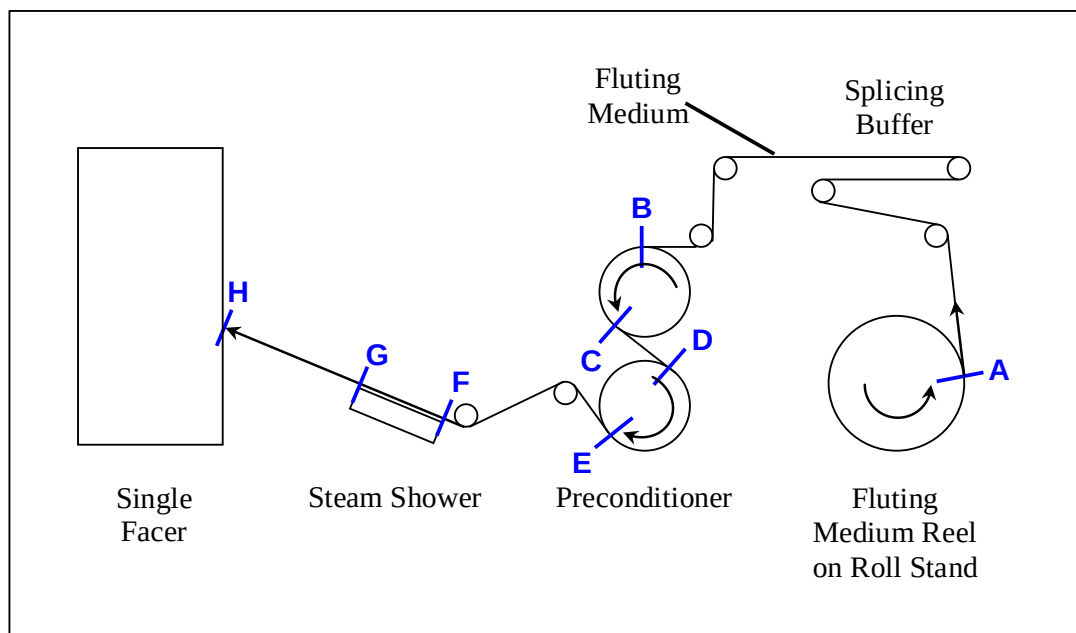


Figure 7.1 Corrugator process prior to the single-facer on the fluting medium side, with labels A to H for sections with different boundary conditions.

Table 7.1 Boundary conditions for each section of the process.

Section Number	Section End Points	Top* Surface/Boundary in Contact with:	Bottom* Surface/Boundary in Contact with:
1	A-B	Air	Air
2	B-C	Air	Preconditioner
3	C-D	Air	Air
4	D-E	Preconditioner	Air
5	E-F	Air	Air
6	F-G	Air	Steam or Air
7	G-H	Air	Air

* The “Top Surface” is defined as the outward facing surface of the fluting medium while on the roll-stand.

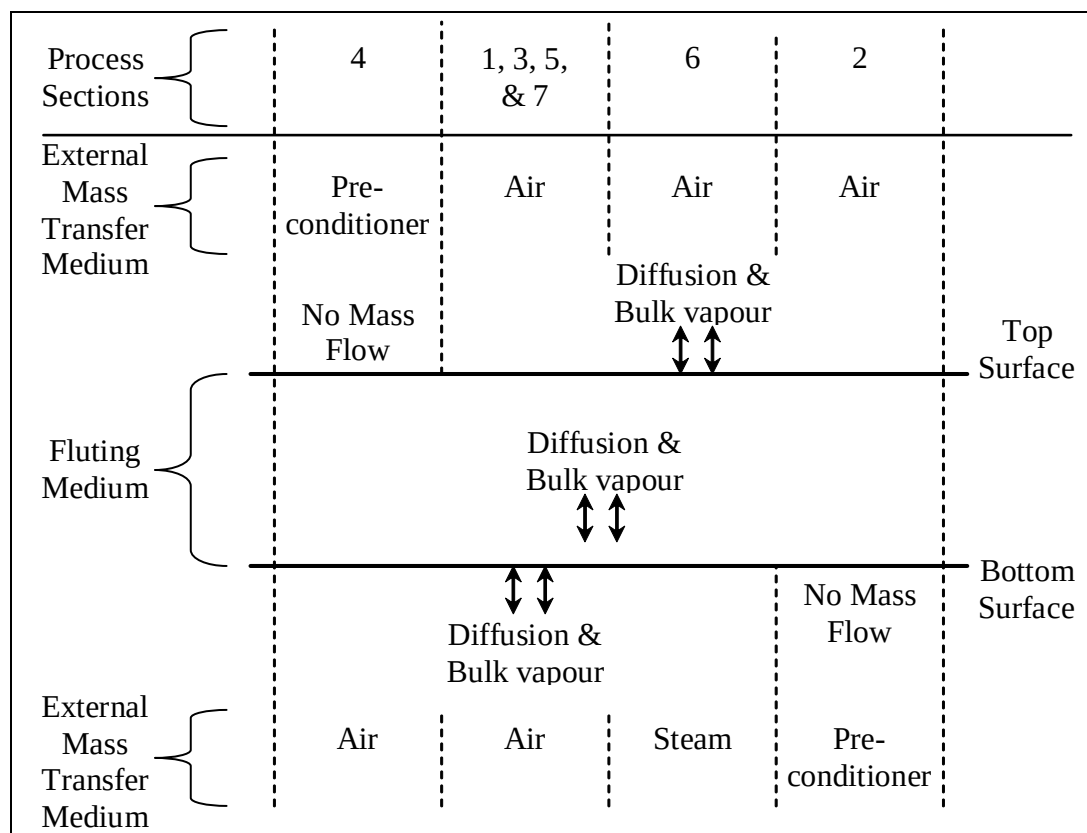


Figure 7.2 Modes of mass transfer over the four different pairs of boundary conditions – direction of arrows based on mass balance convections.

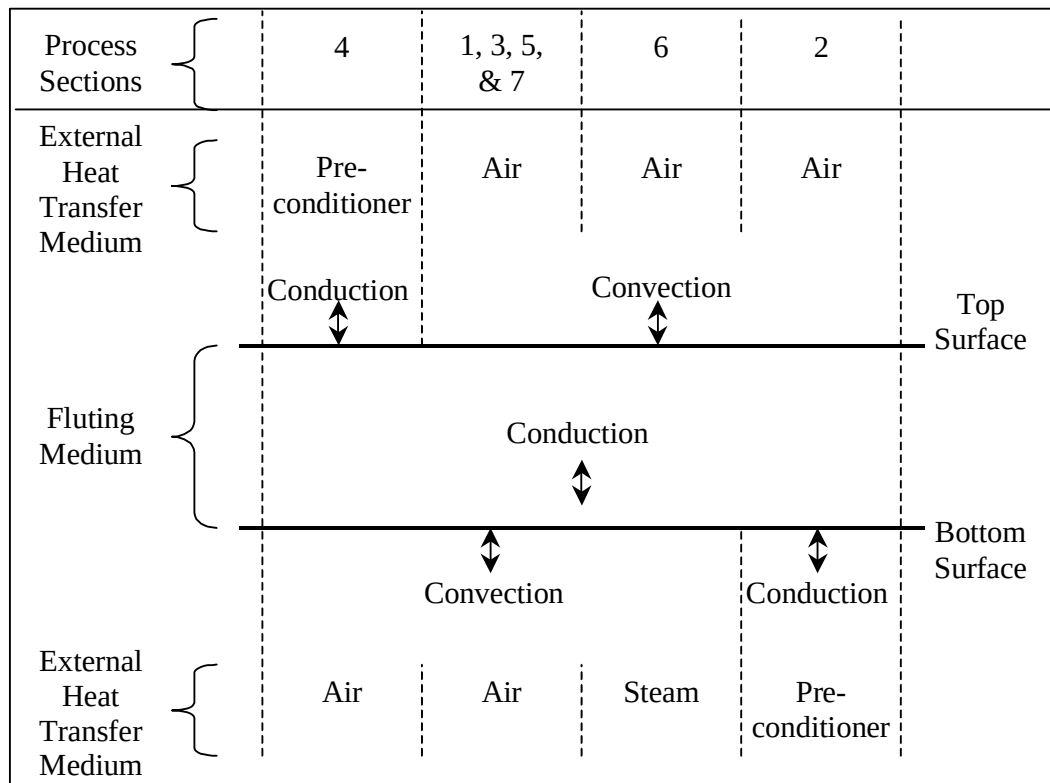


Figure 7.3 Modes of heat transfer (other than heat transfer via mass transfer) over the four different pairs of boundary conditions– direction of arrows based on heat balance convections.

7.3 Assumptions for Model Development

Assumptions are usually made when developing a mechanistic mathematical model to simplify the actual process to make it more manageable. Ideally none of the assumptions made would reduce the accuracy of the model predictions.

The following assumptions were made:

- A-1 All the net moisture transfer into the fluting medium web contributes to the MC of the fluting medium.

This assumption is based on the quantity of moisture in the fluting medium void space being insignificant relative to the quantity of moisture absorbed by the fluting medium fibres. If the fluting medium had a porosity of 0.5 and a density of 949 kg.m^{-3} , and the void space was at 100°C and with 100 %RH, within the fluting medium there would

be 0.298 kg.m^{-3} of water vapour in the void space which would, if adsorbed by the paper fibres, increase the fibre MC by 0.031 %(db). This is an acceptably small error.

A-2 The paper fibres were always in equilibrium with the surrounding pore space in terms of temperature and equilibrium relative humidity (ERH).

For the paper fibres to be in equilibrium with the surrounding pore space, the transfer of moisture and heat between the fibres and pores must be rapid or the distances involved must be small. Reducing the rate of heat and moisture transfer between the pores and fibres would reduce the rate at which the temperature and MC of the fibres increased and decreased. This would also cause the rate of heat and moisture transfer through the pore space to increase.

A-3 The ambient air temperature and humidity were consistent and constant along the length of the process.

The ambient conditions along the length of the process were not expected to vary due to the short distance between the fluting medium roll-stand and the single-facer, and any small variation in air properties were not expected to have a significant effect on the final temperature or MC.

A-4 The density, thickness and heat transfer properties of the fluting medium were consistent and constant in the machine and cross-machine and thickness directions.

Some variation in properties of the fluting medium was expected as the fluting medium was manufactured from a variable natural resource using a process that is unlikely to be immune to fluctuations. The level of variation was unknown but was assumed to be small based on the large volumes (approximately 850,000 kg per day) at which the semi-chemical fluting medium was produced on the Carter Holt Harvey Ltd Kinleith paper machine in comparison to the smaller volumes used for the corrugated fibreboard production.

A-5 The temperature of the surface of the preconditioner rolls were consistent and constant over their entire surface.

This assumption implies that the heat transfer from the preconditioner rolls to the fluting medium does not affect the temperature of the preconditioner rolls. While it is

expected that heat transfer from the surface of the preconditioner roll would decline while the preconditioner roll was in contact with the fluting medium (point B to C and point D to E, Figure 7.1), the flow of steam into the preconditioner rolls was expected to maintain a constant temperature at the first point of contact between the preconditioner rolls and the fluting medium (point B and D, Figure 7.1).

A-6 There was negligible heat and mass transfer within the fluting medium in the cross-machine and machine directions.

This assumption was based on the relatively small thickness of the fluting medium (0.157 m) relative to its length and width (~2 m), and implies that the heat and moisture transfer is only in the thickness direction and is uniform across the width of the sheet.

A-7 There was no transfer of liquid water at MCs less than 15 %(db).

This assumption is based on the work of Lee and Hinds (1981) who stated that below 15 %(db) moisture, moisture transfer would occur only via diffusion and pressure-driven bulk vapour flow only.

A-8 At the steam shower, the steam was not forced into the fluting medium.

Upon leaving the steam shower, the compressed steam would rapidly expand and equalise to atmospheric pressure, as there was no restriction for the flow of steam. It was assumed that while there was sufficient steam pressure between the steam shower and the fluting medium to displace the air, the pressure was not sufficient to force steam into the fluting medium.

If there were sufficient pressure for steam to be forced into the fluting medium the predicted fluting medium temperature and MC following the steam shower would be underestimated. The validity of this assumption was not known, but was necessary to simplify the model as further assumptions would be required when estimating the steam pressure profile in the fluting medium thickness direction while passing over the steam shower, which would be extremely difficult to quantify.

A-9 The heat transferred by all the gasses other than water vapour in air was insignificant relative to the heat transferred by water vapour.

Air cooled from 150 to 100°C will transfer 50.4 kJ.kg⁻¹ (Reardon 1994) whereas water vapour cooled from 150 to 100°C and condensed at 100°C would transfer 2327 kJ.kg⁻¹ (Cooper and Le Fevre 1975) or 46 times more energy. Therefore, the transfer of heat via the transfer of non-water vapour gasses would be relatively small.

A-10 There are two pathways for moisture transfer within, and to and from, the surface of the fluting medium web: vapour diffusion and pressure-driven bulk vapour transfer.

The vapour pressure within the fluting medium would exceed atmospheric pressure when the fluting medium temperature was greater than 100°C. The vapour pressure will still be a function of the fluting medium MC as modelled by moisture sorption isotherms.

A-11 There are two pathways for heat transfer within the fluting medium web: conduction through the fluting medium web and heat transfer accompanying mass transfer e.g. diffusion and pressure-driven bulk vapour transfer.

Convection was not included as the evaporation and condensation of water vapour was expected to result in the continual transfer of water vapour and air within the pore space and prevent the transfer of heat via convection currents. This assumption also implies that the heat transferred by radiation was insignificant. The maximum heat radiated from a 1 m² surface of fibres at 150°C was 28.7 W, whereas the maximum heat emitted from a 1 m² fibre surface at 150°C to air at 20°C, assuming a convection coefficient of 5 W.m⁻²K⁻¹, was 650 W which is 22 times greater. This is a very conservative comparison as the heat transferred from the fluting medium would occur by forced convection as well heat transfer via moisture loss or gain.

A-12 There are three pathways for heat transfer to and from the fluting medium surface: convection with the air, conduction with the preconditioner and via mass transfer e.g. diffusion and pressure-driven bulk vapour transfer.

This assumption implies that the heat transferred by radiation was insignificant as quantified by the explanation of assumption A-11.

- A-13 The thermal conductivity of a water vapour - air mixture can be reasonably approximated by the thermal conductivity of water vapour.

This allows the overall thermal conductivity of the fluting medium web to be calculated from the thermal conductivity of paper fibre, bound liquid water, water vapour and their relative proportions. The thermal conductivity of air and water vapour at 100°C are similar at 3.11×10^{-2} (Turns, 2006) and $2.48 \times 10^{-2} \text{ W.m}^{-1}\text{K}^{-1}$, respectively (Cooper and Le Fevre 1975).

- A-14 The temperature and MC of the fluting medium on the roll-stand was constant and consistent in all directions.

The temperature and MC of the outer 10 to 20 mm of the fluting medium on the roll-stand was expected to fluctuate depending on the ambient conditions. However the remaining fluting medium, which constitutes the vast majority of the fluting medium on the roll, was not expected to differ greatly from the MC set by the paper mill and the temperature was expected to reflect the average ambient temperature.

7.4 Overall Mass and Heat Balances

The overall mass balance for the internal moisture transfer within the fluting medium web is given by equation (7.1). The internal mass balance incorporates terms for the diffusion of water vapour and the pressure-driven bulk flow of water vapour when the pressure exceeds atmospheric.

$$\frac{\partial M}{\partial t} = D_f \frac{\partial^2 \rho_v}{\partial z^2} \frac{SC}{b_w} + \frac{\rho_v \kappa_v}{\mu_v} \frac{\partial^2 P_v}{\partial z^2} \frac{SC}{b_w} \quad \text{for } t \geq 0 \text{ and } 0 < z < SC \quad (7.1)$$

where	M	=	moisture content ratio of fluting medium ($\text{kg}_{\text{water}} \cdot \text{kg}_{\text{fibre}}^{-1}$)
	t	=	time (s)
	D_f	=	diffusion coefficient of water vapour in the fluting medium ($\text{m}^2 \cdot \text{s}^{-1}$)
	ρ_v	=	water vapour density ($\text{kg}_{\text{watervapour}} \cdot \text{m}^{-3}$)
	z	=	dimension in the fluting medium thickness direction (m)
	SC	=	fluting medium sheet thickness (m)
	b_w	=	fluting medium basis weight ($\text{kg}_{\text{dryfibre}} \cdot \text{m}^{-2}$)
	κ_v	=	fluting medium water vapour permeability (m^2)
	μ_v	=	water vapour viscosity ($\text{kg} \cdot \text{m}^{-1} \cdot \text{s}^{-1}$)

P_v = water vapour partial pressure (Pa)
 z = dimension in the fluting medium thickness direction (m)

The overall heat balance for the internal heat transfer within the fluting medium web is given by equation (7.2). The internal heat balance incorporates terms for conduction and the transfer of heat accompanying moisture transfer.

$$\frac{\partial \theta}{\partial t} = \frac{\lambda_{com}}{c_{com}} \frac{\partial^2 \theta}{\partial z^2} + D_f \frac{\partial^2 \rho_v}{\partial z^2} \frac{SC}{b_w} \frac{(H_v + Q)}{c} + \frac{\rho_v \kappa_v}{\mu_v} \frac{\partial^2 P_v}{\partial z^2} \frac{SC}{b_w} \frac{(H_v + Q)}{c_{com}}$$

for $t \geq 0$ and $0 < z < SC$

(7.2)

where θ = fluting medium temperature ($^{\circ}\text{C}$)
 λ_{com} = combined thermal conductivity of fibre, liquid water and water vapour ($\text{W.m}^{-1}\text{K}^{-1}$)
 c_{com} = combined (fibre, liquid water and water vapour) specific heat capacity ($\text{J.kg}^{-1}\text{K}^{-1}$)
 H_v = water vapour enthalpy (J.kg^{-1})
 Q = differential heat of water vapour sorption (J.kg^{-1})

Six differential equations were used to define the boundary conditions (equations 7.3 to 7.8).

For the top surface:

$$-k \frac{\partial \theta}{\partial z} = h_{cT} (\theta_{z=SC} - \theta_{aT})$$

for $t \geq 0$ and $z = SC$

(7.3)

where h_{cT} = top boundary heat transfer coefficient ($\text{J.K}^{-1}\text{m}^{-2}$)
 θ_{aT} = temperature of ambient air or preconditioner in contact with top surface ($^{\circ}\text{C}$)

$$-D \frac{\partial \rho_v}{\partial z} = h_{mT} (\rho_{z=SC} - \rho_{air})$$

for $t \geq 0$ and $z = SC$

(7.4)

where h_{mT} = top boundary mass transfer coefficient (kg.m^{-2})

$$-\frac{\rho_v \kappa_v}{\mu_v} \frac{\partial \rho_v}{\partial z} = \frac{\rho_{vA} \kappa_{AT}}{\mu_v} (P_{z=SC} - P_{atm}) \quad \text{for } t \geq 0 \text{ and } z = SC \quad (7.5)$$

where κ_{AT} = permeability of ambient air at top surface (m^2)
 ρ_{vA} = water vapour density of ambient air ($kg_{water} \cdot m^{-3}$)

For the bottom surface:

$$-k \frac{\partial \theta}{\partial z} = h_{CB} (\theta_{AB} - \theta_{z=0}) \quad \text{for } t \geq 0 \text{ and } z = 0 \quad (7.6)$$

where h_{CB} = bottom boundary heat transfer coefficient ($J \cdot K^{-1} \cdot m^{-2}$)
 θ_{AB} = temperature of ambient air or preconditioner in contact with bottom surface ($^{\circ}C$)

$$-D \frac{\partial \rho_v}{\partial z} = h_{mB} (\rho_{air} - \rho_{z=0}) \quad \text{for } t \geq 0 \text{ and } z = 0 \quad (7.7)$$

where h_{mB} = bottom boundary mass transfer coefficient ($kg \cdot m^{-2}$)

$$-\frac{\rho_v \kappa_v}{\mu_v} \frac{\partial \rho_v}{\partial z} = \frac{\rho_{vAB} \kappa_{AB}}{\mu_v} (P_{atm} - P_{z=0}) \quad \text{for } t \geq 0 \text{ and } z = 0 \quad (7.8)$$

where κ_{AB} = permeability of ambient air at bottom surface (m^2)
 ρ_{vAB} = water vapour density of ambient air in contact with bottom surface ($kg_{water} \cdot m^{-3}$)

The initial conditions are defined by equations (7.9) and (7.10).

$$M = M_i \quad \text{for } t = 0 \text{ and } 0 \leq z \leq SC \quad (7.9)$$

where M_i = initial moisture content ratio of the fluting medium i.e. moisture content of the fluting medium on the roll-stand ($kg_{water} \cdot kg_{fibre}^{-1}$)

$$T = T_i \quad \text{for } t = 0 \text{ and } 0 \leq z \leq SC \quad (7.10)$$

where T_i = initial temperature of the fluting medium i.e. temperature of the fluting medium on the roll-stand ($^{\circ}C$)

The boundary conditions were assigned time dependent coefficients and ambient conditions (Table 7.2), this allowed for the use of one set of generic boundary condition equations.

Table 7.2 Time dependent heat and mass transfer coefficients and conditions

Property	Nomenclature	Process Sections (Table 7.1)			
		1, 3, 5 and 7	2	4	6
Top surface mass transfer coefficient	h_{mT}	h_{m1}^*	h_{m2}^{**}	$h_{m3}^{***} = 0$	h_{m1}
Bottom surface mass transfer coefficient	h_{mB}		$h_{m3} = 0$	h_{m2}	
Top surface heat transfer coefficient	h_{cT}	h_{c1}	h_{c2}	h_{c3}	h_{c1}
Bottom surface heat transfer coefficient	h_{cB}		h_{c3}	h_{c2}	
Temperature of ambient air or preconditioner at top surface	θ_{AT}	θ_A	θ_A	θ_P	θ_A
Temperature of ambient air or preconditioner at bottom surface	θ_{AB}		θ_P	θ_A	θ_S
Permeability of ambient air at top surface	κ_{AT}	κ_A	κ_A	$\kappa_P = 0$	κ_A
Permeability of ambient air at bottom surface	κ_{AB}		$\kappa_P = 0$	κ_A	
Water vapour density of air in contact with bottom surface	ρ_{vAB}	ρ_{vA}			ρ_{vS}

* 1 denotes coefficient for planar surface

** 2 denotes coefficient for curved surface

*** 3 denotes coefficient at preconditioner surface

7.5 Thermophysical Properties and Other Model Inputs

The model inputs that vary significantly with temperature needed to be accurately modelled over the temperature range 10 to 190°C. This temperature range encompasses the coolest expected fluting medium roll temperature and the hottest possible preconditioner steam temperature. Model inputs that vary significantly with paper moisture needed to be accurately modelled over the MC range 0 to 12% moisture (db). The fluting medium MC is not expected to increase above that of its initial value (9.9 %db) and 0% represents the lowest possible limit.

7.5.1 Fluting Medium Properties

7.5.1.1 Combined Specific Heat Capacity (c_{com})

The combined specific heat capacity was calculated in the fluting medium model using Reardon's (1994) equation (7.11) from the quantity of paper fibre, liquid water and water vapour present in a volume of fluting medium.

$$c_{com} = \frac{c_f \cdot \rho_f (1-E) + c_w \cdot \rho_w \cdot E \cdot S + c_v \cdot \rho_v \cdot E (1-S)}{\rho_f (1-E) + \rho_w \cdot E \cdot S + \rho_v \cdot E (1-S)} \quad (7.11)$$

where

- c_f = specific heat capacity of paper fibre ($\text{J.kg}^{-1}\text{K}^{-1}$)
- c_w = specific heat capacity of liquid water ($\text{J.kg}^{-1}\text{K}^{-1}$)
- c_v = specific heat capacity of water vapour ($\text{J.kg}^{-1}\text{K}^{-1}$)
- ρ_f = density of paper fibre (kg.m^{-3})
- ρ_w = density of liquid water (kg.m^{-3})
- ρ_v = density of water vapour (kg.m^{-3})
- E = sheet porosity
- S = degree of fractional saturation

7.5.1.2 Porosity (E)

Reardon (1994) measured the properties, including porosity, of five different paper samples (Table 7.3). The porosities exhibited a clear relationship with the density of the samples (Figure 7.4).

Table 7.3 Measured paper properties (Reardon, 1994).

Sample	Thickness (μm)	Basis weight ($\text{kg}_{\text{dryfibre.m}^{-2}}$)	Density (kg.m^{-3})	Porosity	Permeability (10^{-15} m^2)
Newsprint	75	0.041	590	0.62	4.9
Handsheet	155	0.050	320	0.80	9.5
Kraft	133	0.048	250	0.84	11.6
TMP*	173	0.055	330	0.79	10.7
CCS**	147	0.057	450	0.71	5.4

*Thermo-Mechanical Pulp **Cold Caustic Soda pulp

Karlsson and Stenstrom (2005b) presented the porosity of dry paper made from four different pulps (Table 7.4), however their dataset was lacking the densities that would allow for a better comparison with Reardon's (1994) data.

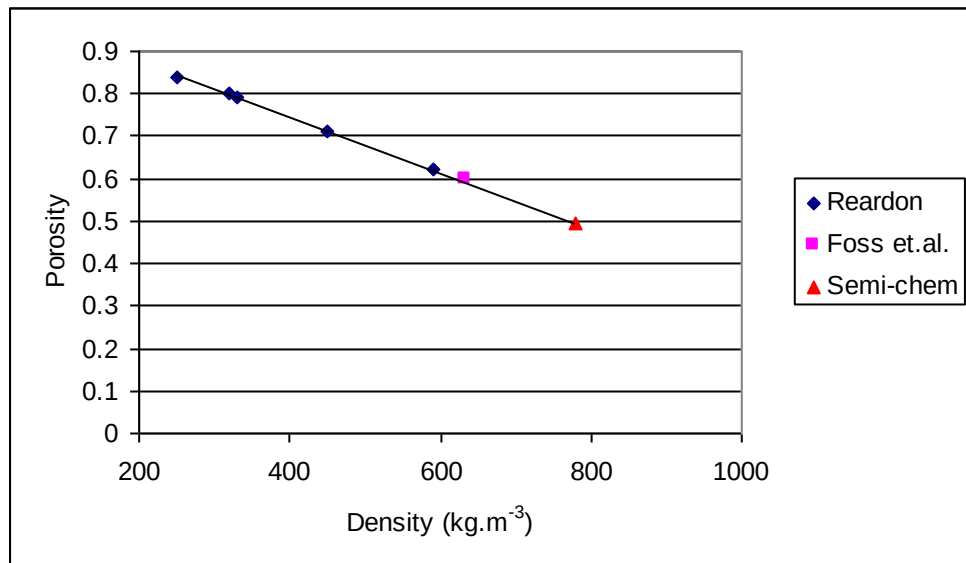


Figure 7.4 Estimated porosity of 160 g.m⁻² semi-chemical fluting medium based on the linear relationship of porosity and density of Reardon's (1994) five different paper types and Foss's *et al.* (2003) paper sample.

Table 7.4 Porosity for various papers (Karlsson and Stenstrom 2005)

Pulp type	Porosity
Bleached, highly beaten short fibre pulp	0.40
Highly beaten chemithermomechanical pulp	0.74
Slightly beaten chemithermomechanical pulp	0.80
Unbleached long fibre pulp	0.58

Foss *et al.* (2003) made paper samples with a sheet density of 633 kg.m⁻³ and a porosity of 0.6. Their samples density-porosity relationship was relatively close to Reardon's (1994) linear relationship (Figure 7.4).

McKenzie (pers. comm 2001) stated that the semi-chemical fluting medium produced by CHH at their Kinleith mill was denser than other fluted medium at 780 kg.m⁻³ and had a MC of 9.9 %(db). Based on an extrapolation of the relationship between density and porosity shown in Figure 7.4, and the density quoted by McKenzie, the porosity of the semi-chemical fluting medium was estimated to be approximately 0.50. In the sensitivity analysis of the model inputs relatively conservative high and low porosity values of 0.80 and 0.20 were used, as the mean value of 0.50 was not a measured value.

7.5.1.3 Fractional Saturation (S)

The degree of fractional saturation is the ratio of the absorbed liquid water volume and the pore volume of dry fluting medium. The degree of fractional saturation was calculated in the fluting medium model using a rearranged equation presented by Reardon (1994) (equation 7.12). Where $S = 1$ for pure liquid water.

$$S = \frac{M.b_{wt}}{\rho_w E.SC}$$

where $0 \leq S \leq 1$

(7.12)

7.5.1.4 Fibre Specific Heat Capacity (c_f)

Reardon (1994) reviewed the specific heat capacity for cellulose as the basis of estimating the specific heat capacity of dry newsprint. The measurements ranged from 1170 to 1370 J.kg⁻¹K⁻¹ (Table 7.5). The consensus was for 1340 J.kg⁻¹K⁻¹ and this was used by Reardon (1994) and in the fluting medium model. The highest and lowest values in Table 7.5 were used in the sensitivity analysis.

Table 7.5 Paper fibre specific heat capacity for various papers (Reardon 1994).

Author	Specific Heat (J.kg ⁻¹ K ⁻¹)
Depoy (1972)	1340
Hartley and Richards (1974)	1340
Nakagawa and Shafizadeh (1980)	1170 – 1340
Sutermester (1941)	1370
Kerekes (1980)	1340 (dry)

7.5.1.5 Fibre Density (ρ_f)

Seyed-Yagoobi *et al.* (1992) stated that the density of cellulose was 1500 kg.m⁻³. Reardon (1994) compiled the measurements of five authors (Table 7.6) and chose a density value based on these measurements, as well as the density of lignin (1440 kg.m⁻³).

Table 7.6 Cellulose density (Reardon 1994)

Author	Cellulose Density (kg.m ⁻³)
Kartovaara <i>et al.</i> (1985)	1500
Corte (1982)	1550
Hartley and Richards (1974)	1550
Sutermeister (1941)	1560
Stone <i>et al.</i> (1966)	1560

The fibre density selected by Reardon (1994) (1540 kg.m⁻³) was used in the fluting medium model and the highest and lowest values in Table 7.6 were used in the sensitivity analysis.

7.5.1.6 Diffusion Coefficient (D_f)

Reardon (1994) stated that diffusion coefficient for the unimpeded mixing of water vapour and air could be calculated from equation (7.13) (50 to 100°C). He also stated that the diffusion coefficient of water vapour in paper (equation 7.14) would be reduced by the diffusibility factor (δ) which incorporated the sheet porosity, volume of pores occupied by liquid water and a tortuosity factor (equation 7.15). A tortuosity factor of 0.4 was used by Reardon (1994) and used in the fluting medium model. Conservative high and low values of 0.7 and 0.1 were used in the sensitivity analysis as the tortuosity was not measured.

$$D_{water-air} = 2.6 \times 10^{-5} \left[\frac{(\theta + 273)}{298} \right]^{1.5} \quad (7.13)$$

where $D_{water-air}$ = diffusivity of water in air (m².s⁻¹)

$$D_f = D_{water-air} \times \delta \quad (7.14)$$

$$\delta = \tau.E(1-S) \quad (7.15)$$

where δ = diffusibility factor
 τ = tortuosity factor

7.5.1.7 Differential Heat of Water Vapour Sorption (Q_v)

The differential heat of water vapour sorption can be calculated from moisture isotherms over a of temperatures and with equation (7.16) (Hossain *et al.* 2001). Equation (7.16) is an integrated form of the Clausius-Clayperon equation and the heat of sorption is determined by calculating the slope of the $\ln(RH/100)$ vs $1/T$ curve (Hossain *et al.* 2001).

$$\ln\left(\frac{RH}{100}\right) = -\left(\frac{Q}{R}\right)\frac{1}{T} + FC_{17} \quad (7.16)$$

where $FC_{17} =$ fitted constant (dimensionless)

As it was not possible to measure the moisture sorption isotherms of semi-chemical fluting medium over the desired temperature range of 20 to 180°C (Chapter 6) another way of obtaining the heat of sorption was required. Prahl's (1968) published the most useful desorption isotherm for this particular application but it was not without it limitations as the measurements were between 21.8 to 80°C, significantly lower than the expected maximum paper temperature of around 180°C.

Figure 7.5 shows that the $\ln(RH/100)$ vs $1/T$ plot is in fact linear for Prahl's (1968) desorption isotherm. The correlation coefficients (R^2) for the linear equations, fitted to the data using least squares regression, were very high (> 99%, Table 7.7).

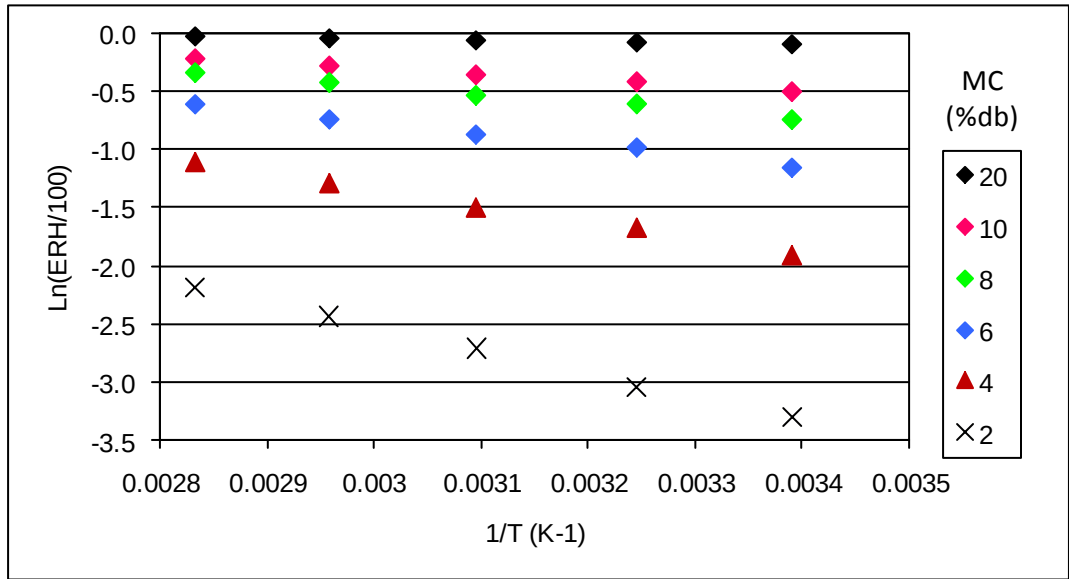


Figure 7.5 Examples of the linear relationship between $\text{Ln}(\text{RH}/100)$ and the inverse of temperature in Kelvin at a number of moisture contents for Prahl's (1968) desorption isotherm data.

Table 7.7 Linear equation slope and correlation coefficient values (R^2) from plot of $\text{Ln}(\text{RH}/100)$ vs $1/T$ with corresponding Heat of sorption values

MC (%db)	Slope (K)	R^2	Q ($\text{J}\cdot\text{mol}^{-1}$)
20	-125.0	99.8	1039
18	-147.5	99.5	1226
16	-186.5	99.5	1551
14	-242.7	99.8	2018
12	-341.5	99.9	2839
10	-492.5	99.7	4095
9	-587.3	99.5	4883
8	-697.6	99.3	5800
7	-839.0	99.3	6976
6	-967.6	99.5	8045
5	-1144	99.5	9513
4	-1429	99.8	11880
3	-1779	99.9	14791
2	-2020	99.9	16797
1	-2465	99.7	20491

An exponential equation was fitted to the data in Table 7.7, using least squares regression ($R^2 = 99.2\%$), to enable the model to determine the heat of sorption from the moisture content (equation 7.17).

$$Q = \frac{22204 \exp(0.163MC)}{M_w}$$

for $1 \leq MC \leq 20$ %(db)

for $21.8 \leq \theta \leq 80^\circ\text{C}$

(7.17)

where M_w = molar mass of water (kg.mol^{-1})

The temperature of the fluting medium is expected to increase above the temperature range of equation (7.17) and therefore it would be, if possible, better to measure the moisture sorption isotherm of the semi-chemical fluting medium over the appropriate temperature range in order to calculate the heat of sorption. Houtz and McLean's (1939) measured the moisture sorption isotherm of linen rag paper adsorption isotherm data at between 100 and 150°C but at very low ERH (1.7 %). The smaller temperature range of Houtz and McLean's (1939) data, relative to that of Prahl's (1968) data, make it difficult to determine whether the trend is linear or not (Figure 7.6). If is assumed that Houtz and McLean's (1939) data in Figure 7.6 is linear then the resulting heat of sorption values is very similar to the heat of sorption values calculated from Prahl's (1968) data (Figure 7.7).

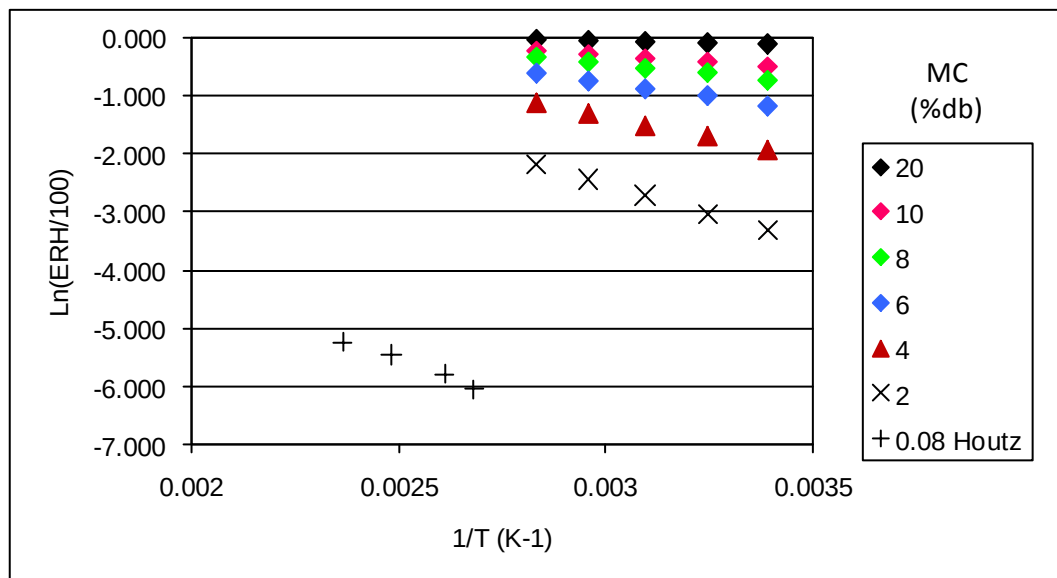


Figure 7.6 Linear relationship between $\text{Ln}(\text{RH}/100)$ and the inverse of temperature in Kelvin at a number of moisture contents for Prahl's (1968) desorption and Houtz and McLean's (1939) linen rag paper adsorption isotherm data.

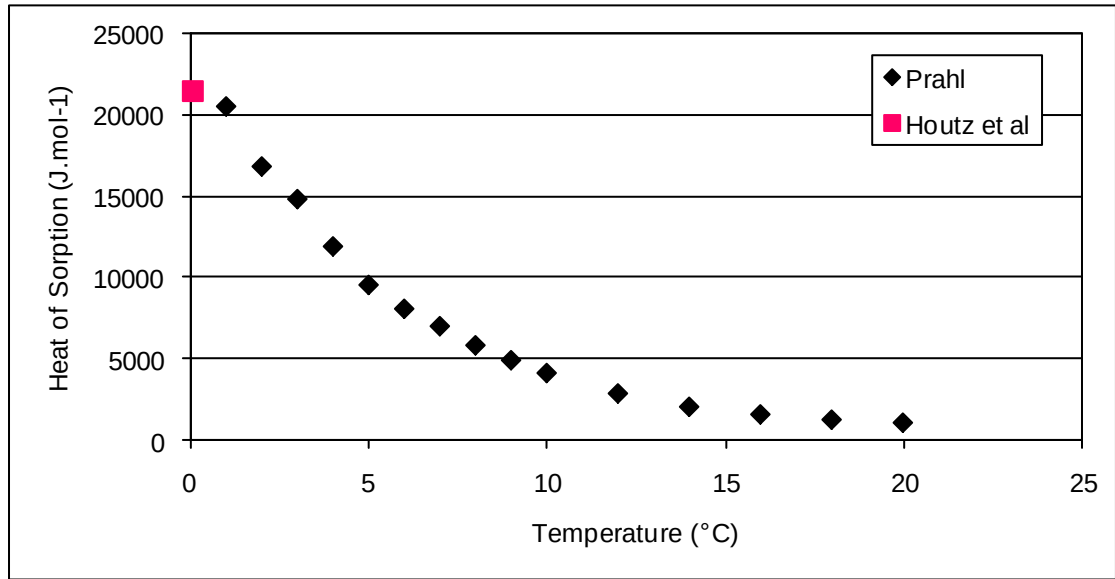


Figure 7.7 Comparison between heat of sorption values calculated from Prahl's (1968) desorption isotherm and Houtz and McLean's (1939) isotherm (calculated from slopes of data sets in Figure 7.6).

If it were assumed that the slope of the $\ln(RH/100)$ vs $1/T$ data did decrease with increasing temperature, which could be the case of Houtz and McLean's (1939) data in Figure 7.6, then using Figure 7.17 to predict the heat of sorption at temperatures greater than 80°C would result in an overestimation of the heat of sorption and the heat transfer associated with moisture diffusion and pressure-driven bulk flow. With a net loss in moisture expected from the fluting medium, overestimating the heat of sorption would result in lower predicted fluting medium MC and temperature.

The effect of the heat of sorption on the model predictions will be analysed in the sensitivity analysis with the predicted heat of sorption, as calculated by (7.17), varied by $\pm 50\%$. The sensitivity analysis will show whether it is necessary to have actual measurements of the heat of sorption for the semi-chemical fluting medium in order to accurate predictions of semi-chemical fluting medium moisture content and temperature.

7.5.1.8 Water Vapour Permeability (κ_v)

Reardon (1994) calculated the actual permeability (equation 7.19) from the saturated intrinsic permeability (equation 7.20) and the relative permeability (equation 7.21). The relative permeability reduces the actual permeability by taking into account the

space within the paper sheet taken up by liquid water. Reardon (1994) determined the fitted constants in equation (7.20).

$$\kappa_v = \kappa_r \kappa_s \quad (7.18)$$

where κ_r = relative permeability (m^2)
 κ_s = saturated intrinsic permeability (m^2)

$$\kappa_s = \frac{E(R_{\max})^2}{24} \frac{(FC_{18} + 2)(FC_{18} + 1)}{(FC_{18} + FC_{19} + 3)(FC_{18} + FC_{19} + 2)} \quad (7.19)$$

where $R_{\max}$ = maximum pore radius (m)
 FC_{18} = fitted constant (= -0.09, dimensionless)
 FC_{19} = fitted constant (= 25.06, dimensionless)

$$\kappa_r = 1 - S \quad (7.20)$$

Reardon (1994) found that the maximum pore radius reported in literature varied widely, from 6.4 to 40 μm for TMP and Kraft hand-sheets respectively. Reardon (1994) measured the permeability of five different paper types and found a range of 4.9×10^{-15} to $11.6 \times 10^{-15} \text{ m}^2$.

Reardon (1994) stated that Corte and Kallmes (1962) fitted an equation to model the relationship they found between paper sheet basis weight and maximum pore radius (equation 7.22). Their equation was based on samples with basis weight measurements from 16 to 92 $\text{g}_{\text{dryfibre}} \cdot \text{m}^{-2}$. Extrapolating equation (7.21) to the basis weight of the semi-chemical fluting medium, 145.6 $\text{g}_{\text{dryfibre}} \cdot \text{m}^{-2}$, indicates that the maximum pore radius would be approximately 7.7 μm , which was used in the fluting medium model. As the maximum pore radius value of 7.7 μm was based on an extrapolation of equation (7.21), high low values of 100 and 1 were used in the sensitivity analysis.

$$R_{\max} = \frac{1123}{b_w} \times 10^{-9} \quad (7.21)$$

7.5.1.9 Combined Thermal Conductivity (λ_{com})

Reardon (1994) and Karlsson and Stenstrom (2005) used three equations (7.23 to 7.25) to calculate the thermal conductivity coefficient. Reardon (1994) stated that the proportion of conduction heat transfer via the parallel analogy varied between 0.4 and 0.7. Reardon (1994) chose a value of 0.5 based on the paper density. There are many published values of paper thermal conductivity (Tables 7.8 and 7.9), however many of these values must be regarded as apparent thermal conductivities as the test methodology utilised moist paper samples. Moisture will increase the thermal conductivity via evaporation, diffusion and condensation in the direction of the thermal gradient. As the proposed model incorporates the transfer of water vapour separately from the thermal conduction, only the thermal conductivity of dry samples was relevant.

$$\lambda_1 = \lambda_f(1-E) + \lambda_w E.S + \lambda_v E(1-S) \quad (7.22)$$

where λ_1 = thermal conductivity for components in series ($\text{W.m}^{-1}\text{K}^{-1}$)
 λ_f = paper fibre thermal conductivity ($\text{W.m}^{-1}\text{K}^{-1}$)
 λ_w = liquid water thermal conductivity ($\text{W.m}^{-1}\text{K}^{-1}$)
 λ_v = water vapour thermal conductivity ($\text{W.m}^{-1}\text{K}^{-1}$)

$$\lambda_2 = \frac{1}{\frac{1-E}{\lambda_f} + \frac{E.S}{\lambda_w} + \frac{E(1-S)}{\lambda_v}} \quad (7.23)$$

where λ_2 = thermal conductivity for components in parallel ($\text{W.m}^{-1}\text{K}^{-1}$)

$$\lambda_{com} = \frac{1}{\frac{1-x}{\lambda_1} + \frac{x}{\lambda_2}} \quad (7.24)$$

where x = proportion of conduction heat transfer via parallel analogy

Table 7.8 Thermal conductivity for various papers (Reardon 1994)

Author	Sample	Thermal conductivity (W.m ⁻¹ K ⁻¹)
Depoy (1972)	Dry paper	0.121
Hartley and Richards (1974)	Cellulose	0.335
Nakagawa and Shafizadeh (1984)	Dry sulphite pulp	0.067
Soininen <i>et al.</i> (1985)	Dry paper	0.105
McAdams (1985)	Unspecified paper	0.130
Kartovaara <i>et al.</i> (1985)	Solid fibre wall	0.157
Kerekes (1980)	Newsprint, 8% moisture	0.169
Kirk (1972)	Bleached sulfite handsheets	0.084 – 0.117
Lau (1969)	Newsprint, 8% moisture	0.041
Powell (1974)	Dry newsprint	0.069

Table 7.9 Thermal conductivity for various papers (Seyed-Yagoobi *et al.* 1992)

Author	Sample		Thermal conductivity (W.m ⁻¹ K ⁻¹)
Han and Ulmanen (1958)	Sulphite pulp hand sheet, 0 – 67% moisture (wb)		0.07 – 0.79
Lua and Pratte (1969)	Newsprint, 0 – 70% moisture (wb)		0.027 – 0.195
Han (1970)	Tissue	wet	0.216
		dry	0.144
	Paper	wet	0.288
		dry	0.115
	Board	wet	0.577
		dry	0.072

The average thermal conductivity for dry paper samples from Tables 7.8 and 7.9, 0.088 W.m⁻¹K⁻¹ was used in the fluting medium model. The maximum and minimum thermal conductivities from dry paper (0.144 and 0.027 W.m⁻¹K⁻¹) from the tables were used in the sensitivity analysis of the fluting medium model. For the proportion of conduction heat transfer via the parallel analogy, values of 0.5, 0.7 and 0.4 were used as the average, high and low values in the sensitivity analysis.

7.5.1.10 Equilibrium Relative Humidity (ERH)

As it was not possible to measure the moisture sorption isotherms of semi-chemical fluting medium over the desired temperature range of 20 to 180°C (Chapter 6) it was

necessary to use Prah's (1968) Kraft softwood pulp desorption isotherm data. Reardon (1994) also used Prah's (1968) data set and fitted an empirical equation (7.25) to predict the paper ERH as a function of moisture content and temperature.

$$\begin{aligned}
 ERH &= \exp(b_1(\theta + 273.15) + b_2) \times 100\% \\
 b_1 &= \exp(-17.255M - 0.121\sqrt{M} - 3.640) \\
 b_2 &= -\exp(-14.313M - 2.167\sqrt{M} + 2.772)
 \end{aligned}$$

for $1.0 \leq M \leq 40 \text{ \% (db)}$
and $21.8 \leq \theta \leq 80^\circ\text{C}$
(7.25)

It is recognised that it is a highly undesirable practice to extrapolate equations outside the bounds of the experimental data over which they were based upon. Therefore in this model, if the temperature of the paper were to increase above 80°C the ERH of the paper would be calculated from its moisture content and a temperature of 80°C .

Limiting the ERH calculation to predictions at 80°C has the potential to affect the water vapour diffusion and pressure-driven bulk flow as the driving force for both of these processes are directly proportional to the ERH (equations 7.26 and 7.33). A reduction in the fluting medium water vapour density and total pressure (when above atmospheric pressure) will reduce the driving force for moisture loss from the sheet to the ambient air. This may result in an over estimated fluting medium temperature and moisture content.

To determine whether the ERH is a critical parameter in the model, the ERH will be varied by $\pm 50\%$ in the sensitivity analysis and the model will be run with the ERH equation extrapolated out above the 80°C limit. The extrapolation of equation (7.25) would yield ball park figures for ERH up to 150°C above which the equations can predict ERH greater than 100% (Figure 7.8). During the testing of the effect of extrapolating equation (7.25), the ERH will be capped at $100 \text{ \%RH}$.

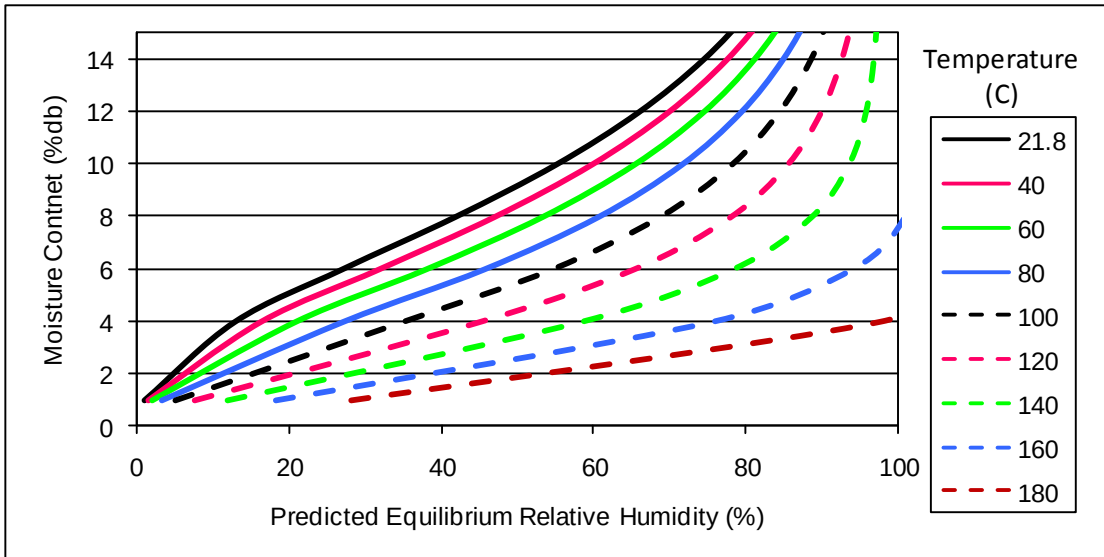


Figure 7.8 ERH values predicted using Reardon (1994) isotherm equation fitted to Prahl's (1968) Kraft softwood pulp desorption isotherm data (equation 7.25). Note: above 80°C the predictions are outside the bounds of the original data set.

7.5.1.11 Water Vapour Partial Pressure (P_v)

The fluting medium water vapour partial pressure was calculated using equation (7.26) with the saturated water vapour pressure calculated using an equation (7.27) used by Bronlund (1997).

$$P_v = \frac{ERH}{100} \times P_{sat} \quad (7.26)$$

where $P_{sat,\theta}$ = saturated water vapour pressure at θ (Pa)

$$P_{sat,\theta} = \exp \left(23.4795 - \frac{3990.56}{\theta + 233.833} \right) \quad (7.27)$$

7.5.2 Water Thermophysical Properties

7.5.2.1 Liquid Water Thermal Conductivity (λ_w)

A quadric equation (7.28) was fitted to liquid water thermal conductivity data published by Cooper and Le Fevre (1975). Relative to values published by Cooper and Le Fevre (1975), equation (7.28) was accurate to within 0.8 % between 10 and 190°C.

$$\lambda_w = 0.548042 + 2.09888 \times 10^{-3} \theta - 7.76 \times 10^{-6} \theta^2 \quad (7.28)$$

7.5.2.2 Liquid Water Specific Heat Capacity (c_w)

A quadratic equation (7.29) was fitted to liquid water specific heat capacity data published by Cooper and Le Fevre (1975). Relative to values published by Cooper and Le Fevre (1975), equation (7.29) was accurate to within 0.2 % between 10 and 190°C.

$$c_w = 4201.61 - 1.02237 \cdot \theta + 0.01166 \cdot \theta^2 \quad (7.29)$$

7.5.2.3 Liquid Water Density (ρ_w)

A quadratic equation (7.30) was fitted to the liquid water density data published by Cooper and Le Fevre (1975). Relative to values published by Cooper and Le Fevre (1975), equation (7.30) was accurate to within 0.2 % between 10 and 190°C.

$$\rho_w = 1003.57 - 0.20178 \cdot \theta + 0.00249 \cdot \theta^2 \quad (7.30)$$

7.5.2.4 Water Vapour Thermal Conductivity (λ_v)

A quadric equation (7.31) was fitted to the water vapour thermal conductivity data published by Cooper and Le Fevre (1975). Relative to values published by Cooper and Le Fevre (1975), equation (7.31) was accurate to within 1.4 % between 10 and 190°C.

$$\lambda_v = 1.69255 \times 10^{-2} + 5.695 \times 10^{-5} \theta - 2.07946 \times 10^{-7} \theta^2 \quad (7.31)$$

7.5.2.5 Water Vapour Specific Heat Capacity (c_v)

A quadratic equation (7.32) was fitted to the specific heat capacity data published by Cooper and Le Fevre (1975). Relative to values published by Cooper and Le Fevre (1975), equation (7.32) was accurate to within 0.2 % between 10 and 190°C.

$$c_v = 1906.07 - 1.8235 \cdot \theta + 0.03117 \cdot \theta^2 \quad (7.32)$$

7.5.2.6 Water Vapour Density (ρ_v)

The water vapour density was calculated using the ideal gas law rearranged and multiplied by the molar mass of water and RH to form equation (7.33) along with an equation (7.27) for the saturated water vapour pressure. As the pore space was assumed to be in equilibrium with the paper fibres (Assumption A-2) the ERH (equation 7.26) of the paper fibres was substituted in for the RH term. Relative to values published by Cooper and Le Fevre (1975), equation (7.27) was accurate to within 1.9% from 10 to 190°C.

$$\rho_v = \frac{RH}{100} \frac{P_{sat\theta}}{R \cdot (\theta + 273.15)} M_w \quad (7.33)$$

where R = gas constant (8.314 J.K⁻¹mol⁻¹)
 RH = air relative humidity ($\equiv ERH$)

7.5.2.7 Water Vapour Enthalpy (H_v)

Reardon (1994) used equation (7.34) to calculate the enthalpy of water vapour. Relative to values published by Cooper and Le Fevre (1975), equation (7.34) was accurate to within 1.3 % from 10 to 190°C.

$$H_v = [2635 + 1.688(T - 75)] \times 10^3 \quad (7.34)$$

7.5.2.8 Water Vapour Viscosity (μ_v)

A quadratic equation (7.35) was fitted to water vapour viscosity data published by Cooper and Le Fevre (1975). Relative to values published by Cooper and Le Fevre (1975), equation (7.35) was accurate to within 0.2 % between 10 and 190°C.

$$\mu_v = 8.08413 \times 10^{-6} + 0.0413 \times 10^{-8} \theta - 1.5898 \times 10^{-13} \theta^2 \quad (7.35)$$

7.5.3 Heat Transfer Properties

7.5.3.1 Surface Convection Heat Transfer Coefficient to Air (h_c)

Reardon (1994) used equation (7.36) to calculate the surface convection heat transfer coefficient. The use of equation (7.36) was restricted by the inclusion of a skin friction coefficient which would need to be measured.

$$h_R = \frac{\rho_a V_e C_a}{2 Pr^{2/3}} fc \quad (7.36)$$

where

h_R	=	surface heat transfer coefficient to air ($\text{W.m}^{-2}\text{K}^{-1}$)
ρ_a	=	air density (kg.m^{-3})
V_e	=	air velocity at boundary layer edge (m.s^{-1})
C_a	=	air specific heat ($1005 \text{ J.kg}^{-1}\text{K}^{-1}$)
fc	=	skin friction coefficient (dimensionless)
Pr	=	Prandtl's number (dimensionless)

Cleland *et al.* (2000) presented equations (7.37) and (7.38) for calculating the surface convection heat transfer coefficient.

$$h_{ps} = 7.3 v_a^{0.8} \quad (7.37)$$

$$h_{cs} = 12.5 v_a^{0.6} \quad (7.38)$$

where

h_{ps}	=	convection coefficient for planar surfaces ($\text{W.m}^{-2}\text{K}^{-1}$)
v_a	=	air velocity (m.s^{-1})
h_{cs}	=	convection coefficient for curved surfaces ($\text{W.m}^{-2}\text{K}^{-1}$)

In the fluting medium model, equations (7.39) and (7.40) were used and the air velocity was substituted by the machine speed and a stepwise function was introduced to prevent the heat transfer coefficient falling below $5 \text{ W.m}^{-2}\text{K}^{-1}$, which is a commonly used value for natural convection.

$$h_c = h_{cs}$$

for curved surfaces

(7.39)

$$h_c = h_{ps}$$

for planar surfaces

(7.40)

where h_c = convection heat transfer coefficient ($\text{W.m}^{-2}\text{K}^{-1}$)

As the equations (7.37) and (7.38) used to calculate the convection heat transfer coefficients were not specifically developed for the fluting medium, conservative high and low values of $h_c \pm 50\%$ were used for the sensitivity analysis.

7.5.3.2 Contact Heat Transfer Coefficient (h_{contact})

Upon reviewing the literature Reardon (1994) found that, for dry paper samples, the reported contact heat transfer coefficients varied from 100 to $600 \text{ W.m}^{-2}\text{K}^{-1}$. For samples with 20% moisture the range shifted to 200 to $640 \text{ W.m}^{-2}\text{K}^{-1}$.

Seyed-Yagoobi *et al.* (1992) measured the overall heat transfer resistance through bone-dry paper samples (bleached southern mixed Kraft) between two metal plates. They developed an empirical model to calculate the overall heat transfer coefficient (equation 7.41). They also presented an equation for the overall heat transfer coefficient as a function of the surface contact and conduction coefficient (equation 7.42). The conditions were limited to 1 to 300 kPa and 85°C on samples 68 to $348.7 \text{ g}_{\text{dry fibre.m}^{-2}}$.

$$h_{oc} = 35.84 + \frac{2912.80}{b_w} - \frac{2096136.SC}{b_w} + \frac{1756.29 \ln(P_c)}{b_w} - \frac{463807.SC \ln(P_c)}{b_w} \quad (7.41)$$

where h_{oc} = over all heat transfer coefficient ($\text{W.m}^{-2}\text{K}^{-1}$)
 P_c = contact pressure (kPa)

$$\frac{1}{h_{oc}} = \frac{2}{h_{contact}} + \frac{SC}{\lambda_{eff}} \quad (7.42)$$

where $h_{contact}$ = surface contact heat transfer coefficient ($\text{W.m}^{-2}\text{K}^{-1}$)
 λ_{eff} = effective conduction coefficient ($\text{W.m}^{-1}\text{K}^{-1}$)

To derive an equation for the surface contact heat transfer coefficient (equation 7.43) between the paper and metal plates, Seyed-Yagoobi *et al.* (1992) substituted the right hand side of equation (7.41) into equation (7.42) and they eliminated the effective conduction coefficient by using a sheet thickness (SC) of 0 mm. The heat transfer coefficient for 160 g.m^{-2} paper varies from 108 to $233 \text{ W.m}^{-2}\text{K}^{-1}$ over the pressure range 0-300 kPa.

$$h_{contact} = 71.68 + \frac{5825.60}{b_w} + \frac{3512.58 \ln(P)}{b_w} \quad (7.43)$$

A novel method was developed to calculate the maximum contact pressure between the fluting medium and preconditioner roll. The tension on the fluting medium wrapped around the preconditioner roll remains constant regardless of position. The novel method was based on calculating the contact force for a small section of the fluting medium in contact with the preconditioner roll.

Vectors V_1 and V_2 , in Figure 7.9, represents the tension on the fluting medium web while wrapped around the preconditioner roll by the contact angle, θ_{CA} . Vector C_{CF} represents the contact force between the fluting medium web and the preconditioner roll.

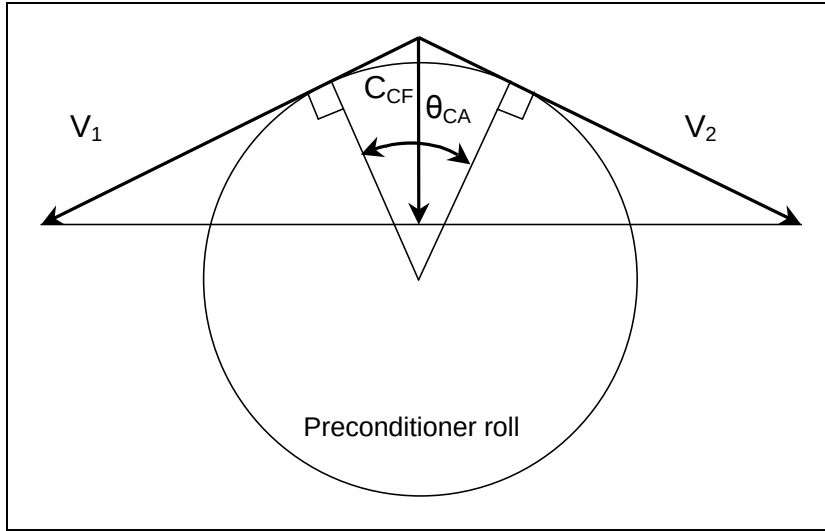


Figure 7.9 Vector diagram for contact force between fluting medium and preconditioner roll.

The contact force (C_{CF}) and contact area ($A_{FM/P}$) can be calculated using equations (7.44) and (7.45), respectively. The contact pressure ($P_{FM/P}$) was then calculated using equation (7.46). The maximum tensile strength of dry 160 g.m^{-2} fluting medium was 13.01 kN.m^{-1} (Table 4.3). The tensile force vectors, V_1 and V_2 , equal half this value, i.e. 6.505 kN.m^{-1} . The diameter of the preconditioner roll is 0.5 m and 1 m was used as the fluting medium cross-machine direction width, as the tensile strength was given in force per meter.

$$F_{CF} = 2.V_1 \sin\left(\frac{\theta_{CA}}{2}\right) \quad (7.44)$$

where F_{CF} = contact force between fluting medium and preconditioner roll (N)
 θ_{CA} = contact angle between fluting medium and preconditioner roll ($^\circ$)
 V_1 = tensile force vector (N.m^{-1})

$$A_{FM/P} = \pi \phi_P \frac{\theta_{CA}}{360} W_{FM} \quad (7.45)$$

where $A_{FM/P}$ = contact area between fluting medium and preconditioner roll (m^2)
 π = pi (3.14 dimensionless)

ϕ_P = diameter of pressure roll (m)
 W_{FM} = width of fluting medium – cross-machine direction (m)

$$P_{FM/P} = \frac{V_{CF}}{A_{FM/P}}$$

(7.46)

where $P_{FM/P}$ = contact pressure between the fluting medium and the preconditioner roll (Pa)

As the contact angle (θ_{CA}) approaches 0° the direction of the contact pressure over the contact area approach perpendicular to the surface of the preconditioner roll and the maximum contact pressure approaches 26.02 kPa.

From Figure 7.10 it can be seen that increasing the basis weight has a significant effect on the contact heat transfer coefficient, whereas the effect of increasing the contact pressure becomes less significant as basis weight increases. Based on Figure 7.10 it appears that the coefficient for 160 g.m^{-2} paper should be between 108 and $180 \text{ W.m}^{-2}\text{K}^{-1}$.

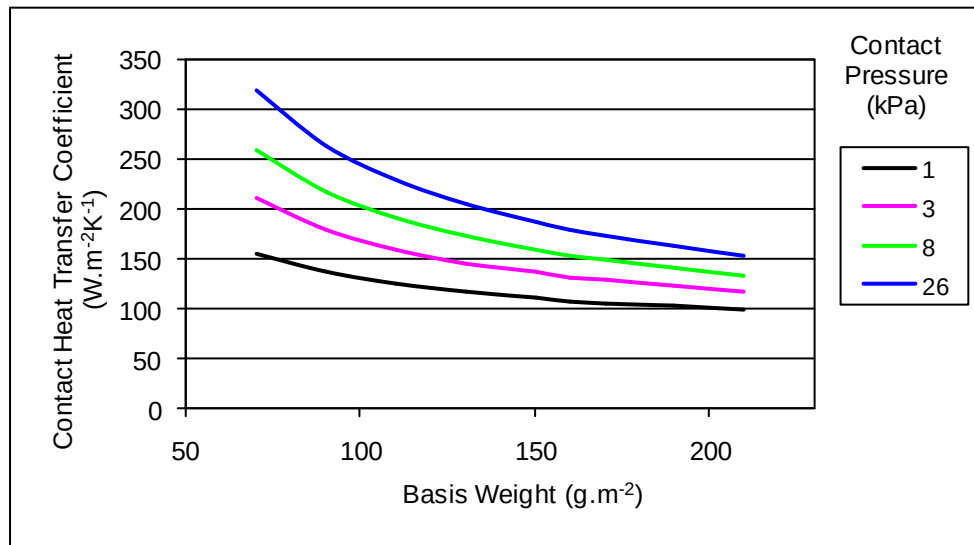


Figure 7.10 Effect of basis weight and contact pressure on contact heat transfer coefficient for dry paper - based on equation (7.43).

Asensio *et al.* (1993) measured the overall heat transfer resistance through moist paper samples (unbleached southern pine) between two metal plates. They derived an equation (7.47) for the surface contact heat transfer coefficient using the same technique as Seyed-Yagoobi *et al.* (1992). The conditions were limited to 0.68 to

328.81 kPa at 85°C, on samples 84 to 312.9 g.m⁻² and 5 to 150 %(db) moisture.

Figure 7.11 shows that the paper basis weight affects the contact heat transfer coefficient significantly more than MC or contact pressure.

$$h_{contact} = 178 - 3.8 \ln(P) + \frac{20518}{bw} + 25.9 \left(\frac{M}{1+M} \right)^2 \ln(P) - \frac{18142.8}{bw} \left(\frac{M}{1+M} \right)^{5/4} + 340.22 \left(\frac{M}{1+M} \right)^{3/2} \quad (7.47)$$

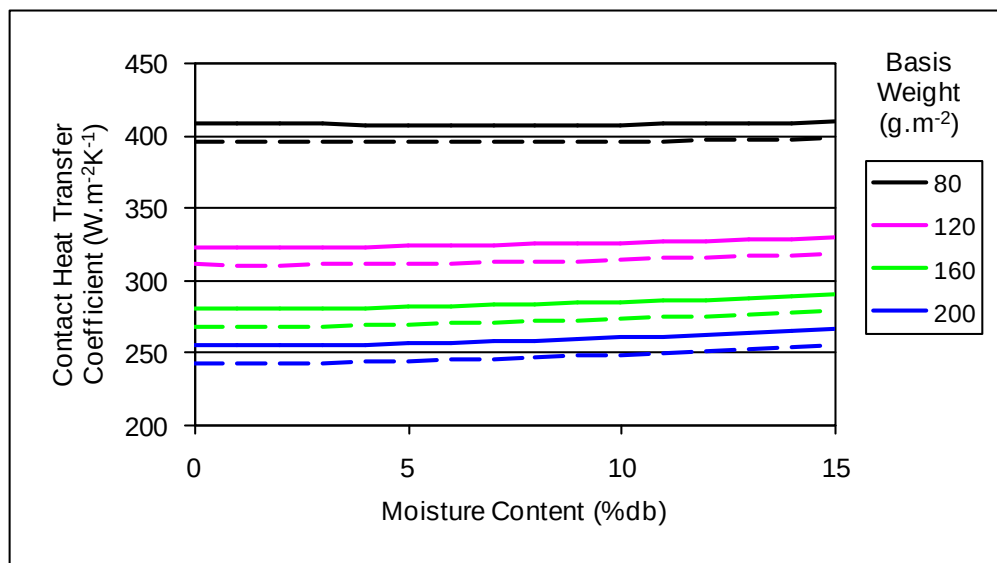


Figure 7.11 Effect of moisture content, basis weight and contact pressure on contact heat transfer coefficient, based on equation (7.47). Note: solid lines 1 kPa, dashed lines 26 kPa contact pressure).

Based on Figure 7.11, the contact heat transfer coefficient for the 160 g.m⁻² semi-chemical fluting medium was estimated to be in the range of 275 to 290 W.m⁻²K⁻¹.

The average value derived from Figures 7.10 and 7.11, i.e. 213 W.m⁻²K⁻¹, was used as the contact heat transfer coefficient in the model, with the smallest and largest values 108 and 290 W.m⁻²K⁻¹ used in the model sensitivity analysis.

7.5.4 Mass Transfer Properties

7.5.4.1 Surface Moisture Transfer Coefficient

Reardon (1994) measured the surface mass transfer coefficient for a newsprint sheet on a hot plate over a range of temperatures and modeled the relationship with equation (7.48).

$$h_m = 0.00159.MS + 0.011 \quad (7.48)$$

where h_m = surface mass transfer coefficient (m.s^{-1})

Nilsson (2004) used the Lewis analogy (equation 7.49) to calculate the surface moisture transfer coefficient. The Lewis analogy was used to predict the mass transfer coefficient in the model as it represents a generalised case with conservative high low values of $h_m \pm 50\%$ used in the sensitivity analysis.

$$h_c = \frac{h_m}{\rho_A C_{pA}} \text{ or } h_m = h_c \rho_A C_{pA} \quad (7.49)$$

7.5.5 Summary of Thermophysical Properties and Other Model Inputs

Tables 7.10 to 7.15 list all the Thermophysical properties and model inputs, with their respective high low values used for the sensitivity analysis.

Table 7.10 Environmental and initial conditions and machine settings

Property	Nomenclature	Average	High	Low
Paper sheet temperature (°C)	T_i	15	25	5
Paper sheet moisture content (kg _{water} ·kg _{fibre} ⁻¹)	M_i	0.099	0.119	0.079
Machine speed (m _{single-face board} ·min ⁻¹)	MS	180	200	100
Paper sheet basis dry weight (kg _{fibre} ·m ⁻²)	b_w	149	154	144
Sheet thickness (mm)	SC	0.157	0.167	0.147
Ambient air temperature (°C)	T_a	20	30	10
Ambient air humidity (%)	RH_a	60	70	50
Steam-shower temperature (°C)*	T_s	150	160	140
Heated cylinder surface temperature (°C)	T_c	180	190	170

* It is possible to have steam at temperatures >100°C at atmospheric pressure if it is superheated as is expected for the 12 bar.g steam exiting the steam-shower.

Table 7.11 Exact properties / constants

Property	Nomenclature	Value
Atmospheric pressure (Pa)	P_{atm}	101300
Gas constant (J·K ⁻¹ ·mol ⁻¹)	R	8.314
Molar mass of air (kg·mol ⁻¹)	M_{air}	28.966
Molar mass of water (kg·mol ⁻¹)	M_w	0.018

Table 7.12 Author defined properties

Property	Nomenclature	Average	High	Low
Porosity	E	0.50	0.8	0.2
Fibre density (kg·m ⁻³)	ρ_f	1540	1560	1500
Fibre specific heat capacity (J·kg ⁻¹ ·K ⁻¹)	c_f	1340	1370	1170
Tortuosity factor	τ	0.4	0.7	0.1
Proportion of conduction heat transfer resistance in series analogy	X	0.5	0.7	0.4
Paper fibre thermal conductivity (W·m ⁻¹ ·K ⁻¹)	λ_f	0.088	0.144	0.027
Maximum pore radius (μm)	R_{max}	7.7	100	1
Contact heat transfer coefficient (W·m ⁻² ·K ⁻¹)	$h_{contact}$	213	290	108

Table 7.13 Properties defined by equations

Property	Nomenclature	Equation	High adjustment	Low adjustment
Convection coefficient for curved surface ($\text{W.m}^{-2}\text{K}^{-1}$)	h_c	(7.39)	+50%	-50%
Convection coefficient for planar surface ($\text{W.m}^{-2}\text{K}^{-1}$)	h_c	(7.40)	+50%	-50%
Surface mass transfer coefficient (m.s^{-1})	h_m	(7.49)	+50%	-50%
Differential heat of water vapour sorption (J.kg^{-1})	Q	(7.16)	+50%	-50%
Equilibrium relative humidity (%)	ERH	(7.25)	+50%	-50%

Table 7.14 Machine dimensions

Location	Nomenclature	Distance (m)	High low values
Roll-Stand to Preconditioner	$D1$	7.0	$\pm 10\%$
Over first Preconditioner roll	$D2$	1.0	$\pm 10\%$
Between Preconditioner rolls	$D3$	0.5	$\pm 10\%$
Over second Preconditioner roll	$D4$	1.0	$\pm 10\%$
Between Preconditioner and Steam-shower	$D5$	1.2	$\pm 10\%$
Steam-shower	$D6$	0.4	$\pm 50\%$
Between Steam-shower and Single-facer	$D7$	1.0	$\pm 10\%$

Table 7.15 Properties defined by exact functions

Properties	Nomenclature	Equation number
Degree of factional saturation	S	(7.12)
Combined specific heat capacity ($\text{W.m}^{-1}\text{K}^{-1}$)	c_{com}	(7.11)
Liquid water specific heat capacity ($\text{J.kg}^{-1}\text{K}^{-1}$)	c_w	(7.29)
Liquid water density (kg.m^{-3})	ρ_w	(7.30)
Water vapour specific heat capacity ($\text{J.kg}^{-1}\text{K}^{-1}$)	c_v	(7.32)
Water vapour density (kg.m^{-3})	ρ_v	(7.33)
Water vapour enthalpy (J.kg^{-1})	H_v	(7.34)
Water vapour viscosity ($\text{kg.m}^{-1}\text{s}^{-1}$)	μ_v	(7.35)
Combined conduction coefficient ($\text{W.m}^{-1}\text{K}^{-1}$)	λ_{com}	(7.24)
Liquid water conduction coefficient ($\text{W.m}^{-1}\text{K}^{-1}$)	λ_w	(7.28)
Water vapour conduction coefficient ($\text{W.m}^{-1}\text{K}^{-1}$)	λ_v	(7.31)
Water vapour permeability (m^2)	κ_v	(7.18)
Saturated intrinsic permeability (m^2)	κ_s	(7.19)
Relative permeability (m^2)	κ_r	(7.21)
Saturated water vapour pressure (Pa)	P_{sat}	(7.27)

7.6 Numerical Solution

7.6.1 Introduction

As it was assumed that there would be negligible heat transfer in the cross-machine and machine directions due to the relative small thickness dimension of the fluting medium web (Assumption A-6), the model was therefore reduced to a one-dimensional unsteady state heat and moisture transfer model in the thickness direction. The thickness of the fluting medium sheet was divided up into a number of thin layers (Figure 7.12) with the temperature and MC was treated as being uniform within each layer. Six ordinary differential equations were derived from the heat and mass balances (section A-14) to calculate the:

- (1) Internal moisture transfer
- (2) Moisture transfer at top boundary
- (3) Moisture transfer at bottom boundary
- (4) Internal heat transfer
- (5) Heat transfer at top boundary
- (6) Heat transfer at bottom boundary

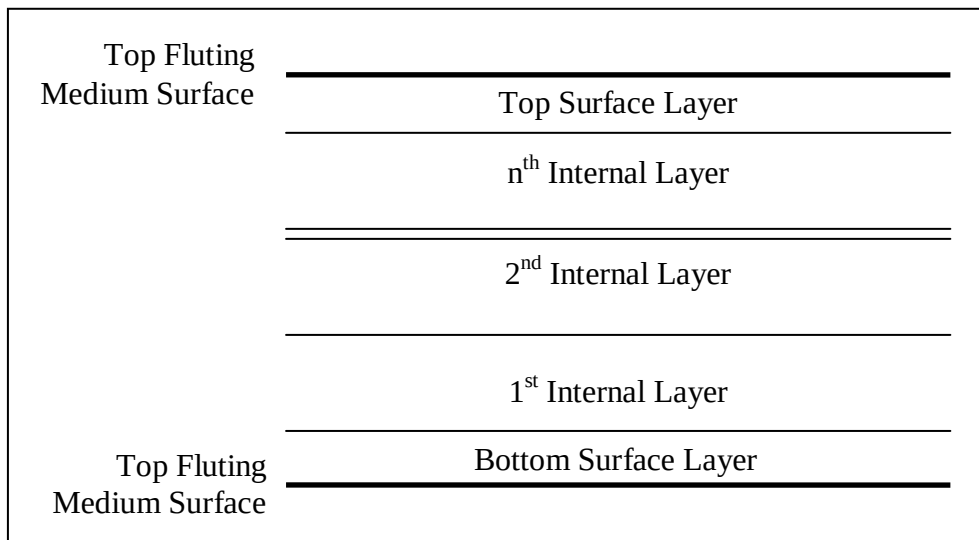


Figure 7.12 Division of the fluting medium into layers.

The ordinary differential equations were solved using the finite difference method and the computer programme MATLAB (Version 7.0.1, The MathWorks, Inc. 2004). The MATLAB solver used, *ode23s*, was based on a modified Rosenbrock formula of

order 2. The procedure used to produce the ordinary differential equations and the resulting MATLAB code are presented in Appendices A9 and A10, respectively.

The model was written to operate in an iterative fashion, so that the initial conditions of the first of the seven process sections were the temperature and MC of the fluting medium on the roll-stand. The initial conditions for the following sections were then derived from the final temperatures and MCs of the previous section. The ordinary differential equations for the boundaries were able to model the four different boundary conditions (Figures 7.2 and 7.3) by changing the values of the appropriate parameters on a section by section basis.

7.6.2 Numerical Checking

Numerical checking was required to select the number of nodes (equals number of layers plus one) and two MATLAB settings; relative tolerance and absolute tolerance. Increasing the number of nodes, especially with less than 20, can have a significant effect on the model output. The relative and absolute tolerance settings affect the accuracy of the predictions by controlling the number of significant figures the programme uses for the calculations. Tighter tolerance settings also increase the computing time and therefore an optimum should be found to achieve the desired level of accuracy while minimising the computing time.

The mass average fluting medium temperature and MC just prior to the single-facer was used as the gauge as to whether the model output changed for different number of nodes and relative and absolute tolerance values. The temperature and MC were deemed stable if the values were unchanged when rounded to 4 significant figures.

The first phase of the numerical checking procedure was to run the model with an increasing number of nodes until the model output stabilised, with the relative and absolute tolerance left at their default values. The second phase was to increase the relative tolerance until the model output stabilised at the optimal number of nodes from the first phase. The third phase was to increase the absolute tolerance until the model output stabilised at the optimal number of nodes and relative tolerance setting.

The number of nodes had a significant effect on the final temperature and MC when increasing the number of nodes up to 41 ($J=40$) (Figure 7.13). The choice of relative

and absolute tolerance did not have a significant effect on the mass average temperature or MC (Figures 7.14 and 7.15). Therefore the relative and absolute tolerances were set at their default values of 10^{-3} and 10^{-6} respectively.

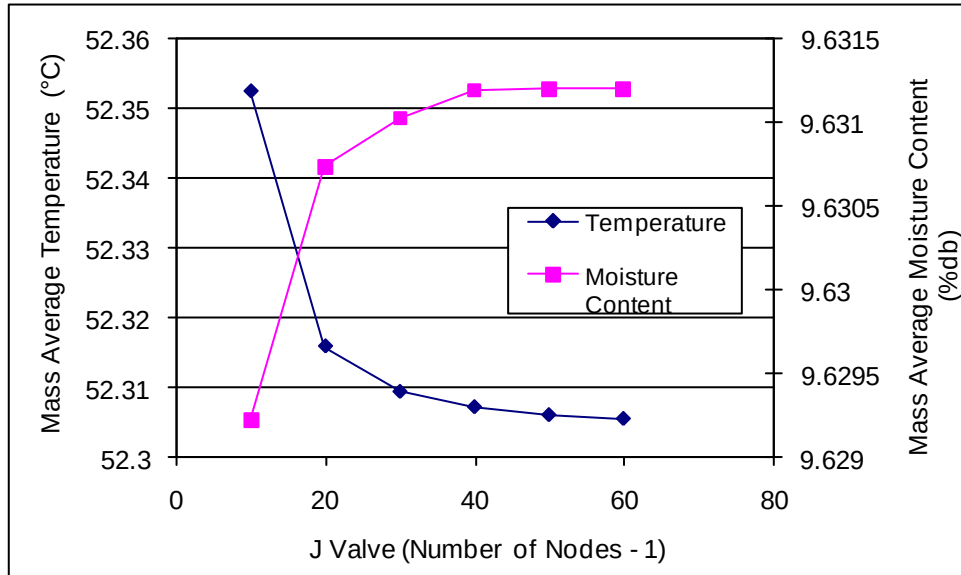


Figure 7.13 Relationship between J value (number of nodes -1) and the weighted average temperature and moisture content just prior to the single-facer. Relative and absolute tolerance set to 10^{-3} and 10^{-6} respectively.

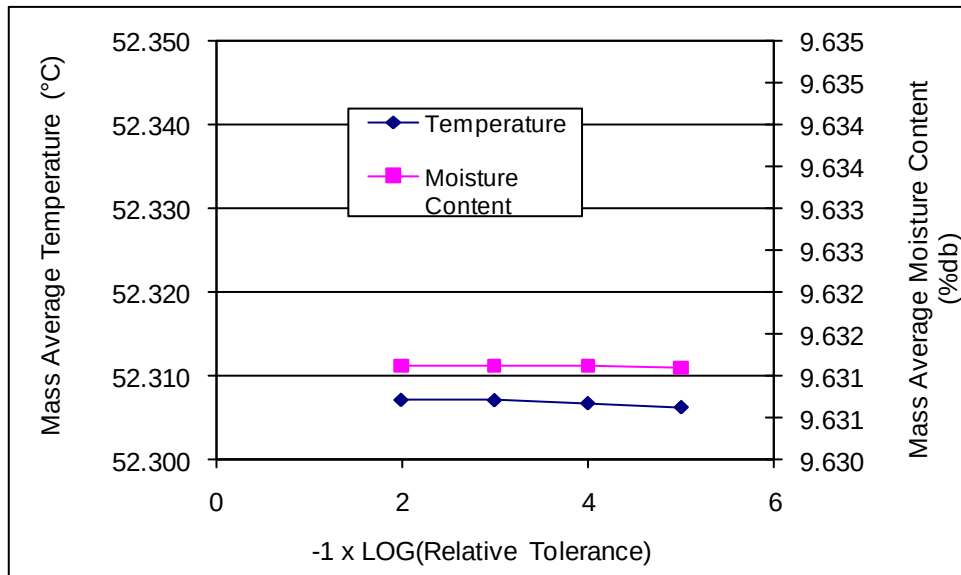


Figure 7.14 Relationship between relative tolerance and mass average temperature and moisture content. The J value and absolute tolerance were set to 40 and 10^{-6} respectively.

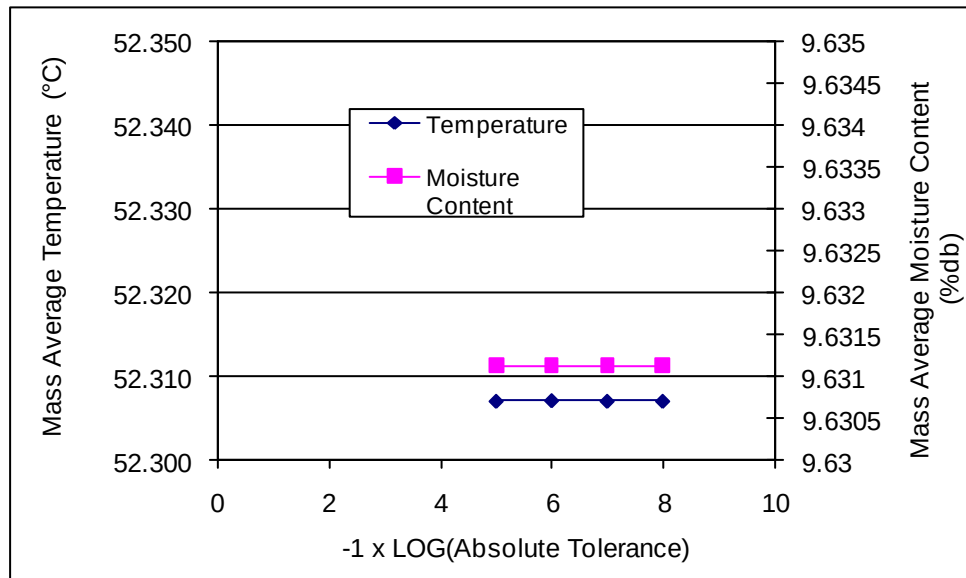


Figure 7.15 Relationship between absolute tolerance and mass average temperature and moisture content. The J value and relative tolerance were set to 40 and 10^{-3} respectively.

7.6.3 Model Output Example

To produce the model output examples, the model was run with all input variables set to their average values as shown in section 7.5.5. The graphs of the model output with the steam shower on and off, Figures 7.16 and 7.18 respectively, only contains the temperature and MC profile of 5 nodes as it would not be possible to distinguish the trends on a graph with the data from all 41 nodes.

Figure 7.16 shows a gradual increase in temperature during the first 1.6 s during which the fluting medium is pulled off the roll to the first heated cylinder of the preconditioner (A-B, Figure 7.1). The bottom surface of the fluting medium contacts the heated cylinder causing a sharp rise in temperature and drop in MC (B-C, Figure 7.1). The temperature of all the nodes increases but as the rate of the temperature increase is dependent on the proximity of the mode to the bottom surface.

The moisture profile is more complex than the temperature profile. Initial contact between the fluting medium and the first heated cylinder causes a rapid loss of moisture from the surface of the fluting medium but an increase in moisture for all the nodes one quarter of the web thickness up from the bottom surface. With further heating the nodes between the middle of the web and the bottom surface all loose

moisture, whereas the nodes from the middle to the top surface all continue to gain moisture.

Between the two heated rolls of the preconditioner (C-D, Figure 7.1) the temperature at the nodes through the fluting medium web equilibrate to a range of 5°C from a range of 30°C. The MC also equilibrates but not to the extent of the temperature.

Upon contacting the second heated cylinder, the temperature and MC of the top surface of the fluting medium increases and decreases, respectively (D-E, Figure 7.1). The bottom surface of the fluting medium gains moisture and the nodes between the surfaces change according to their respective distances from the surfaces.

Between the preconditioner and steam shower (E-F, Figure 7.1) the temperature equilibrates and declines rapidly, with the MC equilibrating at a lesser rate to a 20 %(db) range upon reaching the steam shower.

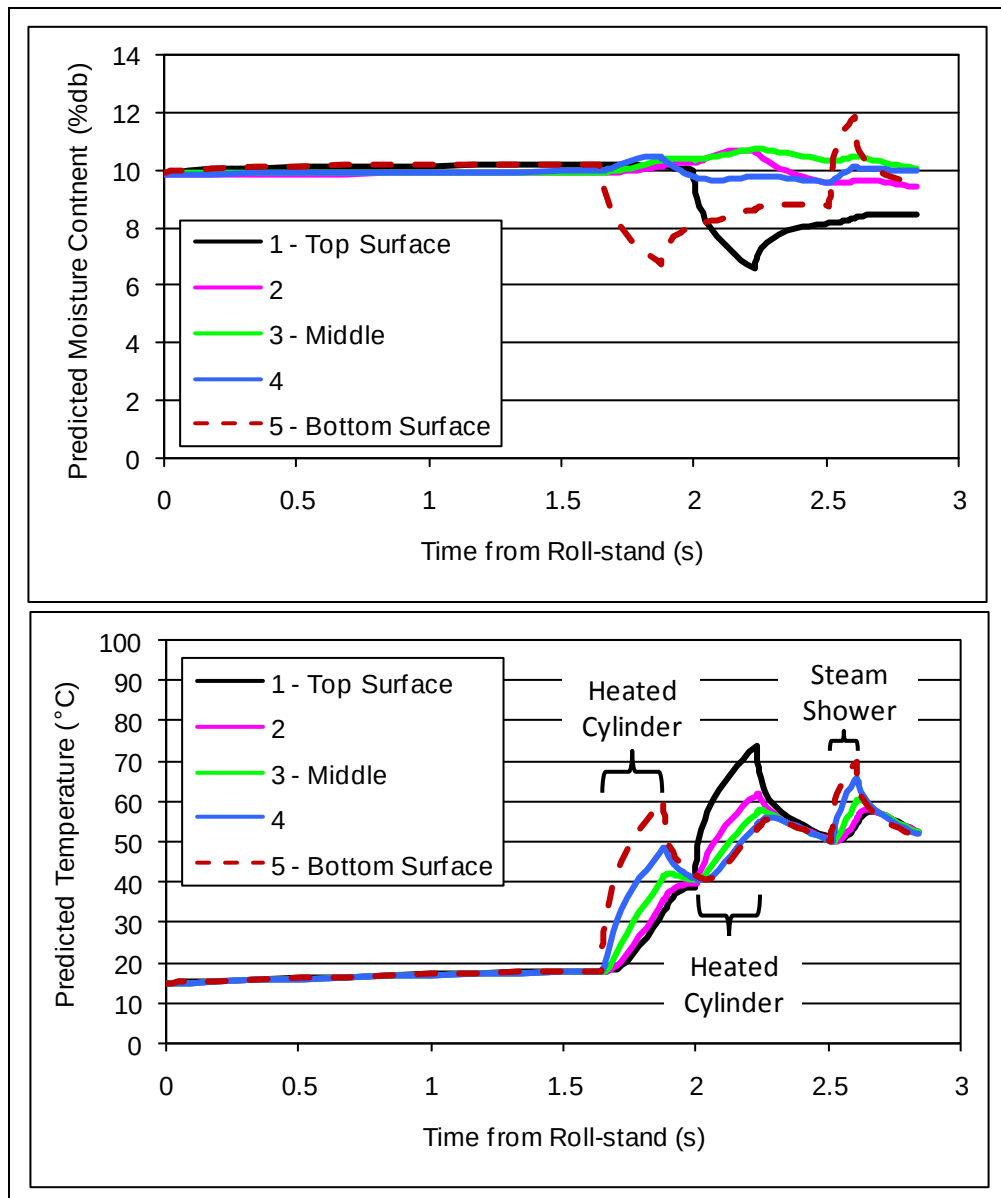


Figure 7.16 Predicted moisture content and temperature profiles for 160 g.m^{-2} semi-chemical fluting medium between the roll-stand and single-facer with the steam shower on.

When the fluting medium passes over the steam shower (F-G, Figure 7.1), the bottom surface temperature increases rapidly, although only for a short time relative to contact time on the heated cylinders. The MC of the bottom surface increases, with only small changes in the MC of the other nodes.

Between the steam shower and single-facer (G-H, Figure 7.1), the temperature of the fluting medium equilibrates and declines at a rate of approximately $36^{\circ}\text{C.s}^{-1}$. The MC

equilibrates via a reduction in the bottom surface MC and the MC declines at a rate of approximately $0.8 \text{ \% (db).s}^{-1}$.

Figure 7.17 shows the temperature gradients through the thickness of the fluting medium at the last point of contact with the heated cylinders and steam shower. The relatively even profiles for when the fluting medium contacts the second heated cylinder (D, Figure 7.1), the steam shower (F, Figure 7.1) and reaches the single-facer, indicates (H, Figure 7.1) how quickly the temperature equilibrates through the thickness of the fluting medium. The largest MC gradients were predicted to occur at the same locations as for the largest temperature gradients. The moisture profiles indicate that the moisture does not equilibrate as quickly as the temperature.

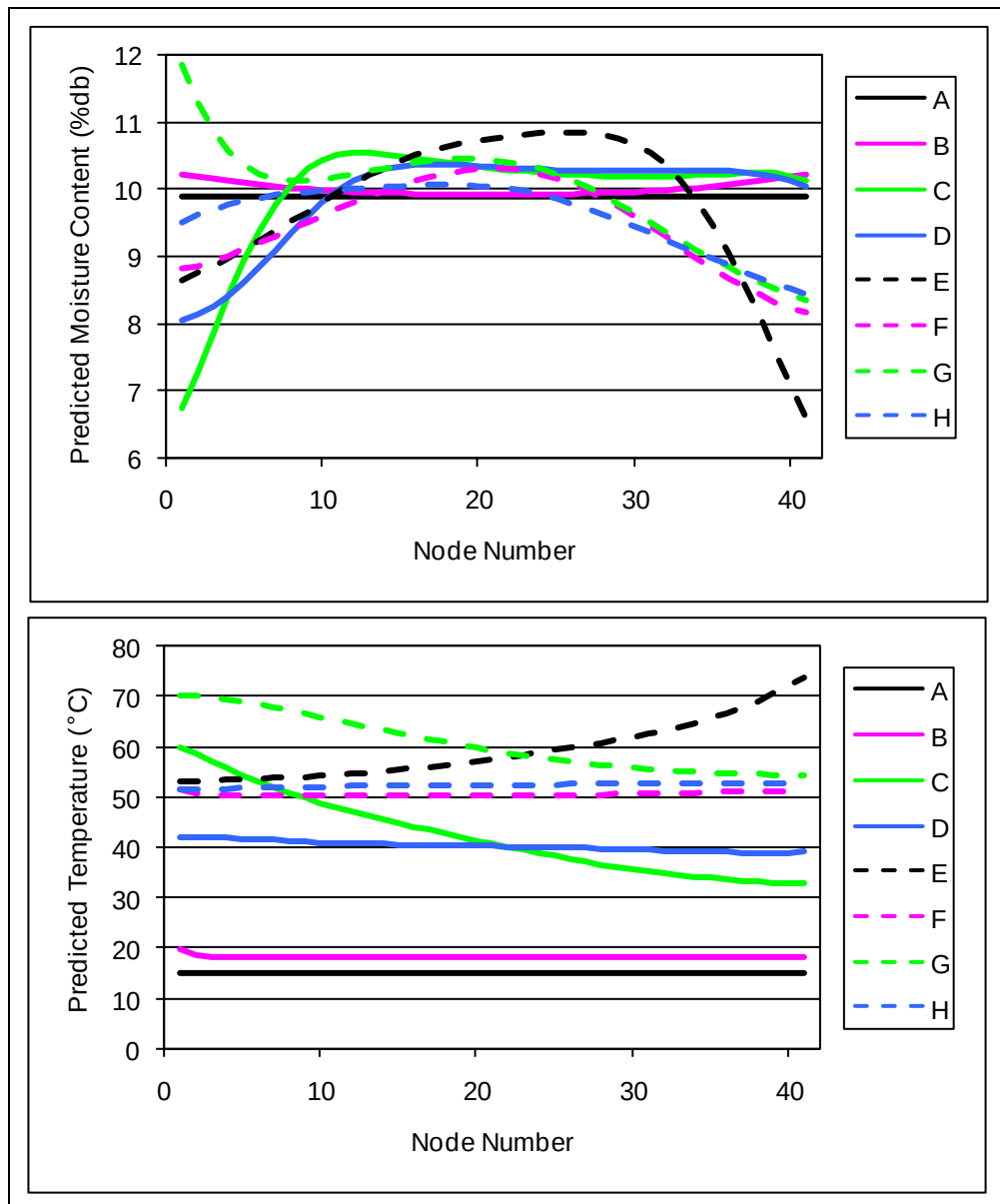


Figure 7.17 Predicted temperature and moisture content profiles for 160 g.m^{-2} semi-chemical fluting medium through the thickness of the web at the beginning and end of the seven sections as shown in Figure 7.1 with the steam shower on. Note: nodes 1 and 41 are at the bottom and top of the fluting medium web respectively.

The plot of the predicted temperature and MC profiles without the steam shower (Figure 7.18) is exactly the same as Figure 7.16 except for the last 0.3 seconds as the steam shower was off and did not influence the fluting medium temperature or the MC. The predicted effect of turning off the steam shower was to reduce the average temperature and MC from 52.3 to 44.0°C and 9.62 to $9.26 \text{ \%db}$. The predicted temperature and MC profiles without the steam shower through the thickness of the

fluting medium (Figure 7.19) confirms that the final temperature was lower and that the difference in MC was due to the reduction in moisture in the lower half of the fluting medium.

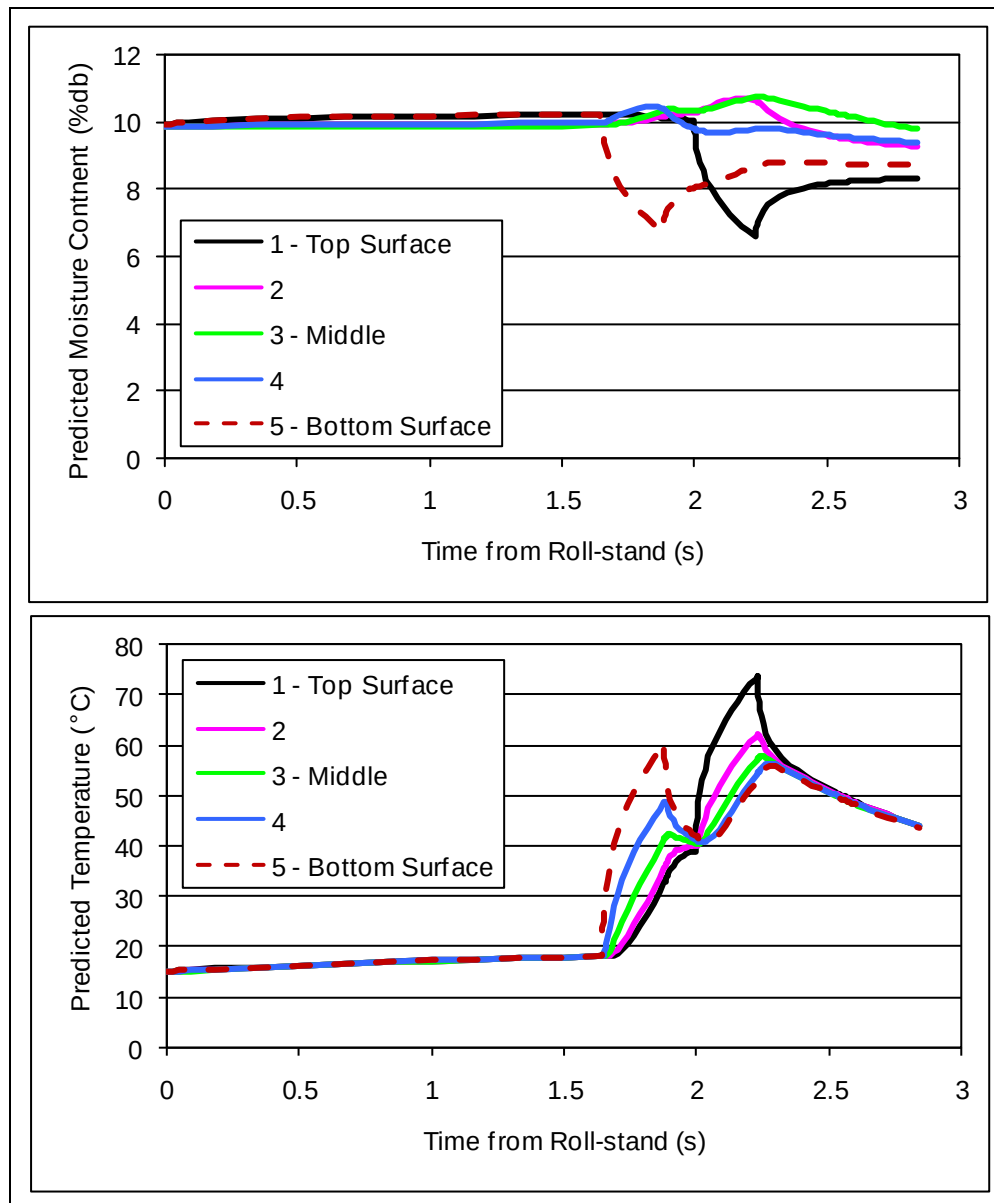


Figure 7.18 Predicted temperature and moisture content profiles for 160 g.m^{-2} semi-chemical fluting medium between the roll-stand and single-facer with the steam shower off.

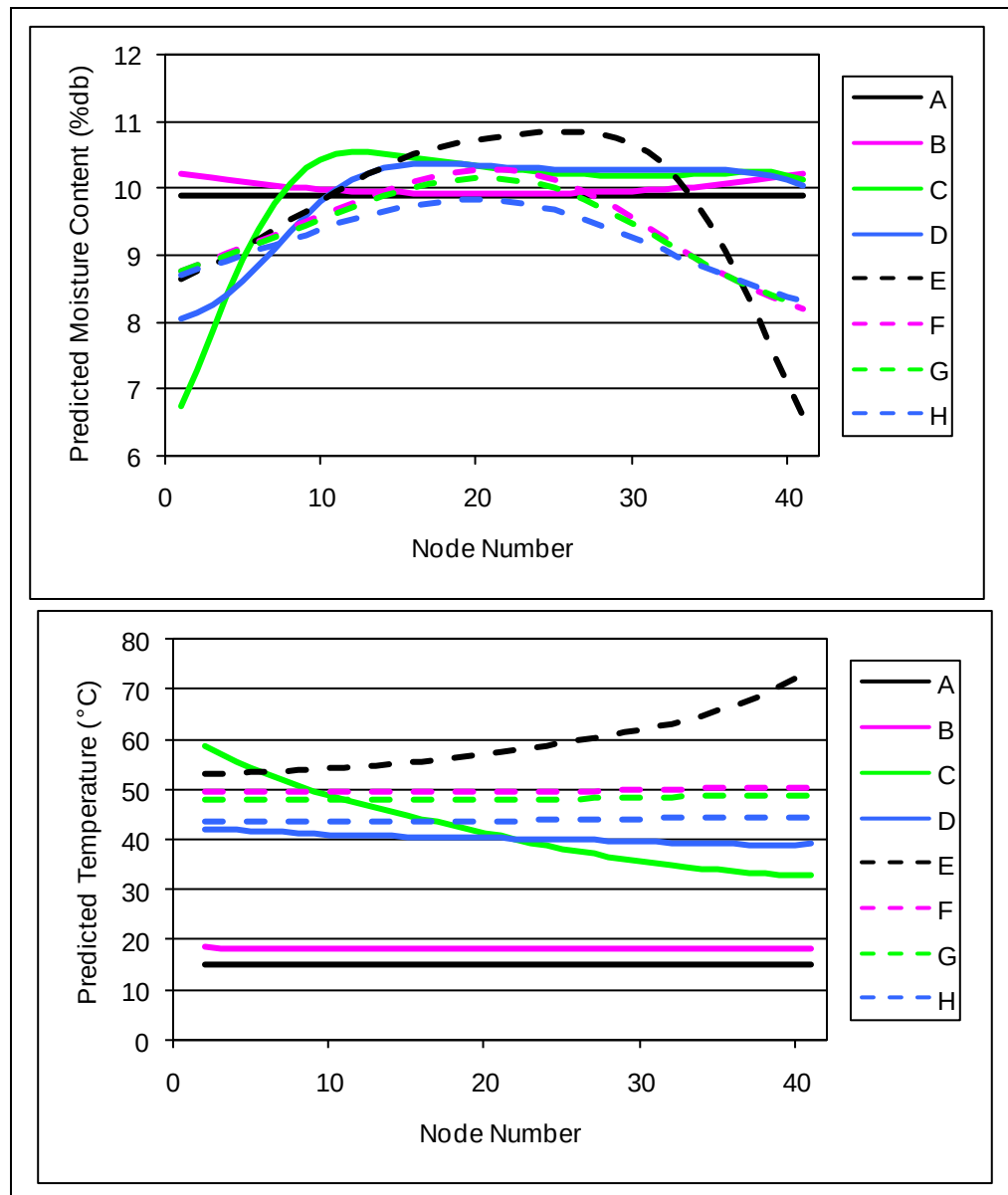


Figure 7.19 Predicted moisture content and temperature profiles for 160 g.m⁻² semi-chemical fluting medium through the thickness of the web at the beginning and end of the seven sections as shown in Figure 7.1 with the steam shower off. Note: nodes 1 and 41 are at the bottom and top of the fluting medium web respectively, and profile for position G not shown.

7.6.4 Sensitivity Analysis

The sensitivity of the model to each input was determined by comparing a baseline temperature and MC against the temperature and MC calculated following an adjustment to a single model input. The baseline temperature and MC were calculated by running the model with all the inputs set to their average value (section 7.5.5) and

by calculating the mass average temperature and MC through the thickness of the fluting medium just prior to the single-facer. The model was run with one input altered to its high value and re-run with the same input altered to its low value.

This procedure was repeated twice, once with the steam shower on and once with the steam shower off. The effect of the steam shower was also determined by comparing the two respective base line values for steam shower off and steam shower on. Then conducting the sensitivity analysis with the steam shower off, the final three sections E to F, F to G and G to H (Figure 7.1) were combined, the effect of the steam shower temperature was also not assessed, reducing the number of variables to be analysed by four.

The sensitivity analysis of the model inputs are shown in Table 7.16. The model inputs in Table 7.16 were sorted based on their combined absolute % change in temperature and MC. Of all the model inputs, the five most important inputs were the:

- fluting medium initial (i.e. MC of the fluting medium on the roll)
- fluting medium ERH
- contact heat transfer coefficient
- use of the steam shower
- slow machine speed

The fluting medium initial MC is dependent on the operation of the paper machine and the supply contract between the corrugated fibreboard manufacturer and the fluting medium manufacture. ERH is an intrinsic property of the fluting medium that is usually measured and cannot usually be controlled like other process parameters. The contact heat transfer coefficient is probably a function of the surface characteristics of the fluting medium (controlled by the paper fibres, pulp mill and paper machine) and heated cylinder, and the tension of the fluting medium over the preconditioner rolls. The later of which is minimised to maximise the flute height and minimise the variation and variable flute height (high-lows – i.e. significant height changes in successive flutes). The use of the steam shower and the machine speed are therefore

the two moisture important variables completely controlled by the operators of the corrugator.

Table 7.16 Sensitivity analysis of fluting medium temperature and moisture content model.

	Steam Shower Off			Steam Shower On		
Base line values	9.28 %MC, 44.0C			9.63 %MC, 52.3C		
Model Inputs	Moisture Content Change (%)	Temperature change (%)	Combined % Change	Moisture Content Change (%)	Temperature change (%)	Combined % Change
$M_i - 2 \text{ (db)}$	-19.3	5.5	24.8	-19.4	6.0	25.4
$M_i + 2 \text{ (db)}$	19.8	-3.8	23.6	19.8	-4.3	24.1
$ERH - 50\%$	4.9	14.2	19.1	5.4	16.4	21.8
$h_{contact} = 108 \text{ W.m}^{-2}\text{K}^{-1}$	4.5	-16.3	20.8	5.1	-14.1	19.2
Steam off	NA			-3.7	-16.0	19.6
Steam on	3.7	16.0	19.6	NA		
$MS = 100 \text{ m.s}^{-1}$	-10.3	8.7	19.0	-10.5	8.3	18.9
$ERH + 50\%$	-3.4	-9.5	12.9	-3.7	-10.7	14.3
$h_{contact} = 290 \text{ W.m}^{-2}\text{K}^{-1}$	-3.4	7.1	10.6	-3.8	6.1	9.8
$h_m - 50\%$	2.4	9.0	11.4	1.0	3.7	4.7
$T_a + 10^\circ\text{C}$	1.4	7.2	8.6	1.1	5.8	6.9
$D_6 - 50\%$	NA			-1.4	-5.9	7.3
$T_a - 10^\circ\text{C}$	-0.7	-6.1	6.8	-0.5	-5.0	5.4
$D_6 + 50\%$	NA			1.2	4.9	6.1
$h_m + 50\%$	-1.6	-5.9	7.5	-0.7	-2.6	3.4
$E = 0.8$	1.7	-3.0	4.6	2.2	-3.9	6.1
$T_i = 5^\circ\text{C}$	2.4	-2.7	5.1	2.5	-2.4	4.8
$T_i = 25^\circ\text{C}$	-2.7	2.3	4.9	-2.8	2.0	4.8
$MS = 200 \text{ m.s}^{-1}$	1.2	-2.2	3.3	1.2	-2.1	3.3
$E = 0.2$	-0.3	3.1	3.4	-0.9	2.0	2.9
$T_c - 10^\circ\text{C}$	0.8	-2.0	2.8	0.8	-1.7	2.6
$T_c + 10^\circ\text{C}$	-0.8	1.9	2.7	-0.9	1.6	2.5
$h_c - 10\%$	-0.3	2.9	3.2	-0.3	2	2.3
$h_c + 10\%$	0.3	-2.8	3.1	0.3	-1.9	2.2

Table 7.16 Continued

$\tau = 0.1$	0.9	2.2	3.1	0.4	0.7	1.2
$D5+6+7 - 10\%$	0.5	2	2.5	N/A		
$D4 - 10\%$	0.6	-1.8	2.4	0.7	-1.4	2.1
$D5+6+7 + 10\%$	-0.4	-1.9	2.4	N/A		
$D4 + 10\%$	-0.6	1.7	2.3	-0.7	1.3	2
$D2 - 10\%$	0.6	-1.6	2.3	0.7	-1.3	2
$D2 + 10\%$	-0.7	1.5	2.2	-0.7	1.2	1.9
$c_f = 1170 \text{ J.kg}^{-1}\text{K}^{-1}$	-1.0	0.9	1.9	-1.2	1.5	2.6
$RH_a - 10\%RH$	-0.7	-1.1	1.8	-0.6	-0.8	1.4
$RH_a + 10\%RH$	0.7	1.1	1.8	0.6	0.8	1.4
$\lambda_f = 0.027 \text{ W.m}^{-1}\text{K}^{-1}$	0.5	-0.8	1.4	0.6	-0.7	1.2
$D7 - 10\%$	N/A			0.3	1.1	1.3
$D7 + 10\%$	N/A			-0.3	-1.0	1.3
$b_w - 5 \text{ g.m}^{-2}$	-0.7	0.5	1.1	-0.6	0.7	1.2
$b_w + 5 \text{ g.m}^{-2}$	0.6	-0.5	1.1	0.5	-0.7	1.2
$\tau = 0.7$	-0.4	-0.7	1.1	-0.3	-0.3	0.5
$D5 - 10\%$	N/A			0.2	0.7	0.9
$D5 + 10\%$	N/A			-0.2	-0.7	0.8
$Q - 50\%$	-0.1	0.7	0.8	0.0	0.2	0.3
$Q + 50\%$	0.1	-0.7	0.7	0.0	-0.2	0.3
$x = 0.3$	-0.3	0.4	0.7	-0.3	0.3	0.6
$x = 0.7$	0.3	-0.4	0.6	0.3	-0.3	0.6
$\lambda_f = 0.144 \text{ W.m}^{-1}\text{K}^{-1}$	-0.2	0.2	0.4	-0.2	0.2	0.4
$c_f = 1370 \text{ J.kg}^{-1}\text{K}^{-1}$	0.2	-0.2	0.4	0.2	-0.3	0.5
$T_s - 10\%$	N/A			0.1	0.1	0.3
$T_s + 10\%$	N/A			-0.1	-0.1	0.2
$D1 - 10\%$	0.0	-0.1	0.1	0.0	-0.1	0.1
$D1 + 10\%$	0.0	0.1	0.1	0.0	0.1	0.1
$D3 - 10\%$	0.0	0.1	0.1	0.0	0.1	0.1
$\rho_f = 1500 \text{ kg.m}^{-3}$	0.0	-0.1	0.1	0.1	-0.1	0.1
$D3 + 10\%$	0.0	-0.1	0.1	0.0	-0.1	0.1
$SC - 0.01\text{mm}$	0.0	-0.1	0.1	0.0	-0.1	0.1
$SC + 0.01\text{mm}$	0.0	0.1	0.1	0.0	0.1	0.1
$\rho_f = 1560 \text{ kg.m}^{-3}$	0.0	0.0	0.1	0.0	0.0	0.1
$R_{max} = 1 \text{ }\mu\text{m}$	0.0	0.0	0.0	0.0	0.0	0.0
$R_{max} = 100 \text{ }\mu\text{m}$	0.0	0.0	0.0	0.0	0.0	0.0

An increase or decrease in the ambient air temperature along the whole process of 10°C was predicted to have a combined percentage change of 8.6 and 6.8 % respectively. The effect of a 10 %RH change in the ambient humidity was predicted to have a significantly smaller effect (1.8 %). While the model was developed on the assumption that the ambient conditions were consistent and constant (assumption A-3) it may be necessary to measure the ambient conditions after the estimates of the contact heat transfer coefficient, fluting medium isotherms and the surface mass transfer coefficient have been improved.

Adjusting the temperature of the heated cylinders by $\pm 10^\circ\text{C}$ had a relatively small effect on the fluting medium temperature and MC judging by the combined percentage change of 2.8 and 2.7 % as shown in Table 7.16. These values provide confidence in assumption A-5 where the temperature of the surface of the preconditioner rolls was assumed to be consistent and constant over their entire surfaces.

The sensitivity of the model predictions to the initial fluting medium MC indicates that assumption A-14 may be inaccurate during the period of time required for the outer layers of the fluting medium roll to be used by the corrugator. It was expected that the MC of the outer 10 to 20 mm of the fluting medium on the roll would fluctuate depending on the ambient conditions.

7.6.5 Comparison with Measured Data

The measurements of the single-facer speed and the temperature of the bottom surface of the fluting medium between the second heated cylinder and the steam shower (section 6.2) provide a basis for assessing the accuracy of the model predictions. The model was run with the average settings given in section 7.5.5, with machine speed increasing from 20 to 180 m.min⁻¹. As the best data set out of the two involved a production run of 120 g.m⁻² semi-chemical fluting medium the model was rerun with new thickness and basis weight values. The values were estimated from a 120:160 ratio as they were not measured.

The emissivity setting of the infrared temperature sensor (Minolta/Land Cyclops Compac 3, Land infrared Ltd England) was determined by measuring the temperature of a sample (160 g.m⁻² semi-chemical fluting medium) in a pilot plant drying rig and

adjusting the emissivity until the IR temperature sensor reading matched that of the two calibrated thermocouples attached to the surface of the sample. The temperature range of the drying rig was limited to ambient to 107°C and three replicate measurements were recorded at approx. 51, 69, 89 and 107°C.

As the sample temperature increased the emissivity of the sample decreased (Figure 7.20). The emissivity setting could only be adjusted in increments of 0.01 and between each of the three replicate measurements shown in Figure 7.20 the resulting temperature error between the IR temperature sensor and average calibrated thermocouple temperature was within $\pm 1.7^\circ\text{C}$. This error was expected to be insignificant relative to the magnitude of the fluting medium temperature and the magnitude of the expected temperature variation.

As the paper temperature was expected to vary between 20 and 180°C, and the average temperature at the measurement point to be greater 107°C, the emissivity was set at the lowest level shown in Figure 7.20 (i.e. 0.88) corresponding to the highest temperature.

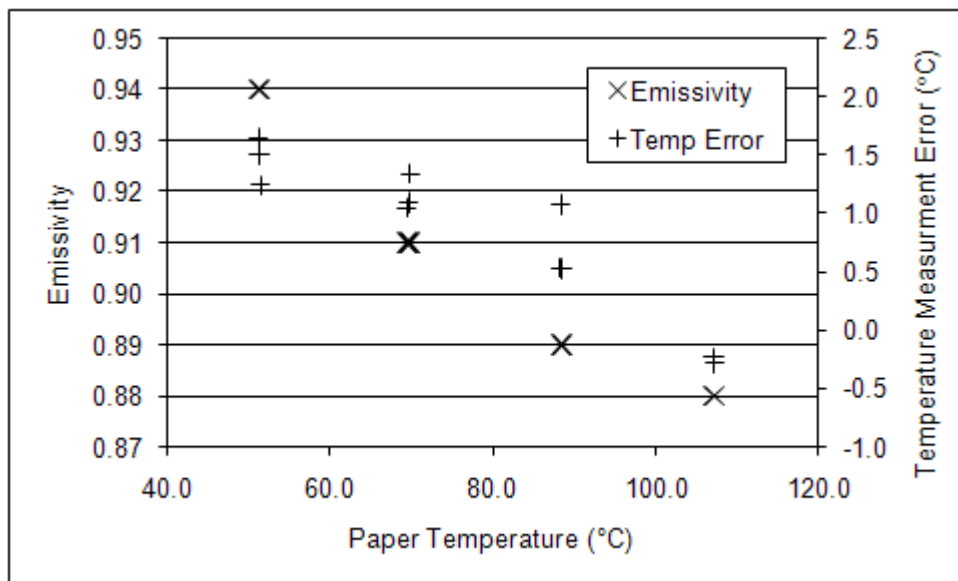


Figure 7.20 160 g.m⁻² semi-chemical fluting medium paper emissivity and corresponding temperature error. Note. all 12 replicate measurements shown in plot.

The plot of measured and predicted data (Figure 7.21) indicates that the model underestimated the bottom fluting medium surface temperature by between 40 and 60°C.

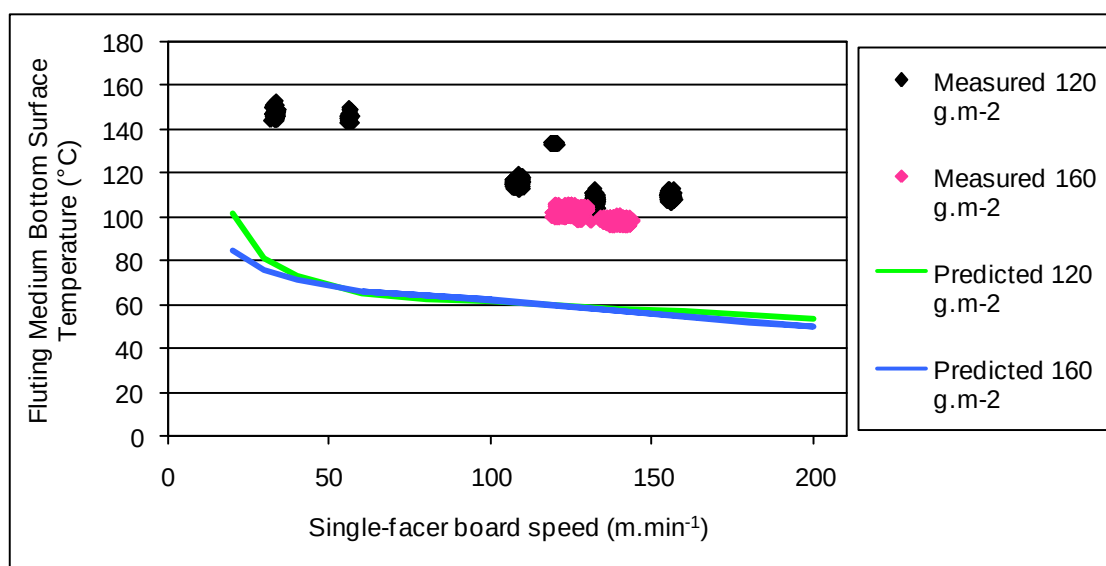


Figure 7.21 Relationship between machine speed and fluting medium bottom surface temperature 0.3 m before steam shower. Note: for 120 g.m⁻² predictions model was run with fluting medium thickness of 0.118 m and basis weight of 112 g_{dry fibre}.m⁻² otherwise average values from section 7.5.5 used as model inputs except for single-board speed.

The discrepancy between the measured and predicted temperatures shown in Figure 7.21 could be a result of:

- the rate of heat transfer from the steam heated preconditioner rolls to the fluting medium being underestimated
- the rate of heat transfer from the fluting medium to the ambient air being overestimated
- significant problems with the formulation of the model

Factors that can affect the rate of heat transfer from the rolls to the fluting medium and its temperature include the:

- specific heat capacity of the fluting medium
- preconditioner roll temperature
- contact heat transfer coefficient between the steam heated preconditioner rolls and the fluting medium

The sensitivity analysis of the model showed that running the model with the highest and lowest published dry paper specific heat capacities did not have a significant

affect ($\leq 1.0\%$) (Table 7.16) on the fluting medium mass average temperature just prior to the single-facer. Also running the model with the preconditioner rolls 10°C higher or lower than the normal 180°C did not effect the predicted fluting medium mass average temperature by more than 2% just prior to the single facer (Table 7.16). However changing the contact heat transfer coefficient did have a significant effect (7.1 to -16.6%) on the fluting medium temperature mass average temperature (Table 7.16).

To further analyse the effect of the contact heat transfer coefficient, model was run at three machine speeds and with the coefficient set at the base line value of $213 \text{ W.m}^{-2}\text{K}^{-1}$, the highest value used in the sensitivity analysis ($290 \text{ W.m}^{-2}\text{K}^{-1}$) and 500 and $1000 \text{ W.m}^{-2}\text{K}^{-1}$. A contact coefficient of $500 \text{ W.m}^{-2}\text{K}^{-1}$ was not outside the range of values found by Reardon (1994) in the literature, but a value of $1000 \text{ W.m}^{-2}\text{K}^{-1}$ would normally be considered higher than the heat transfer coefficient of the condensing steam inside the preconditioner rolls.

Figure 7.22 shows that the effect of increasing the contact heat transfer coefficient is substantial but does not account for all of the difference between the predicted and measured fluting medium bottom surface temperature.

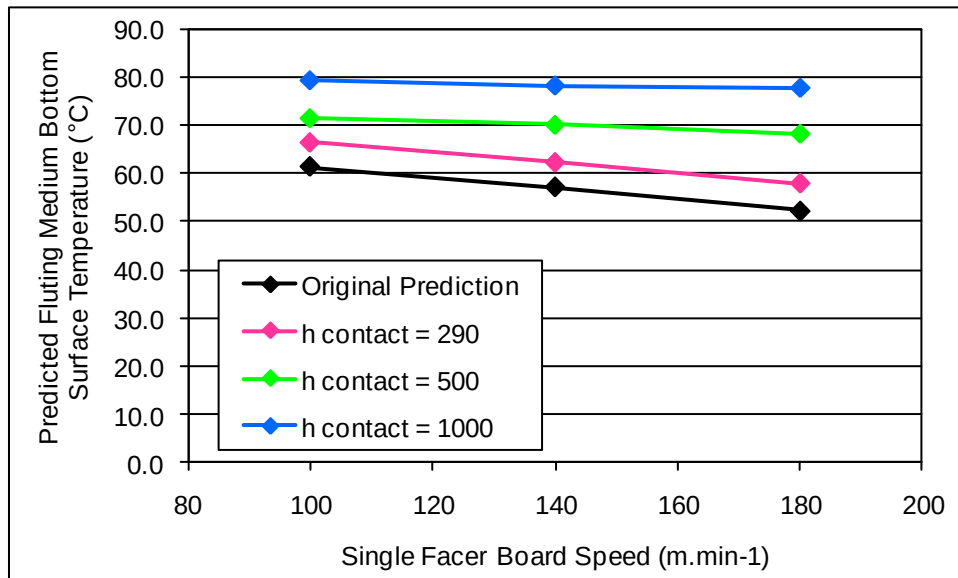


Figure 7.22 Effect of changing the contact heat transfer coefficient (h_{contact}), on the fluting medium bottom surface temperature at the location of the IR temperature sensor. Note: average values for model inputs were used from section 7.5.5 except for machine speed and h_{contact} .

Factors affect the rate of heat transfer from the fluting medium include the:

- ambient air temperature
- convection heat transfer coefficient
- rate of evaporation of moisture from the fluting medium to the surrounding ambient air

The sensitivity analysis showed that running the model with an ambient air temperature of 10 or 30°C, as apposed to the average of 20°C, had the effect of changing the predicted mass average fluting medium temperature just prior to the single-facer by -6.1 and 7.2% respectively. A further increase in the ambient temperature is expected to increase the fluting medium temperature but the trial value of 30°C is as high as is expected around the single-facer.

The sensitivity analysis showed that the affect of changing the convection coefficient by $\pm 10\%$ was minimal ($\leq 2.9\%$ of the mass average temperature just prior to the single-facer). However, the model was run with a convection coefficient of $0.0 \text{ W.m}^{-2}\text{K}^{-1}$ to determine if, in this extreme case, the convection coefficient had a significant effect. It was found that with a convection coefficient of $0.0 \text{ W.m}^{-2}\text{K}^{-1}$ the predicted fluting medium bottom surface temperature, at the

location of the IR temperature sensor, was increased by 1.6°C or 3.1%. The heat loss via convection at the fluting medium top and bottom surface was therefore not expected to contribute significantly to the discrepancy between the measured and predicted fluting medium temperatures.

To determine the effect of moisture loss the model was run with a surface moisture transfer coefficient (h_m) of 0.0 m.s⁻¹. This would have the effect of preventing any loss of moisture from the fluting medium. With a surface moisture transfer coefficient of 0.0 m.s⁻¹, the predicted fluting medium bottom surface temperature was increased by 7.0°C or 13.4%.

None of the factors listed in this section alone were able to explain the majority of the discrepancy between the measured and predicted fluting medium temperatures. Therefore the effect of simultaneously changing the two most significant factors (moisture loss and contact heat transfer coefficient) was explored. The predicted fluting medium bottom surface temperature with a surface moisture transfer coefficient of 0.0 m.s⁻¹ and a contact heat transfer coefficient of 500 and 1000 W.K⁻¹m⁻² were found to be higher than the measured temperatures (for the 160 g.m⁻² fluting medium) (Figure 7.23). It therefore appears that the rate of moisture loss and contact heat transfer coefficient can explain all the discrepancy between the measured and predicted fluting medium temperatures. However, it is very unlikely that there was no moisture loss from the fluting medium and this should further investigated.

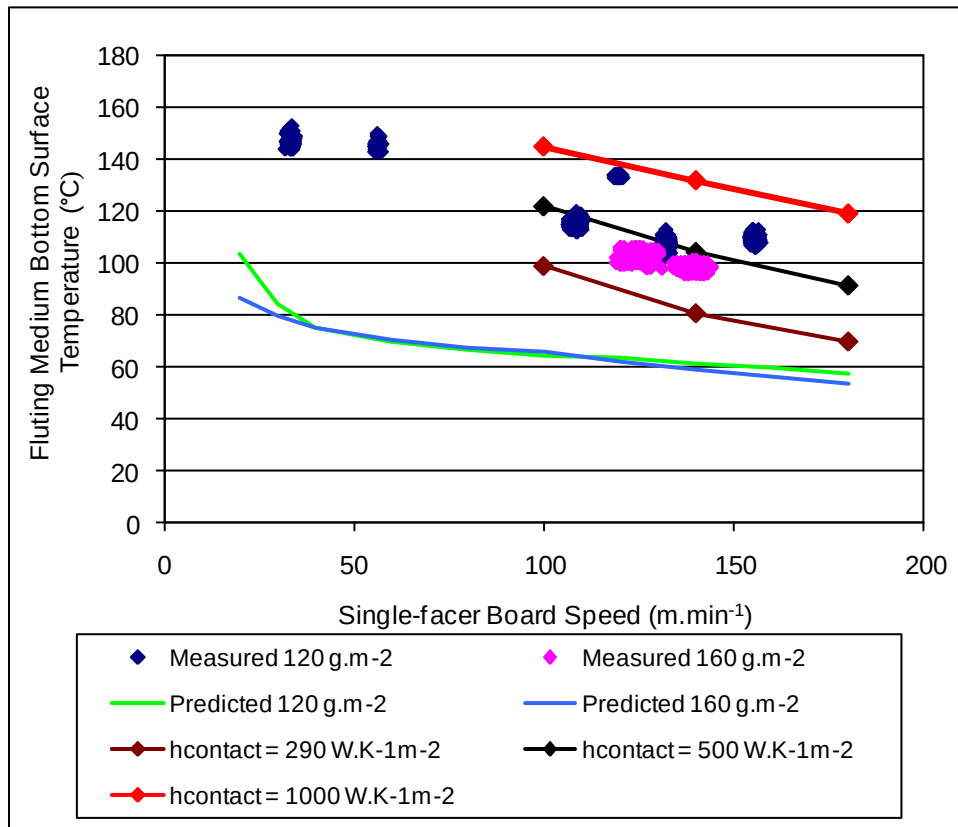


Figure 7.23 Comparison between predicted and measured fluting medium bottom surface temperature 0.3 m before steam shower. Note: for data points $h_{\text{contact}} = 290 \text{ W.K}^{-1}\text{m}^{-2}$ and $h_{\text{contact}} = 500 \text{ W.K}^{-1}\text{m}^{-2}$ average values for model inputs were used from section 7.5.5 except for machine speed ($MS = 100, 140$ and 180 m.min^{-1}), surface moisture transfer coefficient ($h_m = 0.0 \text{ ms}^{-1}$) and contact heat transfer coefficient ($h_{\text{contact}} = 290, 500$ and $1000 \text{ W.K}^{-1}\text{m}^{-2}$).

Factors that affect the rate of moisture loss from the sample include the:

- water vapour partial pressure of the ambient air (which is a function of the ambient air temperature and humidity)
- surface moisture transfer coefficient
- water vapour partial pressure at the surface of the sheet (which is a function of the isotherm, temperature and moisture content)

The temperature and humidity of the ambient air can be easily measured and are therefore expected to be accurate. To determine the effect of changes to the contact heat transfer, the surface moisture transfer coefficient and ERH the model was run with changes to these parameters at 100 and 180 m.min^{-1} (Figures 7.24 and 7.25).

Figures 7.24 and 7.25 show that reducing the surface moisture transfer coefficient or the ERH by 50% has a very similar effect, whereas reducing them both by 50% has an accumulative effect. Based on the similarity between the predicted and measured temperatures Figure 7.25 shows that it is most probable that the surface moisture transfer coefficient and the ERH were both over estimated (see the $h_{cont} = 500$, $RH \times 0.5$, $hm \times 0.5$ data points).

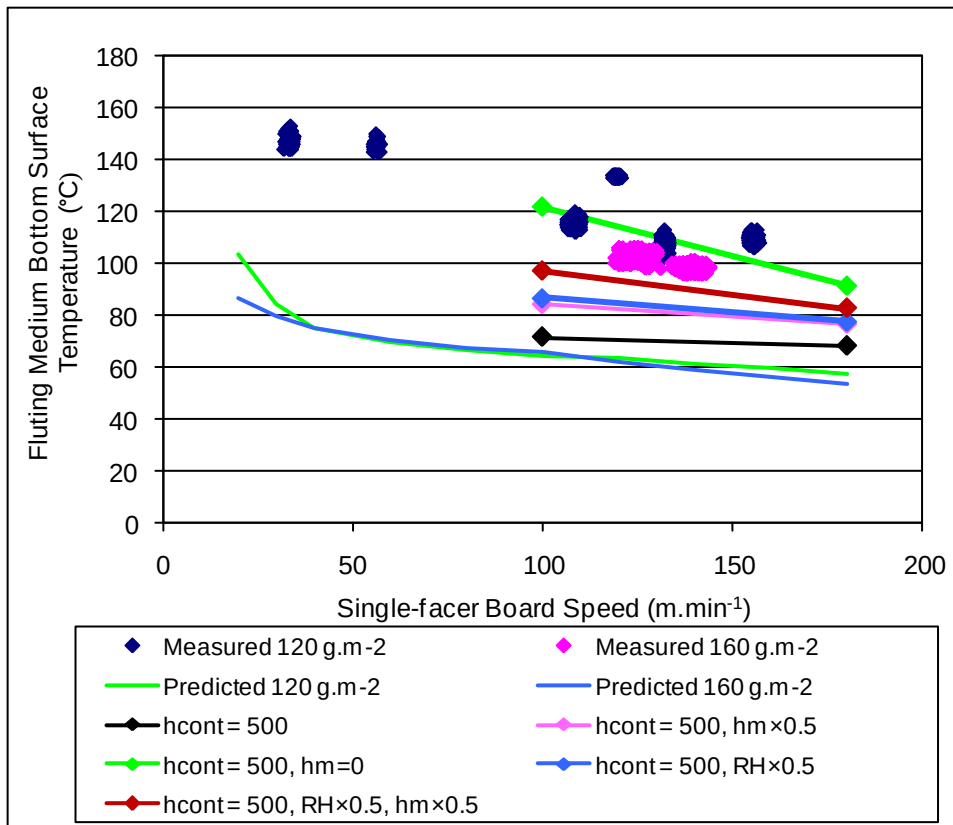


Figure 7.24 Comparison between predicted and measured fluting medium bottom surface temperature 0.3 m before steam shower. Note average values for model inputs were used from section 7.5.5 except for where stated otherwise with h_{cont} = surface mass transfer coefficient ($500 \text{ W.K}^{-1}\text{m}^{-2}$).

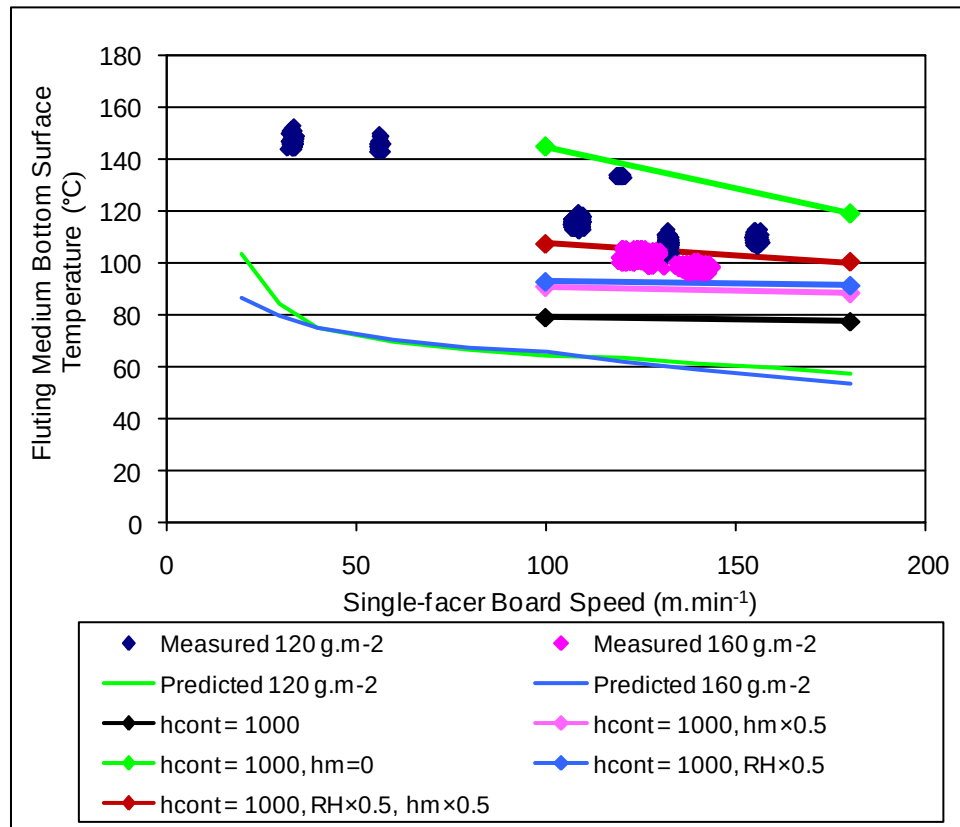


Figure 7.25 Comparison between predicted and measured fluting medium bottom surface temperature 0.3 m before steam shower. Note average values for model inputs were used from section 7.5.5 except for where stated otherwise with h_{cont} = surface mass transfer coefficient ($1000 \text{ W.K}^{-1}\text{m}^{-2}$).

Based on the investigations in this section into the discrepancy between the measured and predicted fluting medium bottom surface temperatures it was concluded that the isotherm equation over predicted the ERH values, the original surface moisture transfer coefficient was too high and the contact heat transfer coefficient was too low to allow the model to accurately predict the fluting medium bottom surface temperatures. It is strongly recommended that if other researchers were to conduct further research into the fluting medium temperature and moisture content that they measure:

- the fluting medium isotherm up to the preconditioner roll temperature,
- the contact heat transfer coefficient between the fluting medium and the preconditioner rolls
- the surface moisture transfer coefficient

7.6.6 Effect of Q and ERH

Prahl's (1968) desorption isotherm data was limited to 21.8 to 80°C which meant that the equations for the heat of sorption (Q) and ERH were also limited to this temperature range. The sensitivity analysis has already shown that a Q value of $\pm 50\%$ of that given by equation (7.17) did not affect the temperature and moisture content predictions by more than $\pm 0.7\%$ of the base line values (Table 7.16). It therefore appears that the Q values are not critical to the accuracy of the model. However, if the moisture sorption isotherm were to be measured then it would be a relatively simple exercise to re-calculate the Q values.

For the diffusion/convection the rate of moisture loss from the fluting medium will be dependent on the difference between the vapour density of the ambient air and the air in the outer layer of the fluting medium. Whereas the rate of moisture loss via pressure-driven bulk flow from the surface of the fluting medium will be dependent on the total pressure in the outer layer of the fluting medium. With a capped ERH (at 80%) both these rates will be underestimated by the model, as is shown by Figure 7.26 for the diffusion drive force at the paper surface.

To determine the effect, in an extreme case, of the lower ERH values at temperatures greater than 80°C, the model was run four times with the following settings:

- Steam off and capped ERH (at 80°C)
- Steam off and extrapolated ERH from equation (7.25)
- Steam on and capped ERH (at 80°C)
- Steam on and extrapolated ERH from equation (7.25)

When the temperature was greater than 80°C and the ERH was calculated by extrapolating equation (7.25) the ERH was capped at 100%.

The effect of extrapolating the ERH equation was to increase the temperature slightly by 0.04 and 0.38 % for when the steam shower was off and on. The moisture content was decreased by 5.0 and 4.6 % for when the steam shower was off and on. While the predicted change in temperature may be insignificant, the predicted change in moisture

content is not so and these model runs further support the recommendation that the moisture sorption isotherms for the fluting medium need to be measured.

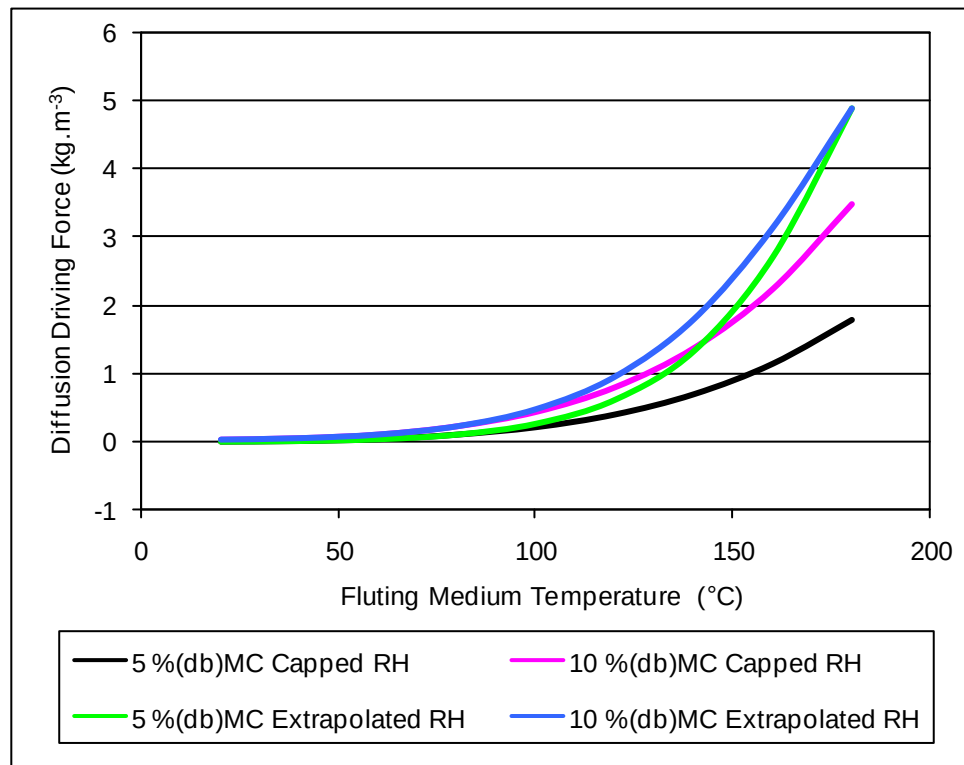


Figure 7.26 Comparison between diffusion driving force at the fluting medium surface from ERH values calculated using equation (7.25) capped at 80°C and from ERH values calculated using equation (7.25) extrapolating above 80°C. Note: values for extrapolated ERH converge at 180°C as extrapolated equation (7.25) maxes out (ERH > 100 %) at very high temperatures. Ambient air conditions of 20°C and 60 %RH were used to calculate the diffusion driving force.

7.7 Indirect Model Validation

7.7.1 Introduction

Although the model was not able to accurately predict the temperature of the fluting medium it was still deemed useful to measure the effect of the two most significant single-facer variables as shown by the sensitivity analysis, steam shower use and slow machine speed, on the corrugated fibreboard properties. Comparing these measurements could be described as a method of indirectly validating the model.

Samples of corrugated fibreboard were taken from a commercial production run of a single board configuration, when the single-face board was produced at either low or normal speed and with the steam shower either on or off. The samples were subjected to three tests: edgewise compression, flat crush and shear stiffness. The machine direction shear stiffness was measured using the alpha prototype of the Chalmers Dynamic Stiffness Tester (DST). The machine direction shear stiffness of corrugated fibreboard has been shown to be a good indicator of fluting medium quality (Wright, *et al*, 1992 and Chalmers 2006).

Each end of a rectangular sample of corrugated fibreboard, cut in the machine direction, is held by a clamp in the Chalmers DST. The clamp at one end of the sample remains fixed, the clamp at the other end is connected to an inertia disk and is rotated by approximately 20° and released, allowing the inertia disk end of the sample to oscillate. Chalmers (2006) stated that the shear stiffness of corrugated fibreboard samples is directly proportional to the angular frequency squared and the DST outputs a Board Performance Index (BPI) which equals the angular frequency squared divided by 100.

Chalmers (2006) measured the dynamic stiffness of five corrugated board samples with varying degrees of printing. The measurements produced BPI values ranging from 3.3 to 15.5. This range gives an indication of the expected BPI values.

The corrugated fibreboard (C flute - 250 g.m⁻² Kraft linerboard - 160 g.m⁻² fluting medium - 250 g.m⁻² Kraft linerboard) used in Chapters 3 and 5 was not being manufactured at the time of this experiment. Therefore C-flute comprising 145 g.m⁻² Kraft linerboard - 120 g.m⁻² recycled fluting medium - 145 g.m⁻² Kraft linerboard manufactured on the same corrugator (Carter Holt Harvey Ltd, Levin) was used.

From the literature review it is known that an increase in temperature and/or moisture content will soften paper. Increasing the temperature and/or moisture may have the effect of minimising the damage to the fluting medium during the fluting process through the fluting medium being more elastic or the damage may be magnified if the deformation is irreversible, stretching the fluting medium and reducing its final compressive strength.

The two variables on the single facer (speed and steam use) produce four possible treatments, normal speed without steam, normal speed with steam, slow speed without steam and slow speed with steam. Three hypotheses were developed to assist with the analysis of the test data (Table 7.17). The hypotheses were based on the assumption that softening prior to the single facer will reduce the irreversible damage to the fluting medium and produce stronger corrugated fibreboard.

Table 7.17 Effect of change in operating conditions from normal speed with steam shower off - hypotheses

Operating Changes	Hypotheses
Steam on	Increase in fluting medium temperature and moisture content Softening of fluting medium, reduction in damage during flute formation process and stronger corrugated fibreboard produced
Reduction in speed	Increase in fluting medium temperature and reduction in moisture content. Effect of moisture loss will be greater than that of temperature effect, fluting medium will stiffen, damage in fluting process will increase and weaker corrugated fibreboard will be produced
Steam on and reduction in speed	Larger increase in fluting medium temperature and smaller reduction in moisture content – relative to reduction in speed alone Softening of fluting medium, reduction in damage during flute formation process and stronger corrugated fibreboard produced
Additional Hypothesis	
Slow speed with steam on relative to slow speed with steam off	Same as for first hypothesis

7.7.2 Materials and Methods

Samples of three blanks each were collected from the corrugator when the single-facer and double backer were running at the normal speed or when the single-facer was slowed for splicing on of a new linerboard or fluting medium reel. The speeds and steam shower status of the samples are listed in Table 7.18. The three blank samples represent half the corrugated fibreboard web on the motor side, as opposed to the operator's side.

Table 7.18 Speeds and steam shower status of blank samples.

Sample Code	Single-facer and Double Backer Speed	Steam Shower Status
A	Normal speed (226 m.min ⁻¹)	Steam on
B	Normal speed (245 m.min ⁻¹)	Steam off
C	Normal speed (212 m.min ⁻¹)	Steam off
D	Slow speed (*170 and 211 m.min ⁻¹)	Steam on
E	Slow speed (147 and 211 m.min ⁻¹)	Steam on
F	Slow speed (159 and 212 m.min ⁻¹)	Steam off

* the first value was the single-facer speed and the second value was the double-backer speed

The tests conducted on the corrugated fibreboard are listed in Table 7.19 with their respective dimensions and platen speeds. The samples were preconditioned (33% RH, 30°C, 24 hours) and conditioned (50% RH, 23°C, 24 hours) just prior to testing.

The alpha prototype Chalmers DST was used for the dynamic stiffness measurements. The alpha prototype conducts a single measurement by twisting the sample in the clockwise or anti clockwise direction whereas the commercialised beta prototype twists and oscillates the sample in both directions to condition the sample, then twists and oscillates the sample in both directions again. The beta prototype outputs the average BPI value for the second pair of oscillations. The methodology employed by the beta prototype was manually replicated on the alpha prototype.

The edgewise compression and flat crush measurements were conducted on an IDM Universal Tester (IDM Instruments Pty Ltd. Australia). Hardness values for the flat crush samples were not calculated due to a fault with the IDM Universal Tester's extensometer.

Table 7.19 Corrugated fibreboard tests with sample dimensions

Test	Dimension/Area	Platen speed	Samples per Blank
Edgewise compression	100×25 mm	12.5 mm.min ⁻¹	6
Flat crush	50 cm ²	10 mm.min ⁻¹	5
Dynamic stiffness	146 × 25 mm (MD × CD)	NA	5

7.7.3 Results and Analysis

The edgewise compression, flat crush and dynamic stiffness results (Figures 7.27 to 7.29) all show that the different single-facer speeds and the on/off status of the steam shower did not effect the corrugated fibreboard properties by more than 15%.

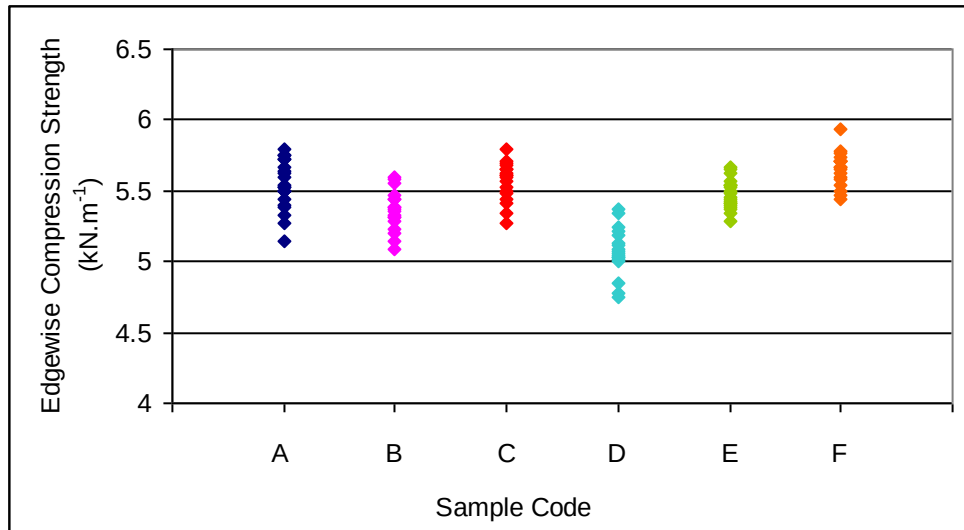


Figure 7.27 Edgewise compression strength values of C-flute corrugated fibreboard (145 g.m^{-2} Kraft linerboard - 120 g.m^{-2} recycled fluting medium - 145 g.m^{-2} Kraft linerboard) manufactured at a range of single-facer speeds, with the steam shower on or off. Conditions of manufacture given in Table 7.18.

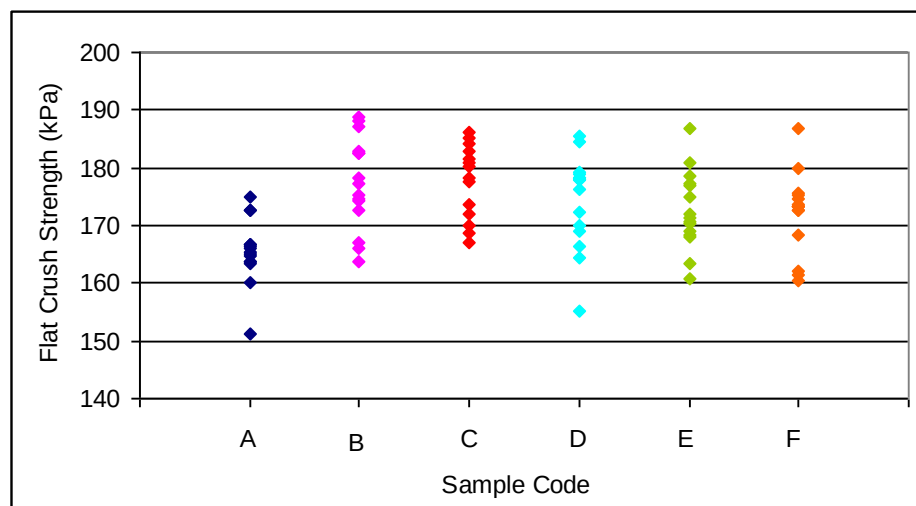


Figure 7.28 Flat crush strength values of C-flute corrugated fibreboard (145 g.m^{-2} Kraft linerboard - 120 g.m^{-2} recycled fluting medium - 145 g.m^{-2} Kraft linerboard) manufactured at a range of single-facer speeds, with the steam shower on or off. Conditions of manufacture given in Table 7.18.

Four out of the fifteen samples from the E batch appear to have been damaged before the dynamic stiffness test as the BPI values of the remaining eleven samples are consistent with the values for the other five batches. The four samples may have been creased before or after the samples were cut. Accidental creasing of the samples would not require much force, as the samples were cut in the machine direction.

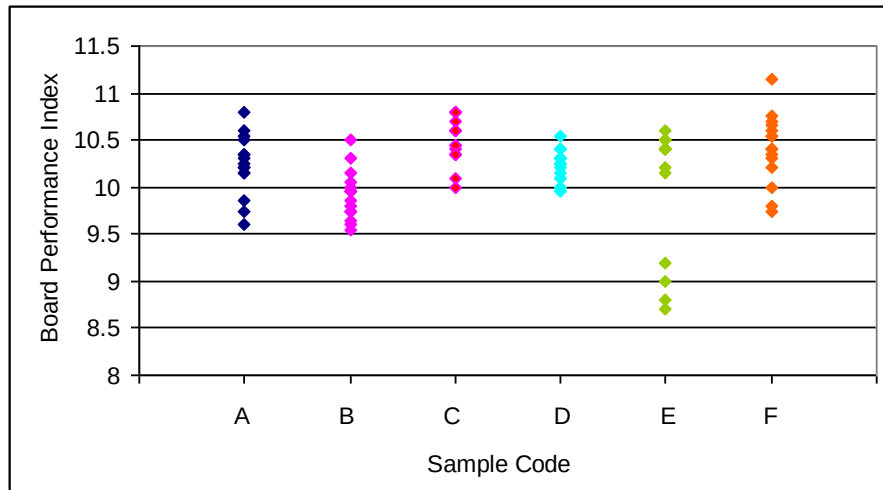


Figure 7.29 Board performance index values of C-flute corrugated fibreboard (145 g.m⁻² Kraft linerboard - 120 g.m⁻² recycled fluting medium – 145 g.m⁻² Kraft linerboard) manufactured at a range of single-facer speeds, with the steam shower on or off.

The samples means were analysed to determine if they were statistically different (Table 7.20).

Table 7.20 Comparison between average sample board performance index, ECT and FCT values using t-test for difference between means using equation (4.5). *t* critical values range between 2.021 and 2.048* (Freund 1988) and *t* values in bold signify significant differences between samples.

Board Performance Index					
Sample Codes	B	C	D	E	F
A	2.990⁺	-2.396	0.107	1.204	-1.342
B		-6.191	-3.884	-0.438	-4.195
C			3.411	2.578	0.699
D				1.238	-1.718
E					-2.013
ECT					
Sample Codes	B	C	D	E	F
A	3.550	-0.514	8.573	1.373	-2.423
B		-4.455	5.539	-2.984	-6.728
C			9.671	2.226	-2.121
D				-9.061	-11.889
E					-4.846
FCT					
Sample Codes	B	C	D	E	F
A	-4.694	-5.502	-3.440	-3.105	-2.895
B		-0.161	1.062	1.756	1.877
C			1.307	2.115	2.239
D				0.605	0.737
E					0.151

**t* critical based on 0.05 level of significance

⁺ positive t-value signifies that average value for sample listed in left hand column was greater than that of average value for sample listed in row above t-values

i.e. A average BPI > B average BPI &

C average BPI > A average BPI

Table 7.21 Effect of change in operating conditions from normal speed with steam shower off – observations from t-tests in (Table 7.20)

Operating Changes (Sample Codes)	Observation
Steam on (A vs B & C)	BPI and ECT t-values inconsistent Average FCT values significantly improved
Reduction in speed (B & C vs F)	Average ECT values significantly improved BPI and FCT t-values inconsistent
Steam on and reduction in speed (B & C vs D & E)	BPI t-values inconsistent ECT some inconsistency in t-values but generally average ECT values significantly reduced Some inconsistency in t-values but generally average FCT values not significantly affected
Additional Observation	
Slow speed with steam on relative to slow speed with steam off (D & E vs F)	Average BPI and FCT not significantly affected Average ECT significantly reduced

The information in Table 7.21 is not sufficient consistent to enable clear cut conclusions on the effect of speed and the use of the steam shower on the damage to the fluting medium and the performance of the corresponding corrugated fibreboard. For example the effect of steam at normal caused a significant increase in average FCT but at low speed the average ECT was reduced.

Table 7.20 shows that there were however, significant differences between some of the sample properties and that it was possible that the sample size used in this study was too small for stronger conclusions to be developed. It is possible that a study with more samples would provide the data for stronger conclusions. A clear conclusion on whether speed and steam shower use were the two most important operating parameters would enable the corrugated fibreboard manufactures to be sure that they were investing their time and money on the correct parameters.

7.8 Conclusions

Moisture and temperature had already been shown to affect the strength properties of paper in this study and in previous studies and anecdotal evidence suggested that the corrugator produced corrugated fibreboard with significant strength variation (Forthsyth per. comm. 2000). The flute formation process has the potential to be a

source of the strength variation though fluctuations in the level of damage to the fluting medium as measured by Whitsitt and Sprague, (1987). The damage to the fluting medium could be minimised by controlling the operations prior to the single-facer on the fluting medium side.

A mathematical model was produced to predict the fluting medium temperature and MC just prior to the single-facer. There was a large discrepancy ($\sim 40^{\circ}\text{C}$) between the predicted and measured fluting medium bottom surface temperatures. Through analysis of the factors that could cause a large underestimation of the fluting medium temperature it was concluded and highly recommended that if other authors were to conduct further research into the fluting medium temperature and moisture content that they measure

- the fluting medium isotherm up to the preconditioner roll temperature,
- the contact heat transfer coefficient between the fluting medium and the preconditioner rolls
- the surface moisture transfer coefficient

The sensitivity analysis of the model inputs, in its current form with its limitations, in terms of accuracy, highlighted that the two most important process parameters that could be controlled by the operators of the single-facer were:

- use of the steam shower
- slow machine speed

However the indirect validation of the model

The indirect validation of the model did not produce strong conclusions. It appears that the single facer speed and the use of the steam shower did have an effect however the results from the small sample size were inconsistent. It would be worthwhile for other researcher or the manufacturing companies themselves to conduct a larger study and this would assist the highlight to the manufacture companies where they should be focusing their attention within the corrugated fibreboard manufacturing process in order to improve board consistency.

Chapter 8

Conclusions and Recommendations

8.1 Rationale and Scope of Study

Corrugated fibreboard boxes play an important role in the storage, transport and sale of New Zealand two largest fresh horticultural exports, kiwifruit and apples. The boxes impart a considerable cost to the horticultural industry so any cost savings that can be made on packaging will increase the profitability of the industry. Cost savings could be made by reducing the quantity of wood fibre used in the corrugated fibreboard providing adequate vertical compression strength can be maintained. Such improvements could be achieved either by:

1. improving the manufacturing process or by
 2. improving the accuracy of corrugated fibreboard performance predictions.
- Improved performance predictions would enable the basis weight of the corrugated fibreboard to be minimised through closer matching of the box performance with the horticultural industry requirements by reducing the safety margin incorporated into the box designs. This safety margin, or over-engineering, of the boxes is required to reduce the probability of box failure. Improvements could be made to the manufacturing process to either:
 1. increase the average box strength or to
 2. reduce the variation in box strength.

A reduction in the box strength variation would enable the difference between the average box strength and the required box strength to be reduced while maintaining a suitably small failure probability.

The scope of this study was limited to the manufacture of corrugated fibreboard boxes from the constituent paper plies, to one box design-the apple Z-Pack telescopic box (500×330×260 mm) and to the kiwifruit and apple cool-store conditions. The box was manufactured from two plies of 250 g.m⁻² Kraft linerboard and 1 ply of 160 g.m⁻²

semi-chemical fluting medium. The fluting mediums were formed into C-flute and the smaller B-flute profiles for the inner and outer boxes respectively. The linerboards were formed from two plies of paper on the paper machine, all of which were unbleached except for the outer layer of the outer box. The printing on the outer face of the inner box was minimal (approx. 10% by area) whereas the printing on the outer face of the outer box was more extensive (approx. 40% by area). The design of the box and the use of moulded pulp trays results in the sharing of the compression load by the apples, trays and corrugated fibreboard boxes.

The refrigerated cool-storage required by kiwifruit and apples necessitates the use of high performance corrugated fibreboard manufactured from predominantly virgin pulp and with the linerboard and fluting medium plies adhered with water resistant glue. The most important performance requirement of the corrugated fibreboard boxes is their ability to resist vertical compression. Factors that affect the compression strength of the corrugated fibreboard boxes, in cool-store conditions, include the cool-store temperature and humidity, which fluctuate in a cyclic trend, the temperature and humidity inside the boxes, the moisture adsorption and desorption rates, the compression load and the intrinsic corrugated fibreboard properties.

Corrugated fibreboard displays viscoelastic properties, whereby the measured compression or tensile strength is dependent on the strain rate. Corrugated fibreboard also expands with the adsorption of moisture. Therefore to predict the compression strength of corrugated fibreboard boxes in commercial cool-store conditions, the effect of moisture and temperature, cyclic humidity and time must be well understood.

Considerable effort has been directed towards understanding and modelling the effect of cyclic fluctuations of moisture content on the compression and tensile strength properties of paper and corrugated fibreboard. The moisture content fluctuations are generated by cycles of the cool-store air humidity and temperature. The chief source of these fluctuations are likely to be from the on/off and defrost cycles of the refrigeration systems. These fluctuations vary widely but for one apple cool-store on one particular day the ranges of conditions observed were 87.0 to 92.4 %RH and 0.1 to 1.1°C.

Although the majority of recent literature on paper and corrugated fibreboard performance focuses on this cyclic phenomenon, commonly referred to as ‘cyclic humidity creep’, it is only one piece of the puzzle as the palletising of boxes will lead to buffering of the temperature and humidity cycles inside the pallet of packaged fruit. Where corrugated fibreboard moisture content cycles are relatively small, the effects of compression load, time, corrugated fibreboard inherent temperature and moisture content will govern the box performance.

No studies were found on the relative effect of the deformation of corrugated fibreboard under constant stress in stable conditions and the deformation of corrugated fibreboard under constant stress in cyclic conditions that was a fair reflection of horticultural cool-store conditions. All studies on the effect of cyclic humidity creep used humidity cycles that were significantly larger (e.g. 30 to 80, 50 to 90, or 10 to 50 %RH) than what would be expected or was measured in horticultural cool-stores.

Previous studies have usually focused on the properties of either the corrugated fibreboard or the constituent linerboards and fluting mediums. While it was widely believed that the properties of the constituent linerboards and fluting mediums relate directly to the corrugated fibreboard strength properties, the concept has not been widely tested and was worth further investigation.

Equations published by four authors were found in the literature to predict the compression strength of corrugated fibreboard boxes. More complex and accurate models are expected to exist but would be kept in-house by manufacturers and not published. Of the five equations, McKee’s (1963) two equations were judged to be the most appropriate for predicting the compression strength of the Z-Pack apple boxes. McKee’s equations predicted the box compression strength from laboratory measurements of edgewise compression, bending stiffness or thickness and the box perimeter. Therefore to predict the compression strength of boxes in cool-store conditions using McKee’s equation, the edgewise compression strength and bending stiffness of samples with the same moisture and temperature were required.

From a small sample of corrugated fibreboard measurements and corresponding box compression test measurements it was established that McKee’s equations could underestimate the box compression strength by up to 36.7 %. It must be therefore

remembered that McKee's equation can only be used as an indicative guide of box compression strength.

It is widely recognised that temperature and moisture affects the strength properties of paper and corrugated fibreboard. However it is not well covered by the literature as previous studies tended not to investigate all paper or board properties and to use different samples. Only one study by Kawanishi (1989) was found to have measured the effect of moisture on the strength properties of corrugated fibreboard. Only one study by Chalmers (1998) was found to consider the effect of relative humidity on the compression and tensile properties of paper. The published trends for paper also varied: Benson (1971) measured a linear trend between paper maximum tensile stress and moisture content, whereas Andersson and Berktyo (1951) and Salmen and Back (1980) measured non-linear trends.

Of the four studies found on the effect of temperature, only one study investigated the effect of temperature over a range of moisture contents but all of the studies measured the tensile properties of their paper samples. The effect on the compression strength of corrugated fibreboard of cooling samples from that standard testing temperature of 23°C to the cool-store temperature of 0°C has not been published.

The moisture content of paper is a function of the surrounding air temperature and the surrounding air relative humidity when at equilibrium. Moisture sorption isotherms relate equilibrium relative humidity and moisture content measurement at one temperature. Above 0°C it was widely agreed that at a constant relative humidity, as the temperature increases, the moisture content of paper decreases. Only one study by Skogman and Scheie (1969) looked at paper isotherms above and below 0°C and their data showed a reversal of the effect of temperature at approximately 0°C, which was not explained nor was it expected based on other properties of moisture and paper.

Moisture sorption isotherms at appropriate temperatures are useful for predicting the moisture content of corrugated fibreboard in cool-store conditions. The majority of published isotherms were measured at ambient temperature (20 to 25°C) which reduces their usefulness because of the temperature effect. Eagleton and Marcondes (1994) published the most useful collection of isotherms covering the range of 1 to 40°C and 43 to 96 %RH.

Eagleton and Marcondes (1994) fitted GAB equations to each set of isotherm data in order to be able to predict the corrugated fibreboard moisture content at different relative humidities at the measurement temperatures. The GAB equation is the most widely used equation to model the moisture sorption isotherms of hydrophilic packaging materials and food samples. Two methods of modelling multiple moisture sorption isotherms were found in the literature; one method was an extension of the GAB equation, the other utilised a new and more complex equation.

The majority of methods used to measure moisture sorption isotherm involve conditioning samples in humidity and temperature controlled chambers until a stable mass is achieved. Most methods have restricted temperature ranges, e.g. not below 0°C, require precise air flow or pressure control and/or are relatively slow due to the time to reach mass equilibrium and limited number of samples.

8.2 Major Findings of This Study

During this study a new method was developed to measure the moisture sorption isotherm of paper sample from -20 to 20°C. The temperature range was extended to encompass freezer temperatures where corrugated fibreboard is used by the meat industry. Fruit boxes may also be exposed to temperatures as low as -1.5°C in commercial cool-stores. The new method involved simultaneously conditioning replicate samples at ambient temperature in a range of RH environments, then placing a single sample in a hermetically sealed cylinder with a dew point hygrometer. The cylinder was placed in a temperature controlled bath, the temperature of which was cycled through 20, 10, 0, -10 and -20°C and the resulting equilibrium humidity was measured by the dew point hygrometer.

The key point of difference between the novel method and most others was the equilibration time. For most isotherm methods it is critical that the samples are given enough time in the controlled environment for the sample moisture content to stabilise, which involves a relatively large quantity of moisture and takes days to achieve. For the novel method it is only critical that the air in the chamber reaches humidity equilibrium with the sample, which involves a relatively small quantity of moisture and takes minutes to achieve.

The temperature range of the new method could have been wider than the range used as the dew point hygrometer had a larger operational range. The method was not as rapid as hoped as a single sample required 4-5 days in the cylinder, and at least 10 samples were required at different moisture contents to build up enough data for the five isotherms. The moisture adsorption isotherms of the constituent plies of the Z-Pack apple box were measured together with that of 160 g.m² recycled fluting medium. GAB equations were fitted to the isotherm data at individual temperatures and a temperature compensated GAB equation was fitted to all the data for each sample.

At 20°C the new adsorption isotherms for Kraft linerboard, semi-chemical fluting medium and recycled fluting medium were consistent with all other published isotherms at a similar temperature up to 80 %RH. Above 80 %RH the new isotherms show higher measured moisture contents than other published isotherms. This may have been a result the previous method not allowing enough time for the sample to equilibrate to the high humidities or it could have been due to the new isotherms shifting towards the desorption isotherm due to the way in which the high moisture content samples were conditioned.

The measured water holding capacity moisture contents for the three samples at 20°C clearly indicate that extrapolation of the other published isotherms would lead to a significant underestimation of the sample moisture content near 100 %RH.

Moisture was found to reduce the compression strength of Kraft linerboard and semi-chemical fluting medium following a non-linear trend, whereas the effect on the tensile strength and stiffness followed a (negative) linear trend. The tensile measurements were consistent with Benson, (1971) results but inconsistent with those of Salmen and Back, (1980) and Andersson and Berkyto, (1951b). Benson's (1971) samples were affected more by increases in moisture content than the Kraft and semi-chemical samples.

Moisture was found to reduce the edgewise compression, liner adhesion, flat crush and hardness values of the apple box corrugated fibreboard following a non-linear trend. In contrast, the bending stiffness values, in machine and cross-machine directions, followed a linear trend, although over a smaller moisture content range, 7 to 19 %(db)

as opposed to 7 to 30 %(db). Kawanishi (1989) also measured a non-linear relationship between edgewise compression strength and moisture content.

There was only a small difference in the normalised edgewise compression strength values of Kawanishi (1989) samples and the samples from this study. If this trend were consistent with other corrugated fibreboard samples, the change in strength with moisture of new corrugated fibreboard samples could be estimated based on their edgewise compression strength in standard testing conditions using a common normalised curve developed in this work.

Equations were fitted to allow predictions of the edgewise compression strength and bending stiffness of corrugated fibreboard from a given moisture content over the range 7 to 19 %(db). These equations were then incorporated into McKee's *et al.* (1963) equations to produce new equations to allow the prediction of box compression strength from samples moisture content. These modified McKee's equations used in conjunction with the temperature compensated moisture sorption isotherms for Kraft linerboard and semi-chemical fluting medium will allow the estimation of the box compression strength from the box equilibrium relative humidity and temperature.

The modified McKee's equation can be used to determine if a box is likely to resist a specified compression load once the box has reached its equilibrium moisture content. The equation cannot account for the need for horticultural boxes to resist compression creep caused by the constant compression load and cycling humidity, but as noted above, there is a need to better identify the contribution of this effect for conditions that replicate those found in commercial cool-stores.

The modified McKee's equation will also be useful for products such as butter and frozen meat. Initially both products require lateral and vertical support from the corrugator fibreboard boxes. After butter and meat are chilled or frozen, they are able to hold their shape and support their own weight. Therefore, creep of corrugated fibreboard boxes would not need to be factored in when designing boxes for butter or frozen meat.

It was found that the edgewise compression strength of corrugated fibreboard can be estimated from the Kraft linerboard and semi-chemical fluting medium compression strengths and the fluting medium take-up factor, by using the accumulative intrinsic

edgewise compression strength equation (2.7) and Allerby's *et al.* (1985) adjustment equation (2.10). The predictions were found to be accurate to within 7% at 19 %(db) moisture. This edgewise compression strength estimation is assisted by the similarity between the normalised edgewise compression strength and the normalised Kraft linerboard and semi-chemical fluting medium compression strengths.

Cooling corrugated fibreboard samples from 21 to 2°C did not have a significant effect on the edgewise compression strength or stiffness values. However further cooling to -25°C caused an increase in the edgewise compression strength of samples with 8.3 and 21 %(db) moisture of 28.5 and 64 %, respectively, relative to the values at 23°C. This non-uniform temperature effect is unlikely to be a result of the samples crossing the glass transition temperatures of their amorphous components based on glass transition temperatures presented by Back and Salmen (1981).

To conclusively establish the likelihood of glass transition temperatures affecting the corrugated fibreboard properties the crystallinity of samples or existence of a glass transition phase should be measured using X-ray diffraction (Salmen and Back, 1980), density determination, IR spectroscopy or other by chemical and adsorption methods (Roberts, 1996).

Anecdotal evidence suggested that there was significant variation in box compression strength of the Z-Pack apple boxes. Investigations into the manufacture of corrugated fibreboard in this study were limited to the corrugator and converter and excluded the pulping and paper manufacturing plants.

A trial was conducted to determine if the conversion of the corrugated fibreboard blanks or sheets to printed, creased, slotted boxes had any affect on the corrugated fibreboard strength properties. The results of the trial indicated that it was possible for the blanks to be converted without there being significantly damaged.

Following the investigation of the converter the corrugator was analysed for possible operations that could be the source of the box compression strength variation. The corrugator consists of a number of operations:

- Preheating of the single-facer linerboard and fluting medium
- Forming of the flutes in the fluting medium

- Adhering of the single-facer linerboard to the fluting medium upper flute tips to form the single-face board
- Curing of the single-facer to fluting medium bonds
- Preheating of the double-backer linerboard and the single-face board
- Adhering of the double-backer linerboard to the single-face board lower flute tips to form the double-face board
- Curing of the double-backer to single-face board bonds
- Creasing, slitting and cutting of the single-face board to produce corrugated fibreboard blanks

Urbanik, (2001) produced a partially validated model to predict the corrugated fibreboard compression strength and bending stiffness based on the corrugated fibreboard flute profile. Urbanik's (2001) work, in addition to the published literature on the effect of temperature and temperature at high temperatures (up to 150°C) and measurements conducted in this study, indicated that the formation of the fluting medium flutes could be the source of significant box compression strength variation. It was thought that the operations leading up to single-facer on the fluting medium side would cause variation of the shape of the flutes and damage to the fluting medium as a result of variation in the temperature and moisture content of the fluting medium just prior to the single-facer.

In order to be able to assess the effect of variation in the operations leading up the fluting medium side of the single-facer, a mathematical model was developed to predict the temperature and moisture content of the fluting medium just prior to the single-facer. The model was designed to enable the prediction of the effect of, in terms of fluting medium temperature and moisture content, changing a number of machine settings and fluting medium properties without costly experimentation on the corrugator.

To predict the effect of the changes in fluting medium moisture content and temperature just prior to the single-facer, an attempt was made to measure the tensile strength properties of the fluting medium at high temperatures. A maximum fluting medium temperature of 160°C was measured 1.5 m before the single-facer.

Preliminary experiments using a new testing methodology showed that while there was a significant difference between the tensile strength and stiffness of samples with an average of 7 versus 35 %(db) moisture at 20 to 100°C, adequate precision was not achieved to demonstrate a temperature effect when testing samples with between 0 and 10 %(db) moisture, which is the range of interest with respect to the fluting medium prior to the single-facer. However it would be worth further investigation as damage to the fluting medium during the fluting process was shown by Whitsitt and Sprague (1987) indicating that there is potential to improve box performance by minimising flute damage.

An attempt was also made to measure the moisture sorption isotherms of semi-chemical fluting medium from 20 to 160°C, as the isotherms were an important input to the mathematical model. The same isotherm measurement method was employed for the measurements at 20 to -20°C. As the dew point hygrometer did not have the cooling capacity to operate at high temperatures, a high temperature RH sensor was used. However, calibration of the high temperature RH sensor showed that the sensor could not produce the precision required. Therefore a set of isotherms published by Prahl's (1968) (21.8 to 80°C) for Kraft paper was used as an input to the mathematical model.

A comparison of the measured and predicted of the fluting medium bottom surface temperature highlighted a large discrepancy (40°C). Analysis of possible causes of the low predictions determined that errors in the following parameters were the cause of the discrepancy:

- the fluting medium isotherm,
- the contact heat transfer coefficient between the fluting medium and the preconditioner rolls
- the surface moisture transfer coefficient

Sensitivity analysis of the mathematical model indicated that, of the factors that could be controlled by the corrugator operators, the slow machine speed fluctuations and the use of the steam shower would have the greatest effect on the moisture content and temperature of the fluting medium just prior to the single-facer. As the layout of the single-facer did not permit the measurement of the fluting medium temperature nor the

moisture content, a trial was conducted to measure and indirectly validate the findings of the model sensitivity analysis.

The data from the strength measurements performed on the corrugated fibreboard samples were not consistent enough to enable clear cut conclusions on the effect of speed and the use of the steam shower on the damage to the fluting medium and the performance of the corresponding corrugated fibreboard. Significant differences between some of the sample properties were found and that it was possible that the sample size used in this study was too small for stronger conclusions to be developed. It is possible that a larger study would be useful for validating the model. A clear conclusion on whether speed and steam shower use were the two most important operating parameters would enable the corrugated fibreboard manufacturers to be sure that they were investing their time and money on the correct parameters.

A prototype capacitance based sensor was developed to measure the moisture content of the fluting medium prior to the single-facer. The sensor accuracy was successfully calibrated in a laboratory, however a method of calibrating the sensor in the factory was not established and therefore the sensor was not able to be used in the factory for any trial work. Presumably suppliers of commercial moisture sensors of a similar basis to the prototype sensor would have an online calibration method that would ensure the long term accuracy of the measurements. Otherwise the measurements from commercially available sensor could not be relied upon. A calibration method involving ‘calibration samples’ that are used instead of actual fluting medium may prove to be more feasible. Such a method would involve removing the fluting medium, placing one of three or more ‘calibration samples’ where the fluting medium would usually run and recording the moisture sensor reading. The ‘calibration samples’ would be designed to represent a specific moisture content and the subsequent measurements would be used to recalibrate the moisture sensor.

8.3 Recommended Further Work

No information was found in the literature on the conditions in cool-stores in which the corrugated fibreboard boxes were designed to perform in. As has already been stated it is probable that the corrugated fibreboard is not exposed to the fluctuations in

cool-store air humidity and temperature would not be degraded by cyclic humidity creep. However, further work is required to accurately measure the conditions surrounding the boxes to validate this theory. There are a number of properties that would be useful to monitor over time at a number of locations around and within pallets of apples and a pallets of kiwifruit:

- Corrugated fibreboard moisture content, temperature and stress
- Air humidity, temperature, velocity and direction

It would be worthwhile analysing the quality control paper strength measurements taken from Kraft linerboard and semi-chemical fluting medium samples at the paper mill. This data could be used to determine the effect of the variation in the constituent paper plies on the edgewise compression strength and hence box compression strength using the accumulative intrinsic edgewise compression strength equation (2.7) and Allerby's *et al.* (1985) adjustment equation (2.10).

A simple way of improving the performance of corrugated fibreboard in cool-store conditions, with the intention of improving the compression strength relative to the board basis weight, would be to reduce the uptake of moisture. Care must be taken when doing this to ensure the optimum humidity around the fruit maintained. Low humidity can lead to excessive moisture loss whereas high humidity can increase the occurrence of fruit rots. The cost of any change to reduce the moisture up take of corrugated fibreboard must be matched by a cost savings incurred through reduced board dry fibre weight. Also any changes to the corrugated fibreboard should not significantly affect the corrugated fibreboard recycling process as the cost of disposing of the corrugated fibreboard other than through recycling would be expensive.

One option may be to place a moisture barrier on the surface of the corrugated fibreboard. It would be logical to coat the inside and bottom of the corrugated fibreboard box as fruit would generate the highest humidity in or around pallets of fruit. The decision on whether to coat the outside of the boxes should be based on a study of the extent and importance of the cyclic humidity creep.

The work on the moisture adsorption isotherm, effect of moisture and temperature on the strength properties of the linerboard, fluting medium and/or corrugated fibreboard is only part of the information required to accurately predict the performance of

corrugated fibreboard boxes. Further information on the a number of processes including air flow, moisture adsorption and desorption, long term compression creep, and distribution of stress are also required in addition to a mathematical model to best utilise this information.

A study involving the continuous measurement of temperature, humidity and paper moisture content in a cool-store would provide information on the effect of the cool-store conditions on corrugated fibreboard moisture content which governs the rate of cyclic humidity creep. Laboratory studies usually involve large humidity cycles with relatively long cycle periods and at constant temperature, whereas in a cool-store the humidity cycles are in phase with temperature cycles and paper moisture content is dependent on the air temperature as well as relative humidity. The combination of the temperature and humidity cycles may dampen the moisture content fluctuations. The relatively short cycle periods may result in the equilibrium relative humidity of the corrugated fibreboard shifting between the desorption and adsorption isotherm boundaries without significant shifts in moisture content.

It is highly recommended that for other authors interested in using the novel isotherm method developed in this study validate the method by measuring the isotherms of a standard material such as native starch for which there is much published data available.

To predict the corrugated fibreboard moisture content, the desorption isotherms will need to be measured. The same isotherm laboratory rig used to measure the adsorption isotherms could also be used with the samples conditioned over either distilled water or potassium sulphate before being conditioned above saturated salt solution with a lower headspace relative humidity. Care must be taken to ensure that the samples do not grow mould while they are conditioned at the highest humidities.

The isotherm laboratory rig could also be used to measure the moisture sorption isotherm of other samples including corrugated fibreboard, pulp, and food samples. Modification of the brass cylinder in which the sample was placed may be required. The isotherm rig could be used at temperatures greater than 20°C as long as the dew point hygrometer has sufficient cooling capacity to cool the mirror down to the dew

point temperature. The hygrometer must be able to remove the heat transferred from the water bath to function properly.

Corrugated fibreboard is an important packaging material used to contain, protect and promote New Zealand's two largest horticultural exports, kiwifruit and apples. This study aimed to improve the prediction of corrugated fibreboard performance in cool-store conditions and to identify the source of compression strength variation imparted by the corrugated fibreboard manufacturing process. The combination of information from literature, information gained from this study and further proposed work should benefit the New Zealand's horticultural industry in reducing the cost of the corrugated fibreboard boxes.

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Appendix A1

Manufacture of Corrugated Fibreboard

A1.1 Introduction

The corrugated fibreboard of interest, manufactured for the Z-Pack inner, is produced at the Carter Holt Harvey, Levin plant. The corrugation process can be divided into a two sections: wet end and dry end (Figure A1.1).

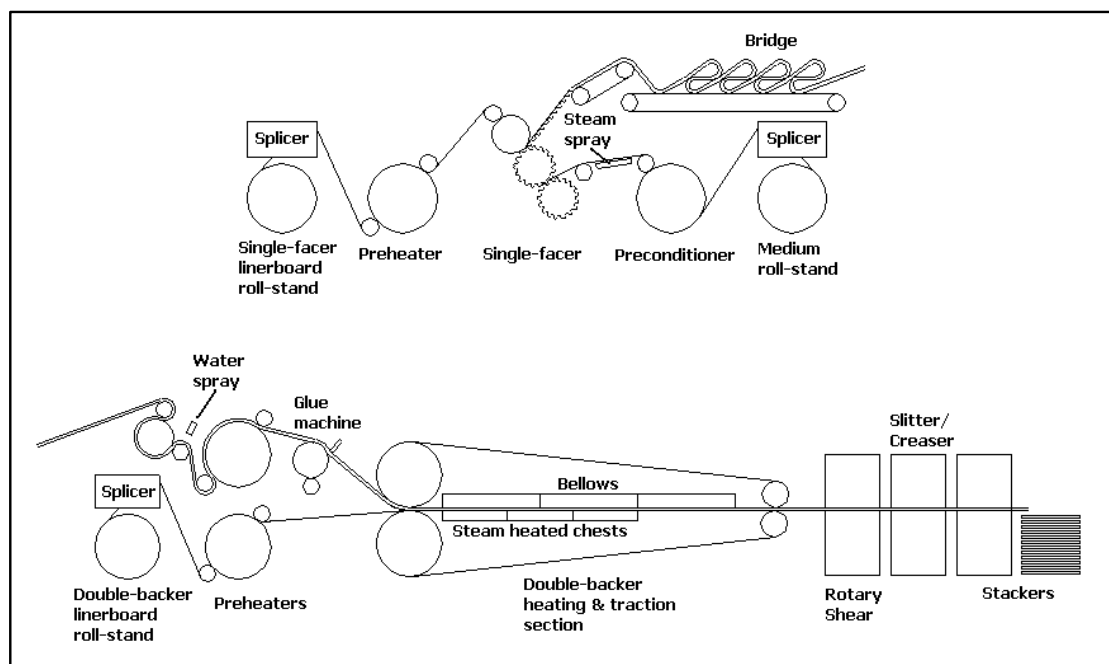


Figure A1.1. Corrugator components (Thompson pers. comm. 2001).

A1.2 Wet End

The wet end section of the corrugator combines the two linerboards (single-facer and double-backer linerboards) to the fluted medium to produce a continuous web of corrugated fibreboard.

A1.2.1 First Stage Preheating & Preconditioning

The single-facer linerboard is pulled off the roll-stand via the steam heated preheater by the single-facer. The fluting medium is pulled off the roll-stand via the steam heated preconditioner by the single-facer. The contact area around the preheater and preconditioner can be adjusted to alter the temperature and moisture content of the linerboard and fluting medium. The temperature and moisture content of the fluting medium can also be controlled by using the steam shower just prior to the single-facer.

The heat transfer between the single-facer linerboard and the preheater can be increased by using the disk breaks on the roll stand. Breaks are not usually used on the fluting medium roll stand as excessive tension may result in the corrugator rolls separating and a reduction in flute height.

A1.2.2 Single Facer

The cross machine direction flute profile is formed by passing the fluting medium between two corrugated rolls. The rolls are steam heated with the spacing adjusted by two hydraulic pistons on the pressure roll shaft. The fluting medium is held on to the top corrugator roll by a pressure differential between the outer face of the fluting medium and the inside of the corrugator roll. The corrugator roll contains regular radial slits to allow for the flow of air into the roll.

Water resistant adhesive is applied to the tips of the fluting medium while on the top corrugator roll between the bottom corrugator roll and the pressure roll. The single-face linerboard is pulled over the steam heated pressure roll and is forced onto the outer tips of the fluting medium. The force between the single-facer linerboard and the fluting medium tips is controlled by two hydraulic pistons exerting pressure onto the pressure roll shaft. The adhesive is set by the heat of the linerboard and fluting medium.

A1.2.3 Bridge

The single-face board is conveyed from the single-facer to the bridge. The belts underneath the single-face board run at a slower speed than the single-face board

causing the board to form what is known as a ‘festoon’. The festoon on the bridge acts as a buffer between the single-facer and double-backer the speeds of which fluctuate independently to allow for splicing of new rolls of linerboard or fluting medium. The single-face board is pulled off the bridge by a rubber coated roller at the end of the bridge, which feeds the board to the second stage preheater.

A1.2.4 Second Stage Preheater

The double-backer linerboard and single-face board pass over a separate steam heated roll of the second stage preheater. Preheating of the double-backer linerboard is the same for the single-facer linerboard. The single-face board makes contact with the preheater via the flute tips.

A1.2.5 Glue Machine

The preheated single-face board passes through the glue machine where water resistant adhesive is applied to the exposed flute tips.

A1.2.6 Double Backer

The double backer liner is united with the single-face board at the entrance to the double-backer. The now double-face board is contained between two conveyer belts and passes through the double backer between air filled bellows, above the board, and steam heated chests below the board. The heat provided by the steam chests sets the adhesive. The pressure between the single-facer top corrugator and pressure roll cannot be replicated on the double backer as it would cause the flutes to collapse. Instead the double backer residence time is considerably longer to give the adhesive time to set.

A1.3 Dry End

The dry end converts the continuous web of double-face board into blanks. The dry end consists of three machines: rotary shear, slitter-scorer and stacker.

A1.3.1 Rotary Shear

Following the double backer the double-face board passes through the rotary shear which cuts the board to the required machine direction length.

A1.3.2 Slitter-Scorer

The lengths of double-face board are cut and creased in the machine direction. The cuts correspond to the required cross machine direction width and the creases are for the folds between the box horizontal and vertical faces.

A1.3.3 Stacker

The blanks are stacked and conveyed to the temporary storage before being process by a converter into boxes.

Appendix A2 Apple and Kiwifruit Conditions - Survey

Date	Time	Apple Cool-store	
		Temperature (°C)	Relative Humidity (%)
07-Apr-00	00:00:11	1.6	77.1
07-Apr-00	01:00:11	1.6	76.6
07-Apr-00	02:00:11	1.6	76.1
07-Apr-00	03:00:11	1.6	76.1
07-Apr-00	04:00:11	1.6	76.1
07-Apr-00	05:00:11	1.8	75.6
07-Apr-00	06:00:11	1.6	75.6
07-Apr-00	07:00:11	1.8	76.6
07-Apr-00	08:00:11	2.1	76.1
07-Apr-00	09:00:11	2.1	78.6
07-Apr-00	10:00:11	1.6	79.7
07-Apr-00	11:00:11	2.1	81.7
07-Apr-00	12:00:11	1.6	79.7
07-Apr-00	13:00:11	1.3	79.7
07-Apr-00	14:00:11	1.6	79.7
07-Apr-00	15:00:11	1.3	79.7
07-Apr-00	16:00:11	1.3	79.7
07-Apr-00	17:00:11	1.6	79.7
07-Apr-00	18:00:11	1.3	79.7
07-Apr-00	19:00:11	1.6	78.1
07-Apr-00	20:00:11	1.6	78.1
07-Apr-00	21:00:11	1.8	77.1
07-Apr-00	22:00:11	1.6	76.6
07-Apr-00	23:00:11	2.1	76.1
08-Apr-00	00:00:11	1.6	77.1
08-Apr-00	01:00:11	1.3	77.1
08-Apr-00	02:00:11	1.3	78.1
08-Apr-00	03:00:11	1.3	79.2
08-Apr-00	04:00:11	1.6	79.7
08-Apr-00	05:00:11	1.6	79.7
08-Apr-00	06:00:11	1.3	79.7
08-Apr-00	07:00:11	1.3	80.2
08-Apr-00	08:00:11	1.6	80.2
08-Apr-00	09:00:11	1.3	80.7
08-Apr-00	10:00:11	1.3	80.7
08-Apr-00	11:00:11	1.8	83.3
08-Apr-00	12:00:11	1.3	80.7
08-Apr-00	13:00:11	1.1	81.7
08-Apr-00	14:00:11	0.8	82.3
08-Apr-00	15:00:11	0.8	82.3
08-Apr-00	16:00:11	1.1	81.7
08-Apr-00	17:00:11	0.8	82.3
08-Apr-00	18:00:11	0.8	82.3
08-Apr-00	19:00:11	1.1	81.7
08-Apr-00	20:00:11	1.1	80.7

08-Apr-00	21:00:11	0.8	80.7
08-Apr-00	22:00:11	0.8	80.7
08-Apr-00	23:00:11	0.8	80.2
09-Apr-00	00:00:11	1.1	80.2
09-Apr-00	01:00:11	1.1	80.2
09-Apr-00	02:00:11	1.1	80.2
09-Apr-00	03:00:11	1.1	80.7
09-Apr-00	04:00:11	0.8	79.7
09-Apr-00	05:00:11	1.1	79.7
09-Apr-00	06:00:11	1.1	79.7
09-Apr-00	07:00:11	1.1	79.7
09-Apr-00	08:00:11	1.1	79.2
09-Apr-00	09:00:11	1.3	78.6
09-Apr-00	10:00:11	1.3	77.6
09-Apr-00	11:00:11	1.6	83.3
09-Apr-00	12:00:11	1.1	82.8
09-Apr-00	13:00:11	0.8	83.8
09-Apr-00	14:00:11	0.8	83.3
09-Apr-00	15:00:11	0.8	82.8
09-Apr-00	16:00:11	0.6	83.3
09-Apr-00	17:00:11	0.6	82.8
09-Apr-00	18:00:11	0.8	82.3
09-Apr-00	19:00:11	0.6	82.3
09-Apr-00	20:00:11	0.8	82.3
09-Apr-00	21:00:11	0.8	82.3
09-Apr-00	22:00:11	0.8	82.3
09-Apr-00	23:00:11	0.8	81.7
10-Apr-00	00:00:11	0.8	81.7
10-Apr-00	01:00:11	1.1	80.7
10-Apr-00	02:00:11	1.1	80.7
10-Apr-00	03:00:11	0.8	80.2
10-Apr-00	04:00:11	1.1	80.2
10-Apr-00	05:00:11	1.1	80.2
10-Apr-00	06:00:11	1.1	80.2
10-Apr-00	07:00:11	1.3	80.7
10-Apr-00	08:00:11	1.3	80.2
10-Apr-00	09:00:11	1.6	79.7
10-Apr-00	10:00:11	1.6	79.2
10-Apr-00	11:00:11	2.1	84.9
10-Apr-00	12:00:11	1.1	82.3
10-Apr-00	13:00:11	1.1	83.3
10-Apr-00	14:00:11	1.1	83.8
10-Apr-00	15:00:11	0.8	82.8
10-Apr-00	16:00:11	0.8	83.3
10-Apr-00	17:00:11	0.8	82.8
10-Apr-00	18:00:11	0.8	82.3
10-Apr-00	19:00:11	1.1	82.3
10-Apr-00	20:00:11	0.8	83.3
10-Apr-00	21:00:11	0.8	83.3

10-Apr-00	22:00:11	1.1	83.8
10-Apr-00	23:00:11	0.8	82.8
11-Apr-00	00:00:11	0.8	82.3
11-Apr-00	01:00:11	1.1	82.3
11-Apr-00	02:00:11	1.1	82.3
11-Apr-00	03:00:11	1.1	82.3
11-Apr-00	04:00:11	1.1	82.3
11-Apr-00	05:00:11	0.8	82.3
11-Apr-00	06:00:11	0.8	82.8
11-Apr-00	07:00:11	1.3	82.3
11-Apr-00	08:00:11	1.1	82.3
11-Apr-00	09:00:11	1.1	81.7
11-Apr-00	10:00:11	1.3	81.7
11-Apr-00	11:00:11	1.3	85.4
11-Apr-00	12:00:11	1.1	84.9
11-Apr-00	13:00:11	0.6	84.9
11-Apr-00	14:00:11	0.8	83.3
11-Apr-00	15:00:11	0.8	83.3
11-Apr-00	16:00:11	1.1	83.8
11-Apr-00	17:00:11	0.8	82.8
11-Apr-00	18:00:11	1.1	82.8
11-Apr-00	19:00:11	0.8	82.8
11-Apr-00	20:00:11	1.1	82.3
11-Apr-00	21:00:11	1.1	82.3
11-Apr-00	22:00:11	1.1	82.3
11-Apr-00	23:00:11	0.8	81.7
12-Apr-00	00:00:11	1.1	82.3
12-Apr-00	01:00:11	1.1	81.7
12-Apr-00	02:00:11	0.8	81.7
12-Apr-00	03:00:11	0.8	82.3
12-Apr-00	04:00:11	1.1	82.3
12-Apr-00	05:00:11	0.6	81.7
12-Apr-00	06:00:11	0.8	82.3
12-Apr-00	07:00:11	0.6	82.8
12-Apr-00	08:00:11	0.6	82.8
12-Apr-00	09:00:11	0.6	83.3
12-Apr-00	10:00:11	1.3	81.7
12-Apr-00	11:00:11	1.6	86.5
12-Apr-00	12:00:11	1.8	80.7
12-Apr-00	13:00:11	1.8	79.7
12-Apr-00	14:00:11	2.1	79.2
12-Apr-00	15:00:11	2.1	79.2
12-Apr-00	16:00:11	2.3	77.1
12-Apr-00	17:00:11	2.1	77.6
12-Apr-00	18:00:11	1.8	78.6
12-Apr-00	19:00:11	1.6	79.2
12-Apr-00	20:00:11	1.6	79.7
12-Apr-00	21:00:11	1.3	80.7
12-Apr-00	22:00:11	1.3	83.3

12-Apr-00	23:00:11	1.3	82.8
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13-Apr-00	01:00:11	1.6	82.8
13-Apr-00	02:00:11	1.3	82.8
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13-Apr-00	06:00:11	1.8	82.3
13-Apr-00	07:00:11	1.6	82.3
13-Apr-00	08:00:11	1.8	82.3
13-Apr-00	09:00:11	1.8	82.8
13-Apr-00	10:00:11	1.8	83.3
13-Apr-00	11:00:11	2.1	84.9
13-Apr-00	12:00:11	1.8	82.8
13-Apr-00	13:00:11	1.6	82.3
13-Apr-00	14:00:11	1.6	82.3
13-Apr-00	15:00:11	1.8	82.3
13-Apr-00	16:00:11	1.8	82.3
13-Apr-00	17:00:11	1.3	82.3
13-Apr-00	18:00:11	1.1	82.3
13-Apr-00	19:00:11	1.3	82.8
13-Apr-00	20:00:11	0.8	83.3
13-Apr-00	21:00:11	1.3	82.8
13-Apr-00	22:00:11	1.1	82.8
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14-Apr-00	00:00:11	1.1	82.8
14-Apr-00	01:00:11	1.1	82.8
14-Apr-00	02:00:11	0.8	82.3
14-Apr-00	03:00:11	1.1	82.8
14-Apr-00	04:00:11	0.8	82.3
14-Apr-00	05:00:11	0.8	82.3
14-Apr-00	06:00:11	0.8	82.3
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14-Apr-00	08:00:11	1.1	82.8
14-Apr-00	09:00:11	1.8	82.3
14-Apr-00	10:00:11	1.8	82.3
14-Apr-00	11:00:11	1.8	85.4
14-Apr-00	12:00:11	1.6	82.8
14-Apr-00	13:00:11	1.3	82.3
14-Apr-00	14:00:11	1.3	82.3
14-Apr-00	15:00:11	1.6	82.3
14-Apr-00	16:00:11	1.6	82.3
14-Apr-00	17:00:11	1.3	82.3
14-Apr-00	18:00:11	0.8	83.3
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15-Apr-00	02:00:11	0.8	83.3
15-Apr-00	03:00:11	0.8	83.3
15-Apr-00	04:00:11	1.1	82.8
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15-Apr-00	07:00:11	0.8	82.8
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15-Apr-00	09:00:11	1.1	82.8
15-Apr-00	10:00:11	1.3	82.3
15-Apr-00	11:00:11	1.6	84.9
15-Apr-00	12:00:11	1.3	83.8
15-Apr-00	13:00:11	1.1	84.4
15-Apr-00	14:00:11	1.3	82.8
15-Apr-00	15:00:11	1.3	82.8
15-Apr-00	16:00:11	1.6	82.3
15-Apr-00	17:00:11	0.8	82.8
15-Apr-00	18:00:11	0.8	83.3
15-Apr-00	19:00:11	0.8	83.3
15-Apr-00	20:00:11	0.8	83.3
15-Apr-00	21:00:11	0.6	83.8
15-Apr-00	22:00:11	1.1	83.8
15-Apr-00	23:00:11	1.1	83.3
16-Apr-00	00:00:11	0.8	83.3
16-Apr-00	01:00:11	0.8	83.3
16-Apr-00	02:00:11	0.8	82.8
16-Apr-00	03:00:11	0.8	82.8
16-Apr-00	04:00:11	0.6	82.3
16-Apr-00	05:00:11	0.6	82.3
16-Apr-00	06:00:11	0.8	82.3
16-Apr-00	07:00:11	0.6	82.3
16-Apr-00	08:00:11	0.6	82.3
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16-Apr-00	10:00:11	1.1	80.7
16-Apr-00	11:00:11	1.6	84.4
16-Apr-00	12:00:11	1.3	82.3
16-Apr-00	13:00:11	1.3	82.8
16-Apr-00	14:00:11	1.3	82.3
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16-Apr-00	22:00:11	0.3	84.4
16-Apr-00	23:00:11	0.6	84.4
17-Apr-00	00:00:11	0.6	84.4

17-Apr-00	01:00:11	0.6	84.4
17-Apr-00	02:00:11	0.6	84.4
17-Apr-00	03:00:11	0.6	84.4
17-Apr-00	04:00:11	0.6	84.4
17-Apr-00	05:00:11	0.3	84.4
17-Apr-00	06:00:11	0.3	84.9
17-Apr-00	07:00:11	0.6	84.4
17-Apr-00	08:00:11	0.3	83.8
17-Apr-00	09:00:11	0.8	83.3
17-Apr-00	10:00:11	1.1	82.8
17-Apr-00	11:00:11	1.3	87.5
17-Apr-00	12:00:11	1.3	83.8
17-Apr-00	13:00:11	1.3	84.4
17-Apr-00	14:00:11	1.6	82.3
17-Apr-00	15:00:11	1.3	82.3
17-Apr-00	16:00:11	1.3	82.3
17-Apr-00	17:00:11	1.1	83.3
17-Apr-00	18:00:11	0.8	84.4
17-Apr-00	19:00:11	0.8	83.8
17-Apr-00	20:00:11	0.6	87
17-Apr-00	21:00:11	2.8	90.8
17-Apr-00	22:00:11	1.8	80.2
17-Apr-00	23:00:11	0.6	86.5
18-Apr-00	00:00:11	1.1	87
18-Apr-00	01:00:11	0.8	87.5
18-Apr-00	02:00:11	1.1	86.5
18-Apr-00	03:00:11	0.6	85.9
18-Apr-00	04:00:11	0.8	85.4
18-Apr-00	05:00:11	0.3	85.9
18-Apr-00	06:00:11	0.8	85.4
18-Apr-00	07:00:11	0.3	85.9
18-Apr-00	08:00:11	0.8	85.4
18-Apr-00	09:00:11	0.8	84.9
18-Apr-00	10:00:11	0.8	85.4
18-Apr-00	11:00:11	1.3	89.7
18-Apr-00	12:00:11	1.6	85.4
18-Apr-00	13:00:11	1.1	84.9
18-Apr-00	14:00:11	1.1	84.4
18-Apr-00	15:00:11	1.1	84.4
18-Apr-00	16:00:11	1.1	84.4
18-Apr-00	17:00:11	1.1	84.4
18-Apr-00	18:00:11	0.8	84.9
18-Apr-00	19:00:11	1.1	84.9
18-Apr-00	20:00:11	1.3	84.9
18-Apr-00	21:00:11	1.3	84.9
18-Apr-00	22:00:11	1.3	84.9
18-Apr-00	23:00:11	1.1	84.9
19-Apr-00	00:00:11	1.3	84.9
19-Apr-00	01:00:11	1.3	84.9

19-Apr-00	02:00:11	1.3	84.9
19-Apr-00	03:00:11	1.3	84.9
19-Apr-00	04:00:11	1.3	84.9
19-Apr-00	05:00:11	1.3	84.9
19-Apr-00	06:00:11	1.1	84.9
19-Apr-00	07:00:11	1.3	84.4
19-Apr-00	08:00:11	1.3	84.4
19-Apr-00	09:00:11	1.3	83.8
19-Apr-00	10:00:11	1.6	83.3
19-Apr-00	11:00:11	1.8	87.5
19-Apr-00	12:00:11	1.6	84.4
19-Apr-00	13:00:11	1.1	85.4
19-Apr-00	14:00:11	0.8	85.4
19-Apr-00	15:00:11	0.8	85.4
19-Apr-00	16:00:11	1.1	84.9
19-Apr-00	17:00:11	0.8	85.4
19-Apr-00	18:00:11	1.1	84.9
19-Apr-00	19:00:11	1.1	84.9
19-Apr-00	20:00:11	0.8	85.4
19-Apr-00	21:00:11	0.6	87
19-Apr-00	22:00:11	0.6	88.1
19-Apr-00	23:00:11	0.3	87.5
20-Apr-00	00:00:11	0.6	87.5
20-Apr-00	01:00:11	0.6	87.5
20-Apr-00	02:00:11	0.6	87
20-Apr-00	03:00:11	0.6	86.5
20-Apr-00	04:00:11	0.8	85.9
20-Apr-00	05:00:11	0.8	85.4
20-Apr-00	06:00:11	0.8	85.9
20-Apr-00	07:00:11	0.8	86.5
20-Apr-00	08:00:11	0.6	87.5
20-Apr-00	09:00:11	1.1	85.4
20-Apr-00	10:00:11	1.1	86.5
20-Apr-00	11:00:11	1.1	90.2
20-Apr-00	12:00:11	0.8	88.1
20-Apr-00	13:00:11	0.6	87.5
20-Apr-00	14:00:11	0.8	88.1
20-Apr-00	15:00:11	0.6	87.5
20-Apr-00	16:00:11	0.8	87
20-Apr-00	17:00:11	0.3	87
20-Apr-00	18:00:11	0.3	87.5
20-Apr-00	19:00:11	0.3	87.5
20-Apr-00	20:00:11	0.6	87
20-Apr-00	21:00:11	0.6	87
20-Apr-00	22:00:11	0.6	87
20-Apr-00	23:00:11	0.6	87.5
21-Apr-00	00:00:11	0.3	87.5
21-Apr-00	01:00:11	0.6	88.1
21-Apr-00	02:00:11	0.6	87.5

21-Apr-00	03:00:11	0.8	87
21-Apr-00	04:00:11	1.3	87.5
21-Apr-00	05:00:11	1.3	87
21-Apr-00	06:00:11	1.1	87
21-Apr-00	07:00:11	1.1	85.9
21-Apr-00	08:00:11	1.1	85.9
21-Apr-00	09:00:11	1.1	85.4
21-Apr-00	10:00:11	1.1	85.4
21-Apr-00	11:00:11	1.1	91.3
21-Apr-00	12:00:11	1.1	87
21-Apr-00	13:00:11	0.6	87.5
21-Apr-00	14:00:11	0.8	87.5
21-Apr-00	15:00:11	0.8	87.5
21-Apr-00	16:00:11	0.6	87.5
21-Apr-00	17:00:11	1.1	87
21-Apr-00	18:00:11	0.8	87
21-Apr-00	19:00:11	1.1	86.5
21-Apr-00	20:00:11	0.8	87
21-Apr-00	21:00:11	0.8	87
21-Apr-00	22:00:11	0.6	87
21-Apr-00	23:00:11	0.6	86.5
22-Apr-00	00:00:11	0.6	87
22-Apr-00	01:00:11	0.8	86.5
22-Apr-00	02:00:11	0.8	86.5
22-Apr-00	03:00:11	0.6	87
22-Apr-00	04:00:11	1.3	87.5
22-Apr-00	05:00:11	1.3	87.5
22-Apr-00	06:00:11	1.3	87
22-Apr-00	07:00:11	1.3	87.5
22-Apr-00	08:00:11	1.1	87.5
22-Apr-00	09:00:11	1.3	85.9
22-Apr-00	10:00:11	1.1	84.9
22-Apr-00	11:00:11	1.3	90.2
22-Apr-00	12:00:11	1.6	85.4
22-Apr-00	13:00:11	1.1	85.4
22-Apr-00	14:00:11	1.3	84.9
22-Apr-00	15:00:11	1.6	84.4
22-Apr-00	16:00:11	1.3	83.8
22-Apr-00	17:00:11	0.8	84.9
22-Apr-00	18:00:11	1.1	84.9
22-Apr-00	19:00:11	1.1	84.9
22-Apr-00	20:00:11	0.8	84.9
22-Apr-00	21:00:11	0.6	85.4
22-Apr-00	22:00:11	0.3	85.4
22-Apr-00	23:00:11	0.8	85.4
23-Apr-00	00:00:11	0.3	85.9
23-Apr-00	01:00:11	0.6	85.9
23-Apr-00	02:00:11	0.6	85.9
23-Apr-00	03:00:11	0.3	85.9

23-Apr-00	04:00:11	0.6	85.9
23-Apr-00	05:00:11	0.3	85.9
23-Apr-00	06:00:11	0.6	86.5
23-Apr-00	07:00:11	0.3	86.5
23-Apr-00	08:00:11	0.6	86.5
23-Apr-00	09:00:11	0.6	85.9
23-Apr-00	10:00:11	0.8	84.9
23-Apr-00	11:00:11	0.8	90.2
23-Apr-00	12:00:11	1.6	85.4
23-Apr-00	13:00:11	1.1	85.4
23-Apr-00	14:00:11	1.1	85.4
23-Apr-00	15:00:11	0.8	85.9
23-Apr-00	16:00:11	0.8	85.4
23-Apr-00	17:00:11	1.1	85.9
23-Apr-00	18:00:11	1.1	85.9
23-Apr-00	19:00:11	1.3	85.4
23-Apr-00	20:00:11	1.1	85.4
23-Apr-00	21:00:11	1.1	85.4
23-Apr-00	22:00:11	0.8	84.9
23-Apr-00	23:00:11	0.8	84.9
24-Apr-00	00:00:11	0.8	85.4
24-Apr-00	01:00:11	0.8	85.4
24-Apr-00	02:00:11	0.8	84.9
24-Apr-00	03:00:11	0.8	85.4
24-Apr-00	04:00:11	0.8	85.4
24-Apr-00	05:00:11	0.8	85.4
24-Apr-00	06:00:11	0.8	85.4
24-Apr-00	07:00:11	0.8	85.4
24-Apr-00	08:00:11	0.8	85.4
24-Apr-00	09:00:11	1.1	85.4
24-Apr-00	10:00:11	0.8	85.4
24-Apr-00	11:00:11	0.8	90.8
24-Apr-00	12:00:11	1.6	85.4
24-Apr-00	13:00:11	1.1	86.5
24-Apr-00	14:00:11	1.3	84.9
24-Apr-00	15:00:11	1.6	84.9
24-Apr-00	16:00:11	1.3	84.4
24-Apr-00	17:00:11	1.1	84.9
24-Apr-00	18:00:11	1.3	84.9
24-Apr-00	19:00:11	1.1	84.9
24-Apr-00	20:00:11	0.8	84.9
24-Apr-00	21:00:11	0.8	84.9
24-Apr-00	22:00:11	0.8	84.9
24-Apr-00	23:00:11	0.8	85.4
25-Apr-00	00:00:11	0.8	85.4
25-Apr-00	01:00:11	0.8	84.9
25-Apr-00	02:00:11	1.1	85.4
25-Apr-00	03:00:11	0.6	85.4
25-Apr-00	04:00:11	0.8	84.9

25-Apr-00	05:00:11	0.6	84.9
25-Apr-00	06:00:11	0.3	85.4
25-Apr-00	07:00:11	0.3	85.9
25-Apr-00	08:00:11	0.6	85.4
25-Apr-00	09:00:11	0.6	85.4
25-Apr-00	10:00:11	0.6	85.4
25-Apr-00	11:00:11	0.8	90.8
25-Apr-00	12:00:11	1.1	86.5
25-Apr-00	13:00:11	0.8	87.5
25-Apr-00	14:00:11	0.6	87
25-Apr-00	15:00:11	0.8	86.5
25-Apr-00	16:00:11	0.6	87
25-Apr-00	17:00:11	0.6	86.5
25-Apr-00	18:00:11	0.6	86.5
25-Apr-00	19:00:11	0.6	85.9
25-Apr-00	20:00:11	0.3	86.5
25-Apr-00	21:00:11	0.3	86.5
25-Apr-00	22:00:11	0.3	87
25-Apr-00	23:00:11	0.3	87
26-Apr-00	00:00:11	0.3	86.5
26-Apr-00	01:00:11	0.3	86.5
26-Apr-00	02:00:11	0.6	85.9
26-Apr-00	03:00:11	0.6	85.9
26-Apr-00	04:00:11	0.6	85.9
26-Apr-00	05:00:11	0.6	85.9
26-Apr-00	06:00:11	0.6	85.9
26-Apr-00	07:00:11	0.3	86.5
26-Apr-00	08:00:11	0.6	85.9
26-Apr-00	09:00:11	0.6	86.5
26-Apr-00	10:00:11	0.6	85.9
26-Apr-00	11:00:11	0.6	90.8
26-Apr-00	12:00:11	0.8	87
26-Apr-00	13:00:11	0.6	88.6
26-Apr-00	14:00:11	0.3	88.1
26-Apr-00	15:00:11	0.6	87.5
26-Apr-00	16:00:11	0.8	87.5
26-Apr-00	17:00:11	0.3	87.5
26-Apr-00	18:00:11	0.1	87.5
26-Apr-00	19:00:11	0.1	87.5
26-Apr-00	20:00:11	0.1	87.5
26-Apr-00	21:00:11	0.3	87.5
26-Apr-00	22:00:11	0.3	87.5
26-Apr-00	23:00:11	0.1	87.5
27-Apr-00	00:00:11	0.6	87
27-Apr-00	01:00:11	0.1	87.5
27-Apr-00	02:00:11	0.3	87
27-Apr-00	03:00:11	0.3	87
27-Apr-00	04:00:11	0.3	86.5
27-Apr-00	05:00:11	0.3	86.5

27-Apr-00	06:00:11	0.3	86.5
27-Apr-00	07:00:11	0.1	87
27-Apr-00	08:00:11	0.3	86.5
27-Apr-00	09:00:11	0.3	86.5
27-Apr-00	10:00:11	0.6	86.5
27-Apr-00	11:00:11	0.6	91.3
27-Apr-00	12:00:11	0.8	88.1
27-Apr-00	13:00:11	0.3	88.1
27-Apr-00	14:00:11	0.6	87.5
27-Apr-00	15:00:11	0.3	87.5
27-Apr-00	16:00:11	0.3	87
27-Apr-00	17:00:11	0.6	87.5
27-Apr-00	18:00:11	0.1	87.5
27-Apr-00	19:00:11	0.1	87.5
27-Apr-00	20:00:11	0.3	87.5
27-Apr-00	21:00:11	0.1	87.5
27-Apr-00	22:00:11	0.3	87.5
27-Apr-00	23:00:11	0.3	87.5
28-Apr-00	00:00:11	0.3	87.5
28-Apr-00	01:00:11	0.1	87
28-Apr-00	02:00:11	0.3	87
28-Apr-00	03:00:11	0.3	87
28-Apr-00	04:00:11	0.3	87
28-Apr-00	05:00:11	0.1	87.5
28-Apr-00	06:00:11	0.3	87
28-Apr-00	07:00:11	0.3	87
28-Apr-00	08:00:11	0.3	87
28-Apr-00	09:00:11	0.6	87.5
28-Apr-00	10:00:11	0.6	87
28-Apr-00	11:00:11	1.1	92.4
28-Apr-00	12:00:11	0.8	88.1
28-Apr-00	13:00:11	0.3	88.6
28-Apr-00	14:00:11	1.1	87.5
28-Apr-00	15:00:11	1.1	87.5
28-Apr-00	16:00:11	1.1	87.5
28-Apr-00	17:00:11	0.6	87.5
28-Apr-00	18:00:11	0.3	88.1
28-Apr-00	19:00:11	0.3	88.6
28-Apr-00	20:00:11	0.3	88.1
28-Apr-00	21:00:11	0.6	88.1
28-Apr-00	22:00:11	0.3	88.1
28-Apr-00	23:00:11	0.3	87.5
29-Apr-00	00:00:11	0.6	87.5
29-Apr-00	01:00:11	0.3	88.1
29-Apr-00	02:00:11	0.3	87.5
29-Apr-00	03:00:11	0.3	87.5
29-Apr-00	04:00:11	0.3	87.5
29-Apr-00	05:00:11	0.3	87.5
29-Apr-00	06:00:11	0.3	87.5

29-Apr-00	07:00:11	0.6	87.5
29-Apr-00	08:00:11	0.3	87.5
29-Apr-00	09:00:11	0.6	88.1
29-Apr-00	10:00:11	0.3	87.5
29-Apr-00	11:00:11	0.6	92.4
29-Apr-00	12:00:11	0.8	88.1
29-Apr-00	13:00:11	1.1	87.5
29-Apr-00	14:00:11	1.1	87
29-Apr-00	15:00:11	1.1	87
29-Apr-00	16:00:11	0.8	87.5
29-Apr-00	17:00:11	0.6	87.5
29-Apr-00	18:00:11	0.6	88.1
29-Apr-00	19:00:11	0.3	88.1
29-Apr-00	20:00:11	0.6	88.1
29-Apr-00	21:00:11	0.1	88.1
29-Apr-00	22:00:11	0.3	88.1
29-Apr-00	23:00:11	0.3	88.6

Date	Time	Kiwi Cool-store Temperature (°C)						Kiwifruit Cool-store Relative Humidity (%)					
Cool-store Code		A	B	C	D	E	F	A	B	C	D	E	F
10-May-01	00:19:34	-1.4	-0.4		-0.2	-0.4	2.1	92.4	78.1		75.1	93.3	86.4
10-May-01	00:39:34	-1.7	0.6		-0.4	-1.2	-0.2	91.9	77.6		75.1	92.2	88
10-May-01	00:59:34	-1.4	1.3		-0.2	-0.4	-0.4	90.3	78.1		75.1	93.3	91.3
10-May-01	01:19:34	-1.9	0.1		-0.4	-1.2	-0.4	89.7	75.5		75.6	93.8	89.7
10-May-01	01:39:34	-1.9	-0.4		-0.4	-0.7	-0.7	89.7	80.7		75.1	92.7	88.6
10-May-01	01:59:34	-1.7	-0.4		-0.4	-0.7	-0.9	89.2	77.6		75.1	95.5	90.8
10-May-01	02:19:34	-1.7	-1.2		-0.2	-0.9	-0.9	89.7	77.6		75.6	92.2	90.2
10-May-01	02:39:34	-1.9	-1.4		-0.4	-0.4	-0.4	89.2	80.2		74.6	94.9	89.7
10-May-01	02:59:34	-1.7	-0.9		-0.2	-0.9	-0.4	89.2	78.1		76.1	94.4	88.6
10-May-01	03:19:34	-1.7	-1.4		-0.7	-0.7	-0.7	88.7	78.6		76.1	93.8	88
10-May-01	03:39:34	0.3	-0.7		-0.4	-0.7	-0.9	87.6	80.2		75.1	94.9	89.1
10-May-01	03:59:34	1.8	-1.4		-0.7	-0.7	-0.9	91.3	77.1		76.1	93.3	90.8
10-May-01	04:19:34	-0.2	-0.7		-0.2	0.1	-0.7	91.9	80.7		75.6	92.2	90.8
10-May-01	04:39:34	-0.7	-1.2		-0.7	1.3	-0.9	92.9	77.6		76.1	92.2	90.8
10-May-01	04:59:34	-1.4	-0.9		-0.2	1.3	-0.4	91.9	81.3		76.6	91.6	90.2
10-May-01	05:19:34	-1.4	-1.2		-0.7	0.1	-0.7	91.3	77.6		75.1	90	88
10-May-01	05:39:34	-1.4	-0.7		-0.4	-0.9	-0.7	90.3	81.3		74.6	89.4	88.6
10-May-01	05:59:34	-1.7	-1.7		-0.4	-0.4	-0.7	90.8	80.7		75.1	94.9	90.2
10-May-01	06:19:34	-1.7	-0.4		-0.4	-1.2	-0.4	90.8	80.7		75.1	91.6	90.8
10-May-01	06:39:34	-1.7	-1.2		-0.4	-0.4	-0.7	89.7	82.3		75.1	94.9	89.1

10-May-01	06:59:34	-1.7	-0.4		-0.2	-1.2	-0.7	89.7	79.7		75.6	92.7	88.6
10-May-01	07:19:34	-1.7	-1.4		-0.7	-0.7	-0.4	90.8	82.9		75.6	94.4	88.6
10-May-01	07:39:34	-1.7	-0.7		-0.4	-0.7	-0.4	89.2	78.1		75.1	94.9	88
10-May-01	07:59:34	-1.7	-0.9		-0.7	-0.7	0.3	89.7	77.6		76.1	94.9	85.9
10-May-01	08:19:34	-1.7	-0.2		-0.7	-0.7	2.1	89.2	77.6		75.1	93.8	85.9
10-May-01	08:39:34	-1.4	1.1		-0.2	-0.4	-0.2	90.8	77.6		75.6	94.9	88.6
10-May-01	08:59:34	-1.2	1.6		-0.4	-0.7	-0.4	89.7	77.1		75.1	93.8	90.8
10-May-01	09:19:34	-0.7	0.3		-0.4	-0.9	-0.7	91.9	75.5		75.1	93.3	89.1
10-May-01	09:39:34	1.8	0.1		-0.4	-0.9	-0.7	91.9	80.7		75.1	93.3	90.8
10-May-01	09:59:34	4.1	0.3		-0.2	-0.7	-0.7	89.2	80.7		75.1	92.2	91.3
10-May-01	10:19:34	0.6	0.3		-0.4	0.6	-0.7	89.2	77.1		75.6	93.3	90.8
10-May-01	10:39:34	-0.7	-0.4		-0.4	2.3	-0.7	91.3	77.1		74.6	94.9	88.6
10-May-01	10:59:34	-0.9	-1.2		-0.2	2.8	-0.7	91.9	77.6		75.1	92.2	88
10-May-01	11:19:34	-1.4	-1.2		-0.7	1.3	-0.9	91.3	77.6		76.1	92.2	90.2
10-May-01	11:39:34	-1.2	-0.7		-0.4	1.3	-0.7	95.1	78.6		76.1	92.7	90.2
10-May-01	11:59:34	-0.7	-0.7		-0.4	1.3	-0.7	91.9	77.6		76.6	93.3	90.8
10-May-01	12:19:34	-1.2	-0.7		-0.4	1.3	-0.7	90.8	76.6		76.6	93.8	88.6
10-May-01	12:39:34	-1.7	-0.7		-0.4	1.3	-0.9	91.3	77.1		75.6	92.7	90.8
10-May-01	12:59:34	-0.9	-0.7		-0.4	1.1	-0.9	93.5	76.6		76.6	91.6	90.2
10-May-01	13:19:34	-0.7	-0.4		-0.4	0.8	-0.4	91.9	79.7		76.1	92.2	89.7
10-May-01	13:39:34	-0.7	-0.4		-0.4	0.8	-0.7	91.9	76.6		76.6	90	89.1
10-May-01	13:59:34	-0.4	-0.2		-0.4	0.6	-0.9	92.4	78.1		75.6	90	90.8
10-May-01	14:19:34	-0.2	-0.4		-0.4	0.6	-0.7	91.3	75.5		75.6	89.4	90.8
10-May-01	14:39:34	0.1	-0.4		-0.4	0.3	-0.7	90.3	75.5		75.6	87.2	90.8
10-May-01	14:59:34	-0.4	-0.9		-0.4	0.1	-0.7	88.7	75.5		75.6	86.7	90.2
10-May-01	15:19:34	-0.4	-0.4		-0.7	0.1	-0.7	89.7	76.6		76.1	86.7	89.1
10-May-01	15:39:34	2.3	-0.7		-0.4	0.3	-0.4	94	76		76.1	86.2	88.6
10-May-01	15:59:34	5.7	-0.4		-0.7	0.3	0.6	89.2	78.6		77.1	86.2	85.9
10-May-01	16:19:34	1.8	0.1		-0.4	1.3	1.8	91.9	78.1		75.6	87.8	86.9
10-May-01	16:39:34	0.8	1.1		-0.7	2.3	-0.2	94.6	78.1		75.1	88.9	88
10-May-01	16:59:34	0.8	2.1		-0.2	2.3	-0.7	93.5	78.1		75.6	86.7	91.3
10-May-01	17:19:34	0.3	1.1		-0.4	1.3	-0.4	92.9	75.5		75.1	87.2	90.8
10-May-01	17:39:34	0.6	0.8		0.1	0.8	-0.4	91.9	80.2		75.1	87.2	90.2
10-May-01	17:59:34	0.3	0.8		0.3	0.3	-0.7	92.4	80.2		74.6	87.2	91.3
10-May-01	18:19:34	0.6	0.8		0.6	0.6	-0.7	91.9	77.1		74.6	87.2	90.8
10-May-01	18:39:34	0.6	0.1		0.6	0.3	-0.7	91.9	75.5		74.6	87.2	90.2
10-May-01	18:59:34	0.1	-0.2		0.6	0.1	-0.4	91.9	75		74.6	86.2	88.6
10-May-01	19:19:34	0.3	-0.7		0.6	-0.2	-0.7	91.9	76		74.6	85.6	90.2
10-May-01	19:39:34	0.1	-0.7		0.6	-0.2	-0.7	91.3	77.1		74.6	85.6	90.8
10-May-01	19:59:34	0.6	-0.4		0.6	-0.2	-0.7	90.8	76.6		74.6	85.6	91.3
10-May-01	20:19:34	0.6	-0.4		0.6	0.1	-0.4	91.9	76.6		75.6	85.1	90.2
10-May-01	20:39:34	0.8	-0.2		0.3	0.1	-0.7	92.4	78.1		75.6	85.1	89.1
10-May-01	20:59:34	1.1	-0.2		0.1	0.1	-0.7	90.3	77.6		77.1	85.1	90.8
10-May-01	21:19:34	0.8	-0.2		-0.2	0.1	-0.7	89.7	77.1		77.1	84.6	90.8
10-May-01	21:39:34	3.4	-0.2		-0.4	0.3	-0.7	89.2	77.1		77.1	85.1	90.2
10-May-01	21:59:34	6.7	-0.2		-0.7	0.3	-0.9	79.9	77.1		77.1	85.1	89.1
10-May-01	22:19:34	3.9	0.1		-0.4	1.3	-0.9	89.7	77.6		77.6	86.7	91.3
10-May-01	22:39:34	2.3	0.1		-0.4	2.3	-0.7	92.4	77.1		77.1	87.2	91.3
10-May-01	22:59:34	1.3	0.1		-0.7	2.3	-0.7	91.9	76.6		77.6	86.2	90.2

10-May-01	23:19:34	0.8	-0.2		-0.4	1.3	-0.7	90.8	76.6		77.1	84.6	90.2
10-May-01	23:39:34	0.6	0.1		-0.4	1.1	-0.7	91.3	76.6		77.6	85.1	89.1
10-May-01	23:59:34	0.8	-0.2		-0.4	0.3	0.3	91.9	76.6		77.1	84.6	86.9
11-May-01	00:19:34	0.6	0.3		-0.4	0.3	1.8	89.7	77.6		77.1	84.6	88
11-May-01	00:39:34	0.3	1.6		-0.7	0.1	-0.2	90.3	78.1		77.1	84.6	88
11-May-01	00:59:34	0.1	2.3		-0.4	0.3	-0.4	90.8	78.1		76.6	84.6	90.8
11-May-01	01:19:34	0.1	1.3		-0.7	0.1	-0.7	91.3	75.5		76.6	84.6	91.3
11-May-01	01:39:34	-0.2	1.1		-0.2	0.3	-0.4	90.8	78.1		76.6	85.1	90.8
11-May-01	01:59:34	0.1	0.1		-0.4	0.3	-0.4	90.8	72.4		77.6	84.6	90.2
11-May-01	02:19:34	0.1	-0.4		-0.4	0.6	-0.9	89.7	76		76.6	85.1	90.2
11-May-01	02:39:34	0.1	-0.2		-0.7	0.6	-0.7	89.2	76.6		76.6	85.1	91.3
11-May-01	02:59:34	-0.4	-0.2		-0.2	0.3	-0.7	90.8	76.6		76.6	84.6	92.4
11-May-01	03:19:34	-0.4	-0.2		-0.7	0.3	-0.7	89.7	76		77.1	84.6	91.9
11-May-01	03:39:34	2.3	-0.2		-0.4	0.6	-0.7	88.2	76		76.6	84	90.8
11-May-01	03:59:34	5.9	-0.4		-0.4	0.3	-0.7	80.4	75.5		77.1	84.6	90.2
11-May-01	04:19:34	2.3	-0.4		-0.4	1.3	-0.7	89.2	75.5		77.1	85.1	90.8
11-May-01	04:39:34	-0.2	-0.7		-0.2	2.1	-0.7	91.9	76		77.1	86.2	90.8
11-May-01	04:59:34	-0.7	-0.7		-0.4	2.3	-0.4	89.2	75.5		77.1	85.1	90.8
11-May-01	05:19:34	-1.2	-0.9		-0.4	1.3	-0.7	89.2	76		76.6	84	91.9
11-May-01	05:39:34	-0.7	-0.7		-0.7	0.8	-0.7	91.9	80.7		77.1	84.6	92.4
11-May-01	05:59:34	-1.2	-0.7		-0.7	0.6	-0.7	91.3	76		76.6	85.1	90.8
11-May-01	06:19:34	-1.4	-0.7		-0.7	0.3	-0.7	91.3	75.5		77.1	84.6	91.3
11-May-01	06:39:34	-1.4	-0.9		-0.4	0.3	-0.7	91.9	75		76.1	84.6	89.1
11-May-01	06:59:34	-1.2	-0.9		-0.2	0.3	-0.9	94.6	76.6		77.1	84.6	90.8
11-May-01	07:19:34	-1.2	-0.4		-0.4	0.1	-0.7	95.1	77.6		77.1	84	91.3
11-May-01	07:39:34	-0.7	-0.2		-0.4	0.3	-0.9	90.8	76.6		77.1	84	88
11-May-01	07:59:34	-0.7	-0.2		-0.2	0.3	0.1	91.9	75.5		77.1	86.7	85.9
11-May-01	08:19:34	-0.7	0.6		-0.2	1.1	1.8	95.1	75.5		75.6	87.2	88.6
11-May-01	08:39:34	-0.4	1.8		0.1	1.1	-0.2	95.6	75.5		75.6	88.3	90.8
11-May-01	08:59:34	-0.7	2.6		0.1	1.1	-0.7	91.9	75.5		75.1	87.8	91.3
11-May-01	09:19:34	-0.7	1.3		0.6	1.3	-0.7	94	75		74.6	88.3	90.8
11-May-01	09:39:34	2.3	1.3		0.3	1.6	-0.4	96.2	78.1		75.1	89.4	89.7
11-May-01	09:59:34	1.6	1.1		0.6	2.8	-0.7	92.9	78.1		75.1	92.2	90.2
11-May-01	10:19:34	0.3	0.8		0.8	3.6	-0.7	93.5	75.5		74.6	93.8	90.8
11-May-01	10:39:34	-0.2	0.6		1.8	4.6	-0.7	94.6	75		75.1	96.1	91.3
11-May-01	10:59:34	0.3	0.3		1.3	4.9	-0.7	94	75.5		75.1	94.4	90.2
11-May-01	11:19:34	0.3	-0.2		1.6	2.8	-0.7	94	75.5		77.1	92.2	90.8
11-May-01	11:39:34	0.1	-0.2		0.6	2.1	-0.7	94	75.5		77.1	92.2	89.1
11-May-01	11:59:34	0.3	0.1		0.3	1.3	-0.7	93.5	75		78.1	91.6	88
11-May-01	12:19:34	-0.2	-0.4		0.1	1.3	-0.7	94.6	76.6		78.1	92.2	89.7
11-May-01	12:39:34	0.3	-0.2		-0.2	1.3	-0.7	91.3	76		78.1	92.7	91.3
11-May-01	12:59:34	-0.2	-0.2		-0.4	1.3	-0.7	91.9	76.6		78.1	91.1	91.3
11-May-01	13:19:34	0.1	0.1		-0.2	0.8	-0.7	92.9	75.5		78.1	89.4	90.2
11-May-01	13:39:34	0.6	-0.2		-0.4	1.1	-0.7	91.3	75.5		77.6	91.6	89.7
11-May-01	13:59:34	0.6	0.1		-0.4	1.1	-0.7	89.7	76		77.6	90.5	90.8
11-May-01	14:19:34	0.6	-0.2		-0.7	1.1	-0.7	88.7	75.5		77.6	90	91.3
11-May-01	14:39:34	0.6	-0.2		-0.4	0.8	-0.7	89.2	76		77.6	89.4	91.3
11-May-01	14:59:34	1.1	-0.2		-0.7	0.6	-0.4	89.2	77.6		77.6	89.4	90.2
11-May-01	15:19:34	1.6	0.1		-0.7	0.3	-0.9	92.4	80.7		77.6	88.3	90.2

11-May-01	15:39:34	4.4	1.1		-0.7	0.1	-0.7	96.7	79.2		77.6	87.8	89.1
11-May-01	15:59:34	5.9	1.1		-0.9	0.1	0.6	89.2	77.6		78.6	87.8	86.9
11-May-01	16:19:34	2.1	2.1		-0.4	1.8	2.1	90.8	78.1		77.1	92.2	90.2
11-May-01	16:39:34	0.8	3.4		-0.4	3.1	-0.2	93.5	78.1		77.1	91.6	86.4
11-May-01	16:59:34	0.3	3.9		-0.2	3.6	-0.7	92.4	75.5		77.1	92.2	90.2
11-May-01	17:19:34	-0.2	2.1		0.1	2.3	-0.4	94.6	75.5		77.1	90.5	89.7
11-May-01	17:39:34	0.1	2.1		0.1	1.1	-0.7	94.6	80.2		76.6	90	90.8
11-May-01	17:59:34	0.1	2.1		0.6	0.8	-0.7	94	80.2		76.1	89.4	92.4
11-May-01	18:19:34	-0.2	1.6		0.6	0.3	-0.7	94.6	77.6		76.1	89.4	91.3
11-May-01	18:39:34	-0.4	1.1		0.1	0.3	-0.7	91.9	77.1		77.1	88.9	90.8
11-May-01	18:59:34	-0.2	0.8		-0.4	-0.2	-0.9	93.5	76.6		77.1	88.9	91.3
11-May-01	19:19:34	-0.2	0.3		-0.7	0.1	-0.7	94	77.1		77.6	88.3	91.9
11-May-01	19:39:34	0.1	0.6		-0.7	-0.2	-0.7	94.6	75.5		77.6	87.8	92.4
11-May-01	19:59:34	0.3	-0.2		-0.4	-0.2	-0.4	94	75		79.7	87.2	91.3
11-May-01	20:19:34	0.3	-0.7		-0.7	-0.4	-0.7	91.9	78.1		78.1	87.2	90.8
11-May-01	20:39:34	-0.2	-0.7		-0.7	-0.4	-0.9	89.2	76.6		78.1	86.7	90.8
11-May-01	20:59:34	-0.4	-0.9		-0.2	-0.7	-0.7	87.1	78.1		78.6	86.2	91.3
11-May-01	21:19:34	0.1	-0.7		-0.7	-0.4	-0.7	89.2	76.6		78.6	86.2	91.3
11-May-01	21:39:34	2.3	-1.2		-0.2	-0.4	-0.7	91.9	76		78.1	85.6	91.3
11-May-01	21:59:34	3.6	-0.7		-0.9	-0.4	-0.7	90.8	77.6		78.1	85.6	91.3
11-May-01	22:19:34	1.1	-0.9		-0.4	0.3	-0.7	91.9	76		78.1	86.7	90.2
11-May-01	22:39:34	-0.2	-0.4		-0.9	1.3	-0.9	92.4	77.6		79.2	86.7	90.8
11-May-01	22:59:34	-0.7	-0.9		-0.4	2.3	-0.7	92.9	79.7		77.6	87.2	91.3
11-May-01	23:19:34	-0.9	-0.7		-0.7	1.1	-0.7	90.8	75.5		79.2	86.2	91.9
11-May-01	23:39:34	-0.9	-0.9		-0.4	0.3	-0.7	92.4	80.7		77.6	86.2	88
11-May-01	23:59:34	-1.2	-0.4		-0.9	-0.2	0.1	91.9	76.6		78.6	86.7	85.9
12-May-01	00:19:34	-1.2	-0.2		-0.4	-0.4	2.1	91.3	76.6		77.6	86.2	89.7
12-May-01	00:39:34	-0.9	0.8		-0.7	-0.7	-0.2	91.9	77.1		79.2	86.2	88
12-May-01	00:59:34	-0.7	2.1		-0.4	-0.7	-0.7	94	76.6		77.6	85.6	91.3
12-May-01	01:19:34	-0.7	0.3		-0.7	-0.2	-0.7	92.4	74		79.2	91.6	92.4
12-May-01	01:39:34	-0.7	0.1		-0.7	0.1	-0.4	92.4	78.6		78.1	86.7	91.9
12-May-01	01:59:34	-0.4	0.1		-0.7	-0.2	-0.4	92.4	77.6		78.1	86.2	90.8
12-May-01	02:19:34	-0.4	-0.7		-0.7	-0.7	-0.7	91.9	76.6		78.1	85.6	90.2
12-May-01	02:39:34	-0.2	-0.9		-0.7	-0.7	-0.9	90.8	75.5		77.6	85.1	90.8
12-May-01	02:59:34	-0.2	-1.2		-0.2	-0.7	-0.7	89.2	82.3		77.6	85.6	91.9
12-May-01	03:19:34	0.1	-0.7		-0.7	-0.4	-0.7	90.3	75.5		78.6	85.6	93
12-May-01	03:39:34	2.8	-1.2		-0.4	-0.2	-0.7	91.3	80.7		77.6	86.2	90.8
12-May-01	03:59:34	5.9	-0.7		-0.7	-0.2	-0.7	90.3	75.5		78.6	86.2	90.8
12-May-01	04:19:34	1.8	-1.2		-0.4	0.6	-0.7	91.3	80.2		77.1	86.7	91.3
12-May-01	04:39:34	0.6	-0.9		-0.7	1.3	-0.7	92.9	76.6		78.1	86.7	91.9
12-May-01	04:59:34	-0.4	-0.9		-0.4	2.3	-0.9	91.9	81.8		77.1	86.7	92.4
12-May-01	05:19:34	-0.7	-0.7		-0.7	0.6	-0.7	92.4	75.5		78.1	84.6	91.9
12-May-01	05:39:34	-1.2	-0.9		-0.4	0.1	-0.7	91.9	82.3		77.1	85.1	91.3
12-May-01	05:59:34	-1.2	-0.9		-0.7	-0.2	-0.4	91.9	76		79.2	85.1	90.2
12-May-01	06:19:34	-0.9	-0.7		-0.4	-0.4	-0.4	95.1	77.6		77.1	84.6	90.2
12-May-01	06:39:34	-0.9	-1.2		-0.4	-0.2	-0.7	90.8	78.1		77.6	90.5	90.8
12-May-01	06:59:34	-0.7	-0.7		-0.4	-0.2	-0.7	92.4	77.1		77.6	86.7	91.3
12-May-01	07:19:34	-0.9	-0.7		-0.7	-0.2	-0.7	95.1	82.9		79.2	85.6	91.3
12-May-01	07:39:34	-1.2	-0.7		-0.4	-0.7	-0.7	90.3	77.1		77.6	86.2	90.2

12-May-01	07:59:34	-0.9	-0.7		-0.7	-0.2	0.1	95.6	77.1		79.2	89.4	88
12-May-01	08:19:34	-0.4	0.6		-0.2	0.3	2.1	93.5	77.1		77.1	90.5	89.7
12-May-01	08:39:34	-0.4	1.6		-0.2	2.1	-0.2	92.9	78.1		77.1	93.3	88.6
12-May-01	08:59:34	-0.4	2.3		0.3	3.4	-0.4	96.7	76.6		76.6	94.9	90.8
12-May-01	09:19:34	-0.2	1.1		0.3	3.9	-0.7	94.6	75		76.6	94.9	91.3
12-May-01	09:39:34	2.6	0.3		0.6	4.4	-0.7	97.3	80.2		76.1	94.4	91.3
12-May-01	09:59:34	2.8	0.3		0.8	3.4	-0.7	94.6	79.2		76.6	88.9	90.8
12-May-01	10:19:34	1.1	0.3		1.1	1.6	-0.7	94.6	77.6		76.1	89.4	90.8
12-May-01	10:39:34	0.8	0.1		1.1	0.6	-0.9	96.7	77.6		76.1	89.4	91.3
12-May-01	10:59:34	0.8	-0.2		1.1	0.3	-0.7	97.3	77.6		76.1	89.4	92.4
12-May-01	11:19:34	0.8	-0.7		1.3	0.1	-0.4	95.6	77.6		77.1	89.4	91.9
12-May-01	11:39:34	1.6	-0.4		0.6	-0.2	-0.7	96.7	77.6		78.1	89.4	90.8
12-May-01	11:59:34	1.8	-0.4		0.1	-0.4	-0.4	95.1	78.1		79.2	88.9	90.2
12-May-01	12:19:34	1.8	-0.2		0.1	-0.7	-0.9	96.7	79.7		79.2	88.3	91.3
12-May-01	12:39:34	2.1	-0.2		-0.2	-0.7	-0.9	96.2	79.2		79.2	88.3	91.9
12-May-01	12:59:34	1.6	0.1		-0.4	-0.7	-0.4	95.1	78.6		79.2	88.3	90.8
12-May-01	13:19:34	3.1	0.1		-0.4	-0.9	-0.4	97.3	78.1		79.2	88.3	89.7
12-May-01	13:39:34	2.3	0.1		-0.7	-0.9	-0.7	91.9	78.1		78.6	88.3	90.8
12-May-01	13:59:34	2.3	0.1		-0.9	-0.9	-0.7	95.1	79.2		78.6	87.8	91.3
12-May-01	14:19:34	1.8	-0.2		-0.9	-0.9	-0.4	94	78.6		79.2	87.2	90.8
12-May-01	14:39:34	1.6	-0.4		-0.9	-0.9	-0.7	95.1	78.1		78.6	87.2	89.7
12-May-01	14:59:34	1.6	-0.4		-0.4	-0.7	-0.7	94	78.1		78.1	86.7	90.2
12-May-01	15:19:34	1.3	-0.4		-0.7	0.6	-0.7	94	78.6		79.2	87.8	91.3
12-May-01	15:39:34	4.1	-0.4		-0.7	1.3	-0.7	100	80.7		79.7	88.3	89.1
12-May-01	15:59:34	8.8	0.1		-0.4	1.3	0.6	91.9	78.1		78.1	86.7	87.5
12-May-01	16:19:34	4.9	1.1		-0.9	0.1	2.1	92.4	79.7		78.6	87.2	88.6
12-May-01	16:39:34	2.3	1.8		-0.2	-0.4	0.1	94.6	78.1		78.1	87.2	88.6
12-May-01	16:59:34	1.3	2.8		-0.2	-0.7	-0.4	91.9	78.1		78.6	87.8	91.9
12-May-01	17:19:34	0.8	1.3		-0.2	0.1	-0.4	91.9	77.1		77.6	93.3	92.4
12-May-01	17:39:34	0.3	0.8		0.1	-0.4	-0.7	94	75.5		77.1	88.9	90.8
12-May-01	17:59:34	0.1	-0.4		0.3	-0.7	-0.9	96.2	73.5		77.1	89.4	90.8
12-May-01	18:19:34	0.6	-0.2		0.3	-0.4	-0.7	91.9	79.2		77.1	91.6	91.9
12-May-01	18:39:34	0.1	-0.4		0.3	-0.7	-0.4	91.9	78.1		77.1	88.9	93
12-May-01	18:59:34	-0.2	-0.4		0.6	-0.7	-0.4	94.6	78.1		77.1	94.4	91.9
12-May-01	19:19:34	0.3	-0.4		0.8	-0.2	-0.4	94	78.6		77.1	89.4	90.8
12-May-01	19:39:34	0.6	-0.4		0.8	-0.7	-0.7	91.3	78.1		76.6	91.6	90.8
12-May-01	19:59:34	0.6	-0.7		0.8	-0.2	-0.7	90.8	78.1		76.6	91.1	91.3
12-May-01	20:19:34	0.8	-0.4		0.6	-0.7	-0.7	89.2	78.1		77.1	89.4	93
12-May-01	20:39:34	0.6	-0.7		0.1	-0.4	-0.7	89.2	77.6		77.6	94.9	92.4
12-May-01	20:59:34	0.6	-0.7		0.3	-0.2	-0.7	89.2	78.1		79.2	90.5	91.3
12-May-01	21:19:34	0.8	-0.9		-0.4	0.6	-0.4	89.2	77.6		79.7	90	90.8
12-May-01	21:39:34	2.6	-0.7		-0.4	1.8	-0.7	92.4	78.1		79.7	90	90.2
12-May-01	21:59:34	5.4	-0.9		-0.7	1.6	-0.7	86.6	80.2		79.7	89.4	91.3
12-May-01	22:19:34	3.1	-0.4		-0.4	0.1	-0.7	91.9	77.6		79.7	88.9	91.9
12-May-01	22:39:34	0.8	-0.9		-0.7	-0.4	-0.7	91.3	80.2		79.2	88.9	92.4
12-May-01	22:59:34	0.3	-0.9		-0.7	-0.7	-0.7	91.3	77.6		79.7	89.4	92.4
12-May-01	23:19:34	-0.7	-0.7		-0.9	-0.2	-0.7	89.7	79.7		79.7	94.4	90.8
12-May-01	23:39:34	-0.2	-0.7		-0.4	-0.7	-0.4	91.9	77.6		79.2	88.9	90.8
12-May-01	23:59:34	-0.4	-0.7		-0.7	-0.4	0.3	91.3	78.1		79.7	96.1	88

13-May-01	00:19:34	-0.2	0.1		-0.7	-0.7	2.1	92.4	77.6		78.6	90	88.6
13-May-01	00:39:34	-0.4	1.1		-0.7	-0.4	0.1	92.4	78.1		79.7	94.9	89.7
13-May-01	00:59:34	-0.4	1.8		-0.7	-0.4	-0.4	96.7	78.1		78.6	90.5	93
13-May-01	01:19:34	-0.7	0.6		-0.7	-0.7	-0.4	92.9	75.5		79.2	93.3	93.6
13-May-01	01:39:34	-0.7	0.1		-0.9	-0.4	-0.7	93.5	80.2		78.6	92.2	91.3
13-May-01	01:59:34	-0.9	0.1		-0.4	-0.9	-0.7	92.9	78.1		78.6	89.4	91.3
13-May-01	02:19:34	-0.7	-0.4		-0.9	0.1	-0.7	91.9	77.6		78.6	94.9	91.9
13-May-01	02:39:34	-0.9	-0.9		-0.4	-0.7	-0.7	91.9	77.6		78.1	89.4	93.6
13-May-01	02:59:34	-0.7	-0.7		-0.4	-0.4	-0.4	92.4	78.1		78.1	94.9	91.9
13-May-01	03:19:34	-0.7	-0.9		-0.7	0.8	-0.4	91.9	80.2		79.7	92.7	91.3
13-May-01	03:39:34	1.6	-0.7		-0.7	1.8	-0.4	92.4	77.1		78.6	92.2	90.8
13-May-01	03:59:34	1.6	-0.7		-0.4	1.3	-0.7	93.5	78.1		79.2	90	91.9
13-May-01	04:19:34	0.3	-0.9		-0.7	-0.2	-0.9	94	82.3		78.6	90	93
13-May-01	04:39:34	-0.4	-0.7		-0.7	-0.7	-0.7	91.9	77.1		79.7	89.4	91.9
13-May-01	04:59:34	-0.7	-0.7		-0.7	-0.9	-0.4	95.1	77.1		78.6	89.4	92.4
13-May-01	05:19:34	-0.7	-0.4		-0.4	-0.2	-0.7	94	80.2		78.1	94.4	91.3
13-May-01	05:39:34	-0.7	-0.9		-0.7	-0.7	-0.4	91.9	80.7		78.6	89.4	91.3
13-May-01	05:59:34	-0.7	-0.9		-0.4	-0.4	-0.7	91.9	77.1		77.6	95.5	90.8
13-May-01	06:19:34	-0.9	-0.7		-0.9	-0.7	-0.9	92.4	78.1		79.7	90	90.8
13-May-01	06:39:34	-0.9	-0.7		-0.4	-0.2	-0.7	94	82.9		77.6	94.9	91.3
13-May-01	06:59:34	-0.9	-0.7		-0.2	-0.7	-0.7	94	76.6		78.1	90	92.4
13-May-01	07:19:34	-1.2	-0.7		-0.9	-0.2	-0.7	92.9	77.6		79.7	96.6	93
13-May-01	07:39:34	-0.9	-0.9		-0.4	-0.4	-0.7	93.5	80.7		78.1	90.5	90.2
13-May-01	07:59:34	-0.9	-0.7		-0.7	-0.2	0.3	93.5	77.6		79.7	96.6	88.6
13-May-01	08:19:34	-1.2	0.3		-0.2	-0.7	1.8	93.5	77.6		77.6	90.5	89.1
13-May-01	08:39:34	-0.9	1.6		0.1	-0.2	-0.4	92.4	77.1		77.1	97.2	90.8
13-May-01	08:59:34	-1.4	2.3		0.3	-0.7	-0.7	91.9	76.6		77.6	91.6	92.4
13-May-01	09:19:34	-1.2	0.8		0.3	0.6	-0.7	91.9	74.5		77.1	91.1	91.3
13-May-01	09:39:34	2.1	0.6		0.3	1.3	-0.7	100	80.2		77.1	90.5	90.8
13-May-01	09:59:34	0.8	0.6		0.8	1.3	-0.9	90.3	80.7		77.1	90.5	91.3
13-May-01	10:19:34	-0.7	0.3		0.8	0.1	-0.7	96.2	77.1		77.1	89.4	93
13-May-01	10:39:34	-0.4	0.1		0.8	-0.4	-0.7	97.3	76		76.6	89.4	91.9
13-May-01	10:59:34	-0.4	-0.4		0.8	-0.7	-0.7	95.1	75.5		76.6	90.5	91.3
13-May-01	11:19:34	-0.4	-0.4		0.8	-0.4	-0.7	96.7	76.6		77.1	92.7	89.7
13-May-01	11:39:34	-0.7	-0.9		0.3	-0.7	-0.7	95.6	77.1		78.6	90	90.8
13-May-01	11:59:34	0.1	-0.7		0.1	-0.4	-0.7	93.5	77.1		79.2	94.4	91.3
13-May-01	12:19:34	-0.2	-0.9		-0.2	-0.4	-0.4	91.9	76.6		79.2	91.6	90.8
13-May-01	12:39:34	-0.2	-0.7		-0.7	-0.4	-0.7	94.6	76.6		79.7	95.5	89.7
13-May-01	12:59:34	0.1	-0.9		-0.4	-0.4	-0.7	95.1	77.6		79.7	91.1	91.3
13-May-01	13:19:34	0.1	-0.7		-0.7	-0.7	-0.7	95.1	77.6		79.2	91.6	90.8
13-May-01	13:39:34	-0.4	-0.7		-1.2	0.1	-0.7	93.5	77.1		79.2	92.7	91.3
13-May-01	13:59:34	-0.2	-0.4		-0.4	-0.9	-0.9	95.1	77.1		79.7	90	90.2
13-May-01	14:19:34	-0.4	-0.4		-0.7	-0.2	-0.9	94.6	76.6		79.7	96.1	90.8
13-May-01	14:39:34	-0.2	-0.7		-0.7	-0.4	-0.9	90.3	77.1		79.7	90.5	90.8
13-May-01	14:59:34	-0.4	-0.4		-0.7	-0.4	-0.4	90.8	77.6		79.2	92.7	90.8
13-May-01	15:19:34	-0.2	-0.4		-0.7	0.6	-0.7	91.9	78.1		79.7	92.2	89.7
13-May-01	15:39:34	1.6	-0.2		-0.4	1.8	-0.7	94.6	76.6		79.2	90.5	90.2
13-May-01	15:59:34	0.1	-0.2		-0.9	1.6	0.6	89.7	77.1		79.7	90	88
13-May-01	16:19:34	-0.4	0.6		-0.4	0.1	2.1	93.5	77.6		79.2	90	89.1

13-May-01	16:39:34	-0.2	1.6		-0.7	-0.4	0.1	91.9	77.6		78.6	90	86.9
13-May-01	16:59:34	-0.4	2.6		-0.7	-0.4	-0.4	94	78.1		79.7	94.9	90.8
13-May-01	17:19:34	-0.2	1.6		-0.7	-0.4	-0.7	94.6	76.6		79.7	92.2	91.3
13-May-01	17:39:34	-0.4	0.8		-0.7	-0.7	-0.9	94.6	78.6		78.6	94.9	92.4
13-May-01	17:59:34	-0.4	-0.2		-0.9	-0.7	-0.9	94.6	73.5		79.7	92.2	93.6
13-May-01	18:19:34	-0.4	-0.7		-0.4	-0.4	-0.7	91.9	81.3		78.6	96.6	91.9
13-May-01	18:39:34	-0.4	-0.4		-0.9	-0.7	-0.4	92.9	78.6		79.7	92.2	90.8
13-May-01	18:59:34	-0.4	-0.7		-0.4	-0.4	-0.7	95.1	78.1		78.6	96.6	90.8
13-May-01	19:19:34	-0.7	-0.7		-0.7	-0.7	-0.7	93.5	78.1		79.7	92.2	91.3
13-May-01	19:39:34	-0.4	-0.7		-0.4	-0.2	-0.9	93.5	78.1		78.6	97.2	91.3
13-May-01	19:59:34	-0.7	-0.7		-0.4	-0.7	-0.7	96.2	78.1		79.7	91.6	91.9
13-May-01	20:19:34	-0.7	-0.9		-0.7	-0.2	-0.7	95.6	78.1		78.6	96.6	93
13-May-01	20:39:34	-0.9	-0.9		-0.9	-0.7	-0.7	96.7	77.6		79.2	91.6	93
13-May-01	20:59:34	-0.7	-1.2		-0.2	-0.2	-0.7	96.2	77.6		78.1	96.1	91.3
13-May-01	21:19:34	-0.7	-0.9		-0.7	0.8	-0.7	91.9	78.1		79.7	94.9	90.8
13-May-01	21:39:34	0.8	-0.7		-0.4	1.8	-0.4	94	77.6		78.6	93.3	90.8
13-May-01	21:59:34	-0.4	-0.7		-0.9	1.3	-0.7	97.3	78.6		79.7	91.6	91.3
13-May-01	22:19:34	-0.9	-0.9		-0.4	-0.2	-0.9	92.9	80.2		78.6	91.6	91.3
13-May-01	22:39:34	-1.2	-0.7		-0.9	-0.7	-0.7	94.6	77.6		79.7	90.5	92.4
13-May-01	22:59:34	-1.4	-0.7		-0.4	-0.2	-0.9	92.4	81.8		78.6	97.2	93
13-May-01	23:19:34	-1.7	-0.9		-0.4	-0.7	-0.7	91.9	77.6		79.2	91.6	93.6
13-May-01	23:39:34	-1.9	-0.7		-0.7	-0.2	-0.9	91.9	82.3		78.6	97.2	90.2
13-May-01	23:59:34	-1.7	-0.7		-0.4	-0.9	0.1	93.5	77.6		78.6	92.7	88.6
14-May-01	00:19:34	-1.4	-0.2		-0.7	-0.2	1.8	93.5	77.6		79.2	94.9	89.7
14-May-01	00:39:34	-1.7	0.6		-0.4	-0.4	0.1	92.9	78.1		78.1	95.5	90.8
14-May-01	00:59:34	-1.7	1.3		-0.9	-0.4	-0.4	92.9	78.1		79.7	93.3	90.8
14-May-01	01:19:34	-1.7	0.3		-0.2	-0.4	-0.4	92.9	75.5		77.6	96.1	90.8
14-May-01	01:39:34	-1.4	-0.2		-0.9	-0.7	-0.7	93.5	79.7		79.7	92.2	91.3
14-May-01	01:59:34	-1.4	-0.4		-0.2	-0.4	-0.4	92.4	80.2		77.6	97.8	91.9
14-May-01	02:19:34	-1.4	-0.7		-0.7	-0.9	-0.7	91.9	78.1		79.7	92.2	93
14-May-01	02:39:34	-1.7	-0.7		-0.2	-0.2	-0.7	91.9	82.3		77.6	96.6	92.4
14-May-01	02:59:34	-1.4	-0.7		-0.4	-0.7	-0.7	91.9	77.1		78.1	92.2	93.6
14-May-01	03:19:34	-1.4	-0.4		-0.7	0.1	-0.7	91.9	79.7		79.2	92.2	91.3
14-May-01	03:39:34	0.6	-0.9		-0.7	1.3	-0.7	90.8	81.3		78.6	92.2	91.3
14-May-01	03:59:34	1.1	-0.7		-0.7	1.3	-0.7	93.5	77.6		78.6	91.1	90.8
14-May-01	04:19:34	-0.9	-0.7		-0.7	-0.4	-0.7	97.3	82.3		79.2	90.5	91.9
14-May-01	04:39:34	-0.9	-0.7		-0.2	-0.7	-0.7	97.3	77.1		78.1	92.2	92.4
14-May-01	04:59:34	-0.9	-0.4		-0.9	-0.4	-0.7	94	78.6		79.7	93.8	93
14-May-01	05:19:34	-1.2	-0.7		-0.4	-0.4	-0.7	94.6	81.8		78.1	96.6	93
14-May-01	05:39:34	-0.9	-0.7		-0.9	-0.4	-0.7	95.6	77.1		79.7	92.2	91.3
14-May-01	05:59:34	-0.9	-0.4		-0.4	-0.4	-0.4	96.2	81.3		78.1	97.8	91.9
14-May-01	06:19:34	-0.4	-0.7		-0.7	-0.7	-0.7	96.2	77.1		79.7	92.2	91.3
14-May-01	06:39:34	-0.7	-0.7		-0.2	-0.4	-0.4	97.3	80.7		77.6	96.1	90.8
14-May-01	06:59:34	-0.7	-0.4		-0.4	-0.7	-0.7	95.1	77.6		78.6	96.1	92.4
14-May-01	07:19:34	-1.2	-0.9		-0.7	-0.7	-0.7	92.4	77.6		79.7	93.8	93
14-May-01	07:39:34	-1.4	-0.4		-0.7	-0.4	-0.7	97.3	80.2		78.6	97.2	90.2
14-May-01	07:59:34	-1.2	-0.7		-0.7	-0.4	0.3	93.5	77.6		79.2	91.6	88.6
14-May-01	08:19:34	-1.4	0.3		0.1	-0.2	1.6	94.6	78.6		77.6	97.2	89.1
14-May-01	08:39:34	-1.4	1.3		0.1	-1.2	-0.2	92.9	78.1		78.1	92.2	91.3

14-May-01	08:59:34	-1.7	2.1		0.1	-0.4	-0.4	92.9	77.6		79.7	96.6	91.9
14-May-01	09:19:34	-1.2	1.1		-0.2	0.8	-0.7	94	75.5		79.7	94.9	91.3
14-May-01	09:39:34	1.6	0.3		-0.4	1.8	-0.7	98.4	80.7		79.7	94.4	90.8
14-May-01	09:59:34	0.1	0.6		-0.7	1.3	-0.7	97.8	80.7		80.7	92.7	91.9
14-May-01	10:19:34	-0.2	0.3		-0.9	0.1	-0.7	98.9	79.7		79.7	91.6	93.6
14-May-01	10:39:34	0.1	0.1		-0.7	-0.9	-0.4	100	78.6		79.7	91.6	91.9
14-May-01	10:59:34	0.6	-0.2		0.1	-0.9	-0.4	100	78.1		81.2	91.1	91.9
14-May-01	11:19:34	4.9	-0.2		0.1	-0.4	-0.4	100	78.1		82.3	98.3	91.3
14-May-01	11:39:34	7.2	-0.2		0.3	-0.7	-0.7	100	78.6		80.7	92.2	90.8
14-May-01	11:59:34	8.5	0.1		0.1	-0.7	-0.7	100	78.6		80.7	97.8	91.3
14-May-01	12:19:34	9.3	-0.2		0.1	-0.7	-0.7	100	78.6		79.7	92.7	91.9
14-May-01	12:39:34	9	-0.7		-0.4	-0.9	-0.7	96.7	78.1		79.2	94.9	91.9
14-May-01	12:59:34	3.1	-0.7		0.1	-0.4	-0.7	92.4	78.1		79.7	94.4	91.3
14-May-01	13:19:34	1.3	-0.7		0.3	-1.2	-0.4	100	78.1		79.7	91.6	90.2
14-May-01	13:39:34	1.6	-0.4		0.3	-0.2	-0.7	100	77.6		79.7	97.8	91.9
14-May-01	13:59:34	1.3	-0.9		0.1	-0.7	-0.7	91.9	77.6		80.2	92.2	92.4
14-May-01	14:19:34	0.3	-0.9		-0.2	-0.7	-0.4	93.5	77.6		80.2	97.8	91.3
14-May-01	14:39:34	0.3	-0.7		0.1	-0.7	-0.7	91.9	79.2		79.7	92.2	90.8
14-May-01	14:59:34	0.3	-0.4		-0.2	-0.9	-0.9	92.4	78.1		79.7	91.6	91.3
14-May-01	15:19:34	0.1	-0.7		-0.4	0.6	-0.7	92.4	77.1		80.7	91.6	92.4
14-May-01	15:39:34	2.6	-0.9		-0.2	1.3	-0.9	96.2	76.6		79.7	91.6	90.2
14-May-01	15:59:34	6.4	-1.2		-0.4	0.8	0.3	92.4	77.1		79.7	91.6	88
14-May-01	16:19:34	2.1	0.1		0.3	-0.4	2.1	91.9	76		82.3	90.5	89.7
14-May-01	16:39:34	0.8	1.3		0.1	-1.2	-0.4	92.4	76		81.7	90.5	91.3
14-May-01	16:59:34	-0.2	2.1		0.1	-0.7	-0.4	94	78.1		81.2	97.8	91.3
14-May-01	17:19:34	-0.4	1.1		-0.4	-0.9	-0.4	93.5	77.1		80.7	92.2	90.8
14-May-01	17:39:34	-0.2	0.8		-0.4	-0.7	-0.7	92.4	80.7		80.2	97.8	91.9
14-May-01	17:59:34	-0.7	-0.2		-0.7	-0.7	-0.9	90.3	73		80.7	92.7	93
14-May-01	18:19:34	-0.4	-0.9		-0.4	-0.7	-0.7	91.9	81.8		82.8	97.8	93.6
14-May-01	18:39:34	-1.2	-0.9		-0.2	-0.7	-0.7	91.9	78.6		80.7	92.7	93.6
14-May-01	18:59:34	-1.2	-0.9		-0.7	-0.7	-0.7	92.4	78.1		80.7	98.9	92.4
14-May-01	19:19:34	-0.7	-1.4		-0.7	-0.7	-0.4	97.3	78.1		82.3	92.7	91.3
14-May-01	19:39:34	0.3	-0.7		-0.2	-0.4	-0.7	96.7	77.6		80.7	98.3	90.8
14-May-01	19:59:34	0.8	-1.2		-0.7	-0.7	-0.7	96.7	78.1		79.7	93.3	91.3
14-May-01	20:19:34	0.8	-0.7		-0.2	-0.7	-0.9	96.2	81.8		82.3	98.3	91.3
14-May-01	20:39:34	1.3	-1.2		-0.4	-0.9	-0.9	96.2	77.6		80.7	92.7	92.4
14-May-01	20:59:34	1.3	-0.7		-0.7	-0.9	-0.7	95.1	82.9		82.3	94.9	93
14-May-01	21:19:34	1.6	-1.2		-0.2	0.6	-0.7	96.2	78.1		81.7	94.9	93.6
14-May-01	21:39:34	4.1	-0.7		-0.2	1.3	-0.7	100	83.4		81.2	93.8	93
14-May-01	21:59:34	7.5	-0.9		-0.7	0.8	-0.4	89.2	78.1		81.7	92.2	91.9
14-May-01	22:19:34	4.1	-0.4		-0.2	-0.7	-0.4	96.2	84.5		82.3	92.2	91.3
14-May-01	22:39:34	3.6	-0.9		-0.2	-0.9	-0.4	95.1	77.6		80.2	91.1	91.3
14-May-01	22:59:34	3.1	-0.9		-0.7	-0.4	-0.7	94.6	83.9		81.7	98.3	93
14-May-01	23:19:34	2.8	-0.9		-0.2	-0.9	-0.9	94	77.6		81.7	91.6	93.6
14-May-01	23:39:34	2.8	-0.7		-0.2	-0.4	-0.7	94.6	83.4		80.2	98.9	91.3
14-May-01	23:59:34	2.6	-0.9		-0.7	-1.2	0.3	94	78.1		82.3	92.2	90.2
15-May-01	00:19:34	2.6	-0.9		-0.4	-0.4	1.6	94.6	81.3		80.7	98.3	90.2
15-May-01	00:39:34	2.8	-0.2		-0.4	-0.9	-0.2	94.6	80.7		80.2	94.4	91.3
15-May-01	00:59:34	2.6	0.6		-0.7	-0.4	-0.7	94.6	81.3		82.3	97.8	92.4

15-May-01	01:19:34	2.8	1.1		-0.2	-1.2	-0.7	94	78.6		80.7	94.9	91.3
15-May-01	01:39:34	2.6	-0.4		-0.7	-0.4	-0.7	94.6	78.1		80.2	97.8	92.4
15-May-01	01:59:34	2.6	-0.7		-0.7	-0.9	-0.9	94	80.7		80.7	95.5	93
15-May-01	02:19:34	2.8	-0.7		-0.4	-0.2	-0.7	94.6	80.7		81.2	97.2	93.6
15-May-01	02:39:34	2.8	-0.9		-0.4	-1.2	-0.9	94.6	82.9		79.7	97.2	94.1
15-May-01	02:59:34	3.1	-0.4		-0.7	-0.2	-0.9	94	79.2		82.3	97.8	93.6
15-May-01	03:19:34	3.1	-0.9		-0.2	0.6	-0.4	93.5	83.4		79.7	96.1	94.1
15-May-01	03:39:34	3.1	-0.4		-0.4	1.6	-0.7	93.5	78.6		80.2	94.9	93
15-May-01	03:59:34	3.1	-0.9		-0.4	0.8	-0.7	94	83.4		81.7	92.7	91.3
15-May-01	04:19:34	3.1	-0.4		-0.4	-0.4	-0.4	94	79.7		79.7	92.7	91.3
15-May-01	04:39:34	2.8	-0.7		-0.7	-1.2	-0.4	93.5	84.5		82.3	91.6	91.9
15-May-01	04:59:34	3.4	-0.7		-0.2	-0.7	-0.7	94	78.1		80.2	98.9	92.4
15-May-01	05:19:34	3.1	-0.9		-0.4	-1.2	-0.7	94	83.9		79.7	92.2	93
15-May-01	05:39:34	3.4	-0.7		-0.4	-0.7	-0.7	94	78.1		82.3	98.3	93
15-May-01	05:59:34	3.4	-0.9		-0.4	-0.7	-0.7	94.6	83.9		79.7	93.3	93
15-May-01	06:19:34	2.8	-0.7		-0.4	-0.4	-0.4	94.6	78.1		80.7	99.5	94.1
15-May-01	06:39:34	3.1	-0.9		-0.4	-0.9	-0.7	94.6	84.5		80.2	92.7	93.6
15-May-01	06:59:34	3.4	-0.9		-0.7	-0.4	-0.4	94.6	78.1		82.3	100	92.4
15-May-01	07:19:34	3.1	-0.4		-0.2	-0.9	-0.7	94.6	83.4		80.2	93.3	92.4
15-May-01	07:39:34	3.4	-0.7		-0.4	-0.4	-0.7	94	80.7		79.7	99.5	91.3
15-May-01	07:59:34	3.6	-0.2		-0.4	-0.9	0.3	94.6	80.7		82.3	94.9	90.2
15-May-01	08:19:34	3.9	-0.4		-0.2	-0.4	1.6	94	79.7		80.2	97.8	90.2
15-May-01	08:39:34	4.1	0.3		-0.4	-1.2	-0.4	94	78.6		80.2	97.8	90.8
15-May-01	08:59:34	3.9	1.3		-0.4	-0.2	-0.7	94.6	81.8		82.3	97.8	90.8
15-May-01	09:19:34	3.9	1.8		-0.2	0.8	-0.7	94	78.1		80.7	96.1	92.4
15-May-01	09:39:34	4.6	0.3		-0.4	2.1	-0.7	91.9	78.1		80.7	94.9	93.6
15-May-01	09:59:34	3.4	0.1		-0.4	1.3	-0.7	94.6	80.7		79.7	92.7	93.6
15-May-01	10:19:34	2.3	0.1		0.1	-0.2	-0.7	94.6	81.8		81.7	92.2	92.4
15-May-01	10:39:34	1.8	0.1		0.1	-0.4	-0.7	91.9	78.6		81.2	91.6	90.8
15-May-01	10:59:34	1.6	-0.4		-0.4	-0.7	-0.9	92.9	77.6		80.7	96.1	91.3
15-May-01	11:19:34	1.3	-0.7		-0.4	-0.4	-0.4	91.9	77.6		81.2	94.9	90.8
15-May-01	11:39:34	1.3	-1.2		-0.4	-0.7	-0.2	91.9	77.1		80.7	92.7	88
15-May-01	11:59:34	0.8	-1.4		-0.4	-0.2	-0.4	91.9	76.6		81.7	96.6	90.2
15-May-01	12:19:34	1.6	-1.7		0.1	-0.2	-0.7	96.7	76.6		82.3	94.9	89.1
15-May-01	12:39:34	2.6	-1.2		-0.2	-0.4	-0.4	95.1	79.2		80.7	97.2	91.9
15-May-01	12:59:34	2.6	-1.2		-0.7	-0.4	-0.4	95.6	76		80.7	94.4	93.6
15-May-01	13:19:34	3.1	-1.4		-0.4	-0.7	-0.4	95.1	75.5		80.2	93.3	93
15-May-01	13:39:34	3.6	-1.7		-0.4	-0.7	-0.7	95.1	80.2		82.8	91.6	92.4
15-May-01	13:59:34	4.1	-1.2		0.1	-0.2	-0.7	94.6	77.6		80.2	97.8	93.6
15-May-01	14:19:34	4.1	-1.2		-0.4	-0.7	-0.4	92.9	77.1		80.2	92.7	93
15-May-01	14:39:34	4.1	-1.4		-0.4	0.1	-0.4	94.6	77.6		81.7	96.1	91.9
15-May-01	14:59:34	4.6	-0.9		-0.4	-0.7	-0.9	93.5	78.6		80.7	92.2	91.3
15-May-01	15:19:34	4.6	-0.9		-0.7	0.1	-0.4	91.9	79.7		82.3	92.7	90.8
15-May-01	15:39:34	5.1	-0.7		0.1	1.1	-0.7	91.3	78.1		83.3	92.2	93
15-May-01	15:59:34	4.9	-1.2		-0.2	1.6	0.1	91.9	77.1		80.7	92.2	90.8
15-May-01	16:19:34	5.1	-0.9		0.1	0.1	1.8	91.3	78.1		84.4	89.4	88
15-May-01	16:39:34	5.4	0.1		-0.2	-0.9	0.8	90.3	79.2		82.3	91.6	88.6
15-May-01	16:59:34	4.9	1.6		-0.2	-0.2	-0.4	90.8	80.2		82.3	94.9	90.8
15-May-01	17:19:34	4.1	2.1		-0.4	-0.4	-0.4	91.9	78.1		81.7	94.9	94.1

15-May-01	17:39:34	3.1	1.1		-0.7	-0.4	-0.7	89.2	77.6		84.4	93.3	91.3
15-May-01	17:59:34	2.3	0.3		-0.2	-0.4	-0.4	91.3	79.7		82.8	96.6	93.6
15-May-01	18:19:34	2.3	0.1		-0.4	-0.9	-0.4	91.3	75		82.3	92.2	93.6
15-May-01	18:39:34	1.8	-0.7		-0.4	-0.4	-0.7	91.3	77.6		83.8	97.8	90.8
15-May-01	18:59:34	1.8	-0.9		-0.7	-0.9	-0.7	92.9	80.7		82.3	94.4	90.8
15-May-01	19:19:34	2.8	-0.4		0.1	-0.2	-0.4	97.3	77.6		82.3	96.6	93.6
15-May-01	19:39:34	3.6	-0.9		-0.4	-0.7	-0.4	97.3	82.9		82.3	96.1	91.3
15-May-01	19:59:34	4.1	-0.4		-0.2	-0.4	-0.4	94.6	77.6		82.3	94.9	91.9
15-May-01	20:19:34	4.4	-0.4		0.1	-0.7	-0.7	93.5	82.9		82.8	96.6	90.8
15-May-01	20:39:34	4.6	-0.7		-0.4	-0.7	-0.4	93.5	80.7		82.3	94.9	90.2
15-May-01	20:59:34	4.6	-0.2		-0.7	-0.4	-0.7	92.9	79.2		84.4	97.8	89.7
15-May-01	21:19:34	4.9	-0.4		-0.4	0.3	-0.7	91.9	83.4		82.3	97.8	90.8
15-May-01	21:39:34	5.1	-0.4		-0.7	1.3	-0.4	90.8	78.1		83.3	95.5	90.8
15-May-01	21:59:34	4.9	-0.4		-0.2	2.1	-0.4	93.5	83.4		82.3	94.9	88.6
15-May-01	22:19:34	6.2	-0.7		-0.7	0.3	-0.4	89.7	80.7		82.3	91.6	90.2
15-May-01	22:39:34	4.9	-0.2		-0.4	-0.7	-0.4	91.9	80.7		82.8	90	90.8
15-May-01	22:59:34	4.6	-0.4		-0.4	-0.4	-0.7	92.9	82.9		82.3	97.2	90.8
15-May-01	23:19:34	4.6	0.1		-0.7	-0.9	-0.7	91.9	79.7		83.3	94.4	89.1
15-May-01	23:39:34	4.1	-0.7		-0.2	-0.2	-0.7	92.4	83.4		82.3	97.2	88.6
15-May-01	23:59:34	3.1	-0.4		-0.7	-0.7	0.1	91.9	78.1		83.3	95.5	90.2
16-May-01	00:19:34	2.1	-0.4		-0.2	-0.2	1.6	91.9	82.3		81.7	96.6	88.6
16-May-01	00:39:34	1.8	0.1		-0.7	-0.4	1.1	90.8	80.7		83.3	97.2	87.5
16-May-01	00:59:34	1.1	1.1		0.1	-0.4	-0.4	89.7	81.3		81.7	95.5	87.5
16-May-01	01:19:34	0.6	1.3		-0.4	-0.7	-0.4	91.9	79.2		82.3	97.8	90.2
16-May-01	01:39:34	0.6	-0.2		-0.4	-0.7	-0.7	90.3	78.1		82.3	95.5	91.3
16-May-01	01:59:34	0.3	-0.4		-0.4	-0.7	-0.4	91.9	80.7		81.2	97.8	90.2
16-May-01	02:19:34	0.6	-0.4		-0.2	-0.4	-0.4	93.5	82.3		82.3	94.9	88.6
16-May-01	02:39:34	0.3	-0.2		-0.7	-0.4	-0.4	91.9	83.4		82.8	97.8	90.8
16-May-01	02:59:34	0.3	-0.4		-0.4	-0.7	-0.7	91.9	82.3		82.3	94.9	91.3
16-May-01	03:19:34	0.3	0.1		-0.7	-0.2	-0.7	92.9	82.9		82.3	94.9	89.7
16-May-01	03:39:34	3.1	-0.4		-0.2	0.8	-0.7	92.4	82.9		82.3	94.9	90.2
16-May-01	03:59:34	2.8	0.1		-0.7	1.6	-0.7	91.9	81.3		82.3	94.9	90.8
16-May-01	04:19:34	1.3	-0.2		-0.4	-0.2	-0.4	92.4	84.5		82.3	92.2	91.3
16-May-01	04:39:34	1.1	-0.2		-0.4	-0.7	-0.7	93.5	80.2		81.7	94.9	89.7
16-May-01	04:59:34	0.8	-0.4		-0.7	-0.4	-0.7	92.9	83.9		82.8	94.9	91.3
16-May-01	05:19:34	0.8	-0.2		-0.2	-0.4	-0.7	92.9	79.2		81.7	97.8	92.4
16-May-01	05:39:34	0.6	-0.4		-0.4	-0.7	-0.4	92.9	84.5		83.3	94.9	90.2
16-May-01	05:59:34	0.3	0.1		-0.4	-0.4	-0.7	91.9	78.6		80.7	97.8	91.3
16-May-01	06:19:34	0.1	0.1		-0.2	-0.7	-0.7	91.9	83.4		81.7	94.9	91.9
16-May-01	06:39:34	0.3	-0.4		-0.4	-0.4	-0.7	91.9	78.1		82.8	97.8	91.3
16-May-01	06:59:34	0.1	0.1		-0.2	-0.4	-0.4	91.9	84.5		82.3	94.9	89.7
16-May-01	07:19:34	-0.2	0.1		-0.4	-0.4	-0.4	91.3	78.1		82.8	98.9	90.8
16-May-01	07:39:34	0.1	-0.2		0.1	-0.7	-0.4	91.9	83.4		81.7	95.5	91.9
16-May-01	07:59:34	0.3	-0.2		-0.4	-0.4	0.1	91.3	78.1		82.3	98.9	90.8
16-May-01	08:19:34	0.8	-0.2		-0.4	-0.7	1.6	91.9	81.8		82.8	95.5	88.6
16-May-01	08:39:34	0.8	0.6		-0.2	-0.2	0.6	89.7	80.7		82.3	97.8	86.4
16-May-01	08:59:34	0.8	1.6		-0.7	-0.7	-0.4	90.3	80.2		81.7	94.9	89.1
16-May-01	09:19:34	0.8	2.1		-0.2	0.3	-0.7	91.3	77.6		82.3	96.1	88.6
16-May-01	09:39:34	3.1	0.8		-0.4	1.8	-0.2	94	78.1		82.3	94.9	89.7

16-May-01	09:59:34	4.9	0.3		-0.2	2.3	-0.4	91.9	80.7		80.7	94.4	88
16-May-01	10:19:34	2.3	0.6		0.1	0.8	-0.4	93.5	80.7		82.3	92.2	88
16-May-01	10:39:34	1.3	0.6		0.1	-0.2	-0.4	92.9	79.7		80.2	91.6	88.6
16-May-01	10:59:34	0.8	0.1		-0.4	-0.2	-0.7	94	79.2		80.7	91.1	85.9
16-May-01	11:19:34	0.8	-0.2		-0.2	-0.4	-0.7	94.6	79.2		82.3	90.5	88.6
16-May-01	11:39:34	0.6	-0.4		-0.2	-0.9	-0.4	94	79.7		79.7	91.6	88
16-May-01	11:59:34	0.8	-0.7		-0.4	-0.2	-0.4	92.4	79.2		80.2	93.3	88
16-May-01	12:19:34	0.6	-0.7		0.1	-0.7	-0.7	94	79.2		82.3	90.5	88
16-May-01	12:39:34	0.3	-0.9		0.1	-0.4	-0.7	93.5	79.2		79.7	94.9	88.6
16-May-01	12:59:34	0.3	-0.9		-0.2	-0.9	-0.7	91.9	79.2		80.7	90.5	88
16-May-01	13:19:34	0.3	-0.9		0.1	-0.7	-0.9	92.4	78.1		81.2	92.7	88.6
16-May-01	13:39:34	0.6	-0.7		-0.2	-0.4	-0.7	92.4	78.1		79.7	91.6	87.5
16-May-01	13:59:34	0.8	-0.9		-0.4	-1.2	-0.7	91.9	78.1		79.7	90.5	88
16-May-01	14:19:34	0.6	-1.2		-0.2	-0.2	-0.7	92.4	78.1		81.7	96.1	89.7
16-May-01	14:39:34	0.3	-0.9		-0.2	-0.7	-0.7	95.6	78.1		79.7	91.6	85.9
16-May-01	14:59:34	1.3	-0.4		-0.7	-0.4	-0.7	97.3	78.1		81.7	94.9	86.9
16-May-01	15:19:34	2.6	-0.2		-0.2	0.6	-0.4	95.1	78.1		79.7	94.9	89.1
16-May-01	15:39:34	3.6	-0.7		-0.4	1.3	-0.4	94.6	78.1		79.7	92.7	89.7
16-May-01	15:59:34	3.6	-0.7		-0.4	2.3	0.3	92.9	78.1		80.7	92.2	87.5
16-May-01	16:19:34	1.8	-0.9		0.3	0.8	2.1	89.7	78.1		81.2	90.5	88
16-May-01	16:39:34	0.8	0.3		-0.2	-0.4	1.1	91.9	78.1		80.7	90	86.9
16-May-01	16:59:34	0.3	1.1		-0.4	-0.7	-0.4	90.8	77.6		80.2	89.4	89.1
16-May-01	17:19:34	-0.2	1.6		-0.4	-0.4	-0.4	90.3	76.6		82.3	95.5	88.6
16-May-01	17:39:34	-0.4	0.3		-0.2	-0.7	-0.7	90.8	77.6		80.2	91.6	90.8
16-May-01	17:59:34	-0.7	0.1		-0.4	-0.2	-0.7	90.8	80.2		82.3	95.5	89.1
16-May-01	18:19:34	-0.7	-0.2		0.1	-0.4	-0.7	90.3	77.6		80.2	91.6	90.2
16-May-01	18:39:34	-0.4	0.1		-0.4	-0.2	-0.7	90.8	79.7		82.3	96.6	91.3
16-May-01	18:59:34	-0.9	0.1		-0.2	-0.7	-0.4	95.6	81.8		80.7	92.2	87.5
16-May-01	19:19:34	-0.9	-0.2		-0.4	-0.2	-0.2	90.8	79.7		82.3	96.1	87.5
16-May-01	19:39:34	-0.9	0.1		-0.2	-0.7	-0.2	90.3	78.1		80.7	92.2	88.6
16-May-01	19:59:34	-1.2	0.1		-0.7	0.1	-0.4	90.8	82.9		80.2	96.6	88
16-May-01	20:19:34	-1.2	-0.2		-0.2	-0.9	-0.4	89.2	80.7		81.7	91.6	88
16-May-01	20:39:34	-1.4	0.1		-0.4	-0.2	-0.4	91.3	77.6		82.3	96.6	88
16-May-01	20:59:34	-1.2	-0.2		-0.2	-0.7	-0.4	91.3	81.3		80.2	92.7	86.9
16-May-01	21:19:34	-1.4	-0.2		-0.7	-0.2	-0.4	91.9	82.3		82.3	93.3	88.6
16-May-01	21:39:34	1.3	-0.2		0.1	0.8	-0.4	91.9	79.7		80.2	92.7	86.4
16-May-01	21:59:34	4.9	0.1		-0.4	1.6	-0.2	89.7	80.7		81.2	92.7	85.9
16-May-01	22:19:34	1.8	-0.4		-0.2	0.1	-0.2	91.9	82.9		80.7	91.1	85.9
16-May-01	22:39:34	-0.2	-0.2		-0.7	-0.7	-0.4	90.8	78.1		80.2	90	88.6
16-May-01	22:59:34	-0.7	0.1		-0.2	-0.4	-0.2	91.9	82.9		81.2	95.5	88
16-May-01	23:19:34	-0.9	-0.4		-0.2	-0.9	-0.4	91.9	83.4		80.2	92.2	87.5
16-May-01	23:39:34	-1.2	-0.2		-0.4	-0.2	-0.4	97.3	78.1		81.7	97.2	86.4
16-May-01	23:59:34	-0.7	0.1		-0.2	-0.7	0.3	94	82.9		80.2	92.7	88
17-May-01	00:19:34	-0.7	-0.2	-0.2	-0.7	-0.2	2.1	91.3	79.7	76.1	82.3	97.8	85.3
17-May-01	00:39:34	-0.7	0.3	-0.2	-0.2	-0.7	1.1	93.5	79.7	75.6	80.2	93.3	83.2
17-May-01	00:59:34	-0.9	0.8	-0.4	-0.7	-0.2	-0.2	96.7	79.7	76.6	82.3	97.8	85.3
17-May-01	01:19:34	-0.9	1.3	-0.2	0.1	-0.7	-0.2	91.9	78.1	76.1	80.2	94.4	87.5
17-May-01	01:39:34	-0.7	0.1	-0.2	-0.4	0.1	-0.4	91.9	80.7	77.1	79.7	97.2	89.1
17-May-01	01:59:34	-0.7	0.1	0.3	-0.4	-0.7	-0.2	95.6	81.3	76.1	80.7	94.9	88.6

17-May-01	02:19:34	-0.7	-0.2	0.6	-0.2	0.1	-0.2	95.6	80.7	76.6	80.2	97.2	88
17-May-01	02:39:34	-0.9	-0.4	0.1	-0.4	-0.7	-0.4	95.6	83.4	74.6	81.7	94.4	86.9
17-May-01	02:59:34	-0.7	-0.2	-0.2	-0.2	0.1	-0.4	96.2	80.2	78.6	80.2	97.2	88.6
17-May-01	03:19:34	-0.4	0.1	-0.4	-0.7	0.1	-0.4	94	81.8	80.2	81.2	94.9	88.6
17-May-01	03:39:34	2.1	-0.2	-0.2	-0.2	0.8	-0.4	91.9	83.4	79.7	80.7	94.9	87.5
17-May-01	03:59:34	2.8	-0.2	-0.4	-0.2	1.6	-0.4	90.3	78.1	79.7	79.7	94.4	88
17-May-01	04:19:34	-0.2	0.1	-0.4	-0.4	-0.2	-0.7	92.4	82.9	79.2	81.7	92.2	89.7
17-May-01	04:39:34	-0.9	-0.2	-0.4	0.1	-0.9	-0.4	95.6	82.3	78.6	79.7	91.1	88
17-May-01	04:59:34	-1.2	0.3	-0.2	-0.4	-0.4	-0.2	91.9	79.7	80.2	82.3	96.6	87.5
17-May-01	05:19:34	-0.7	-0.2	-0.2	-0.2	-0.7	-0.4	91.9	82.9	79.7	80.2	92.2	89.7
17-May-01	05:39:34	-0.7	0.1	-0.4	-0.7	-0.4	-0.2	92.4	79.7	80.2	80.2	97.8	88
17-May-01	05:59:34	-0.7	0.1	-0.4	-0.2	-0.7	-0.4	96.2	82.3	80.2	80.2	92.7	87.5
17-May-01	06:19:34	-1.2	-0.2	-0.2	-0.4	-0.2	-0.4	92.9	82.9	79.7	80.2	97.8	89.1
17-May-01	06:39:34	-0.9	0.1	-0.4	-0.7	-0.7	-0.4	91.9	79.2	79.2	81.7	93.3	89.7
17-May-01	06:59:34	-0.9	-0.2	-0.2	-0.2	-0.2	-0.2	92.9	82.9	79.2	80.2	97.8	88
17-May-01	07:19:34	-0.4	-0.2	-0.2	-0.4	-0.7	-0.4	93.5	78.1	78.6	79.7	93.3	87.5
17-May-01	07:39:34	-0.4	0.1	-0.2	-0.4	-0.2	-0.4	94.6	80.7	78.6	80.7	97.8	88
17-May-01	07:59:34	-0.9	-0.2	-0.2	0.1	-0.7	0.3	97.3	82.9	78.6	79.7	93.3	88.6
17-May-01	08:19:34	-0.7	0.6	-0.2	-0.4	-0.2	1.8	91.9	80.7	77.1	82.3	97.2	86.4
17-May-01	08:39:34	-1.4	0.8	-0.2	0.1	-0.7	1.1	91.9	80.2	77.6	79.7	92.7	83.7
17-May-01	08:59:34	-1.7	1.6	-0.4	-0.7	-0.2	-0.2	91.9	79.2	78.6	80.2	97.2	88.6
17-May-01	09:19:34	-0.7	1.6	-0.2	-0.2	0.3	-0.4	91.9	77.1	77.1	81.2	96.1	88.6
17-May-01	09:39:34	2.3	0.6	0.1	-0.2	1.3	-0.4	94.6	79.2	77.6	79.7	94.9	88
17-May-01	09:59:34	3.1	0.3	0.6	-0.7	2.1	-0.7	90.3	80.7	77.1	80.7	94.4	88.6
17-May-01	10:19:34	0.1	0.3	0.8	0.1	0.6	-0.7	90.3	80.7	77.1	80.7	92.2	88
17-May-01	10:39:34	-0.4	0.1	0.6	-0.4	0.1	-0.7	97.3	78.1	75.6	80.2	91.6	89.1
17-May-01	10:59:34	-0.4	0.1	0.1	-0.7	-0.4	-0.4	91.9	79.2	75.6	80.2	91.6	86.4
17-May-01	11:19:34	-0.2	0.1	-0.2	0.1	-0.4	-0.4	91.9	82.9	74.6	82.3	92.2	85.9
17-May-01	11:39:34	-0.7	-0.2	-0.4	0.1	-0.4	-0.2	91.9	78.1	76.1	80.7	91.1	87.5
17-May-01	11:59:34	-0.4	-0.2	-0.2	-0.4	-0.7	-0.4	91.3	78.1	76.1	80.7	91.6	85.3
17-May-01	12:19:34	-0.9	-0.4	-0.2	-0.2	-0.9	-0.4	91.9	81.8	79.2	82.3	90.5	90.8
17-May-01	12:39:34	-0.4	-0.4	-0.4	-0.2	-0.9	-0.2	91.9	77.6	78.6	79.7	90	85.3
17-May-01	12:59:34	-0.4	-0.2	-0.4	-0.4	-0.4	-0.7	92.4	78.6	76.1	80.7	94.9	86.9
17-May-01	13:19:34	-0.7	-0.7	-0.2	0.1	-0.2	-0.4	90.8	77.6	76.1	81.7	91.6	85.9
17-May-01	13:39:34	-0.7	-0.2	-0.2	0.1	-0.4	-0.4	95.6	79.2	77.1	80.2	90	85.9
17-May-01	13:59:34	-0.9	-0.7	-0.2	-0.4	-0.7	-0.4	90.3	77.6	78.1	80.7	91.6	86.4
17-May-01	14:19:34	-0.7	-0.9	-0.4	-0.4	-0.4	-0.4	90.8	78.1	75.6	80.7	90.5	84.2
17-May-01	14:39:34	-0.4	-0.7	-0.4	-0.2	-0.7	-0.7	96.2	78.1	77.6	82.3	89.4	85.3
17-May-01	14:59:34	-0.9	-0.7	-0.7	-0.2	-0.4	-0.7	89.7	78.6	78.6	80.7	94.9	84.8
17-May-01	15:19:34	-0.7	-0.4	-0.4	-0.4	0.3	-0.7	94.6	78.6	76.1	81.2	94.4	84.8
17-May-01	15:39:34	2.8	-0.4	-0.4	-0.4	1.6	-0.4	96.2	80.7	75.6	82.8	92.2	85.9
17-May-01	15:59:34	6.7	0.1	-0.4	0.1	2.1	0.6	86.6	78.1	78.1	80.7	92.2	84.2
17-May-01	16:19:34	2.3	-0.2	-0.4	0.3	0.6	2.1	91.9	78.1	76.1	82.3	92.2	82.6
17-May-01	16:39:34	0.3	0.6	-0.4	-0.2	-0.2	1.3	91.9	78.1	76.6	81.7	90.5	84.8
17-May-01	16:59:34	-0.2	1.3	-0.7	-0.4	-0.7	0.1	92.4	78.1	78.6	81.2	89.4	83.7
17-May-01	17:19:34	-0.7	2.1	-0.4	-0.7	-0.9	-0.2	92.4	77.1	75.6	83.3	94.9	85.9
17-May-01	17:39:34	-0.9	0.8	-0.2	-0.2	-0.7	-0.7	91.9	77.6	76.1	80.7	91.6	88
17-May-01	17:59:34	-0.4	0.6	0.1	-0.4	-0.9	-0.7	95.1	80.2	75.6	80.7	95.5	88
17-May-01	18:19:34	-0.7	0.3	0.3	-0.2	-0.9	-0.7	91.9	80.7	78.1	82.8	92.2	89.1

17-May-01	18:39:34	-1.2	0.1	-0.2	-0.2	-0.7	-0.7	91.9	77.6	76.1	81.2	96.6	88.6
17-May-01	18:59:34	-1.2	0.1	-0.4	-0.7	-1.2	-0.7	91.3	80.2	75.6	82.8	92.2	88
17-May-01	19:19:34	-0.4	-0.2	-0.4	0.1	-0.7	-0.7	94	81.8	77.1	81.2	96.6	87.5
17-May-01	19:39:34	-0.7	-0.2	-0.4	-0.7	-1.2	-0.4	91.9	78.1	78.6	80.7	92.2	88
17-May-01	19:59:34	-0.9	0.3	-0.4	-0.4	-0.4	-0.7	91.9	80.2	79.7	81.7	97.2	86.9
17-May-01	20:19:34	-0.7	-0.2	-0.4	0.1	-0.7	-0.7	93.5	82.3	78.1	82.3	93.3	86.9
17-May-01	20:39:34	-0.9	0.1	-0.4	-0.2	-0.7	-0.7	91.3	78.1	76.1	81.2	95.5	87.5
17-May-01	20:59:34	-1.2	-0.2	-0.4	-0.7	-0.4	-0.7	91.3	83.4	77.1	81.2	94.4	85.3
17-May-01	21:19:34	-1.2	0.1	-0.2	-0.4	0.3	-0.7	91.9	78.1	79.7	83.8	93.3	88
17-May-01	21:39:34	2.1	0.1	-0.4	-0.4	1.6	-0.7	96.7	82.9	79.2	81.7	92.7	88.6
17-May-01	21:59:34	6.2	-0.2	-0.2	-0.7	1.8	-0.4	88.7	80.7	79.2	84.4	92.7	88
17-May-01	22:19:34	1.6	0.3	-0.4	-0.2	0.3	-0.4	91.3	80.2	78.6	82.3	90.5	87.5
17-May-01	22:39:34	-0.2	0.1	-0.4	-0.4	-0.7	-0.7	90.8	82.9	78.6	83.3	90	87.5
17-May-01	22:59:34	-0.9	-0.2	-0.2	-0.4	-0.7	-0.9	91.9	78.1	78.1	81.7	94.4	88
17-May-01	23:19:34	-1.2	0.3	-0.2	-0.2	-0.7	-0.7	96.7	83.4	77.6	83.3	92.2	88
17-May-01	23:39:34	-0.9	-0.2	-0.4	-0.4	-0.7	-0.7	97.3	80.7	76.6	81.7	96.1	88.6
17-May-01	23:59:34	-0.9	0.3	-0.4	-0.2	-0.7	-0.2	95.6	80.2	76.6	82.3	92.7	86.9
18-May-01	00:19:34	-0.9	0.1	-0.4	-0.7	-0.4	1.1	95.1	79.7	76.6	82.8	97.2	84.8
18-May-01	00:39:34	-0.7	0.6	-0.4	-0.2	-1.2	0.6	96.2	79.7	77.1	82.3	93.3	84.2
18-May-01	00:59:34	-0.7	1.1	-0.4	-0.4	-0.4	-0.4	97.3	79.7	78.1	83.3	97.8	87.5
18-May-01	01:19:34	-0.7	1.3	-0.4	-0.2	-1.2	-0.7	96.7	79.2	78.1	81.7	93.8	88
18-May-01	01:39:34	-0.9	0.3	-0.2	-0.4	-0.2	-0.7	96.2	79.7	77.1	82.3	97.2	88.6
18-May-01	01:59:34	-0.7	-0.2	0.1	-0.4	-0.7	-0.4	95.6	81.3	76.1	80.7	94.9	88
18-May-01	02:19:34	-0.7	-0.2	0.3	-0.2	-0.4	-0.4	95.1	82.3	78.6	81.7	96.6	87.5
18-May-01	02:39:34	-0.7	0.3	0.1	-0.7	-0.9	-0.7	96.2	80.7	76.6	82.8	94.9	86.9
18-May-01	02:59:34	-0.7	-0.2	-0.4	-0.2	-0.4	-0.7	96.2	82.9	78.1	81.7	95.5	85.9
18-May-01	03:19:34	-0.9	0.1	-0.4	-0.4	-0.2	-0.7	94.6	79.7	78.1	82.8	94.4	88
18-May-01	03:39:34	2.1	0.1	-0.4	-0.2	0.8	-0.9	92.4	83.4	77.1	81.2	94.4	88.6
18-May-01	03:59:34	2.3	0.1	-0.2	-0.4	1.6	-0.7	90.3	79.7	77.6	82.3	93.8	87.5
18-May-01	04:19:34	-0.4	-0.2	-0.2	-0.4	0.3	-0.7	91.9	83.4	78.1	82.3	92.2	87.5
18-May-01	04:39:34	-0.7	-0.4	-0.4	-0.2	-0.9	-0.9	95.6	81.3	78.6	82.3	90.5	86.4
18-May-01	04:59:34	-0.9	0.3	-0.2	-0.7	-0.7	-0.7	96.2	82.3	80.2	82.3	96.1	88
18-May-01	05:19:34	-0.9	-0.2	-0.2	-0.2	-0.9	-0.7	96.2	82.9	78.6	81.7	92.7	88
18-May-01	05:39:34	-1.2	0.3	-0.4	-0.7	-0.4	-0.7	96.7	80.2	79.7	82.3	97.2	86.9
18-May-01	05:59:34	-0.9	-0.2	-0.4	-0.2	-0.7	-0.7	96.7	83.4	80.2	80.2	93.3	86.4
18-May-01	06:19:34	-0.9	0.1	-0.4	-0.2	-0.4	-0.7	96.7	79.2	80.2	82.3	97.8	87.5
18-May-01	06:39:34	-0.7	0.1	-0.4	-0.4	-0.9	-0.7	95.6	83.9	80.2	83.3	94.4	88
18-May-01	06:59:34	-0.7	-0.2	-0.2	-0.4	-0.4	-0.7	96.2	80.7	80.2	80.7	97.2	88.6
18-May-01	07:19:34	-0.4	0.1	-0.2	-0.4	-0.9	-0.7	95.1	81.3	78.1	82.3	94.9	88.6
18-May-01	07:39:34	-0.7	-0.2	-0.2	-0.4	-0.4	-0.4	95.6	80.2	77.6	81.2	96.1	90.8
18-May-01	07:59:34	-0.7	0.3	-0.4	-0.2	-0.7	1.1	94.6	82.9	78.6	82.3	96.1	96.4
18-May-01	08:19:34	-0.4	-0.2	-0.4	-0.4	-0.4	3.1	94	79.2	78.6	82.8	95.5	96.4
18-May-01	08:39:34	-1.2	0.3	-0.2	-0.2	-0.7	2.3	96.2	79.2	79.2	81.7	93.3	87.5
18-May-01	08:59:34	-0.9	1.3	-0.2	-0.7	-0.4	0.8	92.4	79.2	78.6	82.8	98.3	85.3
18-May-01	09:19:34	-0.4	1.8	-0.2	-0.2	0.8	0.3	97.3	78.1	79.2	82.3	96.1	85.9
18-May-01	09:39:34	4.9	0.3	-0.2	-0.7	1.8	0.1	100	78.1	78.1	82.3	93.3	85.3
18-May-01	09:59:34	2.6	0.3	0.6	-0.2	2.8	-0.2	92.9	81.3	78.6	82.3	94.9	84.8
18-May-01	10:19:34	1.1	0.3	0.8	-0.2	1.3	0.1	94.6	80.7	79.2	82.3	92.7	85.3
18-May-01	10:39:34	0.6	0.3	0.3	-0.4	0.1	0.1	92.9	78.1	77.6	82.3	92.2	85.3

18-May-01	10:59:34	0.3	-0.2	0.3	-0.2	-0.2	-0.2	96.7	78.1	76.1	81.7	92.7	84.8
18-May-01	11:19:34	0.3	-0.4	-0.2	-0.7	-0.2	0.1	91.9	78.1	76.1	81.7	92.2	84.8
18-May-01	11:39:34	0.3	-0.4	-0.4	-0.4	-0.7	0.3	94	78.6	76.1	84.4	91.6	85.3
18-May-01	11:59:34	-0.4	-0.7	-0.7	-0.4	-0.9	0.8	96.2	78.1	78.6	82.3	91.6	85.3
18-May-01	12:19:34	-0.2	-0.7	-0.4	-0.2	-0.7	0.3	92.4	81.8	78.1	82.3	95.5	83.7
18-May-01	12:39:34	-0.4	-0.4	-0.7	-0.4	-0.7	0.3	97.3	78.1	77.6	82.8	92.2	83.7
18-May-01	12:59:34	-0.4	-0.9	-0.2	-0.2	-0.9	0.1	95.1	80.2	80.7	82.8	90.5	83.2
18-May-01	13:19:34	-0.4	-0.2	-0.4	-0.2	-0.4	0.3	89.2	79.7	78.1	81.2	95.5	84.8
18-May-01	13:39:34	-0.2	-0.2	-0.4	-0.7	-0.7	0.3	91.3	82.3	77.6	80.7	91.6	83.7
18-May-01	13:59:34	-0.7	0.1	-0.4	-0.7	-0.7	0.3	91.3	78.6	78.6	83.8	94.4	83.2
18-May-01	14:19:34	-0.4	-0.2	-0.7	0.1	-0.2	0.3	91.9	81.8	79.2	81.7	92.7	83.2
18-May-01	14:39:34	-0.4	0.3	-0.4	-0.2	-0.2	0.6	91.9	79.2	77.6	81.7	92.2	84.2
18-May-01	14:59:34	-0.7	0.1	-0.4	-0.4	-0.7	0.6	89.2	80.2	78.1	80.7	91.1	82.6
18-May-01	15:19:34	-0.4	-0.2	-0.4	-0.4	0.1	0.8	92.4	80.7	80.2	81.2	91.6	82.6
18-May-01	15:39:34	1.8	-0.4	-0.4	-0.2	0.8	0.8	96.2	78.6	77.6	83.3	91.6	82.1
18-May-01	15:59:34	5.1	-0.2	-0.4	0.1	1.6	1.3	94	80.7	78.1	82.3	93.3	83.2
18-May-01	16:19:34	2.3	-0.4	-0.7	0.3	0.6	3.6	93.5	79.2	80.2	83.3	91.6	85.9
18-May-01	16:39:34	0.8	0.6	-0.7	0.1	-0.4	2.8	94	78.1	77.6	81.7	90	82.1
18-May-01	16:59:34	0.3	1.8	-0.4	0.1	-0.9	1.3	91.9	83.9	78.1	81.2	92.2	83.2
18-May-01	17:19:34	-0.2	2.3	-0.4	-0.4	-0.4	0.8	92.9	80.7	79.2	81.2	93.3	83.2
18-May-01	17:39:34	0.1	1.6	-0.2	-0.7	-0.9	0.6	94	80.7	77.6	80.7	93.3	84.8
18-May-01	17:59:34	-0.2	1.3	0.3	-0.4	-0.7	0.3	90.8	82.9	77.6	83.3	93.3	84.8
18-May-01	18:19:34	-0.2	0.3	0.3	-0.4	-0.4	0.3	93.5	77.1	80.2	80.7	94.9	84.2
18-May-01	18:39:34	-0.4	-0.2	-0.2	-0.4	-0.4	0.1	91.9	80.7	78.6	82.3	93.3	84.8
18-May-01	18:59:34	-0.2	-0.2	-0.7	-0.4	-0.4	0.1	91.3	80.7	78.1	81.7	94.9	84.8
18-May-01	19:19:34	-0.2	-0.4	-0.4	-0.2	-0.7	0.1	92.4	80.2	80.7	80.7	92.7	84.8
18-May-01	19:39:34	0.1	-0.4	-0.7	-0.7	-0.4	0.1	94	80.7	79.7	82.8	96.1	85.3
18-May-01	19:59:34	-0.2	-0.7	-0.7	-0.2	-0.7	0.6	94.6	80.2	78.6	81.7	92.7	84.8
18-May-01	20:19:34	-0.2	-0.7	-0.2	0.1	-0.7	0.6	95.1	80.2	79.2	82.3	94.9	84.8
18-May-01	20:39:34	-0.4	-0.9	-0.7	-0.2	-0.7	0.6	90.3	80.2	80.7	80.7	93.8	83.7
18-May-01	20:59:34	-0.4	-0.9	-0.4	-0.4	-0.7	0.6	91.3	80.2	78.1	80.7	96.1	84.2
18-May-01	21:19:34	-0.4	-0.9	-0.4	-0.2	0.6	0.3	95.1	80.2	78.6	82.3	96.6	84.2
18-May-01	21:39:34	1.8	-1.2	-0.4	-0.2	1.6	0.3	94.6	80.2	80.7	80.2	94.9	83.7
18-May-01	21:59:34	2.8	-0.9	-0.7	-0.7	2.3	0.1	92.4	83.4	79.2	82.3	94.9	83.7
18-May-01	22:19:34	1.1	-0.7	-0.4	0.1	0.3	0.1	92.4	80.2	78.1	81.2	92.2	83.7
18-May-01	22:39:34	0.1	-0.9	-0.7	-0.2	-0.4	0.3	90.3	79.7	79.7	80.2	91.6	83.2
18-May-01	22:59:34	-0.4	-1.2	-0.7	-0.4	-0.7	0.1	90.8	82.9	80.7	83.3	92.7	82.6
18-May-01	23:19:34	-0.2	-0.7	-0.7	-0.2	-0.7	0.1	91.9	80.7	78.6	81.7	93.8	82.6
18-May-01	23:39:34	-0.2	-1.2	-0.2	-0.4	-0.7	0.3	93.5	80.2	78.1	83.3	94.9	82.6
18-May-01	23:59:34	-0.2	-1.2	-0.4	-0.4	-0.4	1.3	94.6	85	80.2	81.7	93.3	82.6
19-May-01	00:19:34	-0.4	-0.7	-0.4	-0.7	-0.4	2.6	95.6	80.7	80.2	80.7	96.6	81.6
19-May-01	00:39:34	-0.7	-0.2	-0.4	-0.2	-0.9	1.8	95.1	80.2	78.1	82.8	92.7	83.2
19-May-01	00:59:34	-0.4	0.8	-0.4	-0.2	-0.2	0.6	94.6	80.2	78.6	81.2	96.1	83.2
19-May-01	01:19:34	-0.4	1.1	-0.4	-0.4	-0.9	0.1	92.4	79.7	80.7	82.3	94.9	83.2
19-May-01	01:39:34	-0.4	0.1	-0.2	-0.2	-0.4	0.1	90.8	80.2	78.6	81.2	94.9	83.2
19-May-01	01:59:34	-0.7	-0.2	0.1	-0.4	-0.4	-0.2	91.3	82.9	78.6	82.3	95.5	83.2
19-May-01	02:19:34	-0.7	-0.4	0.6	0.1	-0.7	-0.2	91.3	77.1	81.2	82.8	94.4	83.7
19-May-01	02:39:34	-0.4	-0.9	-0.2	-0.4	-0.4	-0.2	91.3	85	78.6	80.7	97.2	83.2
19-May-01	02:59:34	-0.7	-0.9	-0.7	-0.4	-0.7	-0.4	90.8	80.2	78.6	82.3	93.3	83.2

19-May-01	03:19:34	-0.7	-1.2	-0.7	-0.2	0.1	-0.4	91.3	83.9	80.7	81.2	94.9	83.2
19-May-01	03:39:34	1.8	-0.9	-0.7	-0.7	1.1	-0.4	90.8	80.2	81.7	82.3	94.9	83.2
19-May-01	03:59:34	2.6	-1.4	-0.4	-0.2	2.1	-0.4	90.3	83.4	78.1	81.7	94.9	84.8
19-May-01	04:19:34	0.3	-0.9	-0.4	-0.7	0.1	-0.4	91.9	80.2	80.7	82.3	92.2	82.6
19-May-01	04:39:34	-0.7	-1.4	-0.4	-0.2	-0.7	-0.4	91.9	82.3	81.2	81.7	91.6	83.2
19-May-01	04:59:34	-0.4	-0.7	-0.4	-0.7	-0.4	-0.4	91.9	80.7	81.2	80.7	96.1	83.7
19-May-01	05:19:34	-0.7	-1.4	-0.7	-0.4	-0.7	-0.7	94	82.9	78.6	82.3	92.2	84.8
19-May-01	05:39:34	-0.4	-0.7	-0.4	-0.4	-0.4	-0.7	96.2	80.7	79.2	80.7	97.2	83.2
19-May-01	05:59:34	-0.4	-1.2	-0.4	-0.2	-0.9	-0.7	96.2	83.4	81.7	82.3	94.9	84.2
19-May-01	06:19:34	-0.4	-0.9	-0.7	0.1	-0.2	-0.4	96.2	79.7	80.7	82.3	95.5	84.2
19-May-01	06:39:34	-0.4	-0.9	-0.7	-0.4	-0.7	-0.4	94.6	84.5	78.6	80.7	96.1	85.3
19-May-01	06:59:34	-0.2	-0.7	-0.4	-0.7	-0.7	-0.4	93.5	80.7	79.7	82.8	94.9	83.2
19-May-01	07:19:34	-0.2	-1.2	-0.4	-0.2	-0.2	-0.4	91.9	82.9	81.2	80.7	97.2	85.3
19-May-01	07:39:34	-0.4	-0.7	-0.4	-0.4	-0.9	-0.2	92.4	81.3	80.7	80.7	94.9	83.2
19-May-01	07:59:34	-0.4	-0.9	-0.4	-0.2	-0.4	0.1	91.9	83.4	78.6	82.3	95.5	83.2
19-May-01	08:19:34	-0.2	-0.4	-0.2	-0.4	-0.7	1.8	94.6	83.4	78.1	80.7	94.9	81.1
19-May-01	08:39:34	-0.4	0.6	-0.4	-0.4	-0.2	0.8	92.9	81.3	79.2	81.2	96.6	83.2
19-May-01	08:59:34	0.1	1.6	-0.4	-0.4	-0.4	0.1	93.5	80.7	81.2	83.3	94.4	83.2
19-May-01	09:19:34	-0.2	1.8	-0.4	-0.2	0.3	-0.2	96.2	79.2	78.1	82.3	94.4	83.2
19-May-01	09:39:34	3.4	0.1	-0.2	-0.7	1.8	0.1	100	80.2	78.6	81.7	93.3	84.8
19-May-01	09:59:34	1.6	-0.2	0.3	-0.7	2.6	0.3	92.4	82.9	78.6	80.7	94.9	83.2
19-May-01	10:19:34	0.3	0.1	0.6	-0.2	0.8	0.3	94.6	82.9	80.7	84.9	92.7	83.7
19-May-01	10:39:34	0.1	0.1	0.3	-0.2	0.6	0.1	94.6	80.2	78.6	81.2	93.3	83.2
19-May-01	10:59:34	0.1	-0.7	-0.2	-0.4	0.1	0.3	94.6	82.9	78.6	81.7	93.3	82.6
19-May-01	11:19:34	0.1	-0.2	-0.4	-0.2	0.1	0.3	94	80.7	78.1	81.7	92.7	83.2
19-May-01	11:39:34	-0.2	-0.4	-0.4	-0.2	-0.2	0.6	95.1	83.9	83.3	82.3	92.7	84.2
19-May-01	11:59:34	0.1	-0.4	-0.2	-0.4	-0.2	0.6	94.6	80.7	78.1	82.3	92.7	84.8
19-May-01	12:19:34	0.8	-0.4	-0.7	-0.4	-0.2	0.3	97.8	80.7	81.7	81.7	92.2	84.8
19-May-01	12:39:34	0.8	-0.7	-0.4	-0.4	-0.4	0.6	91.9	80.7	78.1	81.7	91.6	83.7
19-May-01	12:59:34	0.3	-0.9	-0.2	-0.2	-0.4	0.3	89.2	83.4	79.2	83.3	91.1	83.7
19-May-01	13:19:34	0.1	-0.4	-0.4	-0.4	-0.4	0.8	88.7	80.7	81.7	82.3	91.6	88.6
19-May-01	13:39:34	0.6	-0.9	-0.7	-0.2	-0.4	2.1	91.3	80.2	78.6	82.3	91.1	95.8
19-May-01	13:59:34	0.6	-0.9	-0.7	0.1	-0.4	2.6	89.2	80.2	81.2	83.3	92.2	86.4
19-May-01	14:19:34	0.6	-0.7	-0.4	0.1	-0.4	1.8	89.2	81.3	78.1	82.3	92.2	85.3
19-May-01	14:39:34	0.3	-0.7	-0.4	-0.4	-0.4	1.3	88.2	81.3	79.7	82.3	92.2	84.8
19-May-01	14:59:34	0.3	-0.7	-0.7	-0.4	-0.7	1.3	89.7	81.3	78.6	81.7	91.6	85.3
19-May-01	15:19:34	1.3	-0.7	-0.4	-0.2	0.6	1.3	92.9	81.3	78.1	83.8	91.6	85.3
19-May-01	15:39:34	3.9	-0.9	-0.2	0.1	1.6	1.3	97.3	85	80.7	82.3	91.6	85.3
19-May-01	15:59:34	6.4	-0.2	-0.4	-0.2	2.3	2.6	91.9	80.7	80.7	81.2	92.2	84.2
19-May-01	16:19:34	2.6	-0.7	-0.4	0.1	0.8	4.4	90.8	80.2	78.1	83.3	90.5	82.6
19-May-01	16:39:34	1.3	0.3	-0.4	0.1	0.1	3.1	92.4	80.2	78.6	81.2	90	83.7
19-May-01	16:59:34	0.3	1.1	-0.4	-0.2	-0.7	2.1	91.3	82.9	79.7	80.7	90	84.2
19-May-01	17:19:34	0.1	1.8	-0.2	0.1	-0.4	2.1	91.9	79.7	77.6	84.4	92.7	85.3
19-May-01	17:39:34	-0.2	0.3	-0.2	-0.2	-0.4	1.8	94.6	79.7	78.1	81.2	92.2	84.2
19-May-01	17:59:34	-0.2	-0.2	0.1	-0.2	-0.4	1.3	91.9	82.9	78.1	83.3	93.3	84.2
19-May-01	18:19:34	-0.2	-0.2	0.6	-0.2	-0.2	1.1	95.1	82.9	81.2	81.7	92.7	84.2
19-May-01	18:39:34	-0.2	-0.2	-0.2	-0.4	-0.4	0.8	91.9	80.7	78.6	82.8	93.3	84.2
19-May-01	18:59:34	-0.4	-0.7	-0.4	-0.2	-0.4	0.8	91.9	85.5	79.7	81.7	93.3	84.2
19-May-01	19:19:34	-0.4	-0.9	-0.4	-0.2	-0.4	0.6	91.9	83.4	79.2	83.3	94.4	84.2

19-May-01	19:39:34	-0.7	-0.4	-0.2	-0.2	-0.2	0.8	91.3	80.7	80.7	81.7	93.3	84.2
19-May-01	19:59:34	-0.9	-0.4	-0.4	-0.4	-0.7	0.3	91.9	82.9	82.8	82.3	94.9	84.2
19-May-01	20:19:34	-0.9	-0.7	-0.4	0.1	-0.4	0.3	91.3	85	81.7	82.3	93.3	83.2
19-May-01	20:39:34	-1.2	-0.7	-0.4	-0.2	-0.7	0.3	90.8	80.2	79.2	81.2	94.4	83.2
19-May-01	20:59:34	-1.2	-0.4	-0.2	0.1	-0.2	0.3	92.4	82.9	79.7	83.3	93.3	83.2
19-May-01	21:19:34	-0.2	-0.7	-0.4	-0.2	0.3	0.3	96.2	85.5	81.7	81.2	92.2	83.2
19-May-01	21:39:34	2.6	-0.9	-0.4	-0.2	0.8	0.3	100	82.9	81.7	82.8	92.2	82.6
19-May-01	21:59:34	6.2	-0.2	-0.4	0.1	1.8	0.1	91.9	82.3	80.7	81.2	92.7	83.2
19-May-01	22:19:34	1.8	-0.7	-0.4	-0.2	0.6	0.1	93.5	85.5	79.2	83.3	91.1	83.2
19-May-01	22:39:34	0.6	-0.4	-0.2	0.1	-0.4	0.1	94.6	82.3	80.7	81.2	90.5	82.6
19-May-01	22:59:34	0.3	-0.4	-0.4	-0.2	-0.7	-0.2	93.5	81.8	82.3	82.8	93.3	82.1
19-May-01	23:19:34	-0.2	-0.7	-0.4	0.1	-0.4	0.1	91.9	86.1	81.7	81.2	92.7	81.6
19-May-01	23:39:34	-0.7	-0.4	-0.4	-0.2	-0.4	0.1	92.4	83.4	78.6	82.8	94.9	80.5
19-May-01	23:59:34	-0.9	-0.2	-0.4	0.1	-0.7	0.8	91.9	82.3	80.2	81.2	92.2	81.6
20-May-01	00:19:34	-1.2	-0.4	-0.4	-0.2	-0.2	2.1	91.3	82.9	82.3	82.8	96.1	80
20-May-01	00:39:34	-0.9	0.1	-0.7	0.1	-0.4	1.1	96.7	82.3	81.7	80.7	91.6	82.6
20-May-01	00:59:34	-0.9	0.8	-0.4	-0.2	-0.2	0.3	91.9	82.3	79.2	82.8	96.1	82.6
20-May-01	01:19:34	-1.2	1.1	-0.4	0.1	-0.7	0.1	91.3	80.7	79.7	81.2	92.2	83.2
20-May-01	01:39:34	-0.9	-0.2	-0.4	-0.4	-0.2	-0.2	91.9	81.3	79.7	82.3	95.5	83.2
20-May-01	01:59:34	-1.4	-0.2	0.1	0.1	-0.7	-0.2	90.8	83.4	79.2	81.7	93.3	83.2
20-May-01	02:19:34	-1.4	-0.4	0.6	0.1	-0.4	-0.2	91.9	83.4	81.7	81.7	94.4	83.2
20-May-01	02:39:34	-1.7	-0.4	-0.2	-0.2	-0.7	-0.4	91.9	85.5	79.7	80.7	94.9	83.2
20-May-01	02:59:34	-1.4	-0.7	-0.4	-0.4	-0.2	0.1	91.9	80.7	79.2	82.3	94.4	83.2
20-May-01	03:19:34	-1.4	-0.4	-0.2	0.1	-0.2	-0.2	92.4	82.9	79.7	81.2	93.3	83.2
20-May-01	03:39:34	1.1	-0.7	-0.4	-0.4	0.8	0.1	91.9	86.1	80.7	82.3	92.7	83.2
20-May-01	03:59:34	4.9	-0.7	-0.2	0.1	1.8	-0.2	89.7	82.9	83.3	81.2	93.3	83.2
20-May-01	04:19:34	1.3	-0.2	-0.4	-0.2	0.1	-0.4	91.9	82.3	82.3	82.3	91.6	83.2
20-May-01	04:39:34	-0.4	-0.7	-0.4	0.1	-0.4	-0.2	92.4	86.1	80.2	81.2	91.1	83.2
20-May-01	04:59:34	-0.7	-0.9	-0.4	-0.2	-0.4	0.1	92.4	83.4	80.2	82.3	94.9	82.6
20-May-01	05:19:34	-1.2	-0.2	-0.2	0.1	-0.4	0.1	91.9	81.8	82.3	81.2	92.2	85.3
20-May-01	05:39:34	-0.9	-0.7	-0.7	-0.2	-0.4	-0.2	92.4	86.1	82.8	82.8	96.1	83.2
20-May-01	05:59:34	-0.7	-0.7	-0.4	0.1	-0.7	-0.2	95.1	85	81.2	81.2	92.2	83.2
20-May-01	06:19:34	-0.9	-0.4	-0.2	0.3	-0.2	-0.2	97.3	80.7	80.2	82.3	96.6	83.2
20-May-01	06:39:34	-0.9	-0.7	-0.4	-0.2	-0.7	-0.2	92.9	86.1	81.7	81.7	92.2	83.7
20-May-01	06:59:34	-1.2	-0.7	-0.4	0.1	-0.2	0.1	91.9	83.9	83.3	82.3	95.5	83.7
20-May-01	07:19:34	-0.9	-0.4	-0.4	-0.4	-0.4	0.1	91.9	82.9	82.8	82.3	94.4	83.2
20-May-01	07:39:34	-0.7	-0.2	-0.4	-0.2	-0.2	0.1	91.9	80.2	81.2	81.2	94.9	83.2
20-May-01	07:59:34	-0.9	-0.4	-0.4	-0.2	-0.4	0.6	91.9	85.5	80.2	81.7	94.9	82.1
20-May-01	08:19:34	-0.7	-0.4	-0.4	0.1	-0.2	2.1	92.4	80.7	81.7	81.7	94.4	80.5
20-May-01	08:39:34	-0.7	0.3	-0.4	-0.4	-0.4	1.1	91.9	80.7	83.3	81.2	92.7	82.6
20-May-01	08:59:34	-0.4	1.3	-0.4	-0.2	-0.7	0.1	91.9	80.7	81.2	81.7	92.7	83.2
20-May-01	09:19:34	-1.2	2.1	-0.4	0.3	0.1	-0.2	94.6	80.2	80.2	83.3	95.5	83.2
20-May-01	09:39:34	2.6	0.8	-0.4	0.1	1.3	-0.4	100	80.7	80.2	82.3	96.1	83.2
20-May-01	09:59:34	2.6	0.6	0.1	-0.4	2.6	0.1	91.9	82.3	79.7	81.7	94.9	84.8
20-May-01	10:19:34	0.3	0.6	0.3	0.1	0.8	0.3	94	82.9	81.2	82.8	91.6	83.2
20-May-01	10:39:34	-0.4	0.1	0.1	-0.2	0.1	0.3	92.4	80.2	80.2	81.7	92.2	83.2
20-May-01	10:59:34	-0.7	-0.7	-0.7	-0.2	0.1	0.1	93.5	79.7	81.2	81.7	91.6	83.2
20-May-01	11:19:34	-0.7	-0.2	-0.2	-0.2	-0.2	0.3	94.6	83.4	79.7	81.7	91.6	83.2
20-May-01	11:39:34	-1.2	-0.4	-0.7	0.1	-0.4	0.3	92.4	79.7	81.7	84.9	91.6	82.6

20-May-01	11:59:34	-1.2	-0.2	-0.4	0.1	-0.7	0.1	92.4	83.4	78.6	82.3	91.1	82.6
20-May-01	12:19:34	-1.4	-0.4	-0.2	-0.2	-0.2	0.1	91.9	79.7	80.2	81.7	94.9	82.6
20-May-01	12:39:34	-1.4	-0.4	-0.4	-0.2	-0.7	0.1	91.3	83.9	82.3	83.3	91.6	82.6
20-May-01	12:59:34	-1.4	-0.4	-0.4	0.1	-0.7	0.1	90.8	79.7	78.6	82.3	92.7	82.6
20-May-01	13:19:34	-1.4	-0.9	-0.2	0.1	-0.2	0.1	91.9	82.9	79.7	82.3	93.3	82.6
20-May-01	13:39:34	-1.2	-0.4	-0.2	-0.2	-0.4	0.3	90.8	80.2	81.2	82.3	92.2	82.6
20-May-01	13:59:34	-1.2	-0.9	-0.2	0.1	-0.7	0.1	91.3	82.9	78.1	82.3	91.6	82.6
20-May-01	14:19:34	-1.4	-0.4	-0.2	-0.2	-0.7	0.3	90.8	80.2	80.2	82.3	91.6	82.1
20-May-01	14:39:34	-1.4	-0.9	-0.2	0.1	-0.9	0.6	92.4	80.2	81.2	81.2	90.5	82.1
20-May-01	14:59:34	-1.2	-1.2	-0.2	-0.2	-0.2	0.3	91.9	82.9	78.1	81.7	95.5	81.6
20-May-01	15:19:34	-1.2	-0.4	-0.2	-0.2	0.3	0.6	91.9	80.7	80.7	82.3	94.4	82.1
20-May-01	15:39:34	1.3	-0.7	-0.4	-0.4	1.3	0.6	90.3	79.2	81.2	84.4	92.7	81.6
20-May-01	15:59:34	4.9	-0.7	-0.4	0.3	1.8	1.3	88.7	79.7	78.6	82.3	92.2	80.5
20-May-01	16:19:34	0.8	-0.7	-0.2	0.3	0.3	3.1	90.8	80.2	81.2	84.4	89.4	79.5
20-May-01	16:39:34	-0.7	0.3	-0.4	-0.2	-0.2	1.8	91.9	80.7	80.7	82.3	89.4	82.1
20-May-01	16:59:34	-0.7	1.1	-0.4	-0.4	-0.4	1.1	95.1	80.2	78.6	82.3	90.5	82.1
20-May-01	17:19:34	-1.2	1.6	-0.2	-0.4	-0.4	0.6	97.3	78.1	80.7	82.3	94.4	83.2
20-May-01	17:39:34	-1.2	0.6	0.1	-0.7	-0.4	0.3	93.5	79.2	79.2	84.9	92.7	83.2
20-May-01	17:59:34	-0.9	0.3	0.1	-0.2	-0.2	0.3	92.4	81.8	78.6	82.8	95.5	83.2
20-May-01	18:19:34	-0.9	0.3	0.6	-0.7	-0.7	0.1	92.4	82.3	81.2	82.3	92.2	83.2
20-May-01	18:39:34	-0.7	-0.2	-0.2	-0.2	-0.2	-0.2	92.4	79.2	78.6	84.9	94.9	83.2
20-May-01	18:59:34	-0.7	-0.4	-0.4	-0.2	-0.7	-0.2	92.4	83.4	80.7	82.3	94.9	83.2
20-May-01	19:19:34	-0.7	-0.2	-0.4	-0.4	-0.4	-0.2	93.5	79.7	79.2	84.9	93.3	83.2
20-May-01	19:39:34	-0.7	-0.4	-0.2	-0.2	-0.2	-0.4	92.4	83.9	82.8	82.8	96.1	83.2
20-May-01	19:59:34	-0.7	-0.4	-0.7	-0.4	-0.4	-0.4	91.9	80.2	83.3	82.3	92.7	83.2
20-May-01	20:19:34	-0.9	0.1	-0.2	-0.2	-0.2	-0.4	97.3	80.7	79.7	83.8	94.9	82.6
20-May-01	20:39:34	-0.7	-0.4	-0.2	-0.2	-0.7	-0.4	97.3	83.4	82.3	82.8	94.9	83.2
20-May-01	20:59:34	-0.4	-0.4	-0.4	-0.4	-0.4	-0.2	94	79.7	83.3	84.4	93.8	82.6
20-May-01	21:19:34	-0.4	-0.2	-0.2	-0.4	-0.2	-0.2	94	83.4	79.2	82.3	93.8	82.6
20-May-01	21:39:34	2.3	-0.4	-0.2	-0.4	1.1	-0.4	94.6	80.2	81.2	84.9	92.7	82.6
20-May-01	21:59:34	0.8	-0.2	-0.4	-0.2	2.1	-0.7	91.9	81.8	83.3	82.8	93.3	82.6
20-May-01	22:19:34	-0.4	-0.4	-0.4	-0.4	0.3	-0.7	97.3	83.4	80.2	82.3	91.1	82.1
20-May-01	22:39:34	-0.7	-0.2	-0.2	-0.4	-0.7	-0.7	97.3	80.2	80.2	84.4	90.5	82.6
20-May-01	22:59:34	-0.7	-0.4	-0.2	-0.2	-0.2	-0.7	97.3	83.9	83.3	82.3	95.5	82.6
20-May-01	23:19:34	-0.4	-0.2	-0.2	-0.7	-0.4	-0.4	95.1	80.7	81.7	84.4	94.4	82.1
20-May-01	23:39:34	-0.4	-0.4	-0.2	0.1	-0.4	-0.4	95.6	80.7	80.2	82.3	94.9	82.1
20-May-01	23:59:34	-0.7	-0.4	-0.4	-0.7	-0.4	0.1	94.6	82.9	82.3	82.3	96.1	81.1
21-May-01	00:19:34	-0.7	-0.4	-0.4	-0.2	-0.7	1.8	94	80.7	83.8	83.8	92.7	79.5
21-May-01	00:39:34	-0.7	0.3	-0.4	-0.2	-0.4	0.6	93.5	80.7	79.7	82.3	96.1	82.6
21-May-01	00:59:34	-0.9	1.1	-0.2	-0.4	-0.4	0.1	92.4	80.7	81.2	84.9	94.9	82.6
21-May-01	01:19:34	-0.9	1.6	-0.4	-0.2	-0.2	-0.2	95.6	80.7	83.3	82.3	94.9	83.2
21-May-01	01:39:34	-1.2	0.3	-0.2	-0.4	-0.4	-0.4	96.7	80.7	81.2	83.3	96.1	82.6
21-May-01	01:59:34	-1.2	0.1	0.3	-0.2	-0.4	-0.4	97.8	82.9	81.2	82.3	93.3	83.2
21-May-01	02:19:34	-0.7	-0.7	0.6	0.1	-0.2	-0.7	97.3	83.4	81.7	83.3	96.1	83.2
21-May-01	02:39:34	-0.7	-0.2	0.1	-0.4	-0.7	-0.4	96.2	81.3	79.7	82.3	94.9	82.6
21-May-01	02:59:34	-0.7	-0.7	-0.4	-0.7	-0.2	-0.4	92.4	83.4	79.2	83.3	94.9	82.6
21-May-01	03:19:34	-0.7	-0.4	-0.2	-0.2	-0.2	-0.7	94.6	80.7	80.7	82.8	94.9	82.6
21-May-01	03:39:34	2.3	-0.4	-0.4	-0.4	0.8	-0.4	94.6	85	83.3	82.3	93.8	82.6
21-May-01	03:59:34	-0.4	-0.7	-0.2	-0.4	1.8	-0.4	94.6	80.2	80.2	84.9	94.4	82.6

21-May-01	04:19:34	-0.7	-0.4	-0.2	-0.4	0.1	-0.7	96.7	83.4	81.2	82.3	92.2	84.2
21-May-01	04:39:34	-0.7	-0.9	-0.4	-0.7	-0.4	-0.4	96.7	83.4	83.8	82.8	91.6	82.6
21-May-01	04:59:34	-0.7	-0.4	-0.4	-0.2	-0.2	-0.4	94.6	80.7	81.2	83.3	94.9	82.6
21-May-01	05:19:34	-0.4	-0.7	-0.2	-0.4	-0.4	-0.4	94	85	80.7	82.3	94.9	82.6
21-May-01	05:39:34	-0.7	-0.7	-0.2	-0.4	-0.4	-0.4	92.4	80.7	82.8	84.4	94.4	82.6
21-May-01	05:59:34	-0.7	-0.4	-0.4	-0.2	-0.2	-0.4	94.6	82.3	83.3	82.3	97.2	83.2
21-May-01	06:19:34	-0.9	-0.7	-0.2	0.1	-0.4	-0.4	95.1	83.9	79.7	82.8	94.4	83.7
21-May-01	06:39:34	-0.7	-0.7	-0.2	-0.4	-0.2	-0.7	97.3	80.2	80.7	82.3	95.5	82.6
21-May-01	06:59:34	-0.9	-0.2	-0.4	-0.4	-0.4	-0.4	96.2	83.4	83.3	84.4	95.5	82.6
21-May-01	07:19:34	-0.9	-0.2	-0.2	-0.2	-0.4	-0.2	96.7	80.7	79.7	82.3	94.9	82.6
21-May-01	07:39:34	-0.7	-0.7	-0.2	-0.7	-0.2	-0.2	97.3	80.2	80.2	82.3	97.2	82.1
21-May-01	07:59:34	-0.2	-0.9	-0.2	-0.2	-0.7	0.8	100	80.2	82.8	84.9	93.8	81.6
21-May-01	08:19:34	-0.4	-0.4	-0.4	0.1	-0.2	2.3	97.8	80.7	81.2	82.3	95.5	80.5
21-May-01	08:39:34	0.1	0.3	-0.4	-0.2	-0.7	1.3	97.3	80.7	80.2	82.8	93.3	82.1
21-May-01	08:59:34	-0.2	1.3	-0.4	0.1	-0.9	0.6	97.8	81.8	81.7	82.3	94.4	82.6
21-May-01	09:19:34	-0.2	2.1	-0.2	-0.2	0.3	0.1	99.5	79.2	82.3	82.3	97.8	83.2
21-May-01	09:39:34	3.4	0.8	-0.2	0.1	1.8	0.3	96.2	80.2	80.7	82.8	99.5	82.6
21-May-01	09:59:34	0.6	0.6	0.6	-0.2	2.6	0.1	94.6	82.3	80.7	82.3	98.9	83.2
21-May-01	10:19:34	-0.2	0.6	0.8	0.1	0.8	0.8	97.3	83.4	81.2	83.8	93.3	93.6
21-May-01	10:39:34	-0.2	0.6	0.3	-0.2	-0.2	0.8	94	80.2	80.2	82.3	93.8	83.7
21-May-01	10:59:34	-0.7	0.1	0.1	0.1	-0.2	0.3	92.9	80.2	79.2	82.8	93.3	83.7
21-May-01	11:19:34	-0.7	-0.4	-0.7	0.1	-0.2	0.1	98.9	80.7	78.6	82.8	92.7	83.2
21-May-01	11:39:34	-0.7	-0.4	-0.2	-0.2	-0.2	0.1	92.9	79.7	80.7	82.3	93.3	83.2
21-May-01	11:59:34	-0.9	-0.7	-0.4	0.1	-0.2	0.1	94	79.7	80.7	81.7	92.7	82.6
21-May-01	12:19:34	-1.2	-0.7	-0.4	-0.2	-0.4	0.1	93.5	79.2	79.7	82.3	92.2	83.2
21-May-01	12:39:34	-0.9	-0.9	-0.2	-0.4	-0.7	-0.2	93.5	78.1	80.7	82.3	92.2	83.2
21-May-01	12:59:34	-1.2	-0.7	-0.7	-0.2	-0.7	-0.2	94.6	82.9	79.2	81.7	91.6	83.2
21-May-01	13:19:34	-0.9	-0.2	-0.4	-0.2	-0.7	-0.2	94.6	80.2	80.2	81.7	92.2	83.2
21-May-01	13:39:34	-0.7	-0.2	-0.4	-0.2	-0.7	0.1	92.4	79.7	82.3	81.7	91.6	83.2
21-May-01	13:59:34	-0.9	-0.7	-0.7	-0.2	-0.4	-0.2	93.5	79.7	78.6	81.7	92.7	83.2
21-May-01	14:19:34	-0.9	-0.4	-0.4	-0.2	-0.7	-0.2	91.9	79.7	80.2	81.2	91.6	83.2
21-May-01	14:39:34	-0.9	-0.7	-0.4	-0.2	-0.7	-0.2	91.9	79.2	81.2	83.8	91.6	82.6
21-May-01	14:59:34	-1.2	-0.7	-0.7	0.1	-0.7	-0.2	94.6	80.2	78.6	82.3	91.6	82.6
21-May-01	15:19:34	-0.9	-0.7	-0.4	0.1	0.1	-0.4	94.6	80.7	79.7	82.3	92.2	82.6
21-May-01	15:39:34	1.6	-0.7	-0.4	0.1	0.8	-0.4	98.9	80.7	81.2	82.8	92.7	82.6
21-May-01	15:59:34	5.9	-0.4	-0.2	-0.2	1.6	0.8	93.5	80.2	80.7	82.3	92.7	81.1
21-May-01	16:19:34	1.8	-0.4	-0.2	0.6	0.1	2.3	94	81.8	79.2	83.8	90	79.5
21-May-01	16:39:34	0.1	0.8	-0.2	0.1	-0.4	1.6	94	82.9	78.6	82.3	90	80.5
21-May-01	16:59:34	-0.4	1.8	-0.2	0.1	-0.9	0.6	94	85	79.2	82.3	91.1	82.1
21-May-01	17:19:34	-0.7	2.1	-0.2	-0.4	-0.7	0.1	94	80.7	81.2	82.3	96.1	82.1
21-May-01	17:39:34	-0.9	1.3	-0.2	-0.4	-0.7	-0.2	91.9	81.8	80.2	82.3	91.6	82.6
21-May-01	17:59:34	-0.9	0.8	0.3	-0.7	-0.7	-0.2	97.8	83.4	80.2	82.3	96.1	82.6
21-May-01	18:19:34	-0.7	0.8	0.3	-0.7	0.3	-0.2	94.6	82.9	81.2	82.3	94.9	82.6
21-May-01	18:39:34	-0.7	0.6	0.3	-0.2	1.3	-0.2	92.4	82.3	79.7	84.4	94.4	83.2
21-May-01	18:59:34	-1.4	0.1	-0.2	0.3	2.1	-0.2	92.9	81.3	81.2	81.7	92.2	83.2
21-May-01	19:19:34	-1.2	0.1	-0.2	-0.4	2.8	0.1	91.9	80.7	81.2	82.3	92.2	82.6
21-May-01	19:39:34	-1.4	-0.2	-0.4	-0.4	3.6	-0.2	94	80.2	80.2	82.3	92.2	83.2
21-May-01	19:59:34	-1.7	-0.2	-0.2	-0.4	0.8	-0.2	92.9	85	79.7	82.3	90	82.6
21-May-01	20:19:34	-1.4	-0.2	-0.2	0.1	0.1	0.1	91.9	80.2	80.7	82.8	90.5	82.6

21-May-01	20:39:34	-1.7	-0.2	-0.2	-0.2	-0.7	-0.2	94	83.4	80.7	82.3	90.5	83.2
21-May-01	20:59:34	-1.2	-0.4	-0.2	-0.2	-0.7	-0.2	94.6	80.7	80.7	81.7	90.5	82.6
21-May-01	21:19:34	-0.9	-0.4	-0.2	-0.4	-0.2	-0.4	97.3	80.7	82.8	81.7	96.1	83.2
21-May-01	21:39:34	2.1	-0.4	-0.4	-0.2	-0.4	-0.4	100	80.7	82.3	83.8	91.1	83.2
21-May-01	21:59:34	5.7	-0.4	-0.4	0.1	-0.4	-0.4	95.1	80.7	81.2	82.3	97.2	83.2
21-May-01	22:19:34	1.3	-0.4	-0.2	-0.2	-0.7	-0.4	93.5	80.7	79.7	82.3	91.6	83.2
21-May-01	22:39:34	-0.2	-0.4	-0.2	-0.2	-0.4	-0.4	96.2	81.3	81.2	82.3	97.2	82.6
21-May-01	22:59:34	0.6	-0.2	-0.4	-0.4	-0.7	-0.4	95.6	80.7	81.7	83.8	91.6	82.6
21-May-01	23:19:34	-0.2	-0.2	-0.4	0.1	-0.2	-0.4	91.3	80.2	81.2	82.3	96.1	82.6
21-May-01	23:39:34	-1.4	-0.4	-0.4	-0.2	-0.7	-0.7	94.6	82.3	80.7	82.3	92.2	82.6
21-May-01	23:59:34	-0.4	-0.4	-0.4	-0.4	-0.4	0.3	98.9	80.2	80.2	83.3	96.1	82.1
22-May-01	00:19:34	0.3	-0.2	-0.2	0.1	-0.7	2.1	97.8	81.8	79.7	83.3	93.3	80.5
22-May-01	00:39:34	-0.4	0.3	-0.2	-0.2	-0.4	1.1	91.9	80.7	80.7	82.3	94.4	82.1
22-May-01	00:59:34	-0.9	1.1	-0.2	-0.4	0.1	0.3	97.3	80.7	81.2	82.8	93.8	82.6
22-May-01	01:19:34	-0.2	1.3	-0.2	0.1	0.8	-0.2	97.8	80.2	83.3	83.3	93.3	83.2
22-May-01	01:39:34	0.3	0.3	0.1	-0.2	1.6	-0.4	94.6	80.7	80.7	82.3	93.8	83.2
22-May-01	01:59:34	-0.9	-0.2	0.1	-0.4	0.1	-0.4	91.9	82.9	80.7	82.3	91.6	83.2
22-May-01	02:19:34	-0.2	-0.7	0.6	0.1	-0.7	-0.4	97.8	83.4	81.7	82.8	91.1	83.2
22-May-01	02:39:34	0.3	-0.4	-0.2	-0.2	-0.7	-0.7	97.3	81.3	80.2	82.3	94.9	83.2
22-May-01	02:59:34	-0.4	-0.4	-0.4	-0.2	-0.7	-0.7	91.9	84.5	83.3	83.3	92.2	83.2
22-May-01	03:19:34	-0.7	-0.4	-0.7	-0.2	-0.4	-0.7	97.3	80.7	80.7	82.3	97.2	82.6
22-May-01	03:39:34	0.8	-0.4	-0.2	-0.2	-0.4	-0.7	94	82.3	80.7	82.3	91.6	83.2
22-May-01	03:59:34	-0.7	-0.7	-0.2	-0.4	-0.4	-0.7	96.7	83.9	81.7	83.8	97.8	82.6
22-May-01	04:19:34	-0.2	-0.4	-0.2	0.1	-0.9	-0.7	98.9	80.7	83.3	82.3	92.2	82.6
22-May-01	04:39:34	0.1	-0.2	-0.7	-0.2	-0.2	-0.9	98.4	82.9	82.8	82.3	96.1	82.6
22-May-01	04:59:34	-0.7	-0.7	-0.4	-0.4	-0.7	-0.7	91.9	83.9	82.8	83.8	94.9	82.6
22-May-01	05:19:34	-0.4	-0.4	-0.4	-0.2	-0.2	-0.9	100	80.7	80.2	82.3	94.9	82.6
22-May-01	05:39:34	0.3	-0.2	-0.2	-0.2	-0.7	-0.7	98.4	82.9	80.7	82.3	96.1	82.6
22-May-01	05:59:34	-0.4	-0.4	-0.2	-0.2	-0.4	-0.9	91.9	84.5	82.8	82.8	94.4	82.6
22-May-01	06:19:34	-0.7	-0.4	-0.4	0.1	-0.4	-0.7	97.8	80.7	83.3	82.3	97.2	82.1
22-May-01	06:39:34	-0.2	-0.4	-0.4	-0.4	-0.4	-0.7	98.9	82.3	82.8	82.3	92.7	82.1
22-May-01	06:59:34	0.3	-0.7	-0.4	-0.7	-0.2	-0.7	94.6	85	81.7	82.8	93.3	82.1
22-May-01	07:19:34	-1.2	-0.4	-0.2	-0.2	0.8	-0.9	95.1	81.8	79.7	82.8	93.3	82.1
22-May-01	07:39:34	0.1	-0.2	-0.2	-0.2	1.8	-0.7	100	80.7	80.7	82.3	94.9	82.1
22-May-01	07:59:34	0.1	-0.4	-0.4	-0.4	0.3	0.1	94.6	85	83.3	82.3	92.2	81.1
22-May-01	08:19:34	-0.7	-0.4	-0.4	-0.2	-0.2	2.1	100	80.7	82.3	83.8	92.2	80
22-May-01	08:39:34	0.3	0.3	-0.4	0.1	-0.7	0.8	100	80.7	80.2	82.3	92.2	81.1
22-May-01	08:59:34	-0.2	1.3	-0.2	-0.2	-0.7	-0.2	92.4	80.7	81.2	82.3	92.7	82.1
22-May-01	09:19:34	-0.2	1.8	-0.4	-0.4	-0.9	-0.2	98.9	79.2	82.3	81.7	92.2	82.1
22-May-01	09:39:34	1.3	0.6	0.1	-0.2	-0.9	-0.2	94.6	80.7	81.2	84.4	92.7	82.6
22-May-01	09:59:34	-0.4	0.3	0.6	0.1	-0.4	-0.7	97.3	82.9	81.2	82.3	97.8	82.6
22-May-01	10:19:34	0.8	0.3	0.8	0.6	-0.7	-0.7	100	82.9	82.3	83.3	92.2	82.1
22-May-01	10:39:34	0.1	0.1	0.3	-0.2	-0.7	-0.7	92.4	80.7	80.2	82.3	93.3	82.1
22-May-01	10:59:34	0.3	-0.2	-0.2	-0.2	-0.9	-0.4	100	79.7	79.2	82.3	92.2	82.6
22-May-01	11:19:34	0.8	-0.9	-0.2	-0.2	-0.9	-0.4	97.3	80.2	83.3	82.3	92.2	82.6
22-May-01	11:39:34	-0.2	-0.4	-0.2	-0.2	-0.7	-0.2	94	80.7	82.8	82.8	92.2	82.1
22-May-01	11:59:34	0.3	-0.7	-0.2	0.1	-0.4	-0.2	100	79.7	80.7	82.3	91.6	82.1
22-May-01	12:19:34	0.6	-0.7	-0.2	-0.2	-0.7	-0.4	97.3	79.7	80.7	81.7	92.2	82.1
22-May-01	12:39:34	-0.2	-0.9	-0.2	-0.2	-0.7	-0.4	94.6	79.7	82.8	83.8	90	82.1

22-May-01	12:59:34	0.6	-0.9	-0.2	0.1	-0.2	-0.7	100	80.2	83.3	82.8	92.2	82.1
22-May-01	13:19:34	0.8	-0.9	-0.4	0.6	1.3	-0.4	97.3	80.2	82.3	82.8	94.4	82.6
22-May-01	13:39:34	-0.4	-0.9	-0.4	0.3	2.3	-0.4	92.9	80.2	79.7	82.3	92.7	82.6
22-May-01	13:59:34	-0.4	-0.7	-0.2	-0.2	0.6	-0.4	94	85.5	80.7	82.3	90.5	82.1
22-May-01	14:19:34	-0.9	-0.4	0.1	-0.2	0.1	-0.4	91.9	80.2	82.8	82.3	91.1	82.1
22-May-01	14:39:34	-1.2	-0.9	-0.2	-0.4	-0.4	-0.7	98.4	79.7	81.7	82.3	90.5	82.1
22-May-01	14:59:34	0.3	-0.7	-0.2	-0.2	-0.4	-0.7	100	82.3	80.2	85.4	91.6	81.6
22-May-01	15:19:34	0.6	-0.7	-0.2	-0.2	-0.4	-0.4	96.2	80.7	80.7	82.3	91.6	81.6
22-May-01	15:39:34	1.8	-0.9	-0.2	-0.2	-0.7	-0.7	94.6	80.2	83.3	82.3	91.1	81.6
22-May-01	15:59:34	0.1	-0.7	-0.2	-0.4	-0.9	0.3	92.4	85.5	79.2	81.7	90.5	81.1
22-May-01	16:19:34	-0.4	-0.4	-0.2	0.1	-0.9	2.3	91.9	80.7	81.7	82.3	90.5	79.5
22-May-01	16:39:34	-0.9	0.6	-0.4	-0.4	-1.4	0.8	99.5	82.9	81.7	81.7	90	81.1
22-May-01	16:59:34	0.3	1.3	-0.2	-0.4	-1.4	-0.2	100	85	80.7	82.8	90	82.1
22-May-01	17:19:34	0.3	1.6	0.1	-0.2	-1.4	-0.2	94.6	80.7	80.7	82.3	91.1	82.1
22-May-01	17:39:34	-0.4	0.8	-0.2	-0.4	-0.7	-0.4	92.4	80.7	80.7	81.7	92.7	82.6
22-May-01	17:59:34	-0.4	0.3	0.1	-0.2	-1.2	-0.7	94	81.3	80.2	82.8	90	82.6
22-May-01	18:19:34	-1.2	-0.7	0.6	0.1	-1.2	-0.7	91.9	80.7	81.7	82.8	89.4	82.1
22-May-01	18:39:34	-0.2	-0.4	-0.2	0.1	-0.9	-0.4	100	83.9	80.2	82.3	92.2	82.1
22-May-01	18:59:34	0.3	-0.4	-0.2	-0.2	0.1	-0.9	94	82.3	82.8	82.3	93.3	82.1
22-May-01	19:19:34	-0.7	-0.4	-0.4	-0.2	0.8	-0.7	94	81.3	80.2	83.3	92.2	82.1
22-May-01	19:39:34	-1.2	-0.4	-0.2	0.3	1.8	-0.7	91.9	80.7	81.2	83.3	90.5	82.1
22-May-01	19:59:34	-0.2	-0.7	-0.2	-0.2	2.6	-0.7	100	80.7	83.8	81.7	89.4	82.1
22-May-01	20:19:34	0.3	-0.4	-0.2	0.3	1.3	-0.7	94.6	85.5	82.8	82.8	88.9	82.1
22-May-01	20:39:34	-0.4	-0.4	-0.4	-0.2	0.1	-0.4	94.6	80.7	81.2	82.3	90.5	82.6
22-May-01	20:59:34	-0.7	-0.7	-0.2	0.1	-0.4	-0.4	91.9	84.5	80.7	81.7	90.5	82.6
22-May-01	21:19:34	0.1	0.1	-0.2	0.1	-1.2	-0.7	97.3	80.7	81.2	83.3	90.5	82.1
22-May-01	21:39:34	2.3	-0.4	-0.2	0.3	-1.2	-0.7	95.1	85	83.3	82.3	90.5	82.6
22-May-01	21:59:34	0.3	-0.2	-0.2	-0.4	-1.4	-0.4	91.3	80.7	82.8	81.7	91.1	82.1
22-May-01	22:19:34	-0.9	-0.7	-0.2	0.1	-0.4	-0.4	91.9	82.9	80.7	83.3	94.4	82.1
22-May-01	22:39:34	-0.2	-0.2	-0.2	0.1	-0.9	-0.9	99.5	82.9	80.7	82.3	91.1	82.1
22-May-01	22:59:34	0.6	-0.4	-0.2	-0.2	-1.2	-0.7	92.9	82.3	82.3	81.7	92.7	82.1
22-May-01	23:19:34	-0.7	-0.2	-0.2	0.1	-0.4	-0.7	91.9	83.4	83.8	83.3	93.3	82.1
22-May-01	23:39:34	0.1	-0.7	-0.2	0.1	-0.9	-0.7	100	81.3	83.3	81.7	91.1	81.6
22-May-01	23:59:34	0.8	-0.2	-0.2	-0.2	-0.9	0.1	100	84.5	81.7	83.3	96.1	82.1
23-May-01	00:19:34	-0.4	-0.2	-0.2	0.1	-0.9	1.8	91.3	80.7	80.7	82.3	92.2	80
23-May-01	00:39:34	0.1	0.6	-0.4	-0.2	-1.2	0.3	100	80.7	80.7	81.2	94.9	82.1
23-May-01	00:59:34	0.6	0.8	-0.2	0.1	-0.7	0.1	99.5	80.7	82.8	83.3	93.8	82.1
23-May-01	01:19:34	-0.4	1.1	-0.4	0.1	-0.7	-0.7	92.4	80.2	83.8	81.7	91.6	82.6
23-May-01	01:39:34	-0.2	0.1	0.1	-0.2	0.3	-0.4	100	80.2	82.3	82.3	91.6	82.6
23-May-01	01:59:34	0.6	-0.4	0.1	-0.2	0.8	-0.7	98.9	85	81.7	82.3	91.6	83.2
23-May-01	02:19:34	0.1	-0.2	0.6	0.3	0.3	-0.7	94	83.9	82.8	82.3	91.6	83.2
23-May-01	02:39:34	-0.4	-0.2	-0.2	-0.2	-0.7	-0.4	100	80.7	80.7	81.7	91.1	83.2
23-May-01	02:59:34	0.3	-0.4	-0.2	-0.2	-1.2	-0.7	100	85	83.3	83.3	91.1	83.2
23-May-01	03:19:34	0.6	-0.2	-0.2	0.3	-0.9	-0.7	94.6	80.7	83.3	82.3	96.6	83.2
23-May-01	03:39:34	0.8	-0.4	-0.4	-0.2	-0.7	-0.4	93.5	85	83.3	82.3	92.2	82.6
23-May-01	03:59:34	-0.4	-0.2	-0.2	-0.2	-1.2	-0.7	100	80.7	81.2	82.8	94.9	82.6
23-May-01	04:19:34	0.3	-0.7	-0.2	-0.2	-0.4	-0.7	100	85.5	80.7	81.2	94.4	83.2
23-May-01	04:39:34	0.8	-0.2	-0.2	-0.2	-1.4	-0.7	97.3	80.7	82.3	83.3	93.8	84.8
23-May-01	04:59:34	-0.9	-0.7	-0.4	0.1	-0.4	-0.7	97.3	86.1	83.8	82.3	94.9	84.8

23-May-01	05:19:34	0.1	-0.2	-0.2	-0.2	-1.2	-0.7	100	80.7	83.3	81.2	92.2	83.2
23-May-01	05:39:34	0.8	-0.4	-0.2	0.1	-0.4	-0.4	98.9	86.1	81.7	83.3	97.8	82.6
23-May-01	05:59:34	-0.7	-0.4	-0.2	0.1	-1.2	-0.4	91.9	81.3	80.7	81.7	92.2	84.2
23-May-01	06:19:34	0.1	-0.7	0.1	0.3	-0.4	-0.4	100	85.5	81.2	82.3	97.8	83.2
23-May-01	06:39:34	0.6	-0.2	-0.2	0.1	-1.2	-0.4	100	81.3	82.3	81.2	92.2	82.6
23-May-01	06:59:34	-0.2	-0.7	0.1	-0.2	-0.7	-0.7	91.9	85.5	83.3	83.3	97.8	83.2
23-May-01	07:19:34	-0.2	-0.2	-0.4	0.1	-0.2	-0.7	100	82.9	83.8	81.7	94.9	82.6
23-May-01	07:39:34	0.6	-0.4	-0.4	-0.2	0.3	-0.4	100	82.9	83.3	81.2	93.3	82.6
23-May-01	07:59:34	0.6	0.1	-0.2	0.1	1.3	0.6	94.6	83.4	82.8	83.3	92.7	83.2
23-May-01	08:19:34	-0.7	-0.4	-0.2	0.3	0.6	2.6	94	81.3	81.2	82.3	92.2	80.5
23-May-01	08:39:34	-0.9	0.3	-0.2	0.1	-0.4	0.8	100	81.8	80.7	81.2	92.2	80.5
23-May-01	08:59:34	0.6	1.3	0.1	-0.4	-0.9	0.3	100	82.3	81.7	82.3	92.2	82.1
23-May-01	09:19:34	0.3	1.6	-0.2	0.1	-1.2	-0.2	94.6	80.2	82.8	82.8	92.2	82.6
23-May-01	09:39:34	1.6	0.1	0.1	0.1	-0.9	-0.4	94	82.3	81.2	82.3	92.7	82.6
23-May-01	09:59:34	-0.7	-0.2	0.6	-0.4	-0.9	-0.4	92.4	83.9	81.2	82.3	91.6	82.6
23-May-01	10:19:34	-0.7	-0.2	0.8	0.3	-1.2	-0.4	91.9	83.9	81.2	82.8	91.6	82.6
23-May-01	10:39:34	0.3	-0.4	1.1	0.1	-1.2	-0.4	100	80.7	81.2	81.7	92.2	82.6
23-May-01	10:59:34	1.1	-0.7	1.3	-0.2	-1.2	-0.4	94.6	86.1	81.2	81.7	92.2	82.1
23-May-01	11:19:34	-0.7	-0.7	1.3	-0.2	-0.9	-0.2	95.6	82.9	80.7	82.3	91.6	82.1
23-May-01	11:39:34	-0.7	-0.4	1.3	-0.4	-1.2	0.1	97.3	80.7	80.2	82.3	91.6	82.1
23-May-01	11:59:34	-0.7	-0.4	1.3	-0.4	-0.7	-0.2	97.8	80.7	80.2	82.3	92.2	82.6
23-May-01	12:19:34	-0.2	-0.4	1.6	-0.2	-0.7	0.1	94.6	85.5	79.7	81.2	91.6	82.6
23-May-01	12:39:34	-0.2	-0.4	1.3	-0.2	-0.9	-0.2	94	82.3	79.7	83.8	89.4	82.6
23-May-01	12:59:34	-0.2	-0.2	1.3	0.1	-0.9	-0.4	100	80.7	80.2	82.3	89.4	82.6
23-May-01	13:19:34	0.6	-0.2	1.6	-0.4	-0.7	-0.4	99.5	81.8	79.7	82.3	90.5	82.6
23-May-01	13:39:34	0.6	-0.4	1.1	-0.2	0.8	-0.4	94	80.2	79.2	82.3	94.4	82.6
23-May-01	13:59:34	0.1	-0.2	0.8	-0.2	1.8	-0.4	94.6	80.7	78.1	82.3	93.3	82.1
23-May-01	14:19:34	-0.2	-0.7	0.3	-0.4	1.1	-0.7	94	80.7	78.1	82.3	89.4	82.6
23-May-01	14:39:34	-0.7	-0.4	-0.2	-0.7	-0.2	-0.7	93.5	80.7	78.6	82.3	90.5	82.6
23-May-01	14:59:34	-0.7	-0.7	0.1	-0.4	-0.7	-0.4	94.6	81.3	79.2	82.3	91.6	82.1
23-May-01	15:19:34	-0.7	-0.7	0.6	-0.4	-0.7	-0.2	95.6	80.2	78.6	82.3	90.5	82.1
23-May-01	15:39:34	1.8	-0.9	0.6	-0.4	-0.9	-0.2	99.5	80.2	78.6	82.3	90.5	82.1
23-May-01	15:59:34	0.6	-0.4	0.8	-0.4	-1.2	0.8	91.9	80.7	78.6	81.7	90.5	82.1
23-May-01	16:19:34	-0.7	-0.4	0.8	-0.2	-0.9	2.6	93.5	83.4	78.6	83.8	90	80.5
23-May-01	16:39:34	-0.7	0.8	1.1	-0.2	-1.4	1.1	99.5	82.9	78.6	82.3	90	82.1
23-May-01	16:59:34	0.6	2.1	0.6	-0.2	-1.2	0.3	100	81.3	78.1	82.8	90	82.6
23-May-01	17:19:34	0.8	2.3	0.1	-0.2	-1.4	-0.2	100	78.1	78.6	82.3	90	83.2
23-May-01	17:39:34	0.3	0.8	-0.2	-0.4	-1.2	-0.2	92.4	80.2	80.2	82.3	89.4	82.6
23-May-01	17:59:34	-0.2	0.3	-0.4	-0.2	-1.4	-0.2	94.6	83.4	79.2	82.3	89.4	82.6
23-May-01	18:19:34	0.1	0.6	-0.4	-0.4	-1.4	-0.4	100	83.9	80.7	84.4	89.4	82.6
23-May-01	18:39:34	0.8	0.6	-0.2	0.1	-1.7	-0.4	99.5	80.7	81.7	82.3	89.4	83.2
23-May-01	18:59:34	0.3	0.1	-0.4	-0.2	-1.4	-0.4	91.9	80.7	80.7	82.3	89.4	83.2
23-May-01	19:19:34	-0.2	-0.4	-0.2	-0.2	-1.2	-0.4	94.6	80.7	79.2	82.3	90	82.6
23-May-01	19:39:34	0.1	-0.7	-0.2	-0.2	0.1	-0.4	99.5	83.4	80.2	84.4	90	83.2
23-May-01	19:59:34	-0.2	-0.4	-0.2	-0.2	1.1	-0.4	94.6	80.7	81.2	82.3	89.4	83.2
23-May-01	20:19:34	-0.4	-0.4	-0.2	0.1	0.3	-0.4	94.6	85.5	79.2	83.3	88.3	83.2
23-May-01	20:39:34	-0.2	-0.4	-0.2	-0.2	-0.7	-0.4	94.6	80.7	80.2	82.3	89.4	83.2
23-May-01	20:59:34	0.3	-0.4	-0.2	-0.4	-0.9	-0.7	97.8	80.7	81.2	82.3	89.4	83.2
23-May-01	21:19:34	0.3	-0.7	-0.4	-0.4	-1.4	-0.4	95.6	85.5	81.7	82.3	89.4	82.6

23-May-01	21:39:34	2.8	-0.4	-0.4	-0.4	-1.4	-0.7	99.5	80.7	79.2	83.3	89.4	83.2
23-May-01	21:59:34	1.8	-0.2	-0.4	0.1	-1.7	-0.7	91.9	85.5	80.2	82.3	89.4	83.2
23-May-01	22:19:34	0.6	-0.7	-0.2	-0.2	-1.4	-1.2	94	80.7	81.2	82.3	89.4	83.2
23-May-01	22:39:34	-0.2	-0.2	-0.4	-0.4	-1.7	-1.2	97.3	81.8	81.2	82.3	89.4	83.2
23-May-01	22:59:34	-0.2	-0.2	-0.2	-0.4	-1.7	-1.2	92.4	80.7	80.2	83.8	88.9	83.2
23-May-01	23:19:34	-0.2	-0.4	0.1	0.1	-1.7	-0.9	92.4	82.9	80.7	82.3	89.4	83.2
23-May-01	23:39:34	0.3	-0.2	0.6	-0.4	-1.7	-0.9	100	80.7	80.2	82.3	89.4	83.2
23-May-01	23:59:34	0.8	-0.7	0.3	-0.4	-1.7	0.1	99.5	85	80.7	83.8	89.4	83.2
24-May-01	00:19:34	1.1	-0.2	-0.2	0.1	-1.7	1.6	98.4	82.3	79.7	82.3	89.4	82.1
24-May-01	00:39:34	0.8	0.8	-0.2	-0.4	-1.9	0.3	94	82.3	82.8	82.3	89.4	83.2
24-May-01	00:59:34	-0.4	1.6	-0.2	-0.2	-1.9	-0.2	94	81.3	80.7	83.8	89.4	82.6
24-May-01	01:19:34	-0.2	1.8	-0.4	-0.2	-1.7	-0.7	94.6	79.2	80.2	82.3	89.4	83.2
24-May-01	01:39:34	-0.4	0.6	-0.4	-0.4	-0.4	-0.9	97.3	80.7	80.7	82.3	89.4	83.2
24-May-01	01:59:34	-0.4	-0.2	-0.4	-0.4	0.3	-0.9	95.1	83.4	83.8	83.3	89.4	83.2
24-May-01	02:19:34	-0.4	0.1	-0.2	0.1	0.1	-1.2	95.1	79.7	83.8	83.3	88.3	83.2
24-May-01	02:39:34	-0.4	-0.4	-0.4	-0.4	-0.9	-1.2	97.3	80.7	80.7	82.3	89.4	83.2
24-May-01	02:59:34	-0.7	-0.4	-0.2	-0.4	-1.4	-1.2	97.3	83.9	80.7	82.8	89.4	83.2
24-May-01	03:19:34	0.3	-0.7	-0.2	-0.2	-1.7	-1.2	97.3	82.9	82.3	83.8	89.4	83.2
24-May-01	03:39:34	1.8	-0.4	-0.2	-0.2	-1.9	-0.9	95.1	80.7	83.8	82.3	89.4	83.2
24-May-01	03:59:34	-0.2	-0.7	-0.4	-0.4	-1.7	-0.9	98.9	85.5	83.3	82.8	92.2	83.2
24-May-01	04:19:34	0.1	-0.7	-0.4	-0.2	-0.9	-1.2	99.5	81.3	81.7	82.8	92.2	83.2
24-May-01	04:39:34	0.8	-0.4	-0.2	-0.2	-1.4	-0.9	99.5	81.3	80.7	82.3	89.4	83.2
24-May-01	04:59:34	0.8	-0.7	-0.2	-0.4	-1.7	-0.9	98.9	86.1	80.7	83.8	89.4	83.2
24-May-01	05:19:34	0.6	-0.4	-0.2	-0.2	-1.7	-0.9	94.6	80.7	83.8	82.3	89.4	83.2
24-May-01	05:39:34	-0.4	-0.4	-0.2	-0.4	-0.9	-0.9	100	80.7	82.8	82.3	94.9	83.2
24-May-01	05:59:34	0.3	-0.4	-0.4	-0.4	-0.9	-0.9	99.5	86.1	82.3	82.8	90.5	83.2
24-May-01	06:19:34	0.6	-0.4	-0.2	0.1	-1.7	-0.7	97.8	83.9	80.2	83.3	90	83.2
24-May-01	06:39:34	0.3	-0.4	-0.4	-0.4	-1.9	-1.2	93.5	80.7	80.7	82.3	91.6	83.2
24-May-01	06:59:34	-0.7	-0.4	0.1	-0.4	-0.9	-0.7	94	83.4	81.7	83.3	94.4	83.2
24-May-01	07:19:34	-0.4	-0.7	0.3	-0.2	-0.9	-0.7	95.1	83.4	80.7	82.8	91.1	83.2
24-May-01	07:39:34	-0.4	-0.4	0.6	-0.2	0.1	-0.4	96.2	80.7	80.7	82.3	91.1	83.2
24-May-01	07:59:34	-0.4	-0.2	0.8	-0.7	0.8	0.6	98.4	82.3	80.7	83.8	90	83.2
24-May-01	08:19:34	-0.7	-0.2	-0.2	0.1	0.6	2.1	96.7	81.8	80.2	82.8	91.1	80.5
24-May-01	08:39:34	-0.4	0.6	-0.2	-0.2	-0.7	0.6	94.6	81.8	79.2	81.7	91.6	83.2
24-May-01	08:59:34	-0.2	1.6	-0.4	-0.4	-0.9	-0.4	97.3	80.7	83.3	82.3	91.6	83.2
24-May-01	09:19:34	-0.7	1.6	-0.2	-0.4	-1.2	-0.7	95.1	78.6	81.2	84.4	92.2	83.2
24-May-01	09:39:34	2.6	0.1	0.1	-0.2	-1.4	-0.7	100	80.2	79.7	82.8	92.2	83.2
24-May-01	09:59:34	0.6	0.1	0.1	0.1	-1.2	-0.7	94	82.9	81.2	82.3	92.2	83.2
24-May-01	10:19:34	0.1	0.1	-0.2	0.1	-1.4	-0.7	97.8	83.4	79.2	83.8	91.1	83.2
24-May-01	10:39:34	0.3	0.1	-0.2	0.1	-1.4	-0.7	95.1	80.7	79.7	82.3	91.6	83.2
24-May-01	10:59:34	0.6	-0.4	0.1	-0.2	-1.2	-0.7	100	81.3	79.2	82.3	90.5	83.2
24-May-01	11:19:34	0.8	-0.7	0.6	-0.2	-1.4	-0.7	94.6	80.2	80.7	81.7	90	83.2
24-May-01	11:39:34	1.3	-0.9	0.6	-0.4	-1.7	-0.7	97.3	80.7	78.6	82.3	90	83.2
24-May-01	11:59:34	1.6	-0.7	-0.2	-0.4	-1.7	-0.7	95.1	83.4	78.6	82.3	90	83.2
24-May-01	12:19:34	1.1	-0.7	-0.2	-0.7	-1.7	-0.7	97.3	80.2	78.1	82.3	90	83.2
24-May-01	12:39:34	0.6	-0.7	-0.4	-0.7	-1.4	-0.4	95.1	82.3	78.1	82.3	89.4	82.6
24-May-01	12:59:34	0.6	-0.7	-0.4	-0.7	-1.7	-0.4	97.8	81.3	78.6	82.3	89.4	82.6
24-May-01	13:19:34	0.6	-0.2	-0.2	-0.4	-1.4	-0.7	98.9	81.8	78.1	82.3	90	83.2
24-May-01	13:39:34	0.8	-0.4	-0.4	-0.4	0.1	-0.7	95.1	80.2	79.7	81.7	90.5	83.2

24-May-01	13:59:34	0.6	-0.7	-0.4	-0.4	1.1	-0.7	100	82.3	78.1	81.7	89.4	83.2
24-May-01	14:19:34	1.8	-0.7	-0.4	-0.4	0.3	-0.7	97.8	80.2	80.2	81.7	88.9	83.2
24-May-01	14:39:34	1.3	-0.7	-0.2	-0.7	-0.7	-0.7	97.3	80.2	78.1	81.7	89.4	83.2
24-May-01	14:59:34	1.3	-0.4	0.1	-0.7	-1.2	-0.7	94.6	80.7	79.7	81.7	89.4	82.6
24-May-01	15:19:34	1.3	-0.9	0.3	-0.7	-1.4	-0.7	96.7	80.2	79.7	81.7	90	82.6
24-May-01	15:39:34	4.1	-1.2	0.6	-0.7	-1.4	-0.4	97.8	79.7	79.7	81.7	90.5	82.6
24-May-01	15:59:34	6.7	-0.9	1.1	-0.4	-0.7	0.6	89.2	85	80.7	81.2	92.2	82.1
24-May-01	16:19:34	2.1	-0.7	1.1	-0.2	-1.2	2.3	91.9	81.3	80.7	82.3	90.5	80.5
24-May-01	16:39:34	0.8	0.1	0.6	-0.4	-1.4	0.8	92.4	81.3	79.7	81.7	90	82.6
24-May-01	16:59:34	1.1	1.3	0.1	-0.4	-1.4	0.1	94	80.7	79.2	81.2	91.6	83.2
24-May-01	17:19:34	0.8	1.6	-0.2	-0.4	-0.7	-0.4	96.7	79.2	79.2	81.2	92.7	83.2
24-May-01	17:39:34	0.8	0.1	0.1	-0.7	-1.2	-0.7	93.5	80.2	80.7	82.3	90.5	83.2
24-May-01	17:59:34	0.6	-0.2	-0.2	0.1	-1.2	-0.7	96.7	82.9	82.8	82.8	94.4	83.2
24-May-01	18:19:34	0.6	-0.2	-0.4	-0.2	-0.9	-0.7	92.9	83.4	80.7	81.7	92.2	83.2
24-May-01	18:39:34	0.6	-0.7	-0.2	-0.4	-1.7	-0.7	97.3	80.2	80.2	81.2	90.5	83.2
24-May-01	18:59:34	0.6	-0.2	-0.2	-0.4	-1.7	-0.7	96.7	82.3	82.8	81.2	91.6	83.2
24-May-01	19:19:34	0.8	-0.7	-0.4	-0.2	-1.2	-0.9	94	85.5	81.2	83.3	92.2	83.2
24-May-01	19:39:34	0.3	-0.4	-0.2	-0.4	0.3	-0.9	97.3	81.3	80.2	81.7	92.7	83.2
24-May-01	19:59:34	0.3	-0.4	-0.2	-0.4	1.3	-1.2	98.4	81.3	82.8	81.7	92.2	83.2
24-May-01	20:19:34	0.1	-0.4	-0.2	-0.2	0.3	-0.9	97.3	85.5	80.7	82.3	90	85.9
24-May-01	20:39:34	0.3	-0.7	-0.4	-0.2	-0.9	-1.2	98.4	83.4	79.7	81.2	90	83.2
24-May-01	20:59:34	1.3	-0.2	-0.4	-0.4	-1.2	-0.9	98.9	81.3	80.7	81.2	90	83.2
24-May-01	21:19:34	1.3	-0.4	0.1	-0.4	-1.4	-0.9	95.1	85.5	83.3	80.7	90.5	85.3
24-May-01	21:39:34	3.9	-0.7	-0.2	-0.2	-1.7	-0.9	94.6	83.9	80.7	83.3	90.5	85.9
24-May-01	21:59:34	5.4	-0.4	-0.2	-0.2	-1.7	-0.9	89.2	80.7	80.7	81.7	91.1	83.2
24-May-01	22:19:34	1.3	-0.4	0.1	-0.7	-0.9	-0.9	91.9	83.4	81.7	81.7	96.1	83.2
24-May-01	22:39:34	0.8	-0.4	-0.4	-0.7	-1.2	-0.9	97.3	86.1	80.2	82.3	91.1	83.2
24-May-01	22:59:34	0.6	-0.7	-0.2	-0.4	-1.7	-0.9	95.6	80.7	80.7	82.3	90.5	84.8
24-May-01	23:19:34	0.3	-0.4	0.3	-0.4	-0.9	-0.9	92.9	83.4	80.7	81.7	96.1	83.2
24-May-01	23:39:34	0.3	-0.7	0.6	-0.7	-1.2	-0.9	97.3	83.9	81.7	81.7	91.6	85.3
24-May-01	23:59:34	0.3	-0.7	-0.2	-0.4	-1.4	0.1	94.6	82.3	80.7	83.3	91.1	83.7
25-May-01	00:19:34	0.3	-0.7	-0.4	-0.2	-0.9	1.3	96.7	83.4	83.3	81.7	95.5	81.6
25-May-01	00:39:34	0.3	0.1	-0.4	-0.7	-0.9	0.3	95.6	82.9	80.7	81.7	92.2	83.2
25-May-01	00:59:34	0.6	0.8	-0.2	-0.4	-1.7	-0.4	95.6	83.9	81.7	83.3	91.6	83.2
25-May-01	01:19:34	0.6	1.3	-0.4	-0.4	-0.9	-0.7	96.2	81.8	83.8	82.3	93.8	83.7
25-May-01	01:39:34	0.3	0.1	-0.2	-0.7	0.1	-0.9	97.8	82.3	83.3	81.7	92.7	83.7
25-May-01	01:59:34	0.3	-0.4	-0.2	-0.7	0.8	-0.7	94	82.3	81.2	82.3	91.6	84.8
25-May-01	02:19:34	0.1	-0.7	-0.4	-0.4	0.3	-0.9	97.3	85.5	81.7	82.8	90.5	83.7
25-May-01	02:39:34	0.1	-0.4	-0.4	-0.2	-0.9	-1.2	94.6	82.3	83.3	81.7	91.1	83.7
25-May-01	02:59:34	0.3	-0.7	-0.4	-0.7	-1.4	-0.9	97.3	86.1	83.3	81.7	90.5	84.2
25-May-01	03:19:34	0.3	-0.9	-0.2	-0.4	-1.4	-0.9	94.6	84.5	80.7	83.3	91.1	84.2
25-May-01	03:39:34	2.1	-0.7	-0.4	-0.2	-0.9	-0.7	94.6	82.3	80.7	82.3	96.6	84.2
25-May-01	03:59:34	3.9	-0.4	-0.2	-0.4	-1.2	-0.7	91.3	86.1	82.3	81.7	92.2	84.2
25-May-01	04:19:34	0.8	-0.7	-0.2	-0.4	-1.4	-0.7	96.2	84.5	83.3	83.3	94.9	84.2
25-May-01	04:39:34	0.3	-0.4	-0.2	-0.2	-0.4	-0.9	96.7	81.3	82.8	81.7	93.3	84.8
25-May-01	04:59:34	0.3	-0.4	-0.2	-0.4	-1.4	-0.9	95.6	85.5	80.7	81.7	91.6	83.7
25-May-01	05:19:34	0.1	-0.9	-0.4	-0.4	-1.9	-0.9	92.9	86.1	81.7	82.8	93.8	83.7
25-May-01	05:39:34	0.1	-0.7	-0.2	-0.4	-0.4	-1.2	96.7	81.3	82.8	82.3	96.6	84.2
25-May-01	05:59:34	-0.2	-0.4	-0.4	-0.2	-1.2	-0.9	96.2	82.9	82.3	82.3	92.2	83.7

25-May-01	06:19:34	0.3	-0.7	-0.4	-0.2	-0.9	-0.9	94.6	86.1	80.7	82.8	97.2	83.7
25-May-01	06:39:34	-0.2	-0.7	-0.2	-0.4	-0.9	-0.9	97.3	82.9	81.2	82.3	92.2	83.7
25-May-01	06:59:34	0.1	-0.4	-0.2	-0.4	-1.4	-0.9	94	82.9	80.7	82.3	92.2	83.7
25-May-01	07:19:34	0.3	-0.4	0.3	-0.2	-0.7	-0.9	96.7	84.5	80.2	83.3	94.9	85.9
25-May-01	07:39:34	0.1	-0.4	0.1	-0.2	0.3	-0.7	94	81.8	80.7	82.3	94.4	84.8
25-May-01	07:59:34	0.1	-0.7	-0.2	-0.4	1.3	-0.2	97.3	81.3	80.2	81.7	91.6	84.2
25-May-01	08:19:34	0.3	-0.4	-0.2	-0.4	0.3	1.3	95.1	83.4	81.2	83.8	91.6	81.1
25-May-01	08:39:34	0.1	0.6	0.1	-0.2	-0.7	0.1	97.8	82.9	81.7	82.3	91.6	83.2
25-May-01	08:59:34	0.3	1.6	-0.2	-0.2	-1.4	-0.7	95.1	82.3	81.7	82.3	91.6	83.7
25-May-01	09:19:34	0.1	1.8	-0.2	-0.4	-1.7	-0.9	94	79.7	80.2	82.3	92.2	84.2
25-May-01	09:39:34	2.1	0.3	-0.2	-0.4	-1.7	-1.2	97.3	81.3	80.2	82.3	91.6	84.2
25-May-01	09:59:34	3.9	-0.2	-0.2	-0.2	-1.2	-0.9	89.7	83.4	80.7	81.7	96.6	83.7
25-May-01	10:19:34	0.8	-0.2	-0.2	-0.2	-0.7	-0.9	95.1	83.4	81.7	83.3	92.2	84.2
25-May-01	10:39:34	0.6	0.1	-0.2	-0.2	-1.4	-0.9	95.6	80.7	79.2	82.3	92.2	84.2
25-May-01	10:59:34	0.1	-0.7	-0.2	-0.2	-1.2	-0.9	98.9	80.7	80.7	82.3	97.8	83.2
25-May-01	11:19:34	0.3	-0.9	0.1	-0.2	-1.2	-0.9	94.6	80.7	82.8	82.3	93.3	83.7
25-May-01	11:39:34	0.6	-0.9	-0.2	-0.2	-1.4	-0.9	95.6	81.3	83.3	82.3	92.7	83.2
25-May-01	11:59:34	0.6	-1.2	-0.4	-0.4	-1.7	-0.9	94.6	80.7	82.3	81.7	92.7	83.7
25-May-01	12:19:34	0.3	-0.9	-0.4	-0.4	-1.4	-0.9	95.6	81.8	79.7	81.7	92.7	84.8
25-May-01	12:39:34	0.3	-0.7	-0.4	-0.4	-1.7	-1.2	97.3	82.3	80.2	81.7	91.6	83.2
25-May-01	12:59:34	0.3	-0.7	-0.4	-0.7	-1.9	-0.9	96.2	82.9	80.7	81.7	90.5	84.2
25-May-01	13:19:34	0.8	-0.4	-0.2	-0.4	-1.7	-1.2	97.3	82.3	81.2	83.3	92.2	85.9
25-May-01	13:39:34	0.1	-0.7	-0.2	-0.2	-0.2	-1.2	98.9	81.3	81.2	82.3	94.4	85.9
25-May-01	13:59:34	1.1	-0.7	-0.4	-0.2	1.1	-0.9	98.9	81.3	80.7	81.7	94.9	83.2
25-May-01	14:19:34	1.3	-0.9	-0.4	-0.4	0.3	-0.9	96.7	80.7	79.2	81.7	92.2	83.2
25-May-01	14:39:34	0.6	-1.2	-0.2	-0.7	-0.9	-0.9	98.4	84.5	80.2	81.7	92.2	83.2
25-May-01	14:59:34	1.3	-0.7	0.1	-0.7	-1.4	-0.7	100	81.3	80.7	81.7	92.2	84.2
25-May-01	15:19:34	1.3	-1.2	0.3	-0.2	-1.4	-0.9	97.8	81.3	80.2	83.3	92.2	86.4
25-May-01	15:39:34	2.6	-1.2	0.6	-0.2	-0.9	-0.9	94.6	81.3	81.2	82.3	97.2	83.2
25-May-01	15:59:34	0.6	-1.2	0.1	-0.4	-1.2	-0.2	97.3	81.3	80.7	81.7	92.2	83.2
25-May-01	16:19:34	0.6	-0.9	-0.2	-0.2	-1.4	1.6	94.6	81.8	79.7	83.8	92.2	82.1
25-May-01	16:39:34	0.6	-0.2	-0.2	0.1	-0.7	0.3	96.2	81.8	79.7	82.8	95.5	83.2
25-May-01	16:59:34	0.6	0.8	-0.2	-0.2	-1.7	-0.2	96.2	81.3	80.2	82.8	92.7	84.2
25-May-01	17:19:34	0.8	1.3	-0.4	-0.4	-0.9	-0.2	94.6	79.7	79.7	82.3	97.8	83.7
25-May-01	17:39:34	0.3	0.1	-0.7	-0.7	-1.2	-0.4	98.9	80.7	79.2	82.3	92.7	83.7
25-May-01	17:59:34	0.3	-0.2	-0.9	-0.2	-1.7	-0.7	96.2	82.9	81.2	85.9	94.4	83.7
25-May-01	18:19:34	0.3	-0.2	-0.4	-0.2	-0.7	-0.7	95.1	83.4	79.7	84.4	97.8	85.9
25-May-01	18:39:34	0.3	-0.4	-0.4	-0.7	-1.4	-0.7	94.6	80.7	79.2	83.8	92.2	86.9
25-May-01	18:59:34	-0.2	-0.7	-0.7	-0.2	-0.9	-0.9	93.5	80.7	78.6	86.5	97.8	84.8
25-May-01	19:19:34	-0.2	-0.7	-0.7	-0.4	-0.9	-0.7	98.4	85.5	81.2	83.8	94.9	84.2
25-May-01	19:39:34	0.8	-0.7	-0.7	-0.7	0.3	-0.7	100	80.7	78.6	83.8	94.9	84.2
25-May-01	19:59:34	0.6	-1.2	-0.7	-0.2	1.6	-0.9	94.6	85	78.6	84.4	94.9	84.8
25-May-01	20:19:34	0.1	-0.4	-0.7	0.1	0.6	-0.7	97.3	82.9	78.1	84.9	92.7	85.9
25-May-01	20:39:34	0.1	-0.7	-0.4	-0.4	-0.9	-0.9	95.6	81.8	78.1	82.8	92.2	85.3
25-May-01	20:59:34	-0.2	-1.2	-0.4	-0.4	-1.4	-0.7	94.6	82.9	78.1	83.8	91.6	85.9
25-May-01	21:19:34	-0.7	-0.2	-0.4	-0.4	-1.7	-1.2	96.7	85.5	78.1	83.3	96.1	85.9
25-May-01	21:39:34	2.3	-0.4	-0.4	-0.4	-0.9	-0.7	97.8	80.7	78.6	83.3	94.4	85.3
25-May-01	21:59:34	5.7	-0.7	-0.2	-0.4	-1.7	-0.7	90.8	86.1	78.1	87	92.7	84.8
25-May-01	22:19:34	1.6	-0.4	-0.2	0.1	-1.7	-0.7	92.9	80.7	78.1	84.9	92.7	84.2

25-May-01	22:39:34	0.6	-0.7	-0.2	-0.4	-1.7	-0.9	97.8	86.1	78.1	82.8	94.9	85.9
25-May-01	22:59:34	0.3	-0.7	0.3	-0.4	-0.9	-0.9	97.3	81.3	78.1	83.3	94.9	83.2
25-May-01	23:19:34	0.1	-0.9	0.6	-0.4	-1.7	-0.9	93.5	85.5	78.6	84.4	92.7	85.3
25-May-01	23:39:34	0.3	-0.4	0.3	-0.4	-1.9	-0.9	97.3	81.3	80.2	82.3	94.9	85.3
25-May-01	23:59:34	0.1	-0.9	0.1	-0.4	-0.7	0.1	93.5	85	79.2	84.9	97.8	83.7
26-May-01	00:19:34	-0.2	-0.4	-0.4	-0.2	-1.4	1.6	97.8	85	78.6	82.8	92.2	81.1
26-May-01	00:39:34	0.1	0.1	-0.4	-0.2	-1.9	0.1	94.6	83.4	79.2	81.7	96.1	83.2
26-May-01	00:59:34	-0.2	0.8	-0.7	-0.4	-0.7	-0.7	98.9	84.5	79.7	84.9	98.3	83.2
26-May-01	01:19:34	0.1	1.1	-0.7	-0.4	-1.2	-0.9	94.6	80.7	79.2	82.3	93.8	83.7
26-May-01	01:39:34	0.1	-0.2	-0.4	-0.4	-0.2	-0.9	95.1	81.3	79.7	82.3	93.3	84.2
26-May-01	01:59:34	0.1	-0.4	-0.7	-0.2	0.8	-0.9	95.6	83.9	80.7	83.8	92.7	84.2
26-May-01	02:19:34	0.1	-0.7	-0.4	0.1	0.1	-0.9	98.4	81.3	79.2	83.3	92.2	84.2
26-May-01	02:39:34	0.1	-0.9	-0.7	-0.2	-0.9	-0.7	94	81.8	80.2	82.3	92.2	83.7
26-May-01	02:59:34	-0.4	-0.9	-0.4	-0.4	-1.7	-0.7	97.8	86.6	81.2	82.3	92.2	83.7
26-May-01	03:19:34	0.1	-0.9	-0.4	-0.7	-1.2	-1.2	96.7	80.7	79.2	82.3	97.2	84.8
26-May-01	03:39:34	1.8	-0.9	-0.4	-0.4	-0.9	-0.9	95.6	86.1	80.2	84.9	93.8	85.3
26-May-01	03:59:34	4.6	-0.9	-0.4	-0.2	-1.7	-0.7	91.3	80.7	81.2	82.3	92.2	85.3
26-May-01	04:19:34	0.8	-0.7	-0.7	-0.4	-0.9	-0.7	91.3	86.1	78.6	82.3	97.8	85.9
26-May-01	04:39:34	0.1	-1.2	-0.4	-0.7	-1.2	-0.9	97.8	80.7	79.7	83.3	92.7	84.2
26-May-01	04:59:34	0.1	-0.9	-0.7	-0.2	-1.9	-0.7	94	86.6	81.2	84.9	94.9	85.9
26-May-01	05:19:34	0.1	-0.7	-0.4	-0.2	-0.7	-0.7	97.3	80.7	78.1	81.7	98.3	84.2
26-May-01	05:39:34	-0.2	-0.9	-0.7	-0.7	-1.4	-0.9	96.2	86.1	80.2	82.3	92.7	84.2
26-May-01	05:59:34	-0.2	-0.7	-0.7	-0.7	-1.4	-0.7	98.4	80.7	80.7	83.8	97.8	85.3
26-May-01	06:19:34	0.1	-0.9	-0.2	0.1	-0.9	-0.7	95.1	86.6	79.2	83.3	95.5	85.9
26-May-01	06:39:34	-0.2	-0.7	-0.4	-0.4	-1.4	-0.7	98.4	81.3	78.6	82.3	92.7	84.2
26-May-01	06:59:34	-0.2	-0.7	0.1	-0.7	-1.2	-0.9	94.6	86.6	79.2	82.3	97.8	85.3
26-May-01	07:19:34	-0.2	-0.4	0.3	-0.4	-0.7	-0.7	97.3	81.3	78.6	84.9	96.1	85.3
26-May-01	07:39:34	-0.2	-0.4	0.6	-0.4	0.1	-0.7	94.6	86.6	79.2	82.3	94.4	84.8
26-May-01	07:59:34	-0.2	-0.7	0.3	-0.7	1.1	0.3	95.6	81.8	78.6	82.8	94.9	84.8
26-May-01	08:19:34	0.1	-0.2	0.1	-0.4	0.3	1.8	98.9	85	78.1	84.9	92.7	81.6
26-May-01	08:39:34	0.1	0.6	-0.2	-0.4	-1.2	0.6	94.6	83.4	78.1	82.3	92.2	82.6
26-May-01	08:59:34	-0.2	1.3	-0.2	-0.4	-1.4	-0.4	97.8	82.9	78.1	82.3	92.7	84.2
26-May-01	09:19:34	0.3	1.8	-0.2	-0.7	-0.9	-0.7	96.7	80.2	79.2	82.3	97.8	84.2
26-May-01	09:39:34	2.6	0.6	-0.7	-0.2	-1.2	-0.7	97.3	80.7	78.6	83.8	93.3	84.2
26-May-01	09:59:34	3.4	0.3	-0.4	-0.2	-1.9	-0.7	91.9	82.9	81.7	81.7	94.9	84.2
26-May-01	10:19:34	0.8	0.1	-0.7	-0.2	-0.7	-0.7	94.6	83.4	78.6	83.8	97.8	84.2
26-May-01	10:39:34	0.3	0.1	-0.7	-0.4	-1.7	-0.9	92.9	80.7	79.2	82.3	92.7	84.2
26-May-01	10:59:34	0.1	-0.4	-0.2	-0.7	-0.9	-0.9	97.3	80.7	78.6	82.3	98.9	84.2
26-May-01	11:19:34	0.1	-0.7	-0.2	-0.9	-1.2	-1.2	94	80.7	80.7	82.3	93.8	83.7
26-May-01	11:39:34	-0.2	-0.9	-0.4	-0.2	-1.7	-0.9	94.6	80.7	78.6	84.9	93.8	84.2
26-May-01	11:59:34	-0.2	-0.4	-0.4	0.1	-0.7	-1.2	91.3	82.9	78.1	82.3	97.8	84.2
26-May-01	12:19:34	0.6	-0.9	-0.4	-0.4	-1.7	-1.2	97.3	80.2	78.6	82.3	93.3	86.4
26-May-01	12:39:34	1.1	-0.4	-0.4	-0.7	-0.9	-1.2	97.8	82.3	78.1	82.3	98.3	84.2
26-May-01	12:59:34	1.3	-0.7	-0.4	-0.4	-1.2	-1.2	94.6	81.3	80.2	84.4	93.3	84.2
26-May-01	13:19:34	0.3	-0.4	-0.2	0.1	-1.4	-0.9	97.3	80.7	77.6	82.8	93.3	84.2
26-May-01	13:39:34	0.1	-0.9	-0.7	-0.4	-0.2	-1.2	97.3	80.2	78.1	82.3	93.3	84.2
26-May-01	13:59:34	0.3	-0.7	-0.7	-0.4	0.6	-0.9	97.3	80.2	78.1	82.8	92.2	85.9
26-May-01	14:19:34	0.3	-0.7	-0.4	-0.2	-0.2	-1.2	94.6	82.3	78.1	84.9	92.2	84.2
26-May-01	14:39:34	0.3	-0.9	-0.2	-0.2	-1.2	-1.2	94.6	80.2	77.6	82.3	92.2	84.2

26-May-01	14:59:34	0.1	-0.9	0.1	-0.2	-1.7	-0.9	97.3	80.2	77.6	82.3	92.2	85.9
26-May-01	15:19:34	0.8	-0.9	0.6	-0.4	-1.7	-1.2	97.3	80.2	77.6	83.8	95.5	83.7
26-May-01	15:39:34	3.6	-0.9	0.8	-0.2	-0.9	-1.2	97.3	83.9	79.2	82.3	96.1	83.2
26-May-01	15:59:34	1.6	-0.7	0.1	-0.4	-1.4	-0.2	91.3	80.7	78.6	82.3	92.7	83.2
26-May-01	16:19:34	0.8	-0.7	-0.2	0.1	-1.4	1.3	97.3	80.7	78.1	83.3	98.3	81.6
26-May-01	16:39:34	0.8	0.1	-0.4	-0.2	-1.2	-0.2	94.6	80.7	77.6	82.3	93.3	83.2
26-May-01	16:59:34	0.8	1.1	-0.4	-0.4	-1.4	-0.9	100	80.7	78.1	82.3	95.5	83.7
26-May-01	17:19:34	0.6	1.6	-0.7	-0.2	-0.7	-1.2	96.2	79.2	78.1	84.4	97.8	84.2
26-May-01	17:39:34	0.6	0.3	-0.7	-0.2	-1.7	-0.9	100	79.7	80.7	82.3	92.7	85.9
26-May-01	17:59:34	0.6	0.1	-0.7	-0.4	-1.2	-0.7	94.6	81.8	78.1	82.3	98.9	84.8
26-May-01	18:19:34	0.3	0.1	-0.4	-0.2	-1.2	-0.7	96.2	82.3	78.1	84.4	93.8	84.8
26-May-01	18:39:34	0.3	0.1	-0.4	0.1	-1.2	-1.2	98.9	80.7	78.6	81.7	98.9	86.9
26-May-01	18:59:34	0.3	-0.4	-0.4	-0.4	-0.9	-0.7	100	83.4	79.7	82.8	94.9	84.8
26-May-01	19:19:34	0.6	-0.4	-0.4	-0.2	-1.2	-0.9	95.1	80.7	78.6	83.8	94.4	87.5
26-May-01	19:39:34	0.1	-0.4	-0.7	-0.2	-0.2	-0.9	99.5	84.5	78.1	82.3	94.4	85.9
26-May-01	19:59:34	0.1	-0.2	-0.7	-0.4	0.8	-0.9	96.7	80.7	78.6	83.3	93.3	84.8
26-May-01	20:19:34	0.6	-0.4	-0.4	-0.2	-0.2	-0.9	97.3	85	78.6	83.3	93.3	85.3
26-May-01	20:39:34	0.1	-0.4	-0.4	-0.4	-1.4	-1.2	96.7	80.7	79.2	82.3	92.7	84.8
26-May-01	20:59:34	0.3	-0.2	-0.4	-0.4	-1.9	-0.7	97.3	85	78.1	84.4	92.7	85.3
26-May-01	21:19:34	0.3	-0.4	-0.4	-0.2	-0.9	-0.7	94.6	82.9	77.6	82.3	98.9	85.9
26-May-01	21:39:34	2.1	-0.2	-0.4	-0.4	-1.4	-0.9	94.6	82.9	78.1	82.3	93.3	84.8
26-May-01	21:59:34	4.4	-0.2	-0.2	-0.2	-1.2	-0.7	92.4	84.5	78.1	84.4	99.5	85.3
26-May-01	22:19:34	0.8	0.1	-0.4	0.1	-0.9	-1.2	97.8	81.8	78.1	81.7	94.9	84.8
26-May-01	22:39:34	0.3	-0.2	-0.4	-0.4	-1.7	-0.7	96.2	85.5	78.6	83.3	97.2	85.3
26-May-01	22:59:34	0.1	-0.2	-0.2	-0.2	-0.9	-0.9	97.3	80.7	78.6	83.3	99.5	85.3
26-May-01	23:19:34	0.1	-0.2	0.3	-0.2	-1.7	-0.9	97.3	85.5	78.1	82.3	93.8	85.3
26-May-01	23:39:34	0.3	-0.4	0.3	-0.2	-1.2	-0.9	96.7	82.3	78.6	84.4	100	85.9
26-May-01	23:59:34	0.1	-0.2	-0.2	-0.2	-0.9	0.1	95.6	85	78.1	82.3	95.5	84.8
27-May-01	00:19:34	0.1	-0.2	-0.4	-0.4	-1.7	1.3	98.4	81.8	78.1	82.3	94.9	81.6
27-May-01	00:39:34	0.1	0.6	-0.7	-0.2	-0.9	0.1	97.3	82.3	78.6	83.8	100	83.2
27-May-01	00:59:34	0.1	1.1	-0.4	-0.2	-1.4	-0.7	96.2	81.8	78.1	82.3	94.4	84.8
27-May-01	01:19:34	-0.2	1.3	-0.2	-0.4	-1.2	-0.7	98.9	80.2	78.1	83.3	95.5	84.8
27-May-01	01:39:34	0.1	0.1	-0.4	-0.2	-0.2	-0.9	95.6	80.2	78.6	83.3	94.9	86.9
27-May-01	01:59:34	-0.2	-0.2	-0.4	-0.2	1.1	-0.9	98.9	85	78.6	82.3	94.4	84.8
27-May-01	02:19:34	0.1	0.1	-0.4	-0.2	0.1	-1.2	98.4	83.4	79.2	82.8	93.3	86.9
27-May-01	02:39:34	-0.2	-0.4	-0.4	-0.2	-1.2	-0.7	96.2	81.3	80.2	82.3	93.3	85.3
27-May-01	02:59:34	-0.2	-0.2	-0.4	-0.4	-1.7	-0.7	97.8	83.4	80.2	83.8	92.7	85.3
27-May-01	03:19:34	-0.2	-0.4	-0.4	-0.2	-1.2	-0.9	97.3	83.4	80.2	82.3	98.9	84.8
27-May-01	03:39:34	1.8	-0.2	-0.4	-0.4	-1.2	-0.9	97.3	81.8	80.7	82.3	94.4	85.3
27-May-01	03:59:34	1.8	-0.4	-0.2	-0.2	-1.7	-0.9	91.9	84.5	80.7	83.8	93.8	85.3
27-May-01	04:19:34	0.3	-0.2	-0.4	0.1	-0.9	-0.7	95.1	81.3	80.2	81.7	100	85.3
27-May-01	04:39:34	-0.4	-0.2	-0.4	-0.7	-1.4	-0.9	97.3	85.5	80.2	82.8	94.4	85.3
27-May-01	04:59:34	-0.2	-0.2	-0.4	0.1	-1.7	-0.9	97.3	80.7	80.2	83.3	94.9	85.9
27-May-01	05:19:34	-0.4	-0.2	-0.4	-0.2	-0.7	-0.9	98.9	85.5	80.2	82.3	100	85.3
27-May-01	05:39:34	-0.2	-0.2	-0.4	-0.4	-1.4	-0.9	96.2	81.3	80.2	83.8	94.4	85.9
27-May-01	05:59:34	-0.2	-0.2	-0.4	-0.2	-1.2	-0.9	99.5	85	80.2	82.8	100	85.3
27-May-01	06:19:34	-0.4	-0.2	-0.4	0.1	-0.9	-0.7	95.1	83.9	79.2	82.3	94.9	85.3
27-May-01	06:39:34	-0.2	0.1	-0.2	-0.2	-1.4	-0.9	99.5	82.9	78.1	81.7	97.2	86.9
27-May-01	06:59:34	-0.4	-0.2	-0.2	-0.7	-0.7	-0.9	94.6	85	78.6	82.8	100	85.3

27-May-01	07:19:34	-0.4	0.1	0.6	-0.2	-1.2	-0.9	97.3	80.7	78.1	83.3	94.4	86.4
27-May-01	07:39:34	-0.2	-0.2	0.3	-0.2	-0.2	-0.7	97.8	85	78.6	82.3	94.9	85.3
27-May-01	07:59:34	-0.4	-0.2	0.1	-0.4	0.8	-0.2	96.7	82.9	77.6	84.4	94.9	85.3
27-May-01	08:19:34	-0.2	0.3	-0.4	-0.2	0.1	1.3	99.5	83.9	77.6	82.3	94.4	82.1
27-May-01	08:39:34	-0.2	0.8	-0.4	-0.2	-0.9	0.1	94.6	82.9	78.6	82.3	94.4	83.2
27-May-01	08:59:34	-0.2	1.8	-0.2	-0.2	-1.4	-0.7	98.4	81.8	78.6	81.7	94.4	84.8
27-May-01	09:19:34	-0.2	1.8	-0.2	0.1	-1.9	-0.9	95.1	78.6	78.6	84.9	93.8	85.3
27-May-01	09:39:34	1.6	0.6	-0.4	-0.2	-0.7	-1.2	95.1	80.2	79.7	82.3	97.8	84.8
27-May-01	09:59:34	2.1	-0.2	-0.4	-0.2	-1.7	-0.9	92.4	82.9	81.2	82.3	93.8	85.3
27-May-01	10:19:34	0.3	0.1	-0.4	0.1	-1.9	-0.9	97.3	79.7	78.6	83.3	92.7	85.3
27-May-01	10:39:34	-0.2	-0.2	-0.4	-0.2	-1.2	-0.9	94.6	83.4	79.7	82.3	98.9	85.3
27-May-01	10:59:34	-0.2	-0.4	-0.7	-0.4	-1.2	-0.9	96.2	80.2	80.7	82.3	94.4	84.8
27-May-01	11:19:34	-0.2	-0.2	-0.7	-0.2	-1.4	-0.9	96.2	81.8	78.6	81.7	94.4	85.3
27-May-01	11:39:34	-0.4	-0.7	-0.4	-0.2	-1.7	-0.7	94	80.7	79.2	84.4	94.4	85.3
27-May-01	11:59:34	-0.2	-0.2	-0.4	-0.2	-1.7	-1.2	98.9	81.3	79.7	82.3	93.3	84.8
27-May-01	12:19:34	-0.2	-0.4	-0.7	-0.4	-1.9	-1.2	98.4	83.9	78.1	82.3	94.9	84.8
27-May-01	12:39:34	-0.2	-0.4	-0.7	-0.7	-0.7	-0.7	97.3	80.2	78.6	82.3	97.8	85.3
27-May-01	12:59:34	-0.2	-0.4	-0.2	0.1	-1.2	-1.2	94.6	82.9	78.1	84.4	92.7	84.8
27-May-01	13:19:34	-0.4	-0.4	-0.4	-0.2	-0.9	-1.2	97.8	80.2	79.2	82.3	96.1	84.8
27-May-01	13:39:34	-0.2	-0.4	-0.7	-0.4	-0.2	-0.7	97.8	82.9	78.1	82.3	94.9	84.8
27-May-01	13:59:34	-0.2	-0.7	-0.2	-0.4	1.1	-0.9	96.2	79.7	80.2	83.3	94.4	84.2
27-May-01	14:19:34	-0.2	-0.7	-0.4	-0.2	0.3	-0.7	96.2	80.7	78.1	82.3	92.2	84.2
27-May-01	14:39:34	-0.2	-0.4	-0.2	-0.4	-0.7	-0.9	100	82.9	78.1	82.3	92.2	84.2
27-May-01	14:59:34	-0.2	-0.7	0.3	-0.4	-1.2	-1.2	96.2	79.7	78.1	82.3	91.6	84.2
27-May-01	15:19:34	-0.2	-0.4	0.6	-0.4	-0.9	-1.2	97.3	81.8	78.1	83.8	97.2	84.2
27-May-01	15:39:34	1.8	-0.7	0.6	0.1	-0.9	-0.9	94.6	83.4	78.6	82.3	93.3	83.7
27-May-01	15:59:34	1.3	-0.4	0.3	-0.4	-0.9	0.1	91.9	80.7	78.1	82.3	97.2	83.2
27-May-01	16:19:34	-0.2	-0.2	-0.2	-0.2	-1.2	1.8	94	83.4	78.1	82.8	94.4	81.1
27-May-01	16:39:34	-0.2	0.6	-0.4	-0.2	-1.2	0.1	94.6	82.3	78.1	82.3	92.7	82.6
27-May-01	16:59:34	0.1	1.6	-0.4	-0.2	-1.4	-0.4	94.6	81.3	80.7	81.7	94.9	83.7
27-May-01	17:19:34	0.3	2.1	-0.4	-0.4	-0.7	-0.9	97.8	78.6	79.7	82.3	97.8	84.2
27-May-01	17:39:34	0.6	0.3	-0.4	-0.2	-0.4	-0.9	99.5	80.2	78.6	82.8	98.3	84.2
27-May-01	17:59:34	0.6	0.1	-0.4	0.1	-0.7	-0.9	98.9	82.9	80.7	82.3	96.1	84.2
27-May-01	18:19:34	0.8	-0.2	-0.4	-0.2	-0.4	-0.9	97.3	82.9	78.6	81.7	97.8	84.8
27-May-01	18:39:34	1.1	-0.2	-0.4	0.1	-0.7	-0.9	97.3	81.8	80.7	83.3	94.9	86.4
27-May-01	18:59:34	0.6	-0.2	-0.4	-0.2	-0.4	-0.9	93.5	81.3	81.2	82.3	97.8	84.8
27-May-01	19:19:34	-0.4	-0.4	-0.4	-0.2	-0.2	-0.7	98.9	85	79.2	81.7	97.8	85.3
27-May-01	19:39:34	-0.4	-0.2	-0.4	-0.2	0.3	-0.9	94.6	80.7	80.7	83.3	97.2	86.4
27-May-01	19:59:34	-0.2	-0.2	-0.7	0.1	1.3	-0.7	97.3	85	81.2	82.8	94.9	86.4
27-May-01	20:19:34	-0.4	-0.2	-0.7	0.1	0.8	-0.9	97.3	83.4	78.6	82.3	92.2	85.9
27-May-01	20:39:34	-0.2	-0.2	-0.4	0.1	-0.4	-0.7	95.6	82.9	79.7	82.3	92.2	85.9
27-May-01	20:59:34	-0.4	-0.4	-0.4	-0.4	-0.7	-0.9	98.9	85	80.7	82.3	96.1	85.3
27-May-01	21:19:34	-0.4	-0.4	-0.7	-0.2	-0.4	-0.9	94.6	80.7	80.7	83.3	97.2	86.4
27-May-01	21:39:34	1.8	0.1	-0.4	0.1	-0.7	-0.7	98.4	84.5	79.2	82.3	96.6	86.4
27-May-01	21:59:34	0.1	-0.2	-0.7	-0.2	-0.4	-0.7	99.5	84.5	80.7	81.7	96.6	85.9
27-May-01	22:19:34	-0.2	0.1	-0.4	0.1	-0.9	-0.9	95.1	80.7	81.2	83.3	97.2	86.9
27-May-01	22:39:34	-0.4	-0.2	-0.7	0.1	-0.7	-0.7	100	84.5	78.6	82.3	96.1	86.4
27-May-01	22:59:34	-0.4	-0.4	-0.2	-0.4	-0.4	-0.7	95.1	82.9	78.6	82.3	97.2	85.3
27-May-01	23:19:34	-0.7	-0.2	0.1	0.1	-0.4	-0.7	100	83.4	78.1	83.3	94.9	85.3

27-May-01	23:39:34	-0.7	-0.2	0.1	-0.2	-0.7	-0.4	95.1	85	80.2	81.7	97.2	85.9
27-May-01	23:59:34	-0.4	0.1	-0.2	-0.2	-0.4	-0.2	99.5	82.3	78.1	83.3	96.1	84.8
28-May-01	00:19:34	-0.4	-0.2	-0.7	0.1	-0.7	1.3	97.3	83.4	82.8	82.3	96.6	82.6
28-May-01	00:39:34	-0.4	0.3	-0.7	-0.2	-0.4	0.1	97.8	82.9	80.7	81.7	97.2	83.2
28-May-01	00:59:34	-0.7	0.8	-0.4	0.1	-0.7	-0.4	97.8	83.4	79.7	83.3	95.5	84.2
28-May-01	01:19:34	-0.2	0.8	-0.4	0.1	-0.2	-0.4	96.7	80.7	81.2	82.3	97.2	84.8
28-May-01	01:39:34	-0.7	-0.2	-0.4	-0.2	0.3	-0.7	98.9	81.3	81.7	82.8	96.6	85.3
28-May-01	01:59:34	-0.2	-0.2	-0.4	-0.2	1.3	-0.4	97.3	85.5	81.7	82.8	94.9	85.3
28-May-01	02:19:34	-0.7	-0.2	-0.4	0.1	0.8	-0.7	99.5	80.2	80.2	82.3	91.1	85.3
28-May-01	02:39:34	-0.4	-0.4	-0.4	-0.2	-0.7	-0.4	96.7	85.5	80.7	82.3	91.6	85.3
28-May-01	02:59:34	-0.4	-0.4	-0.4	-0.2	-0.7	-0.7	100	82.3	82.8	82.8	96.1	85.3
28-May-01	03:19:34	-0.2	-0.2	-0.7	0.1	-0.9	-0.7	97.3	85	80.7	82.8	94.9	84.8
28-May-01	03:39:34	1.8	-0.4	-0.4	-0.2	-0.7	-0.7	95.1	84.5	80.2	82.3	97.8	85.3
28-May-01	03:59:34	0.6	-0.2	-0.4	-0.2	-0.7	-0.7	93.5	81.8	80.7	83.3	94.9	85.3
28-May-01	04:19:34	-0.2	-0.4	-0.4	0.1	-0.7	-0.7	99.5	85	82.8	82.3	97.8	85.3
28-May-01	04:39:34	-0.4	-0.4	-0.7	-0.2	-0.7	-0.7	97.3	82.9	81.2	82.3	95.5	86.9
28-May-01	04:59:34	-0.7	-0.4	-0.4	0.1	-0.7	-0.7	100	83.4	80.2	83.3	97.8	86.9
28-May-01	05:19:34	-0.4	-0.4	-0.4	0.1	-0.7	-0.7	97.3	85.5	82.3	82.3	94.9	85.3
28-May-01	05:39:34	-0.7	0.1	-0.4	-0.2	-0.7	-0.7	99.5	80.7	81.7	82.3	97.8	85.9
28-May-01	05:59:34	-0.4	-0.2	-0.4	-0.2	-0.9	-0.7	97.3	85	79.2	82.8	94.4	85.3
28-May-01	06:19:34	-0.4	-0.4	-0.4	0.1	-0.7	-0.7	98.4	83.4	80.2	82.3	97.8	85.3
28-May-01	06:39:34	-0.4	0.1	-0.2	-0.2	-0.9	-0.4	96.7	82.3	81.2	82.3	94.4	86.4
28-May-01	06:59:34	-0.4	-0.2	-0.2	-0.2	-0.7	-0.7	98.9	85	80.7	83.3	97.8	85.9
28-May-01	07:19:34	-0.4	0.1	0.6	0.3	-0.9	-0.7	98.4	80.7	79.7	81.7	94.9	85.9
28-May-01	07:39:34	-0.4	-0.2	0.6	-0.2	0.3	-0.4	99.5	84.5	79.7	82.3	96.6	85.9
28-May-01	07:59:34	-0.4	-0.2	-0.2	0.1	0.8	0.1	95.6	83.4	78.6	83.3	96.1	85.3
28-May-01	08:19:34	-0.2	0.1	-0.7	0.1	0.3	1.1	98.4	83.4	82.3	82.3	93.3	83.2
28-May-01	08:39:34	-0.4	0.6	-0.4	-0.2	-0.7	0.1	100	83.4	79.2	81.7	92.7	83.2
28-May-01	08:59:34	-0.2	1.6	-0.7	0.1	-0.7	-0.4	97.3	82.3	80.2	83.3	97.8	84.8
28-May-01	09:19:34	-0.4	1.6	-0.2	0.1	-1.2	-0.4	96.2	79.2	80.7	81.7	93.8	85.3
28-May-01	09:39:34	2.1	0.3	-0.4	-0.2	-0.9	-0.7	97.3	80.7	82.3	81.7	97.8	85.3
28-May-01	09:59:34	0.8	0.1	-0.4	-0.4	-0.2	-0.9	91.9	83.4	80.7	82.3	98.3	86.4
28-May-01	10:19:34	-0.4	0.1	-0.4	0.1	-0.9	-0.7	98.4	83.4	80.7	82.3	94.4	87.5
28-May-01	10:39:34	-0.4	-0.2	-0.4	-0.4	-1.2	-0.9	98.4	80.7	81.2	81.7	96.1	85.9
28-May-01	10:59:34	-0.4	-0.4	-0.4	-0.4	-0.4	-0.7	95.6	82.9	80.2	81.7	97.8	85.3
28-May-01	11:19:34	-0.7	-0.2	-0.2	-0.2	-0.9	-0.7	94.6	80.7	80.7	82.8	94.9	86.4
28-May-01	11:39:34	-0.4	-0.4	-0.2	-0.2	-0.9	-0.9	97.8	80.7	81.7	82.3	97.2	84.8
28-May-01	11:59:34	-0.4	-0.9	-0.4	0.1	-0.2	-0.9	94	83.9	79.7	82.3	98.9	85.3
28-May-01	12:19:34	-0.7	-0.4	-0.4	-0.2	-0.9	-0.9	98.9	80.7	81.7	81.7	94.4	86.9
28-May-01	12:39:34	-0.9	-0.9	-0.7	-0.4	-1.2	-0.9	94.6	82.9	81.2	81.7	94.9	85.9
28-May-01	12:59:34	-0.4	-0.7	-0.4	-0.4	-0.4	-0.9	97.3	80.7	80.2	81.7	98.9	85.3
28-May-01	13:19:34	-0.2	-0.9	-0.4	-0.4	-0.2	-0.7	97.3	80.2	80.7	81.7	97.2	85.9
28-May-01	13:39:34	-0.4	-0.7	-0.7	-0.4	0.6	-1.2	98.4	82.9	78.6	82.3	97.8	84.8
28-May-01	13:59:34	-0.4	-0.9	-0.4	0.1	1.8	-0.9	94.6	80.2	80.2	81.7	97.2	86.9
28-May-01	14:19:34	-0.9	-0.9	-0.4	0.1	1.3	-0.9	92.4	83.4	78.1	82.3	94.4	87.5
28-May-01	14:39:34	0.1	-0.9	-0.4	-0.2	-0.2	-0.7	100	80.2	80.7	81.7	93.8	85.3
28-May-01	14:59:34	0.3	-1.2	0.1	-0.7	-0.7	-0.9	99.5	83.9	79.7	81.7	93.3	84.8
28-May-01	15:19:34	0.6	-0.9	0.6	-0.4	-0.4	-0.9	97.8	80.2	78.6	81.7	98.3	85.3
28-May-01	15:39:34	0.6	-0.9	0.3	-0.4	-0.7	-0.9	91.9	83.9	80.7	82.3	95.5	85.9

28-May-01	15:59:34	-0.4	-1.2	-0.4	-0.4	-0.2	0.1	94	80.2	79.7	82.3	98.9	84.8
28-May-01	16:19:34	-0.7	-1.2	-0.4	0.1	-0.7	1.6	97.3	80.7	78.6	82.8	96.1	82.1
28-May-01	16:39:34	-0.4	-0.2	-0.4	-0.2	-0.2	0.1	94.6	80.7	80.2	82.3	99.5	83.7
28-May-01	16:59:34	-0.7	0.6	-0.7	-0.4	-0.7	-0.9	94.6	80.2	80.7	81.7	97.2	85.3
28-May-01	17:19:34	-0.7	1.3	-0.4	-0.7	-0.2	-0.7	95.6	78.6	79.2	81.7	99.5	85.3
28-May-01	17:39:34	-0.7	-0.2	-0.4	-0.9	-0.9	-0.7	100	80.7	80.7	81.7	97.2	85.9
28-May-01	17:59:34	-0.7	-0.2	-0.4	-0.4	-0.4	-0.7	95.6	82.9	80.7	84.4	99.5	85.9
28-May-01	18:19:34	-0.9	-0.2	-0.4	-0.2	-0.7	-0.7	97.3	82.3	83.3	82.3	95.5	85.3
28-May-01	18:39:34	-0.9	-0.4	-0.4	-0.7	-0.4	-0.7	95.1	83.4	82.8	82.3	98.9	85.3
28-May-01	18:59:34	-0.9	0.1	-0.4	-0.7	-0.9	-0.9	98.9	80.7	80.2	84.4	95.5	85.3
28-May-01	19:19:34	-0.9	-0.2	-0.4	-0.2	-0.7	-0.7	95.6	83.9	82.3	82.3	98.3	86.9
28-May-01	19:39:34	-1.2	-0.4	-0.7	-0.4	0.6	-0.7	94	81.3	83.3	82.3	97.8	87.5
28-May-01	19:59:34	-1.2	0.1	-0.4	-0.4	1.3	-0.9	92.9	83.4	80.2	82.8	97.2	86.9
28-May-01	20:19:34	-1.2	-0.2	-0.4	-0.2	0.6	-0.7	98.4	83.4	82.8	83.3	93.8	87.5
28-May-01	20:39:34	-1.2	0.1	-0.7	-0.4	-0.7	-0.9	94.6	81.3	82.3	82.3	92.7	86.9
28-May-01	20:59:34	-1.2	-0.2	-0.7	-0.2	-0.4	-0.7	94	83.4	80.2	84.4	98.3	87.5
28-May-01	21:19:34	-0.9	0.1	-0.2	-0.2	-0.7	-0.7	98.4	80.7	82.8	82.3	96.1	87.5
28-May-01	21:39:34	1.8	0.1	-0.7	-0.7	-0.4	-0.7	96.2	83.4	82.3	82.3	98.9	87.5
28-May-01	21:59:34	4.1	-0.4	-0.7	-0.2	-0.9	-0.7	89.2	82.9	80.2	84.4	96.1	87.5
28-May-01	22:19:34	0.1	0.1	-0.4	-0.4	-0.2	-0.9	92.4	82.9	82.3	82.3	99.5	86.9
28-May-01	22:39:34	-0.9	-0.2	-0.4	-0.4	-0.7	-0.7	97.3	83.9	80.2	83.3	96.1	85.9
28-May-01	22:59:34	-0.7	0.1	-0.4	-0.4	-0.4	-0.7	96.2	80.7	80.2	83.8	99.5	85.9
28-May-01	23:19:34	-1.2	-0.2	0.1	-0.4	-0.7	-0.7	98.9	83.4	80.2	82.3	95.5	85.9
28-May-01	23:39:34	-0.7	0.1	-0.2	-0.2	-0.4	-0.7	94.6	80.7	80.7	84.4	98.9	87.5
28-May-01	23:59:34	-0.9	0.1	-0.4	-0.2	-0.4	-0.2	97.3	83.4	79.7	82.3	96.1	85.3
29-May-01	00:19:34	-1.2	0.1	-0.4	-0.4	-0.7	0.8	97.3	80.7	83.8	84.4	98.9	83.2
29-May-01	00:39:34	-1.2	0.3	-0.7	-0.2	-0.4	0.1	97.8	80.7	80.2	82.8	97.2	83.7
29-May-01	00:59:34	-0.9	0.8	-0.4	-0.4	-0.7	-0.4	94.6	81.3	82.8	82.3	98.3	85.3
29-May-01	01:19:34	-1.2	1.1	-0.4	-0.2	-0.4	-0.4	100	79.7	83.3	84.4	98.3	86.9
29-May-01	01:39:34	-0.9	-0.2	-0.4	-0.2	0.3	-0.9	96.7	83.9	80.2	82.3	97.8	88
29-May-01	01:59:34	-1.2	0.1	-0.2	-0.4	1.3	-0.9	98.9	82.9	81.7	83.3	97.2	86.9
29-May-01	02:19:34	-0.9	-0.4	-0.4	-0.2	0.6	-0.7	94.6	83.9	83.3	83.3	92.2	86.9
29-May-01	02:39:34	-1.4	0.1	-0.4	-0.4	-0.9	-0.7	94.6	82.9	80.7	82.3	92.2	86.9
29-May-01	02:59:34	-1.2	-0.2	-0.2	-0.2	-0.7	-0.9	100	83.4	81.7	84.4	98.3	85.3
29-May-01	03:19:34	-0.4	0.1	-0.4	-0.4	-0.7	-0.7	98.9	83.4	83.3	82.3	95.5	85.3
29-May-01	03:39:34	2.1	-0.2	-0.4	-0.4	-0.2	-0.4	97.3	82.9	81.2	84.4	98.9	85.9
29-May-01	03:59:34	-0.2	0.1	-0.4	-0.2	-0.7	-0.4	94	83.4	81.7	82.3	95.5	85.9
29-May-01	04:19:34	-1.2	-0.4	-0.4	-0.4	-0.7	-0.7	99.5	83.4	83.3	84.4	98.9	86.4
29-May-01	04:39:34	-0.9	-0.2	-0.7	-0.2	-0.7	-0.4	96.2	83.4	81.2	83.8	96.1	85.9
29-May-01	04:59:34	-1.2	-0.4	-0.4	-0.4	-0.4	-0.7	96.7	82.9	81.2	82.8	98.9	85.9
29-May-01	05:19:34	-1.2	0.1	-0.7	-0.2	-0.4	-0.7	99.5	83.4	83.8	84.4	97.8	85.9
29-May-01	05:39:34	-1.2	-0.4	-0.7	-0.2	-0.7	-0.7	94.6	82.9	81.7	81.7	97.8	86.9
29-May-01	05:59:34	-1.2	0.1	-0.4	-0.7	-0.4	-0.4	98.9	83.4	80.7	83.3	97.8	85.9
29-May-01	06:19:34	-0.9	-0.2	-0.4	-0.2	-0.9	-0.4	97.3	81.8	82.3	83.3	97.8	85.3
29-May-01	06:39:34	-1.2	-0.2	-0.4	-0.7	-0.2	-0.7	99.5	83.4	81.7	83.3	98.3	86.4
29-May-01	06:59:34	-1.2	0.1	0.1	-0.2	-0.9	-0.7	96.2	80.7	80.7	83.8	97.8	86.4
29-May-01	07:19:34	-1.2	-0.2	0.3	-0.2	-0.4	-0.7	97.3	83.4	80.7	81.7	98.3	86.9
29-May-01	07:39:34	-0.9	0.1	0.6	-0.4	0.3	-0.7	100	82.9	79.7	84.4	97.8	85.3
29-May-01	07:59:34	-1.2	0.1	-0.2	-0.2	1.1	-0.4	96.2	83.4	78.6	82.3	97.8	85.3

29-May-01	08:19:34	-1.2	-0.2	-0.4	-0.4	0.6	1.1	95.6	81.3	82.3	82.3	92.7	83.2
29-May-01	08:39:34	-1.2	0.3	-0.7	-0.4	-0.7	0.1	99.5	81.3	82.3	84.9	92.7	83.7
29-May-01	08:59:34	-1.2	1.1	-0.2	-0.4	-0.4	-0.7	94.6	80.7	80.2	82.3	98.9	85.3
29-May-01	09:19:34	-0.9	1.3	-0.2	-0.7	-0.9	-0.7	97.3	78.1	81.2	84.4	96.1	85.3
29-May-01	09:39:34	1.3	0.1	-0.4	-0.2	-0.2	-0.7	97.3	81.8	82.8	82.8	99.5	85.3
29-May-01	09:59:34	-0.4	0.3	-0.4	0.1	-0.7	-0.7	93.5	81.8	80.7	83.8	97.2	85.9
29-May-01	10:19:34	-0.9	0.1	-0.4	-0.2	-0.4	-0.7	97.3	82.3	80.7	82.3	99.5	85.9
29-May-01	10:39:34	-0.9	0.1	-0.4	-0.2	-0.4	-0.7	95.1	81.3	80.7	82.8	97.2	88
29-May-01	10:59:34	-0.9	0.3	-0.4	-0.2	-0.2	-0.9	97.3	80.7	83.3	82.3	98.9	85.3
29-May-01	11:19:34	-0.7	0.1	-0.4	-0.2	-0.7	-0.7	95.1	83.9	81.2	82.8	97.8	86.4
29-May-01	11:39:34	-0.7	-0.4	-0.4	0.1	-0.2	-1.2	99.5	83.4	80.2	82.8	98.3	88
29-May-01	11:59:34	-0.9	-0.2	-0.4	-0.4	-0.7	-0.7	95.1	80.7	80.7	82.3	97.8	85.9
29-May-01	12:19:34	-0.7	-0.2	-0.4	-0.7	-0.2	-0.7	97.3	81.3	81.7	82.3	97.8	86.9
29-May-01	12:39:34	-0.7	-0.2	-0.4	-0.9	-0.7	-0.7	95.6	84.5	82.8	82.3	98.3	85.9
29-May-01	12:59:34	-1.2	0.1	-0.4	-0.4	-0.2	-0.9	94.6	82.9	80.2	85.4	96.6	88
29-May-01	13:19:34	-0.9	-0.2	-0.4	-0.4	-0.4	-0.7	95.1	80.7	81.7	82.3	97.8	85.3
29-May-01	13:39:34	-1.4	0.1	-0.4	-0.7	0.3	-0.9	97.8	85	83.3	82.8	97.8	88
29-May-01	13:59:34	-0.4	-0.2	-0.4	-0.4	1.6	-0.9	100	82.9	79.7	84.9	97.2	85.9
29-May-01	14:19:34	-0.2	0.1	-0.7	-0.2	0.8	-0.9	100	80.7	82.3	82.8	92.7	85.3
29-May-01	14:39:34	0.3	-0.2	-0.4	-0.4	-0.7	-1.2	100	84.5	80.2	82.3	92.2	85.3
29-May-01	14:59:34	0.1	-0.2	0.1	-0.4	-0.4	-0.9	99.5	81.3	79.7	82.8	97.8	85.3
29-May-01	15:19:34	0.6	0.1	0.1	-0.2	-0.4	-0.9	98.9	81.3	78.6	82.8	96.6	85.3
29-May-01	15:39:34	0.6	-0.2	0.3	-0.7	-0.2	-0.9	93.5	84.5	80.2	82.3	98.3	85.3
29-May-01	15:59:34	-0.7	-0.2	-0.2	-0.7	-0.4	0.1	95.6	83.4	79.2	82.8	97.8	84.8
29-May-01	16:19:34	-1.2	0.3	-0.4	-0.4	0.1	1.3	94.6	82.3	80.7	84.4	97.8	82.6
29-May-01	16:39:34	-1.7	0.8	-0.7	-0.4	-0.2	0.1	94.6	81.3	79.2	82.3	97.8	84.2
29-May-01	16:59:34	-1.4	1.3	-0.4	-0.4	-0.2	-0.9	100	81.3	81.7	81.7	96.6	88
29-May-01	17:19:34	-0.4	1.6	-0.4	-0.4	-0.4	-0.9	100	78.1	80.7	85.4	98.3	85.3
29-May-01	17:39:34	0.1	0.3	-0.4	-0.4	-0.4	-0.9	100	80.2	80.7	82.3	95.5	85.3
29-May-01	17:59:34	0.1	0.1	-0.4	-0.7	-0.4	-0.7	100	82.9	82.3	82.3	98.3	86.9
29-May-01	18:19:34	0.1	-0.2	-0.7	-0.7	-0.4	-0.9	99.5	82.9	82.3	84.4	95.5	85.3
29-May-01	18:39:34	0.6	0.1	-0.7	-0.2	-0.2	-0.7	98.9	82.3	80.7	82.8	98.9	85.9
29-May-01	18:59:34	-0.2	0.1	-0.4	-0.2	-0.7	-0.9	95.6	80.7	80.7	84.9	97.8	88
29-May-01	19:19:34	-1.2	0.1	-0.7	-0.4	-0.2	-0.9	95.1	83.9	82.3	82.3	98.3	85.9
29-May-01	19:39:34	-1.7	-0.2	-0.7	-0.7	0.8	-0.9	94.6	83.4	82.3	82.3	97.8	86.4
29-May-01	19:59:34	-0.9	-0.2	-0.4	-0.7	1.8	-0.9	100	80.7	79.7	84.4	97.2	88
29-May-01	20:19:34	0.1	0.1	-0.4	-0.2	1.1	-0.9	100	80.7	80.7	83.8	92.2	87.5
29-May-01	20:39:34	0.1	-0.2	-0.4	-0.7	-0.4	-0.9	99.5	85	81.7	82.3	92.2	86.4
29-May-01	20:59:34	0.3	-0.2	-0.4	-0.7	-0.2	-0.9	100	81.3	82.8	82.3	97.8	86.9
29-May-01	21:19:34	0.1	0.1	-0.4	-0.7	-0.4	-0.9	97.3	82.3	80.2	84.4	96.1	85.9
29-May-01	21:39:34	0.8	0.1	-0.4	-0.7	-0.2	-0.7	94	83.9	81.2	82.3	98.3	86.9
29-May-01	21:59:34	-1.2	0.1	-0.7	-0.7	-0.4	-0.7	94.6	82.9	81.7	82.3	97.8	86.4
29-May-01	22:19:34	-1.4	0.1	-0.7	-0.7	0.1	-0.9	94.6	80.7	81.7	85.4	97.8	88
29-May-01	22:39:34	-1.2	0.1	-0.4	-0.4	-0.2	-0.9	96.2	83.4	80.2	82.3	98.3	88
29-May-01	22:59:34	-1.2	0.1	-0.2	-0.9	-0.4	-1.2	96.7	83.4	80.2	82.3	97.2	88.6
29-May-01	23:19:34	-1.2	0.1	0.1	-0.4	-0.4	-0.9	97.3	80.7	79.2	84.9	98.3	88
29-May-01	23:39:34	-1.4	0.3	0.1	-0.4	-0.4	-0.9	95.1	82.9	80.7	82.3	96.1	86.4
29-May-01	23:59:34	-0.4	0.1	-0.4	-0.9	-0.2	-0.2	100	83.9	79.2	84.4	98.9	85.9
30-May-01	00:19:34	0.1	0.3	-0.4	-0.2	-0.7	1.1	100	81.8	81.7	84.9	96.1	83.2

30-May-01	00:39:34	0.1	0.6	-0.9	-0.4	-0.2	-0.2	99.5	81.8	81.7	82.3	98.9	84.8
30-May-01	00:59:34	-0.4	1.3	-0.7	-0.7	-0.4	-0.7	94.6	82.9	81.2	84.9	95.5	85.3
30-May-01	01:19:34	-0.9	1.3	-0.7	-0.7	-0.2	-0.7	94.6	80.2	83.3	82.3	98.3	88.6
30-May-01	01:39:34	-1.2	0.3	-0.4	-0.7	0.6	-0.7	96.2	82.9	81.7	84.9	97.8	88
30-May-01	01:59:34	-0.7	0.1	-0.7	-0.4	1.3	-0.9	100	82.9	80.7	83.3	97.8	88
30-May-01	02:19:34	0.1	-0.2	-0.4	-0.7	0.8	-0.9	100	83.9	82.8	82.3	93.3	85.3
30-May-01	02:39:34	0.3	-0.2	-0.7	-0.9	-0.7	-0.7	100	81.3	83.3	84.4	92.7	86.4
30-May-01	02:59:34	0.1	0.1	-0.4	-0.4	-0.2	-0.9	97.3	83.9	83.3	82.8	97.8	88
30-May-01	03:19:34	-0.7	-0.2	-0.7	-0.7	-0.7	-1.2	97.3	84.5	81.2	82.3	96.6	88
30-May-01	03:39:34	1.3	-0.2	-0.7	-0.4	-0.2	-1.2	96.7	82.3	81.2	84.9	98.9	88
30-May-01	03:59:34	-0.7	0.1	-0.4	-0.4	-0.7	-0.9	95.1	82.3	80.7	82.8	97.8	85.9
30-May-01	04:19:34	-1.2	-0.4	-0.4	-0.9	-0.2	-0.9	94.6	84.5	81.2	82.3	98.9	85.9
30-May-01	04:39:34	-1.4	-0.4	-0.7	-0.7	-0.4	-0.7	95.1	84.5	82.8	84.4	98.3	85.9
30-May-01	04:59:34	-1.4	-0.2	-0.7	-0.4	0.1	-0.9	94.6	81.3	82.3	84.4	98.9	85.9
30-May-01	05:19:34	-1.4	0.1	-0.7	-0.4	-0.7	-0.9	98.9	82.9	82.8	82.8	97.8	85.9
30-May-01	05:39:34	-1.4	-0.2	-0.7	-0.9	0.1	-0.7	96.7	84.5	80.2	84.9	98.9	87.5
30-May-01	05:59:34	-1.2	-0.2	-0.7	-0.4	-0.7	-0.9	98.9	83.4	81.2	84.9	97.8	88.6
30-May-01	06:19:34	-0.9	-0.2	-0.4	-0.4	0.1	-0.7	100	81.3	81.2	82.3	98.9	88.6
30-May-01	06:39:34	-0.9	0.1	-0.7	-0.7	-0.7	-0.9	100	83.9	81.7	84.9	97.8	88.6
30-May-01	06:59:34	-0.2	0.1	-0.2	-0.2	-0.2	-0.7	100	83.9	80.7	84.4	98.3	87.5
30-May-01	07:19:34	0.3	-0.2	0.3	-0.4	-0.7	-0.7	100	80.7	80.2	82.8	97.8	86.9
30-May-01	07:39:34	0.3	0.1	0.6	-0.7	0.1	-0.7	100	83.4	79.7	84.9	97.8	85.9
30-May-01	07:59:34	0.3	-0.2	-0.2	-0.2	1.3	-0.4	99.5	83.9	78.6	83.3	97.2	85.9
30-May-01	08:19:34	0.3	0.3	-0.7	-0.4	0.8	0.8	99.5	82.9	80.7	82.8	93.3	83.2
30-May-01	08:39:34	0.6	0.8	-0.7	-0.7	-0.4	-0.4	100	81.8	79.7	84.9	92.7	84.8
30-May-01	08:59:34	0.6	1.6	-0.7	-0.2	-0.2	-0.7	99.5	80.7	81.2	84.9	97.8	85.9
30-May-01	09:19:34	0.1	1.8	-0.7	-0.4	-0.7	-0.9	97.3	78.1	82.3	82.3	97.8	85.9
30-May-01	09:39:34	0.3	0.6	-0.4	-0.9	0.1	-0.7	95.1	80.7	80.2	83.3	97.8	86.4
30-May-01	09:59:34	-0.9	0.3	-0.4	-0.2	-0.2	-0.7	94.6	82.3	80.7	84.9	98.3	88.6
30-May-01	10:19:34	-1.2	0.1	-0.7	-0.4	-0.4	-0.9	98.9	82.9	82.8	82.3	96.1	88
30-May-01	10:39:34	-1.4	0.1	-0.4	-0.4	0.1	-1.2	100	82.3	83.3	84.9	98.9	88.6
30-May-01	10:59:34	-1.2	0.1	-0.7	-0.2	-0.7	-0.7	97.8	81.3	80.2	83.3	97.2	85.9
30-May-01	11:19:34	-1.2	0.1	-0.7	-0.7	-0.2	-0.9	96.7	85	80.7	82.3	98.9	88.6
30-May-01	11:39:34	-1.4	0.1	-0.7	-0.7	-0.4	-0.9	97.8	83.4	80.7	84.9	97.8	86.4
30-May-01	11:59:34	-0.4	0.1	-0.4	-0.2	0.1	-0.9	100	81.3	80.7	83.3	98.3	86.4
30-May-01	12:19:34	-0.2	0.1	-0.4	-0.7	-0.2	-0.7	100	83.9	82.3	82.3	98.3	86.9
30-May-01	12:39:34	0.3	0.1	-0.7	-0.7	-0.2	-0.7	100	84.5	80.2	84.9	96.1	87.5
30-May-01	12:59:34	0.3	0.1	-0.7	-0.4	0.1	-1.2	100	81.8	81.2	82.8	98.9	86.9
30-May-01	13:19:34	0.3	0.1	-0.4	-0.7	-0.2	-0.9	100	85.5	80.7	82.3	96.1	86.4
30-May-01	13:39:34	0.3	0.1	-0.7	-0.2	0.6	-0.9	100	82.9	81.7	84.9	96.1	88
30-May-01	13:59:34	0.1	0.1	-0.7	-0.4	1.6	-0.9	96.2	80.7	80.7	82.8	96.6	85.3
30-May-01	14:19:34	-0.9	0.1	-0.2	-0.9	1.1	-0.9	99.5	85.5	81.2	82.3	94.4	86.9
30-May-01	14:39:34	-0.9	-0.2	-0.4	-0.4	-0.2	-0.9	98.4	82.9	79.7	84.9	93.3	88
30-May-01	14:59:34	-0.9	0.1	-0.2	-0.2	0.1	-0.9	96.2	81.8	80.7	84.9	97.8	88.6
30-May-01	15:19:34	-0.9	-0.2	0.1	-0.4	-0.2	-0.7	97.3	85.5	79.7	82.8	97.2	85.9
30-May-01	15:39:34	1.6	-0.2	0.1	-0.4	0.1	-1.2	97.3	81.3	80.7	82.8	97.2	87.5
30-May-01	15:59:34	-0.7	-0.2	-0.4	-0.7	0.1	0.3	97.3	82.9	80.2	82.8	98.3	85.9
30-May-01	16:19:34	-0.9	-0.2	-0.7	-0.4	-0.4	1.6	98.4	82.3	79.7	84.9	96.1	83.7
30-May-01	16:39:34	-0.9	0.6	-0.4	-0.4	0.1	0.1	96.2	82.3	81.2	82.8	98.9	85.3

30-May-01	16:59:34	-1.2	1.3	-0.4	-0.9	-0.4	-0.7	95.1	82.9	80.2	82.3	97.2	85.9
30-May-01	17:19:34	-0.9	1.6	-0.2	-0.4	-0.2	-1.2	100	79.7	81.2	84.9	98.3	88.6
30-May-01	17:39:34	-1.2	0.3	-0.4	-0.2	-0.2	-0.9	94.6	80.7	79.2	82.8	97.8	86.4
30-May-01	17:59:34	-1.4	0.1	-0.4	-0.7	-0.2	-0.9	94.6	82.9	82.3	82.3	97.8	88
30-May-01	18:19:34	-1.4	0.3	-0.4	-0.4	-0.2	-0.9	100	82.9	79.2	84.9	98.3	88
30-May-01	18:39:34	-0.9	0.1	-0.2	-0.4	-0.4	-0.9	97.3	80.7	80.7	82.8	96.1	88.6
30-May-01	18:59:34	-0.9	0.1	-0.2	-0.4	0.1	-0.7	98.9	82.9	81.2	84.4	98.3	86.9
30-May-01	19:19:34	-0.7	-0.2	-0.4	-0.4	-0.2	-0.9	100	83.9	78.6	82.3	96.1	88
30-May-01	19:39:34	0.1	0.1	-0.2	-0.7	0.6	-0.9	100	81.8	79.7	82.3	96.6	86.9
30-May-01	19:59:34	0.1	-0.2	-0.4	-0.4	1.1	-0.9	100	85	80.7	84.9	96.1	89.1
30-May-01	20:19:34	0.3	0.1	-0.2	-0.4	1.1	-0.7	100	80.7	78.1	82.3	94.4	86.4
30-May-01	20:39:34	0.3	-0.2	-0.4	-0.9	-0.2	-0.7	100	83.4	80.2	82.3	93.3	87.5
30-May-01	20:59:34	0.3	-0.2	-0.7	-0.7	-0.2	-0.7	100	81.3	80.2	84.4	97.8	88
30-May-01	21:19:34	0.3	-0.2	-0.2	-0.4	-0.2	-0.9	99.5	83.4	78.1	82.3	97.2	89.1
30-May-01	21:39:34	0.3	-0.2	-0.4	-0.9	0.1	-0.9	93.5	83.4	80.7	82.3	97.8	86.4
30-May-01	21:59:34	-1.2	-0.2	-0.7	-0.7	-0.2	-0.7	96.2	82.3	78.1	84.4	97.8	87.5
30-May-01	22:19:34	-0.9	-0.2	-0.4	-0.4	-0.2	-1.2	100	85.5	78.6	82.3	96.1	89.1
30-May-01	22:39:34	-0.2	-0.2	-0.7	-0.7	-0.2	-1.2	100	81.3	78.6	82.8	98.3	88.6
30-May-01	22:59:34	0.3	0.1	-0.2	-0.4	-0.4	-0.9	100	85.5	78.6	84.9	96.6	86.4
30-May-01	23:19:34	0.1	-0.2	0.3	-0.7	0.1	-0.7	100	82.9	78.6	82.3	98.9	86.9
30-May-01	23:39:34	0.3	0.3	0.1	-0.7	-0.2	-0.7	100	82.9	79.7	84.4	97.8	88
30-May-01	23:59:34	0.3	-0.2	0.1	-0.4	-0.2	-0.2	99.5	84.5	78.1	84.9	98.3	86.9
31-May-01	00:19:34	0.1	0.1	-0.7	-0.7	-0.4	1.1	96.7	83.4	78.6	82.3	97.8	84.2
31-May-01	00:39:34	-0.9	0.8	-0.4	-0.7	-0.2	-0.2	97.3	82.9	79.7	84.9	97.8	85.9
31-May-01	00:59:34	-1.2	1.3	-0.4	-0.2	-0.2	-0.7	96.2	83.4	81.2	84.9	98.3	86.4
31-May-01	01:19:34	-1.2	1.3	-0.4	-0.7	0.1	-1.2	100	80.7	78.6	82.8	98.9	89.7
31-May-01	01:39:34	-0.4	0.1	-0.2	-0.7	0.6	-0.7	100	81.3	79.7	84.9	97.8	86.9
31-May-01	01:59:34	0.3	-0.2	-0.4	-0.2	1.3	-0.9	100	83.4	80.7	84.9	97.8	88
31-May-01	02:19:34	0.6	-0.2	-0.2	-0.4	1.1	-1.2	100	81.8	80.7	82.8	94.4	89.1
31-May-01	02:39:34	-0.4	-0.4	-0.4	-0.4	-0.2	-0.9	95.1	86.1	78.6	84.9	93.3	88
31-May-01	02:59:34	-0.9	-0.2	-0.2	-0.2	0.1	-0.7	95.6	81.8	79.2	83.3	97.8	86.9
31-May-01	03:19:34	-0.9	-0.2	-0.4	-0.7	-0.4	-0.9	97.3	85.5	79.7	82.8	97.8	89.1
31-May-01	03:39:34	1.1	-0.2	-0.4	-0.4	0.1	-0.9	96.7	81.8	80.7	84.9	98.9	88.6
31-May-01	03:59:34	-0.7	-0.2	-0.7	-0.7	-0.4	-0.9	97.8	85.5	80.7	82.8	97.8	87.5
31-May-01	04:19:34	-0.9	-0.4	-0.4	-0.7	0.1	-0.7	97.3	83.9	80.7	82.8	97.8	86.9
31-May-01	04:39:34	-0.9	-0.2	-0.7	-0.4	-0.2	-0.7	95.1	82.9	80.2	84.9	98.3	88
31-May-01	04:59:34	-1.2	-0.4	-0.4	-0.4	-0.2	-0.7	98.9	85	79.2	84.4	97.8	88.6
31-May-01	05:19:34	-1.2	-0.2	-0.4	-0.7	-0.2	-1.2	96.2	82.3	78.6	82.8	98.9	88
31-May-01	05:39:34	-1.2	-0.2	-0.2	-0.9	-0.2	-0.9	100	85.5	79.2	84.9	97.2	86.9
31-May-01	05:59:34	-0.2	-0.2	-0.4	-0.7	0.1	-0.9	100	81.3	79.2	84.4	98.9	88.6
31-May-01	06:19:34	0.1	-0.2	-0.4	-0.4	-0.4	-1.2	100	84.5	80.7	82.8	96.6	88
31-May-01	06:39:34	0.1	-0.2	-0.4	-0.7	-0.2	-0.9	100	83.4	80.7	84.9	98.9	86.9
31-May-01	06:59:34	0.3	-0.2	-0.2	-0.4	-0.4	-0.9	100	82.3	80.2	84.4	97.8	89.1
31-May-01	07:19:34	0.3	-0.2	0.1	-0.4	0.1	-0.9	100	85	79.2	82.8	98.9	88.6
31-May-01	07:39:34	0.3	0.1	0.3	-0.7	0.6	-0.7	100	81.3	79.2	84.9	98.3	86.9
31-May-01	07:59:34	0.3	-0.2	0.1	-0.2	1.6	-0.4	99.5	85	78.6	83.3	97.8	87.5
31-May-01	08:19:34	0.3	0.1	-0.4	-0.7	1.3	0.8	99.5	82.3	78.1	82.8	93.3	84.8
31-May-01	08:39:34	0.6	0.8	-0.2	-0.4	-0.2	-0.4	98.9	82.3	79.7	84.9	92.2	85.3
31-May-01	08:59:34	0.1	1.3	-0.4	-0.4	0.1	-0.7	94.6	82.9	80.7	84.4	97.8	85.9

31-May-01	09:19:34	-0.9	1.3	-0.4	-0.4	-0.4	-0.9	96.7	79.7	78.6	83.3	95.5	89.1
31-May-01	09:39:34	0.3	0.3	-0.4	-0.7	0.1	-0.7	94.6	80.7	79.7	82.8	97.8	88.6
31-May-01	09:59:34	-0.7	0.1	-0.2	-0.7	-0.2	-1.2	95.1	82.9	80.7	84.4	98.3	86.4
31-May-01	10:19:34	-0.7	0.1	-0.2	-0.4	-0.4	-0.7	97.8	82.9	78.6	85.4	97.2	86.9
31-May-01	10:39:34	-0.7	-0.2	-0.2	-0.4	-0.4	-0.7	96.2	80.7	79.2	82.8	99.5	87.5
31-May-01	10:59:34	-0.9	-0.2	-0.4	-0.9	-0.4	-0.9	98.9	84.5	80.2	82.3	97.2	88.6
31-May-01	11:19:34	-0.9	-0.2	-0.4	-0.4	-0.4	-0.9	96.2	80.7	78.6	84.9	97.8	86.4
31-May-01	11:39:34	-0.9	-0.4	-0.2	-0.4	-0.2	-0.9	98.4	85	80.7	82.8	97.8	86.4
31-May-01	11:59:34	-1.2	-0.4	-0.4	-0.7	-0.2	-0.7	95.1	80.7	78.1	82.3	100	86.9
31-May-01	12:19:34	-0.4	-0.4	-0.4	-0.7	-0.2	-0.9	100	83.9	80.2	84.9	97.2	88
31-May-01	12:39:34	0.1	-0.4	-0.4	-0.4	-0.2	-0.9	100	81.3	78.6	83.8	98.9	87.5
31-May-01	12:59:34	0.1	-0.4	-0.4	-0.4	-0.2	-0.7	100	80.7	79.2	82.3	97.8	86.4
31-May-01	13:19:34	0.3	-0.4	-0.7	-0.9	-0.4	-0.7	100	85	78.6	82.3	97.8	87.5
31-May-01	13:39:34	0.3	-0.4	-0.4	-0.4	0.3	-0.7	100	80.7	78.6	84.9	97.8	88
31-May-01	13:59:34	0.6	-0.4	-0.7	-0.4	1.3	-0.7	100	85	79.2	82.8	97.8	88
31-May-01	14:19:34	0.8	-0.4	-0.4	-0.7	1.1	-0.9	97.8	80.7	79.2	82.3	94.9	85.9
31-May-01	14:39:34	-0.4	-0.2	-0.4	-0.9	-0.7	-0.9	95.1	84.5	78.6	82.3	93.8	88.6
31-May-01	14:59:34	-0.7	-0.4	-0.2	-0.7	-0.4	-0.9	97.3	80.7	78.6	84.9	97.2	88
31-May-01	15:19:34	-0.4	-0.2	0.3	-0.4	-0.4	-0.9	99.5	81.8	78.6	82.8	97.8	88
31-May-01	15:39:34	1.1	-0.4	0.3	-0.7	-0.9	-0.9	94.6	80.7	80.2	82.8	97.8	86.9
31-May-01	15:59:34	-0.7	-0.9	-0.2	-0.7	-0.2	-0.2	100	80.7	78.6	82.3	99.5	85.9
31-May-01	16:19:34	-0.9	-0.4	-0.2	-1.2	-0.7	1.3	98.4	83.4	78.6	83.8	97.2	83.2
31-May-01	16:39:34	-0.7	0.3	-0.4	-0.2	0.1	0.1	100	82.3	78.1	84.4	100	85.9
31-May-01	16:59:34	0.1	1.3	-0.2	-0.7	-0.9	-0.7	100	81.8	79.7	82.3	96.1	87.5
31-May-01	17:19:34	0.1	1.3	-0.4	-0.7	-0.4	-0.9	100	79.2	80.7	82.3	100	86.9
31-May-01	17:39:34	0.6	0.3	-0.7	-0.7	-0.7	-0.7	100	80.7	79.2	84.9	97.2	87.5
31-May-01	17:59:34	0.3	-0.2	-0.4	-0.7	-0.4	-0.7	100	82.9	82.8	82.8	99.5	86.9
31-May-01	18:19:34	0.8	0.1	-0.7	-0.7	-0.4	-0.9	100	82.9	79.2	82.8	98.3	88.6
31-May-01	18:39:34	0.8	-0.4	-0.4	-0.9	-0.4	-0.9	99.5	80.7	80.2	82.8	98.9	89.1
31-May-01	18:59:34	0.8	-0.2	-0.2	-0.7	0.1	-0.7	99.5	84.5	81.2	84.9	100	88.6
31-May-01	19:19:34	0.3	-0.2	-0.4	-0.7	-0.9	-0.9	94.6	80.7	78.6	82.3	97.2	89.1
31-May-01	19:39:34	-0.4	-0.2	-0.4	-0.7	0.1	-1.2	96.2	83.9	79.2	82.3	97.2	89.1
31-May-01	19:59:34	-0.7	-0.2	-0.2	-0.7	1.3	-0.9	99.5	82.9	81.2	84.4	96.6	89.1
31-May-01	20:19:34	-0.7	0.1	-0.4	-0.4	0.8	-0.9	97.3	83.4	81.2	82.8	94.9	89.7
31-May-01	20:39:34	-0.9	-0.2	-0.2	-0.7	-0.9	-0.7	97.3	82.9	79.7	84.4	93.8	88.6
31-May-01	20:59:34	-0.4	0.1	-0.4	-0.2	-0.7	-0.9	97.3	82.9	81.7	84.9	98.3	88
31-May-01	21:19:34	-0.4	-0.2	-0.7	-0.7	-0.7	-0.7	97.3	83.4	81.7	82.3	97.8	87.5
31-May-01	21:39:34	2.1	0.1	-0.2	-0.4	-0.7	-0.9	98.4	84.5	79.7	84.9	98.3	88.6
31-May-01	21:59:34	0.1	-0.2	-0.4	-0.2	-0.2	-0.7	96.2	82.3	82.3	83.3	100	87.5
31-May-01	22:19:34	-0.7	0.1	-0.4	-0.7	-0.9	-0.7	100	84.5	81.2	82.3	97.8	87.5
31-May-01	22:39:34	-0.4	-0.4	-0.2	-0.7	-0.4	-0.9	96.2	82.9	80.7	85.4	100	88
31-May-01	22:59:34	-0.9	0.1	0.1	-0.4	-0.7	-0.7	98.9	83.9	80.7	82.8	97.8	88.6
31-May-01	23:19:34	-0.7	-0.2	0.3	-0.7	-0.4	-0.9	100	82.3	80.2	84.9	100	89.1
31-May-01	23:39:34	-0.9	0.1	0.3	-0.2	0.1	-0.9	95.6	83.9	80.7	84.9	100	89.1
31-May-01	23:59:34	-0.4	-0.2	-0.4	-0.4	-0.9	-0.2	100	82.3	79.2	82.8	98.3	87.5
01-Jun-01	00:19:34	-0.2	-0.2	-0.4	-0.4	-0.2	1.1	100	83.4	83.3	84.9	100	84.8
01-Jun-01	00:39:34	0.1	0.1	-0.4	-0.2	-0.7	-0.2	100	83.4	81.2	83.3	97.8	85.9
01-Jun-01	00:59:34	0.1	0.8	-0.2	-0.2	-0.4	-0.4	100	83.4	81.2	84.9	100	88
01-Jun-01	01:19:34	0.3	0.8	0.1	-0.7	-0.2	-0.9	100	80.7	81.7	82.8	100	88

01-Jun-01	01:39:34	0.6	-0.2	-0.2	-0.9	0.3	-0.7	100	82.9	82.8	85.4	100	88
01-Jun-01	01:59:34	0.6	-0.2	-0.2	-0.4	1.3	-0.7	100	83.9	80.2	83.8	100	88
01-Jun-01	02:19:34	0.6	0.1	-0.2	-0.7	0.8	-0.7	100	83.4	81.7	82.3	94.9	87.5
01-Jun-01	02:39:34	0.6	-0.2	-0.2	-0.4	-0.9	-0.7	98.9	83.4	82.8	84.9	93.8	88.6
01-Jun-01	02:59:34	0.6	0.1	-0.4	-0.4	-0.4	-0.7	98.4	83.9	80.2	82.8	98.9	88
01-Jun-01	03:19:34	0.6	-0.2	-0.2	-0.7	-0.2	-0.9	97.3	83.9	82.3	84.9	99.5	89.1
01-Jun-01	03:39:34	0.3	0.1	-0.4	-0.2	-0.7	-0.7	93.5	83.9	82.8	84.9	98.9	89.7
01-Jun-01	03:59:34	-0.4	-0.4	-0.4	-0.4	-0.2	-0.9	96.7	83.4	80.2	82.8	100	89.1
01-Jun-01	04:19:34	-0.9	-0.2	-0.2	-0.4	-0.9	-0.7	96.7	83.9	82.3	84.9	97.8	88.6
01-Jun-01	04:39:34	-0.7	-0.2	-0.2	-0.2	-0.7	-0.7	97.3	82.3	82.8	83.3	100	87.5
01-Jun-01	04:59:34	-0.9	-0.2	-0.4	-0.2	-0.4	-0.9	98.9	83.9	80.2	84.9	100	88
01-Jun-01	05:19:34	-1.2	-0.2	-0.2	-0.7	-0.9	-0.7	100	82.3	80.7	82.8	98.9	87.5
01-Jun-01	05:39:34	-0.9	-0.2	-0.2	-0.4	-0.2	-0.7	97.3	83.9	82.8	84.9	100	87.5
01-Jun-01	05:59:34	-0.9	-0.2	-0.4	-0.2	-0.9	-0.7	100	80.7	80.7	83.3	97.8	87.5
01-Jun-01	06:19:34	-0.9	-0.4	-0.4	-0.4	-0.4	-0.7	100	84.5	81.2	83.3	100	88
01-Jun-01	06:39:34	-1.2	-0.2	-0.4	-0.2	-0.2	-0.7	96.7	80.7	81.7	84.9	99.5	88.6
01-Jun-01	06:59:34	-1.2	-0.2	0.1	-0.4	-0.7	-0.7	100	83.9	80.7	82.8	99.5	89.1
01-Jun-01	07:19:34	-0.4	0.1	0.6	-0.7	-0.2	-0.7	100	80.7	79.7	84.9	100	89.7
01-Jun-01	07:39:34	0.1	-0.2	0.6	-0.2	0.6	-0.9	100	84.5	78.6	84.4	100	89.1
01-Jun-01	07:59:34	0.1	0.1	-0.2	-0.4	1.1	-0.2	100	81.3	78.6	82.8	100	88
01-Jun-01	08:19:34	0.3	-0.2	-0.2	-0.4	0.8	0.8	100	83.4	80.7	84.4	94.9	85.9
01-Jun-01	08:39:34	0.3	0.6	-0.4	-0.4	-0.9	-0.4	100	82.9	82.3	82.8	93.8	85.3
01-Jun-01	08:59:34	0.3	1.1	-0.4	-0.4	-0.4	-0.4	100	82.3	82.3	84.9	98.3	88.6
01-Jun-01	09:19:34	-0.4	1.6	-0.4	-0.4	-0.2	-0.7	97.3	80.2	80.7	82.8	98.9	90.2
01-Jun-01	09:39:34	0.3	0.1	-0.4	-0.4	-0.7	-0.9	94.6	80.7	80.2	84.9	99.5	89.7
01-Jun-01	09:59:34	-0.7	0.1	0.1	-0.2	-0.2	-0.9	96.2	83.4	80.7	83.8	100	88
01-Jun-01	10:19:34	-0.9	0.1	-0.4	-0.4	-0.7	-0.7	100	83.4	80.7	82.8	98.3	87.5
01-Jun-01	10:39:34	-0.7	-0.2	-0.4	-0.7	-0.2	-0.9	95.1	81.3	82.8	85.4	100	87.5
01-Jun-01	10:59:34	-0.7	-0.4	-0.7	-0.4	-0.7	-0.9	99.5	83.9	80.7	83.3	97.8	87.5
01-Jun-01	11:19:34	-0.9	0.1	-0.4	-0.4	-0.2	-0.9	98.4	81.8	80.7	82.8	100	87.5
01-Jun-01	11:39:34	-0.7	-0.7	-0.4	-0.7	-0.7	-0.7	98.4	81.3	81.7	83.8	97.2	88
01-Jun-01	11:59:34	-0.9	-0.7	-0.4	-0.2	0.1	-0.7	95.6	80.7	81.7	84.9	100	88.6
01-Jun-01	12:19:34	-1.2	-0.7	-0.4	-0.7	-0.4	-0.9	96.2	80.7	80.2	82.8	97.8	89.7
01-Jun-01	12:39:34	-0.9	-0.7	-0.7	-0.9	-0.2	-0.9	96.2	81.3	79.2	82.8	100	89.7
01-Jun-01	12:59:34	-1.2	-0.7	-0.4	-0.7	-0.4	-0.7	97.8	81.8	80.7	84.9	98.3	88.6
01-Jun-01	13:19:34	-1.2	-0.7	-0.9	-0.4	0.1	-0.7	95.1	81.3	81.2	83.3	100	88.6
01-Jun-01	13:39:34	-0.9	-0.7	-0.4	-0.7	0.6	-0.7	100	80.7	80.2	82.8	100	89.1
01-Jun-01	13:59:34	-0.9	-0.7	-0.7	-0.7	1.8	-0.7	99.5	80.7	82.3	82.8	100	88.6
01-Jun-01	14:19:34	-0.9	-0.9	-0.2	-0.7	1.6	-0.9	100	83.4	79.2	83.3	97.2	89.1
01-Jun-01	14:39:34	-0.2	-0.7	-0.4	-0.7	0.1	-0.9	100	81.3	80.7	82.8	94.9	89.1
01-Jun-01	14:59:34	0.3	-0.7	0.1	-0.4	-0.4	-0.7	100	80.7	79.7	84.9	94.4	89.7
01-Jun-01	15:19:34	0.6	-0.9	0.3	-0.2	-0.2	-0.7	100	80.7	78.6	83.3	98.3	89.1
01-Jun-01	15:39:34	2.3	-1.2	0.6	-0.4	-0.4	-0.7	95.1	80.7	80.7	83.3	96.6	88.6
01-Jun-01	15:59:34	-0.7	-0.9	0.1	-0.7	-0.2	-0.4	94	83.4	79.7	83.3	98.9	88
01-Jun-01	16:19:34	-1.2	-0.2	-0.4	-0.7	-0.7	1.6	94.6	82.3	79.2	83.3	96.6	86.4
01-Jun-01	16:39:34	-1.2	0.3	-0.7	-0.9	-0.2	0.1	98.9	81.3	81.2	83.3	100	86.9
01-Jun-01	16:59:34	-1.2	1.1	-0.4	-0.9	-0.7	-0.4	97.3	81.8	80.2	82.8	97.8	88
01-Jun-01	17:19:34	-0.9	1.3	-0.4	-0.4	-0.4	-0.7	100	79.2	81.2	85.4	100	88
01-Jun-01	17:39:34	-0.7	0.1	-0.4	-0.4	-0.9	-0.7	96.7	80.2	79.7	83.3	97.8	88.6

01-Jun-01	17:59:34	-0.7	0.1	-0.2	-0.7	-0.2	-0.7	96.2	82.3	80.2	83.3	100	88.6
01-Jun-01	18:19:34	-0.9	-0.2	-0.4	-0.7	-0.7	-0.7	100	82.9	81.2	85.4	98.9	88
01-Jun-01	18:39:34	-0.9	-0.2	-0.7	-0.4	-0.2	-0.7	97.3	82.9	81.7	83.3	100	88
01-Jun-01	18:59:34	-0.4	0.1	-0.4	-0.4	-0.9	-0.7	98.9	83.9	81.2	84.9	98.9	88
01-Jun-01	19:19:34	-0.7	-0.4	-0.4	-0.4	0.1	-0.7	96.7	82.9	80.2	83.3	100	89.7
01-Jun-01	19:39:34	-0.4	0.1	-0.4	-0.7	0.6	-0.9	100	83.4	80.7	82.8	100	90.2
01-Jun-01	19:59:34	-0.4	-0.2	-0.4	-0.7	1.3	-0.7	100	83.4	82.8	85.4	100	88.6
01-Jun-01	20:19:34	-0.4	0.1	-0.4	-0.4	0.8	-0.9	96.7	83.4	81.2	83.3	97.2	88
01-Jun-01	20:39:34	-0.9	0.1	-0.7	-0.4	-0.7	-0.7	98.4	82.9	80.2	85.4	94.9	89.1
01-Jun-01	20:59:34	-0.9	0.3	-0.4	-0.7	-0.4	-0.7	100	83.9	80.7	83.3	100	89.7
01-Jun-01	21:19:34	-0.9	-0.2	-0.4	-0.7	-0.7	-0.7	99.5	82.9	81.7	85.4	97.8	90.2
01-Jun-01	21:39:34	1.6	0.1	-0.4	-0.4	-0.2	-0.7	100	83.9	81.2	83.3	100	89.7
01-Jun-01	21:59:34	1.3	-0.2	-0.7	-0.4	-0.7	-0.7	92.9	82.9	79.7	85.4	98.3	88
01-Jun-01	22:19:34	-0.7	0.1	-0.2	-0.4	-0.4	-0.7	97.3	83.4	81.2	83.3	100	88
01-Jun-01	22:39:34	-0.9	-0.2	-0.4	-0.7	-0.7	-0.7	99.5	83.4	81.7	85.4	98.3	88.6
01-Jun-01	22:59:34	-0.7	0.3	0.1	-0.7	-0.4	-0.7	97.3	83.4	81.2	83.3	100	89.1
01-Jun-01	23:19:34	-1.2	-0.2	0.3	-0.7	-0.9	-0.9	99.5	83.4	80.7	84.4	98.3	90.2
01-Jun-01	23:39:34	-0.9	0.1	0.6	-0.7	-0.4	-0.9	96.7	82.9	80.2	84.9	100	90.2
01-Jun-01	23:59:34	-0.9	-0.2	-0.2	-0.4	-0.7	-0.2	100	83.4	83.3	83.3	98.9	88
02-Jun-01	00:19:34	-1.2	0.1	-0.2	-0.7	-0.7	0.8	95.1	83.4	80.2	85.4	100	85.3
02-Jun-01	00:39:34	-1.4	0.8	-0.7	-0.4	-0.2	-0.2	100	82.9	80.7	83.3	100	86.9
02-Jun-01	00:59:34	-0.9	1.3	-0.4	-0.7	-0.4	-0.4	100	81.8	80.7	85.4	100	88
02-Jun-01	01:19:34	-0.9	1.6	-0.4	-0.7	0.1	-0.4	96.7	79.7	83.3	83.8	100	89.7
02-Jun-01	01:39:34	-1.2	-0.2	-0.7	-0.4	0.6	-0.9	100	80.7	80.7	84.9	100	90.2
02-Jun-01	01:59:34	-0.9	-0.2	-0.4	-0.7	1.1	-0.7	96.2	83.4	80.7	84.9	100	90.2
02-Jun-01	02:19:34	-1.2	-0.2	-0.4	-0.4	0.8	-0.7	99.5	82.9	83.8	84.4	96.1	88.6
02-Jun-01	02:39:34	-1.2	-0.4	-0.4	-0.4	-0.7	-0.9	97.3	83.4	83.3	85.4	94.9	88
02-Jun-01	02:59:34	-1.2	0.1	-0.4	-0.7	-0.4	-0.7	97.8	83.4	80.7	83.3	100	90.2
02-Jun-01	03:19:34	-0.9	-0.4	-0.4	-0.7	-0.9	-0.9	97.3	83.4	80.7	85.9	97.8	90.2
02-Jun-01	03:39:34	1.6	-0.2	-0.4	-0.7	-0.4	-0.4	98.4	83.4	82.8	84.9	100	88.6
02-Jun-01	03:59:34	0.8	-0.4	-0.7	-0.4	-0.7	-0.7	93.5	83.4	82.3	84.4	98.9	88.6
02-Jun-01	04:19:34	-0.9	-0.2	-0.4	-0.4	-0.4	-0.7	97.3	83.4	81.2	85.4	100	89.7
02-Jun-01	04:39:34	-0.9	-0.4	-0.7	-0.7	-0.7	-0.9	99.5	83.4	80.7	83.3	100	90.2
02-Jun-01	04:59:34	-1.2	-0.2	-0.7	-0.4	-0.7	-0.7	97.8	83.4	82.3	85.4	100	89.7
02-Jun-01	05:19:34	-1.2	-0.4	-0.7	-0.4	-0.4	-0.7	97.3	83.9	82.3	83.3	100	88.6
02-Jun-01	05:39:34	-0.9	0.1	-0.7	-0.4	-0.4	-0.9	100	82.9	81.2	85.4	100	88.6
02-Jun-01	05:59:34	-1.2	-0.7	-0.7	-0.9	-0.4	-0.9	97.3	83.9	80.7	85.4	100	88.6
02-Jun-01	06:19:34	-1.2	0.1	-0.4	-0.7	-0.7	-0.9	99.5	82.9	80.7	84.4	100	90.2
02-Jun-01	06:39:34	-1.2	-0.4	-0.4	-0.4	-0.4	-0.9	98.4	83.9	81.7	85.4	100	90.2
02-Jun-01	06:59:34	-0.9	0.1	-0.2	-0.7	-0.7	-0.7	100	83.4	80.7	83.8	99.5	88.6
02-Jun-01	07:19:34	-1.2	-0.4	0.3	-0.7	-0.2	-0.7	96.7	83.4	80.2	84.4	100	88
02-Jun-01	07:39:34	-0.9	0.3	0.3	-0.7	0.6	-0.7	100	83.4	80.2	84.9	100	89.1
02-Jun-01	07:59:34	-1.2	0.1	-0.4	-0.7	1.1	0.1	96.7	83.4	78.6	84.4	100	88.6
02-Jun-01	08:19:34	-1.2	0.3	-0.7	-0.7	0.8	1.3	100	83.4	82.8	85.4	96.6	88
02-Jun-01	08:39:34	-1.2	0.8	-0.4	-0.7	-0.9	0.1	95.1	82.9	80.2	83.8	94.9	86.9
02-Jun-01	08:59:34	-1.2	1.3	-0.4	-0.4	-0.2	-0.4	97.3	81.3	80.7	84.9	100	88.6
02-Jun-01	09:19:34	-0.9	1.6	-0.7	-0.7	-0.7	-0.7	97.8	79.2	81.7	83.8	97.8	88
02-Jun-01	09:39:34	1.8	0.3	-0.4	-0.4	-0.2	-0.7	100	82.3	81.7	85.4	100	88
02-Jun-01	09:59:34	0.6	0.3	-0.4	-0.4	-0.7	-0.7	93.5	82.3	80.7	83.3	98.9	88.6

02-Jun-01	10:19:34	-0.7	0.3	-0.4	-0.7	-0.4	-0.7	95.6	82.9	83.3	84.9	100	88
02-Jun-01	10:39:34	-1.2	-0.2	-0.4	-0.4	-0.7	-0.7	98.9	83.4	83.3	84.4	99.5	88
02-Jun-01	10:59:34	-0.7	0.1	-0.4	-0.9	-0.2	-0.9	97.8	80.7	80.7	83.3	100	88.6
02-Jun-01	11:19:34	-0.9	0.1	-0.4	-0.4	-0.4	-0.7	100	82.9	80.7	84.9	100	88.6
02-Jun-01	11:39:34	-0.9	-0.2	-0.4	-0.4	-0.4	-0.7	100	80.7	81.2	83.3	99.5	88.6
02-Jun-01	11:59:34	-1.2	-0.2	-0.7	-0.7	-0.2	-0.7	98.9	83.4	80.7	85.4	100	88.6
02-Jun-01	12:19:34	-0.9	-0.2	-0.7	-0.4	-0.4	-0.9	100	80.7	80.2	83.3	98.3	88.6
02-Jun-01	12:39:34	-0.9	-0.4	-0.4	-0.7	-0.4	-0.9	99.5	80.7	80.7	83.8	100	88
02-Jun-01	12:59:34	-0.9	-0.7	-0.7	-0.7	-0.7	-0.7	97.3	81.3	81.2	83.8	98.9	88
02-Jun-01	13:19:34	-0.9	-0.4	-0.4	-0.7	0.1	-0.9	94.6	80.7	79.7	82.8	100	88
02-Jun-01	13:39:34	-0.9	-0.7	-0.7	-0.7	1.1	-0.7	93.5	80.7	78.6	82.8	100	88
02-Jun-01	13:59:34	-1.4	-0.7	-0.7	-0.9	2.1	-0.9	97.3	80.7	81.2	82.3	100	90.2
02-Jun-01	14:19:34	-1.2	-0.9	-0.7	-0.7	1.6	-0.9	97.3	80.7	79.2	84.9	97.8	90.2
02-Jun-01	14:39:34	-1.4	-0.9	-0.9	-0.7	0.1	-0.9	97.3	80.7	80.7	82.8	94.9	90.8
02-Jun-01	14:59:34	-1.7	-0.7	-0.2	-0.4	-0.4	-0.9	97.3	80.7	80.2	85.4	98.3	90.2
02-Jun-01	15:19:34	-0.4	-0.7	0.3	-0.4	-0.4	-0.9	99.5	80.7	79.2	83.3	97.8	90.2
02-Jun-01	15:39:34	2.3	-0.7	0.3	-0.7	-0.2	-0.9	98.9	80.7	80.2	82.8	100	89.7
02-Jun-01	15:59:34	2.3	-0.7	-0.2	-0.9	-0.4	-0.2	91.9	80.7	79.2	82.8	97.8	88.6
02-Jun-01	16:19:34	-0.4	-0.7	-0.4	-0.7	-0.2	1.3	94	81.3	79.2	82.8	100	85.9
02-Jun-01	16:39:34	-1.2	0.3	-0.7	-0.7	-0.7	-0.2	97.3	80.7	79.2	84.4	98.3	86.9
02-Jun-01	16:59:34	-1.2	1.1	-0.9	-0.4	-0.2	-0.7	97.3	80.7	79.7	83.3	100	88
02-Jun-01	17:19:34	-1.2	1.3	-0.7	-0.7	-0.7	-0.7	95.1	79.2	80.2	82.8	100	90.8
02-Jun-01	17:39:34	-1.2	0.3	-0.7	-0.7	-0.2	-0.7	100	80.2	81.2	83.3	100	90.8
02-Jun-01	17:59:34	-1.2	-0.2	-0.4	-0.9	-0.4	-0.7	96.7	83.4	79.7	84.9	100	88.6
02-Jun-01	18:19:34	-0.9	-0.2	-0.4	-0.4	-0.2	-0.7	100	82.3	81.2	83.3	100	89.7
02-Jun-01	18:39:34	-0.9	-0.2	-0.7	-0.9	-0.7	-0.7	96.2	83.4	82.8	84.9	100	90.2
02-Jun-01	18:59:34	-0.9	-0.2	-0.7	-0.4	-0.2	-0.4	99.5	80.7	80.7	85.4	100	88.6
02-Jun-01	19:19:34	-0.4	-0.2	-0.4	-0.7	-0.4	-0.7	94.6	83.4	80.7	82.8	100	88
02-Jun-01	19:39:34	-0.7	-0.2	-0.4	-0.7	0.1	-0.7	98.4	82.9	81.2	85.4	100	89.7
02-Jun-01	19:59:34	-1.2	-0.2	-0.4	-0.9	1.1	-0.7	99.5	81.3	81.7	82.8	98.9	90.2
02-Jun-01	20:19:34	-1.2	-0.2	-0.7	-0.7	0.6	-0.9	96.7	82.9	82.8	84.9	97.2	88.6
02-Jun-01	20:39:34	-1.2	-0.2	-0.7	-0.9	-0.9	-0.7	98.9	81.3	82.3	84.4	96.1	89.7
02-Jun-01	20:59:34	-1.2	-0.2	-0.7	-0.4	-0.2	-0.7	97.3	83.4	80.7	83.3	100	90.8
02-Jun-01	21:19:34	-0.9	-0.2	-0.4	-0.7	-0.7	-0.7	98.4	82.9	80.2	85.9	98.9	88.6
02-Jun-01	21:39:34	1.8	0.1	-0.7	-0.9	-0.4	-0.7	100	80.7	80.7	82.8	100	88
02-Jun-01	21:59:34	2.8	-0.2	-0.7	-0.4	-0.9	-0.7	91.9	83.4	82.8	84.9	99.5	90.2
02-Jun-01	22:19:34	-0.7	-0.4	-0.7	-0.7	-0.2	-0.7	98.4	82.9	83.3	84.4	100	89.1
02-Jun-01	22:39:34	-0.2	0.1	-0.7	-0.7	-0.7	-0.9	97.3	82.9	80.7	83.8	98.9	88
02-Jun-01	22:59:34	-0.4	-0.2	-0.4	-1.2	-0.4	-0.9	96.2	83.4	80.7	85.4	100	90.2
02-Jun-01	23:19:34	-0.4	0.1	-0.2	-0.4	-0.4	-0.7	94.6	80.7	80.2	83.3	99.5	90.2
02-Jun-01	23:39:34	-0.9	-0.2	0.1	-0.9	-0.4	-0.7	98.9	83.4	80.7	85.4	100	88.6
02-Jun-01	23:59:34	-0.9	0.1	-0.7	-0.7	-0.4	-0.2	98.9	80.7	79.2	83.3	100	88
03-Jun-01	00:19:34	-0.7	0.1	-0.7	-0.7	-0.2	1.1	97.3	82.9	80.7	85.4	100	85.3
03-Jun-01	00:39:34	-0.9	0.1	-0.7	-0.9	-0.7	-0.2	97.3	82.9	81.7	82.8	100	86.9
03-Jun-01	00:59:34	-0.7	0.6	-0.4	-0.7	-0.4	-0.4	95.6	82.3	83.3	84.9	100	88
03-Jun-01	01:19:34	-0.9	0.8	-0.4	-0.7	-0.2	-0.9	95.1	80.2	82.8	83.3	100	90.2
03-Jun-01	01:39:34	-0.7	-0.2	-0.7	-0.7	0.6	-0.7	98.4	83.4	81.2	84.9	100	90.8
03-Jun-01	01:59:34	-0.9	0.3	-0.4	-0.9	1.3	-0.7	97.3	82.3	80.7	84.9	100	88.6
03-Jun-01	02:19:34	-0.7	-0.2	-0.4	-0.7	0.8	-0.7	97.3	80.7	81.2	84.4	96.6	88.6

03-Jun-01	02:39:34	-0.9	0.1	-0.4	-0.7	-0.7	-0.7	95.1	82.9	82.8	85.9	94.9	90.8
03-Jun-01	02:59:34	-1.2	0.1	-0.4	-0.7	-0.4	-0.4	97.3	82.9	83.3	83.3	100	88.6
03-Jun-01	03:19:34	-0.9	0.3	-0.7	-0.9	-0.9	-0.7	97.3	82.9	83.3	85.4	98.3	90.2
03-Jun-01	03:39:34	1.8	-0.2	-0.7	-0.7	-0.2	-0.7	97.3	83.4	82.8	84.9	100	89.7
03-Jun-01	03:59:34	2.6	0.1	-0.7	-0.7	-0.9	-0.7	91.9	81.3	80.7	83.8	98.9	88
03-Jun-01	04:19:34	-0.7	-0.2	-0.7	-0.7	-0.4	-0.7	97.3	83.4	80.7	85.4	100	90.2
03-Jun-01	04:39:34	-1.2	0.1	-0.4	-0.4	-0.9	-0.4	99.5	80.7	81.2	83.3	98.9	89.1
03-Jun-01	04:59:34	-1.2	-0.2	-0.7	-0.4	-0.4	-0.9	99.5	83.4	82.3	84.9	100	88.6
03-Jun-01	05:19:34	-1.2	0.1	-0.7	-0.9	-0.4	-0.7	97.3	82.9	82.8	84.9	99.5	90.2
03-Jun-01	05:39:34	-1.2	0.1	-0.4	-0.9	-0.4	-0.7	100	83.4	83.3	83.8	100	88
03-Jun-01	05:59:34	-1.2	-0.2	-0.7	-0.7	-0.4	-0.9	95.6	83.4	82.8	86.5	100	90.2
03-Jun-01	06:19:34	-1.4	0.3	-0.7	-0.7	-0.4	-0.7	100	82.3	81.2	83.3	100	90.2
03-Jun-01	06:39:34	-0.9	0.1	-0.7	-0.9	-0.4	-0.7	96.7	82.9	80.7	85.9	100	88.6
03-Jun-01	06:59:34	-1.2	0.1	-0.2	-0.7	-0.7	-0.7	100	80.7	80.7	83.3	100	90.2
03-Jun-01	07:19:34	-1.2	0.1	0.1	-0.7	0.1	-0.7	97.3	83.4	80.7	85.9	100	89.1
03-Jun-01	07:39:34	-0.9	-0.2	0.1	-1.2	0.3	-0.7	96.7	81.8	79.7	83.8	100	88.6
03-Jun-01	07:59:34	-1.2	0.3	-0.4	-0.4	1.3	-0.4	100	82.9	81.7	84.9	100	88
03-Jun-01	08:19:34	-0.9	0.3	-0.7	-1.2	0.8	1.1	96.7	81.8	80.7	83.8	96.1	85.9
03-Jun-01	08:39:34	-0.9	0.3	-0.7	-0.9	-0.7	-0.2	100	81.8	80.7	85.4	94.9	86.9
03-Jun-01	08:59:34	-0.7	1.1	-0.4	-0.4	-0.4	-0.4	97.3	82.3	81.2	84.9	100	88
03-Jun-01	09:19:34	-0.7	1.3	-0.7	-0.7	-0.7	-0.9	98.4	79.2	82.3	83.8	98.3	90.2
03-Jun-01	09:39:34	2.1	0.3	-0.4	-0.9	-0.4	-0.9	97.3	80.7	82.8	84.4	100	90.2
03-Jun-01	09:59:34	0.1	0.1	-0.2	-0.4	-0.7	-0.7	92.9	82.9	81.2	84.9	99.5	88
03-Jun-01	10:19:34	-0.9	0.1	-0.4	-0.9	0.1	-0.9	95.1	82.9	80.7	83.8	100	88.6
03-Jun-01	10:39:34	-0.9	0.1	-0.4	-0.9	-0.7	-0.9	98.4	80.7	81.2	83.3	100	88
03-Jun-01	10:59:34	-0.9	0.1	-0.7	-0.4	-0.2	-0.7	97.3	82.3	82.3	85.4	100	89.7
03-Jun-01	11:19:34	-1.2	-0.2	-0.4	-0.7	-0.4	-0.7	98.9	83.9	81.2	83.8	100	90.8
03-Jun-01	11:39:34	-0.9	-0.4	-0.4	-0.7	-0.7	-0.7	97.3	80.7	80.7	83.3	99.5	90.2
03-Jun-01	11:59:34	-0.9	-0.2	-0.4	-0.9	-0.2	-0.9	97.8	81.3	82.8	83.3	100	89.1
03-Jun-01	12:19:34	-0.9	-0.4	-0.9	-0.4	-0.4	-0.7	97.3	80.7	80.2	85.4	97.8	88.6
03-Jun-01	12:39:34	-1.2	-0.7	-0.4	-0.7	-0.2	-0.7	97.3	80.7	80.7	83.3	100	88.6
03-Jun-01	12:59:34	-0.7	-0.7	-0.9	-0.7	-0.7	-0.9	97.3	80.7	83.3	83.3	98.9	88
03-Jun-01	13:19:34	-0.9	-0.9	-0.7	-0.9	0.3	-0.9	97.3	80.7	80.2	83.3	100	88
03-Jun-01	13:39:34	-0.9	-0.9	-0.4	-0.9	1.1	-0.9	97.3	82.9	80.7	85.4	100	88.6
03-Jun-01	13:59:34	-0.9	-0.4	-0.7	-0.7	1.8	-0.7	94.6	80.7	81.2	83.3	100	89.7
03-Jun-01	14:19:34	-0.9	-0.7	-0.4	-0.9	1.3	-0.7	98.9	80.7	79.7	82.8	97.2	88
03-Jun-01	14:39:34	-0.9	-0.4	-0.4	-0.9	-0.2	-0.7	94.6	80.7	80.7	83.3	94.9	88
03-Jun-01	14:59:34	-0.7	-0.7	0.1	-0.9	-0.4	-0.7	97.8	80.2	80.7	84.4	98.3	88
03-Jun-01	15:19:34	-0.4	-0.4	0.1	-0.7	-0.7	-0.9	96.7	80.7	79.2	82.8	97.8	88
03-Jun-01	15:39:34	2.1	-0.7	0.3	-0.7	-0.2	-0.7	97.8	80.2	80.7	82.8	100	88
03-Jun-01	15:59:34	3.4	-0.7	-0.4	-0.7	-0.7	-0.2	91.3	80.7	79.7	82.8	97.8	86.9
03-Jun-01	16:19:34	-0.4	-0.7	-0.7	-0.9	-0.2	1.6	97.3	80.7	79.2	82.3	100	85.3
03-Jun-01	16:39:34	-0.7	0.3	-0.7	-1.2	-0.9	0.1	95.6	80.7	82.8	82.3	98.3	87.5
03-Jun-01	16:59:34	-0.4	1.1	-0.7	-0.7	0.1	-0.7	98.4	80.7	80.2	85.4	100	89.7
03-Jun-01	17:19:34	-0.7	1.1	-0.7	-0.7	-0.4	-1.2	99.5	78.1	82.8	83.3	99.5	89.1
03-Jun-01	17:39:34	-0.7	0.1	-0.7	-0.9	-0.2	-0.7	97.3	79.7	80.7	84.9	100	88.6
03-Jun-01	17:59:34	-1.2	-0.2	-0.4	-0.4	-0.4	-0.7	99.5	80.7	81.2	83.3	100	88.6
03-Jun-01	18:19:34	-0.9	-0.2	-0.4	-0.9	0.1	-0.9	97.8	83.4	82.8	84.9	100	90.2
03-Jun-01	18:39:34	-1.2	0.1	-0.4	-0.4	-0.7	-0.9	96.2	80.2	82.8	83.3	100	90.2

03-Jun-01	18:59:34	-0.9	-0.2	-0.4	-0.7	-0.2	-0.9	100	82.9	80.7	84.9	100	90.8
03-Jun-01	19:19:34	-0.7	0.1	-0.4	-0.9	-0.4	-0.7	97.3	80.7	82.8	83.3	100	90.8
03-Jun-01	19:39:34	-1.2	0.1	-0.4	-0.4	0.1	-0.7	97.8	82.9	83.3	85.4	99.5	90.8
03-Jun-01	19:59:34	-0.9	-0.2	-0.7	-0.9	1.1	-0.7	97.3	82.9	81.7	82.8	98.9	90.8
03-Jun-01	20:19:34	-0.9	0.1	-0.7	-0.4	0.3	-0.7	97.8	80.2	80.7	84.9	97.8	90.8
03-Jun-01	20:39:34	-0.9	0.1	-0.7	-0.9	-0.7	-0.7	100	82.9	83.8	83.3	97.2	90.8
03-Jun-01	20:59:34	-0.9	0.1	-0.7	-0.4	-0.2	-0.7	100	80.7	82.8	84.9	100	90.8
03-Jun-01	21:19:34	-0.7	0.3	-0.4	-0.9	-0.7	-0.7	98.4	81.8	80.7	84.4	98.9	90.8
03-Jun-01	21:39:34	2.1	-0.2	-0.4	-0.7	-0.4	-0.7	97.3	82.9	81.7	83.8	100	90.8
03-Jun-01	21:59:34	-0.4	0.1	-0.4	-0.7	-0.7	-0.7	93.5	80.2	83.3	85.4	99.5	90.8
03-Jun-01	22:19:34	-0.9	0.1	-0.7	-0.7	-0.4	-0.7	100	82.9	82.8	83.3	100	89.7
03-Jun-01	22:39:34	-0.9	0.1	-0.4	-0.9	-0.7	-0.9	97.3	82.3	81.2	85.9	100	89.7
03-Jun-01	22:59:34	-0.9	0.3	-0.2	-0.7	-0.7	-0.7	99.5	80.7	81.2	83.3	100	88
03-Jun-01	23:19:34	-0.9	-0.2	0.1	-0.7	-0.2	-0.7	100	82.9	80.7	85.4	100	88.6
03-Jun-01	23:39:34	-1.2	-0.2	0.1	-0.7	-0.7	-0.9	97.3	80.2	80.7	83.3	100	90.2
03-Jun-01	23:59:34	-1.2	-0.2	-0.7	-0.7	-0.2	-0.4	99.5	82.9	82.8	84.9	100	88.6
04-Jun-01	00:19:34	-0.9	-0.2	-0.7	-0.9	-0.9	1.1	96.7	81.3	80.7	83.3	100	86.4
04-Jun-01	00:39:34	-1.2	0.3	-0.7	-0.7	-0.2	-0.4	100	81.8	83.3	85.4	100	87.5
04-Jun-01	00:59:34	-1.2	0.8	-0.4	-0.7	-0.7	-0.7	96.7	82.3	83.3	85.4	100	89.1
04-Jun-01	01:19:34	-1.2	0.8	-0.4	-0.7	-0.2	-0.7	100	79.7	80.7	83.3	100	90.8
04-Jun-01	01:39:34	-1.2	-0.2	-0.4	-0.4	0.6	-0.9	97.3	81.8	81.7	85.4	100	91.3
04-Jun-01	01:59:34	-1.2	-0.2	-0.7	-0.9	1.3	-0.7	100	82.9	82.8	83.3	100	91.3
04-Jun-01	02:19:34	-0.9	-0.2	-0.7	-0.4	0.6	-0.7	98.4	80.2	83.3	84.9	97.8	90.8
04-Jun-01	02:39:34	-1.2	0.1	-0.7	-0.9	-0.9	-0.9	95.1	82.9	81.2	84.9	96.1	90.8
04-Jun-01	02:59:34	-0.9	0.1	-0.4	-0.4	-0.4	-0.9	100	80.7	80.7	84.4	100	90.2
04-Jun-01	03:19:34	-0.9	0.1	-0.4	-0.7	-0.7	-0.7	98.4	82.9	82.8	85.9	98.9	90.2
04-Jun-01	03:39:34	1.6	-0.2	-0.4	-0.7	-0.4	-0.7	97.8	82.9	83.3	83.3	100	90.8
04-Jun-01	03:59:34	0.1	0.1	-0.4	-0.7	-0.4	-0.7	94.6	82.9	81.7	85.9	100	90.8
04-Jun-01	04:19:34	-0.9	-0.2	-0.4	-0.9	-0.4	-0.9	95.6	83.4	80.7	83.3	100	90.2
04-Jun-01	04:39:34	-0.9	0.1	-0.7	-0.9	-0.4	-0.7	98.9	81.8	82.3	85.4	100	90.8
04-Jun-01	04:59:34	-0.9	-0.4	-0.4	-0.7	-0.7	-0.7	100	83.4	83.3	85.4	100	89.7
04-Jun-01	05:19:34	-0.9	-0.2	-0.7	-0.7	-0.2	-0.7	96.2	81.3	81.7	83.3	100	88.6
04-Jun-01	05:39:34	-0.9	0.1	-0.2	-0.7	-0.7	-0.7	98.9	82.9	81.2	85.4	100	88.6
04-Jun-01	05:59:34	-0.9	0.1	-0.4	-0.9	-0.4	-0.4	100	80.7	82.3	83.3	100	89.7
04-Jun-01	06:19:34	-0.9	0.1	-0.4	-0.4	-0.7	-0.4	100	82.9	83.3	84.9	100	90.2
04-Jun-01	06:39:34	-1.2	-0.2	-0.4	-0.9	-0.2	-0.4	97.3	80.7	81.2	84.9	100	90.8
04-Jun-01	06:59:34	-1.2	0.1	-0.2	-0.7	-0.9	-0.9	99.5	83.4	81.2	84.4	100	90.8
04-Jun-01	07:19:34	-0.9	-0.2	0.1	-0.9	-0.2	-0.7	100	82.3	80.7	85.9	100	90.8
04-Jun-01	07:39:34	-0.9	0.3	0.1	-0.4	0.6	-0.7	98.4	82.9	80.2	84.4	100	92.4
04-Jun-01	07:59:34	-0.9	0.1	-0.7	-0.9	1.3	0.6	100	83.4	79.2	85.9	100	96.4
04-Jun-01	08:19:34	-0.4	0.6	-0.4	-0.4	0.8	1.8	99.5	82.9	83.3	84.4	97.2	88.6
04-Jun-01	08:39:34	-0.7	0.8	-0.7	-0.9	-0.7	-0.2	96.7	81.8	83.3	85.9	94.9	89.1
04-Jun-01	08:59:34	-0.9	1.6	-0.4	-0.4	-0.2	-0.7	100	80.7	81.2	85.9	100	89.7
04-Jun-01	09:19:34	-0.4	1.6	-0.4	-0.4	-0.9	-0.7	98.4	78.1	80.7	84.4	98.3	90.8
04-Jun-01	09:39:34	1.8	0.3	-0.4	-0.7	-0.2	-0.7	100	80.2	80.7	83.8	100	90.8
04-Jun-01	09:59:34	-0.2	0.1	-0.2	-0.9	-0.7	-0.9	94.6	82.3	81.7	85.4	100	90.2
04-Jun-01	10:19:34	-0.7	0.1	-0.7	-0.7	0.1	-0.9	100	82.9	82.3	84.4	100	89.7
04-Jun-01	10:39:34	-0.4	0.1	-0.4	-0.9	-0.9	-0.9	97.3	80.7	80.7	83.3	100	89.7
04-Jun-01	10:59:34	-0.7	-0.4	-0.4	-0.9	0.1	-1.2	96.7	83.4	80.7	83.3	100	89.1

04-Jun-01	11:19:34	-0.7	-0.2	-0.4	-0.7	-0.4	-0.9	100	80.7	81.7	85.9	100	88.6
04-Jun-01	11:39:34	-0.4	-0.2	-0.4	-0.7	-0.4	-0.9	97.3	82.3	81.7	83.8	100	91.3
04-Jun-01	11:59:34	-0.9	-0.7	-0.7	-0.9	-0.2	-0.9	100	80.7	80.7	85.4	100	90.2
04-Jun-01	12:19:34	-0.7	-0.9	-0.7	-0.4	-0.4	-0.9	100	80.7	82.8	84.4	98.9	89.1
04-Jun-01	12:39:34	-0.4	-0.9	-0.7	-0.7	-0.4	-0.9	97.3	81.3	80.7	83.3	100	91.3
04-Jun-01	12:59:34	-0.7	-0.7	-0.7	-0.7	-0.7	-1.2	99.5	81.3	82.8	85.9	98.3	90.2
04-Jun-01	13:19:34	-0.4	-0.7	-0.7	-0.7	0.1	-0.9	100	80.7	80.7	83.3	100	90.2
04-Jun-01	13:39:34	-0.4	-0.9	-0.4	-0.7	0.8	-0.9	98.9	80.2	81.7	83.3	100	90.2
04-Jun-01	13:59:34	-0.7	-0.9	-0.7	-0.4	1.8	-1.2	97.3	80.7	80.2	85.4	100	90.8
04-Jun-01	14:19:34	-0.7	-0.9	-0.9	-0.4	1.3	-1.2	99.5	80.7	81.7	83.3	97.2	89.1
04-Jun-01	14:39:34	-0.4	-1.2	-0.7	-0.9	-0.2	-1.2	97.3	80.2	80.2	83.3	95.5	88.6
04-Jun-01	14:59:34	-0.4	-1.2	-0.4	-0.4	-0.4	-0.9	98.9	80.7	80.2	85.4	98.3	90.8
04-Jun-01	15:19:34	-0.4	-1.2	0.1	-0.7	-0.4	-0.9	97.3	80.2	79.7	83.8	98.9	88.6
04-Jun-01	15:39:34	2.3	-1.4	0.3	-0.7	-0.4	-0.9	100	80.2	80.7	83.3	100	91.3
04-Jun-01	15:59:34	1.8	-0.9	-0.4	-0.7	-0.4	-0.4	91.9	81.3	80.2	83.3	98.9	89.1
04-Jun-01	16:19:34	-0.2	-0.7	-0.4	-0.9	-0.4	1.3	96.7	80.7	80.2	85.9	100	85.9
04-Jun-01	16:39:34	-0.4	0.1	-0.7	-0.7	-0.7	-0.2	100	80.7	80.2	83.3	98.3	88.6
04-Jun-01	16:59:34	-0.4	0.8	-0.7	-0.7	-0.2	-0.9	100	80.7	79.7	85.9	100	88.6
04-Jun-01	17:19:34	-0.7	1.3	-0.4	-0.7	-0.7	-0.9	97.3	78.6	81.7	83.3	98.9	89.1
04-Jun-01	17:39:34	-0.7	0.1	-0.4	-0.7	-0.2	-0.9	100	80.2	79.7	85.9	100	91.9
04-Jun-01	17:59:34	-0.7	-0.2	-0.7	-0.7	-0.9	-0.9	96.7	81.8	81.2	84.4	99.5	89.1
04-Jun-01	18:19:34	-0.7	-0.2	-0.7	-0.7	-0.2	-0.9	100	82.3	81.2	84.9	100	90.8
04-Jun-01	18:39:34	-0.4	-0.2	-0.4	-0.7	-0.9	-0.7	96.7	80.7	80.7	85.9	99.5	89.7
04-Jun-01	18:59:34	-0.7	0.1	-0.9	-0.7	-0.2	-1.2	100	82.9	83.3	85.9	100	90.8
04-Jun-01	19:19:34	-0.7	-0.2	-0.9	-0.7	-0.4	-1.2	98.9	81.3	80.2	83.8	100	89.7
04-Jun-01	19:39:34	-0.7	0.1	-0.7	-0.4	0.3	-0.7	99.5	83.9	82.8	85.4	100	90.2
04-Jun-01	19:59:34	-0.7	-0.4	-0.9	-0.7	1.1	-1.2	100	80.7	80.2	85.4	100	91.3
04-Jun-01	20:19:34	-0.9	0.1	-0.4	-0.4	0.6	-1.2	97.3	83.4	81.2	84.4	97.2	89.1
04-Jun-01	20:39:34	-0.7	-0.2	-0.7	-0.7	-0.7	-0.9	100	80.7	82.8	85.9	96.1	90.2
04-Jun-01	20:59:34	-0.7	-0.2	-0.4	-0.7	-0.2	-0.9	98.9	84.5	80.7	84.4	100	91.9
04-Jun-01	21:19:34	-0.7	0.1	-0.7	-0.4	-0.7	-0.9	98.9	80.7	82.3	84.9	98.9	89.1
04-Jun-01	21:39:34	2.1	0.1	-0.7	-0.7	-0.2	-0.7	100	83.4	81.2	86.5	100	90.2
04-Jun-01	21:59:34	0.8	0.3	-0.7	-0.7	-0.7	-0.9	94.6	80.7	80.7	83.8	99.5	91.3
04-Jun-01	22:19:34	-0.4	0.1	-0.4	-0.7	-0.4	-1.2	99.5	83.4	81.7	85.4	100	90.8
04-Jun-01	22:39:34	-0.7	0.3	-0.7	-0.7	-0.7	-0.9	99.5	81.3	80.2	85.9	100	89.1
04-Jun-01	22:59:34	-0.4	0.1	-0.7	-0.4	-0.4	-0.7	100	83.4	80.7	83.8	100	90.8
04-Jun-01	23:19:34	-0.7	0.3	0.1	-0.7	-0.9	-0.9	97.3	80.7	80.7	85.9	100	91.3
04-Jun-01	23:39:34	-0.4	0.1	0.1	-0.7	-0.4	-0.9	100	83.4	80.7	84.9	100	91.3
04-Jun-01	23:59:34	-0.7	0.1	-0.4	-0.4	-0.4	-0.2	97.8	80.2	80.2	84.4	100	90.8
05-Jun-01	00:19:34	-0.4	0.1	-0.7	-0.4	-0.4	1.3	97.8	82.9	82.8	85.9	100	87.5
05-Jun-01	00:39:34	-0.7	0.8	-0.7	-0.7	-0.2	-0.2	98.4	81.8	82.3	84.9	100	88.6
05-Jun-01	00:59:34	-0.4	1.3	-0.4	-0.7	-0.7	-0.7	98.4	82.9	81.2	87.5	100	88.6
05-Jun-01	01:19:34	-0.7	1.3	-0.4	-0.7	-0.2	-0.7	97.8	79.7	83.3	84.4	100	89.7
05-Jun-01	01:39:34	-0.7	0.3	-0.4	-0.7	0.3	-0.7	100	82.3	82.8	84.4	100	91.9
05-Jun-01	01:59:34	-0.7	0.1	-0.7	-0.7	1.1	-0.7	98.4	82.9	82.3	86.5	100	91.3
05-Jun-01	02:19:34	-0.7	0.1	-0.7	-0.7	0.6	-0.7	100	80.7	80.7	83.8	97.8	89.7
05-Jun-01	02:39:34	-0.7	0.1	-0.4	-0.4	-0.9	-0.7	98.4	82.9	81.2	85.4	97.2	89.7
05-Jun-01	02:59:34	-0.7	0.1	-0.4	-0.9	-0.4	-0.7	99.5	80.7	83.3	85.4	100	90.8
05-Jun-01	03:19:34	-0.7	0.1	-0.7	-0.4	-0.9	-0.9	98.9	82.9	82.8	84.4	99.5	91.3

05-Jun-01	03:39:34	1.6	-0.2	-0.4	-0.7	-0.4	-0.9	100	83.4	80.7	85.9	100	91.3
05-Jun-01	03:59:34	0.3	0.1	-0.4	-0.7	-0.4	-0.9	95.6	82.9	81.7	84.9	100	90.8
05-Jun-01	04:19:34	-0.7	-0.2	-0.7	-0.4	-0.7	-0.9	100	83.4	82.8	84.9	100	90.8
05-Jun-01	04:39:34	-0.7	0.1	-0.4	-0.7	-0.2	-0.7	98.4	80.7	82.8	85.9	100	89.7
05-Jun-01	04:59:34	-0.7	0.1	-0.4	-0.7	-0.4	-0.7	97.8	83.4	81.2	84.9	100	90.2
05-Jun-01	05:19:34	-0.4	-0.2	-0.4	-0.7	-0.2	-0.7	100	81.8	81.2	85.9	100	91.3
05-Jun-01	05:39:34	-0.7	-0.2	-0.4	-0.4	-0.7	-0.9	97.3	83.4	82.8	84.4	100	91.3
05-Jun-01	05:59:34	-0.4	-0.2	-0.7	-0.4	-0.4	-0.9	100	83.4	82.3	86.5	100	91.3
05-Jun-01	06:19:34	-0.9	0.1	-0.4	-0.9	-0.7	-0.9	97.3	82.3	81.2	84.9	100	89.1
05-Jun-01	06:39:34	-0.7	-0.2	-0.4	-0.4	-0.4	-0.9	99.5	83.4	80.7	84.9	100	90.8
05-Jun-01	06:59:34	-0.7	0.3	-0.2	-0.7	-0.7	-0.7	98.9	80.2	80.7	85.9	100	90.8
05-Jun-01	07:19:34	-0.7	0.3	0.1	-0.7	-0.7	-0.9	98.9	82.9	80.7	83.3	100	90.8
05-Jun-01	07:39:34	-0.7	0.1	0.3	-0.4	0.3	-0.7	99.5	82.3	80.2	85.4	100	89.1
05-Jun-01	07:59:34	-0.7	0.6	-0.2	-0.9	1.1	-0.2	97.3	82.3	78.6	85.9	100	90.2
05-Jun-01	08:19:34	-0.9	0.1	-0.2	-0.4	0.6	1.8	98.9	81.8	80.7	84.4	97.8	86.9
05-Jun-01	08:39:34	-0.9	0.6	-0.2	-0.7	-0.7	0.1	97.3	81.8	82.8	86.5	96.1	88
05-Jun-01	08:59:34	-1.2	1.3	-0.4	-0.2	-0.2	-0.7	100	81.8	82.8	84.9	100	90.8
05-Jun-01	09:19:34	-0.9	1.6	-0.4	-0.7	-1.2	-0.7	97.8	79.2	81.2	83.3	99.5	89.1
05-Jun-01	09:39:34	2.1	0.3	-0.4	-0.4	-0.4	-0.9	97.8	80.2	80.7	85.9	100	88.6
05-Jun-01	09:59:34	0.6	0.1	-0.4	-0.9	-0.7	-0.9	94	82.3	80.7	83.8	100	91.3
05-Jun-01	10:19:34	-0.4	0.1	-0.4	-0.4	-0.2	-0.9	99.5	82.9	83.3	84.9	100	88.6
05-Jun-01	10:39:34	-0.4	0.1	-0.4	-0.9	-0.9	-0.9	99.5	80.7	80.7	83.8	100	91.3
05-Jun-01	10:59:34	-0.7	-0.7	-0.2	-0.7	-0.4	-0.7	97.8	80.7	80.7	85.4	100	89.7
05-Jun-01	11:19:34	-0.7	-0.9	-0.4	-0.7	-0.4	-0.9	97.3	80.7	82.3	84.4	100	88.6
05-Jun-01	11:39:34	-0.7	-1.2	-0.7	-0.4	-0.7	-0.9	100	80.7	80.2	84.9	100	90.8
05-Jun-01	11:59:34	-0.4	-1.4	-0.4	-0.9	0.1	-0.9	97.3	80.7	81.7	84.4	100	89.1
05-Jun-01	12:19:34	-0.2	-1.2	-0.7	-0.7	-0.2	-0.9	100	80.7	82.3	84.9	100	88.6
05-Jun-01	12:39:34	-0.4	-1.4	-0.4	-0.7	-0.7	-0.9	100	81.3	80.2	84.4	100	88.6
05-Jun-01	12:59:34	-0.4	-1.2	-0.4	-0.7	0.1	-1.2	97.8	81.3	83.3	87	100	88.6
05-Jun-01	13:19:34	-0.2	-0.9	-0.7	-0.7	-0.4	-1.2	99.5	80.7	80.2	84.4	100	88
05-Jun-01	13:39:34	0.1	-0.9	-0.4	-0.9	0.6	-0.9	97.3	80.7	81.7	83.3	100	90.8
05-Jun-01	13:59:34	-0.2	-1.4	-0.7	-0.9	1.8	-1.2	100	80.7	79.7	83.8	100	90.2
05-Jun-01	14:19:34	0.1	-1.2	-0.4	-0.9	1.3	-1.2	96.2	80.7	80.2	83.8	97.8	88.6
05-Jun-01	14:39:34	0.1	-1.4	-0.4	-0.9	-0.2	-0.9	99.5	80.7	81.7	83.3	96.1	91.3
05-Jun-01	14:59:34	-0.4	-1.4	0.1	-0.4	0.1	-1.2	98.4	80.7	81.2	85.4	100	88.6
05-Jun-01	15:19:34	-0.2	-1.2	0.3	-0.4	-0.4	-0.9	98.9	80.7	80.2	84.4	99.5	90.2
05-Jun-01	15:39:34	2.6	-1.2	0.3	-0.9	-0.4	-0.9	98.9	80.7	81.2	84.4	100	88
05-Jun-01	15:59:34	0.6	-1.7	-0.2	-0.9	-0.2	-0.4	94.6	80.2	80.2	83.8	100	88
05-Jun-01	16:19:34	-0.4	-1.2	-0.4	-0.4	-0.4	1.6	100	81.3	79.7	85.9	99.5	87.5
05-Jun-01	16:39:34	-0.2	-0.2	-0.4	-0.7	-0.2	0.1	97.3	80.7	80.2	83.3	100	88
05-Jun-01	16:59:34	-0.2	0.8	-0.4	-0.7	-0.4	-0.9	100	80.7	80.2	83.3	100	90.8
05-Jun-01	17:19:34	-0.7	1.3	-0.4	-0.4	-0.2	-0.7	98.9	78.1	79.7	84.9	100	88.6
05-Jun-01	17:39:34	-0.4	-0.2	-0.2	-0.7	-0.2	-0.9	98.9	79.2	79.7	83.3	100	90.8
05-Jun-01	17:59:34	-0.4	-0.2	-0.4	-0.7	-0.7	-0.9	97.3	81.3	82.3	85.9	100	90.8
05-Jun-01	18:19:34	-0.4	0.1	-0.7	-0.7	-0.2	-0.9	100	81.8	82.8	83.3	100	90.8
05-Jun-01	18:39:34	-0.7	-0.4	-0.4	-0.4	-0.4	-0.7	98.9	82.3	81.2	84.9	100	91.3
05-Jun-01	18:59:34	-0.4	0.1	-0.4	-0.2	-0.2	-0.9	99.5	82.3	80.7	84.9	100	90.8
05-Jun-01	19:19:34	-0.7	-0.2	-0.4	-0.7	-0.7	-0.7	97.8	82.9	81.2	83.8	100	91.3
05-Jun-01	19:39:34	-0.7	0.3	-0.4	-0.4	0.3	-0.7	98.9	82.3	83.3	86.5	100	91.3

05-Jun-01	19:59:34	-0.7	-0.4	-0.7	-0.7	1.3	-0.7	100	82.9	83.3	83.8	100	91.3
05-Jun-01	20:19:34	-0.4	0.1	-0.7	-0.4	0.6	-0.7	96.7	80.7	83.3	86.5	97.8	90.8
05-Jun-01	20:39:34	-0.4	-0.2	-0.7	-0.9	-0.7	-0.7	100	83.4	80.7	83.8	97.8	90.8
05-Jun-01	20:59:34	-0.7	0.1	-0.4	-0.4	-0.2	-0.9	96.2	80.7	80.7	84.9	100	90.8
05-Jun-01	21:19:34	-0.4	-0.2	-0.4	-0.7	-0.4	-0.7	97.8	83.4	81.2	84.9	100	90.2
05-Jun-01	21:39:34	1.6	0.1	-0.4	-0.4	-0.4	-0.7	100	82.3	82.8	84.4	100	90.2
05-Jun-01	21:59:34	1.1	-0.2	-0.4	-0.9	-0.4	-0.7	94	83.4	82.8	85.9	100	90.2
05-Jun-01	22:19:34	-0.2	0.1	-0.4	-0.7	-0.4	-0.7	98.9	82.9	83.3	83.8	100	90.2
05-Jun-01	22:39:34	-0.4	-0.2	-0.4	-0.7	-0.4	-0.7	97.3	83.4	80.7	85.9	100	89.7
05-Jun-01	22:59:34	-0.2	0.3	-0.2	-0.9	-0.7	-0.7	100	81.8	80.7	83.8	100	89.7
05-Jun-01	23:19:34	-0.2	-0.2	0.3	-0.7	-0.2	-0.7	97.3	83.9	81.2	84.9	100	89.7
05-Jun-01	23:39:34	-0.2	0.1	0.3	-0.7	-0.7	-0.9	97.8	80.7	81.2	85.9	100	90.8
05-Jun-01	23:59:34	-0.2	-0.2	-0.4	-0.7	-0.4	-0.2	100	83.9	81.2	84.4	100	90.2
06-Jun-01	00:19:34	-0.4	0.1	-0.4	-0.7	-0.7	0.8	97.8	82.9	80.7	85.9	100	88
06-Jun-01	00:39:34	-0.4	0.3	-0.4	-0.7	-0.2	-0.4	100	82.9	83.3	84.9	100	88
06-Jun-01	00:59:34	-0.7	0.8	-0.4	-0.7	-0.7	-0.7	97.3	82.9	83.8	85.9	100	89.1
06-Jun-01	01:19:34	-0.4	1.1	-0.4	-0.7	-0.2	-0.7	99.5	79.7	81.7	83.3	100	89.7
06-Jun-01	01:39:34	-0.4	-0.2	-0.2	-0.7	0.6	-0.7	100	82.9	81.2	85.4	100	89.7
06-Jun-01	01:59:34	-0.4	0.1	-0.4	-0.7	1.3	-0.7	96.2	83.4	82.8	86.5	100	90.8
06-Jun-01	02:19:34	-0.4	0.1	-0.4	-0.4	0.8	-0.9	100	82.9	83.3	84.4	98.3	90.8
06-Jun-01	02:39:34	-0.4	-0.4	-0.7	-0.7	-0.7	-0.7	96.7	83.4	83.3	87	97.8	90.8
06-Jun-01	02:59:34	-0.4	-0.2	-0.7	-0.9	-0.2	-0.7	96.2	83.4	82.3	84.9	100	91.3
06-Jun-01	03:19:34	-0.9	-0.2	-0.4	-0.2	-0.7	-0.7	98.9	83.9	80.7	84.9	100	91.3
06-Jun-01	03:39:34	2.1	-0.2	-0.4	-0.7	-0.2	-0.7	100	83.4	83.3	86.5	100	91.3
06-Jun-01	03:59:34	0.8	-0.4	-0.4	-0.4	-0.7	-0.7	94.6	83.9	83.3	84.4	100	90.8
06-Jun-01	04:19:34	-0.7	-0.2	-0.4	-0.4	-0.4	-0.7	97.3	83.4	83.3	85.9	100	90.8
06-Jun-01	04:39:34	-0.9	-0.4	-0.4	-0.7	-0.4	-0.7	99.5	83.9	83.3	85.9	100	90.8
06-Jun-01	04:59:34	-0.7	-0.2	-0.4	-0.4	-0.4	-0.7	97.8	83.4	80.7	86.5	100	90.2
06-Jun-01	05:19:34	-0.4	-0.2	-0.4	-0.9	-0.4	-0.7	97.8	83.9	82.3	84.4	100	89.7
06-Jun-01	05:39:34	-0.4	0.1	-0.2	-0.7	-0.2	-0.9	100	82.3	82.8	84.4	100	89.7
06-Jun-01	05:59:34	-0.4	-0.2	-0.7	-0.7	-0.4	-0.7	96.2	83.9	83.3	86.5	100	90.8
06-Jun-01	06:19:34	-0.7	0.1	-0.7	-0.4	-0.2	-0.9	100	80.7	83.3	84.4	100	90.8
06-Jun-01	06:39:34	-0.7	0.1	-0.4	-0.4	-0.4	-0.7	97.3	83.9	80.7	86.5	100	90.8
06-Jun-01	06:59:34	-0.7	0.1	0.1	-0.9	-0.4	-0.7	100	80.7	81.2	85.9	100	90.8
06-Jun-01	07:19:34	-0.4	0.1	0.3	-0.7	-0.4	-0.7	97.3	83.4	80.7	84.4	100	91.3
06-Jun-01	07:39:34	-0.7	0.1	0.1	-0.7	0.1	-0.7	100	80.7	80.2	86.5	100	91.3
06-Jun-01	07:59:34	-0.4	0.1	-0.4	-0.9	0.8	-0.4	98.9	83.4	79.7	83.8	100	90.2
06-Jun-01	08:19:34	-0.4	0.1	-0.4	-0.7	0.6	0.8	100	81.3	81.2	84.9	98.3	88
06-Jun-01	08:39:34	-0.4	0.8	-0.4	-0.7	-0.7	-0.2	97.3	81.8	83.3	87	97.8	88
06-Jun-01	08:59:34	-0.4	1.6	-0.4	-0.7	-0.4	-0.7	100	82.3	82.3	85.9	100	91.3
06-Jun-01	09:19:34	-0.2	1.6	-0.4	-0.7	-0.4	-0.9	99.5	79.2	80.7	85.4	100	90.8
06-Jun-01	09:39:34	1.8	0.3	-0.2	-0.4	-0.7	-0.9	100	80.7	81.2	84.9	100	90.8
06-Jun-01	09:59:34	0.8	-0.2	-0.4	-0.9	-0.2	-0.7	93.5	82.9	80.7	85.4	100	88.6
06-Jun-01	10:19:34	-0.2	0.1	-0.2	-0.4	-0.7	-0.4	100	82.9	81.2	84.9	100	89.7
06-Jun-01	10:39:34	0.1	-0.2	-0.7	-0.7	-0.7	-0.7	98.4	80.7	83.3	84.9	100	90.8
06-Jun-01	10:59:34	-0.2	-0.7	-0.7	-0.4	-0.4	-0.7	97.3	83.4	80.7	84.9	100	88.6
06-Jun-01	11:19:34	0.1	-0.2	-0.4	-0.9	-0.7	-0.9	100	80.7	81.2	84.4	98.9	88.6
06-Jun-01	11:39:34	-0.4	-0.7	-0.2	-0.7	-0.4	-0.9	100	81.3	81.7	84.4	100	88
06-Jun-01	11:59:34	0.1	-0.9	0.1	-0.9	-0.4	-0.9	96.7	81.3	81.7	84.4	100	88.6

06-Jun-01	12:19:34	0.1	-0.7	-0.2	-0.4	-0.7	-1.2	100	80.7	80.2	84.9	98.9	88
06-Jun-01	12:39:34	0.1	-0.9	-0.4	-0.7	-0.2	-1.2	98.4	81.3	79.7	84.4	100	88.6
06-Jun-01	12:59:34	0.1	-0.7	-0.7	-0.4	-0.4	-0.9	100	81.3	81.7	85.9	100	88.6
06-Jun-01	13:19:34	-0.2	-0.7	-0.2	-0.4	-0.2	-0.9	98.9	81.3	80.2	84.4	100	88.6
06-Jun-01	13:39:34	0.3	-0.9	-0.7	-0.7	0.6	-0.9	97.3	80.7	79.7	84.4	100	88.6
06-Jun-01	13:59:34	0.1	-1.2	-0.7	-0.9	1.6	-0.7	100	81.3	81.2	84.4	100	88.6
06-Jun-01	14:19:34	0.3	-0.9	-0.4	-0.7	0.8	-0.9	98.9	81.3	79.7	84.4	97.8	88.6
06-Jun-01	14:39:34	0.3	-1.2	-0.4	-0.7	-0.2	-0.7	97.3	81.3	79.2	85.4	95.5	88.6
06-Jun-01	14:59:34	0.1	-0.9	0.1	-0.4	-0.2	-1.2	100	80.7	80.2	85.9	100	88.6
06-Jun-01	15:19:34	0.3	-0.9	0.3	-0.4	-0.7	-0.9	99.5	80.7	80.7	84.9	98.3	88
06-Jun-01	15:39:34	2.8	-1.2	0.6	-0.7	-0.4	-0.9	100	80.7	80.7	84.9	100	90.8
06-Jun-01	15:59:34	2.1	-1.2	0.1	-0.9	-0.4	-0.2	92.4	80.7	80.2	84.9	100	88.6
06-Jun-01	16:19:34	0.3	-0.9	-0.2	-0.9	-0.7	1.6	95.6	81.3	79.2	84.4	98.9	85.9
06-Jun-01	16:39:34	0.1	0.1	-0.2	-0.9	-0.4	0.1	97.3	80.7	81.2	84.4	100	88
06-Jun-01	16:59:34	0.1	0.8	-0.4	-0.9	-0.7	-0.7	100	81.3	80.2	84.4	100	88
06-Jun-01	17:19:34	-0.2	1.3	-0.2	-0.4	-0.7	-1.2	100	79.2	81.7	84.9	99.5	88.6
06-Jun-01	17:39:34	0.1	-0.2	-0.4	-0.7	-0.4	-0.9	97.8	80.2	81.7	84.4	100	88
06-Jun-01	17:59:34	-0.2	-0.2	-0.2	-0.7	-0.7	-1.2	97.8	82.9	80.7	87	100	88
06-Jun-01	18:19:34	-0.4	-0.2	-0.2	-0.7	-0.2	-1.2	100	82.9	81.2	84.4	100	88
06-Jun-01	18:39:34	-0.2	-0.4	-0.4	-0.9	-0.4	-1.2	100	81.8	80.7	86.5	100	90.2
06-Jun-01	18:59:34	-0.4	-0.2	-0.2	-0.7	-0.7	-0.9	97.3	84.5	81.2	85.9	100	90.2
06-Jun-01	19:19:34	-0.4	-0.2	-0.2	-0.7	-0.4	-1.2	100	82.3	83.3	84.4	100	88.6
06-Jun-01	19:39:34	-0.4	0.1	-0.4	-0.9	0.3	-1.2	96.7	83.9	81.2	84.4	100	90.8
06-Jun-01	19:59:34	-0.4	-0.4	-0.2	-0.4	1.6	-1.2	97.3	82.3	80.7	84.9	100	90.8
06-Jun-01	20:19:34	-0.4	0.1	-0.2	-0.9	1.1	-1.2	100	83.9	83.3	83.8	97.8	88.6
06-Jun-01	20:39:34	-0.2	-0.4	-0.4	-0.7	-0.4	-0.9	98.9	81.3	81.7	84.4	96.6	89.1
06-Jun-01	20:59:34	-0.4	-0.2	-0.4	-0.9	-0.4	-1.2	100	85	80.7	84.4	100	90.8
06-Jun-01	21:19:34	-0.2	-0.2	-0.4	-0.7	-0.7	-1.2	100	81.3	81.7	84.9	99.5	90.8
06-Jun-01	21:39:34	2.3	-0.4	-0.4	-0.7	-0.4	-0.9	100	85	83.3	86.5	100	91.3
06-Jun-01	21:59:34	0.8	-0.2	-0.4	-0.7	-0.7	-0.9	94	80.7	81.7	84.4	100	89.7
06-Jun-01	22:19:34	-0.2	-0.2	-0.2	-0.9	-0.7	-1.2	97.8	85	80.7	87	100	88.6
06-Jun-01	22:39:34	-0.4	-0.2	-0.4	-0.7	-0.4	-1.2	100	81.3	82.8	84.4	100	89.1
06-Jun-01	22:59:34	-0.2	-0.2	-0.2	-0.4	-0.9	-0.9	98.4	85	81.7	87	100	90.2
06-Jun-01	23:19:34	-0.7	-0.2	0.1	-0.9	-0.2	-0.9	97.3	81.3	81.7	84.4	100	90.8
06-Jun-01	23:39:34	-0.7	-0.2	0.3	-0.4	-0.7	-0.9	97.3	85.5	81.2	84.9	100	89.7
06-Jun-01	23:59:34	-0.9	-0.2	-0.4	-0.9	-0.4	-0.4	96.2	81.3	80.2	87.5	100	90.2
07-Jun-01	00:19:34	-0.9	-0.2	-0.2	-0.9	-0.7	1.1	98.9	83.4	82.8	84.4	100	87.5
07-Jun-01	00:39:34	-0.4	0.3	-0.4	-0.4	-0.7	-0.2	100	83.4	83.8	87	100	88.6
07-Jun-01	00:59:34	-0.4	0.8	-0.2	-0.4	-0.4	-0.7	96.7	83.4	81.2	85.9	100	90.2
07-Jun-01	01:19:34	-0.7	0.8	-0.2	-0.7	-0.2	-0.7	94.6	80.7	81.7	84.4	100	88.6
07-Jun-01	01:39:34	-0.7	0.1	-0.4	-0.7	0.1	-0.9	100	81.8	83.8	87.5	100	89.1
07-Jun-01	01:59:34	-0.7	0.1	-0.4	-0.9	1.1	-0.7	94.6	85	83.3	85.4	100	90.2
07-Jun-01	02:19:34	-0.7	0.1	-0.4	-0.4	0.6	-0.9	93.5	83.4	81.2	84.9	98.3	90.8
07-Jun-01	02:39:34	-0.7	-0.7	-0.4	-0.7	-0.7	-0.9	94.6	83.9	82.3	87.5	97.8	90.8
07-Jun-01	02:59:34	-0.7	-0.2	-0.4	-0.9	-0.2	-0.9	95.6	83.9	84.3	84.9	100	90.8
07-Jun-01	03:19:34	-0.7	-0.7	-0.7	-0.7	-0.7	-0.9	99.5	84.5	84.3	87.5	100	90.8
07-Jun-01	03:39:34	1.6	0.1	-0.4	-0.9	-0.2	-0.7	100	84.5	81.2	84.4	100	91.3
07-Jun-01	03:59:34	3.9	-0.4	-0.4	-0.7	-0.7	-0.9	94	83.4	84.3	85.9	100	90.8
07-Jun-01	04:19:34	0.3	-0.4	-0.7	-0.9	-0.4	-0.9	94.6	84.5	84.3	87	100	91.3

07-Jun-01	04:39:34	-0.2	-0.2	-0.2	-0.4	-0.7	-0.7	100	81.8	81.2	84.9	100	90.8
07-Jun-01	04:59:34	-0.2	-0.2	-0.4	-0.4	-0.4	-0.9	98.4	84.5	83.3	86.5	100	90.2
07-Jun-01	05:19:34	-0.7	-0.2	-0.4	-0.9	-0.7	-0.9	97.3	80.7	83.8	85.9	100	90.2
07-Jun-01	05:39:34	-0.7	-0.2	-0.7	-0.4	-0.7	-0.7	97.3	84.5	83.8	84.9	100	88.6
07-Jun-01	05:59:34	-0.7	-0.2	-0.4	-0.9	-0.2	-0.7	96.7	81.3	81.7	87.5	100	89.1
07-Jun-01	06:19:34	-1.2	-0.2	-0.4	-0.7	-0.7	-0.7	97.8	85	83.8	84.9	100	88.6
07-Jun-01	06:39:34	-1.2	0.1	-0.4	-0.7	-0.2	-0.7	97.3	80.7	82.8	87.5	100	88.6
07-Jun-01	06:59:34	-0.9	0.1	-0.2	-0.7	-0.7	-1.2	96.7	84.5	81.7	84.9	100	88.6
07-Jun-01	07:19:34	-0.9	-0.2	0.3	-0.7	-0.2	-0.7	98.9	81.3	81.2	85.4	100	90.2
07-Jun-01	07:39:34	-0.9	0.1	0.1	-0.9	0.6	-0.9	99.5	84.5	81.2	87.5	100	90.8
07-Jun-01	07:59:34	-1.2	-0.2	-0.4	-0.4	1.6	0.1	95.1	82.9	80.7	84.9	100	88.6
07-Jun-01	08:19:34	-1.2	0.1	-0.4	-0.7	0.8	1.6	93.5	83.4	81.2	87	98.3	85.9
07-Jun-01	08:39:34	-1.2	0.8	-0.4	-0.9	-0.4	-0.2	94.6	82.9	83.8	84.4	97.2	88
07-Jun-01	08:59:34	-1.4	1.3	-0.4	-0.7	-0.7	-0.7	94	82.9	83.3	85.9	100	88
07-Jun-01	09:19:34	-0.9	1.6	-0.4	-0.7	-0.9	-1.2	97.3	79.7	82.8	84.4	98.3	88
07-Jun-01	09:39:34	1.3	0.1	-0.2	-0.9	-0.4	-1.2	99.5	80.7	81.2	87.5	100	88
07-Jun-01	09:59:34	3.4	-0.2	-0.2	-0.4	-0.7	-1.2	95.1	83.4	82.3	84.9	98.9	88
07-Jun-01	10:19:34	0.1	0.1	-0.2	-1.2	-0.4	-1.2	95.1	82.9	83.3	85.4	100	88
07-Jun-01	10:39:34	-0.4	-0.4	-0.4	-0.4	-0.4	-1.2	98.4	81.3	83.3	84.9	98.9	88
07-Jun-01	10:59:34	-0.2	-0.4	-0.4	-0.7	-0.7	-1.2	98.4	85	83.8	84.9	100	88
07-Jun-01	11:19:34	-0.4	-0.7	-0.4	-0.9	-0.4	-0.9	97.3	81.3	80.7	87.5	99.5	88.6
07-Jun-01	11:39:34	-0.7	-0.9	-0.2	-0.7	-0.9	-1.2	97.3	81.3	81.2	84.9	97.8	88
07-Jun-01	11:59:34	-0.7	-1.2	-0.2	-1.2	-0.4	-1.2	97.8	81.8	82.8	84.9	100	88
07-Jun-01	12:19:34	-0.7	-0.9	-0.4	-0.7	-0.4	-1.2	100	81.8	82.8	85.4	98.9	88
07-Jun-01	12:39:34	-0.4	-0.9	-0.4	-0.9	-0.9	-1.2	100	82.3	81.2	84.9	96.6	88.6
07-Jun-01	12:59:34	-0.4	-0.9	-0.4	-0.9	-1.2	-1.2	98.9	82.9	82.3	84.4	96.6	88
07-Jun-01	13:19:34	-0.7	-0.7	-0.2	-1.2	-0.2	-1.2	97.3	82.3	81.7	84.4	100	88.6
07-Jun-01	13:39:34	-0.7	-0.9	-0.2	-0.7	0.8	-1.2	95.6	81.8	80.7	84.9	100	88
07-Jun-01	13:59:34	-0.9	-1.2	-0.2	-0.9	1.6	-1.2	94.6	81.8	83.3	84.9	100	90.8
07-Jun-01	14:19:34	-0.7	-0.9	-0.4	-0.7	1.3	-1.2	96.7	81.8	80.7	84.9	97.8	91.3
07-Jun-01	14:39:34	-0.7	-1.2	-0.2	-0.7	-0.2	-0.9	95.1	81.3	83.3	84.4	95.5	88
07-Jun-01	14:59:34	-0.7	-1.2	0.1	-0.7	-0.9	-0.9	94.6	82.3	82.8	85.9	94.9	89.7
07-Jun-01	15:19:34	-0.4	-1.2	0.6	-0.4	-0.7	-1.2	94.6	82.3	81.2	84.9	100	88.6
07-Jun-01	15:39:34	0.1	-0.9	0.3	-0.7	-0.9	-0.9	95.1	81.8	81.2	84.4	96.6	88.6
07-Jun-01	15:59:34	0.6	-0.7	-0.2	-0.7	-0.7	-0.4	96.2	85.5	80.7	84.4	100	89.7
07-Jun-01	16:19:34	0.8	-0.7	-0.4	-0.7	-1.2	1.3	99.5	82.9	80.2	84.4	97.2	87.5
07-Jun-01	16:39:34	2.8	0.3	-0.2	-0.4	-0.4	-0.2	100	82.3	81.2	84.4	100	88
07-Jun-01	16:59:34	4.6	1.3	-0.4	-0.9	-0.7	-0.9	95.6	81.8	83.8	83.8	98.9	88
07-Jun-01	17:19:34	1.1	1.6	-0.2	-0.7	-0.7	-1.2	94.6	80.2	83.3	83.3	98.3	88.6
07-Jun-01	17:39:34	-0.4	0.1	-0.2	-0.9	-0.7	-1.2	94.6	80.7	80.7	83.3	100	89.7
07-Jun-01	17:59:34	-1.2	-0.2	-0.2	-0.9	-0.7	-0.9	93.5	83.4	83.3	83.3	97.8	88.6
07-Jun-01	18:19:34	-0.9	0.1	-0.2	-0.9	-0.7	-0.7	93.5	82.9	81.7	83.3	100	90.8
07-Jun-01	18:39:34	-0.9	-0.2	-0.2	-0.9	-0.9	-0.9	96.2	81.8	80.7	83.3	97.8	88
07-Jun-01	18:59:34	-0.9	-0.4	-0.2	-0.7	-0.7	-0.9	94	81.8	83.3	85.4	100	88
07-Jun-01	19:19:34	-1.2	-0.2	-0.4	-0.7	-0.9	-1.2	92.4	83.4	81.7	83.8	97.8	88
07-Jun-01	19:39:34	-1.4	-0.7	-0.2	-0.9	0.1	-0.9	94.6	83.4	81.2	83.8	97.8	90.8
07-Jun-01	19:59:34	-1.2	-0.2	-0.2	-0.9	1.1	-1.2	94.6	83.4	83.3	83.8	97.8	88.6
07-Jun-01	20:19:34	-0.9	-0.7	-0.2	-0.9	0.3	-1.2	94	83.9	82.8	84.4	96.1	89.7
07-Jun-01	20:39:34	-0.7	-0.2	0.1	-0.4	-0.9	-1.2	93.5	83.4	81.7	84.9	94.9	88.6

07-Jun-01	20:59:34	-0.7	-0.4	0.1	-0.9	-0.7	-0.9	94	85	81.7	83.8	100	90.8
07-Jun-01	21:19:34	-0.2	0.1	-0.2	-0.7	-0.7	-1.2	93.5	82.3	82.3	85.4	97.8	88.6
07-Jun-01	21:39:34	0.3	-0.4	-0.4	-0.7	-0.7	-0.9	94	85.5	80.7	84.4	100	88.6
07-Jun-01	21:59:34	0.1	0.1	-0.2	-0.9	-1.2	-0.9	94.6	82.3	81.7	83.3	97.8	89.7
07-Jun-01	22:19:34	0.6	-0.4	-0.2	-0.7	-0.4	-0.9	96.7	85.5	82.8	85.9	100	88.6
07-Jun-01	22:39:34	1.8	-0.2	-0.2	-0.9	-1.2	-0.9	99.5	82.3	81.7	83.8	98.9	88.6
07-Jun-01	22:59:34	4.4	-0.4	-0.2	-0.9	-0.4	-0.9	97.8	85.5	81.2	83.3	100	91.3
07-Jun-01	23:19:34	2.3	0.1	0.3	-0.7	-0.7	-1.2	98.9	82.3	81.7	84.9	100	88
07-Jun-01	23:39:34	1.6	-0.7	0.3	-0.9	-0.7	-0.9	98.9	85.5	82.3	83.8	98.9	88.6
07-Jun-01	23:59:34	1.8	-0.2	-0.2	-0.4	-0.7	-0.2	98.9	82.9	80.7	84.9	100	90.2
08-Jun-01	00:19:34	1.6	-0.4	-0.7	-0.9	-0.9	1.3	94.6	83.9	83.8	83.8	97.8	88
08-Jun-01	00:39:34	1.8	-0.2	-0.2	-0.4	-0.4	-0.4	100	83.4	81.2	84.9	100	88
08-Jun-01	00:59:34	0.6	0.8	-0.2	-0.4	-1.2	-0.9	94	82.9	81.7	85.4	97.8	89.1
08-Jun-01	01:19:34	-0.7	0.8	-0.4	-0.4	-0.4	-0.9	94.6	81.8	83.8	84.4	100	89.7
08-Jun-01	01:39:34	-0.9	-0.4	-0.4	-1.2	0.3	-0.9	98.4	81.8	83.8	83.8	100	88
08-Jun-01	01:59:34	-0.7	-0.7	-0.2	-0.9	1.3	-1.2	95.6	83.9	81.2	87	100	90.8
08-Jun-01	02:19:34	-0.7	-0.7	-0.2	-0.7	0.8	-1.2	94.6	84.5	82.8	84.4	96.6	88.6
08-Jun-01	02:39:34	-0.9	-0.7	-0.4	-0.9	-0.7	-0.9	95.6	83.4	83.8	84.9	95.5	91.3
08-Jun-01	02:59:34	-0.9	-0.7	-0.4	-0.7	-0.7	-1.2	95.6	86.1	82.8	84.9	100	90.8
08-Jun-01	03:19:34	-1.2	-0.7	-0.4	-0.7	-0.9	-0.9	93.5	83.4	81.7	84.4	97.8	88.6
08-Jun-01	03:39:34	-1.2	-0.4	-0.4	-0.7	-0.9	-0.9	97.3	86.1	83.3	85.4	100	90.8
08-Jun-01	03:59:34	-1.2	-0.7	-0.4	-0.9	-0.9	-1.2	94.6	83.9	83.8	84.4	98.3	90.2
08-Jun-01	04:19:34	-1.2	-0.4	-0.2	-0.7	-0.7	-0.9	98.9	85.5	83.3	85.9	100	90.8
08-Jun-01	04:39:34	1.3	-0.7	-0.4	-0.9	-0.9	-0.9	100	85	81.7	84.4	98.3	88.6
08-Jun-01	04:59:34	4.4	-0.2	-0.2	-0.7	-0.4	-0.7	91.9	86.1	81.7	85.4	100	89.7
08-Jun-01	05:19:34	0.1	-0.7	-0.2	-0.7	-0.9	-1.2	93.5	83.9	83.3	84.4	97.8	91.3
08-Jun-01	05:39:34	-0.9	-0.4	-0.4	-0.7	-0.4	-0.9	97.3	85.5	83.3	87	100	91.3
08-Jun-01	05:59:34	-0.7	-0.7	-0.2	-0.7	-1.2	-1.2	95.1	85	83.3	84.4	97.8	90.8
08-Jun-01	06:19:34	-0.7	-0.2	-0.2	-0.7	-0.7	-1.2	95.6	85.5	81.2	86.5	100	90.2
08-Jun-01	06:39:34	-0.7	-0.4	-0.2	-0.7	-0.9	-0.9	96.7	83.4	83.3	84.4	98.3	88.6
08-Jun-01	06:59:34	-1.2	-0.2	-0.2	-0.7	-0.4	-1.2	98.9	85	82.8	86.5	100	88
08-Jun-01	07:19:34	-0.9	-0.2	0.1	-0.7	-0.9	-1.2	98.4	83.4	82.3	84.4	98.9	89.7
08-Jun-01	07:39:34	-0.9	0.1	0.3	-0.7	-0.2	-0.9	95.1	85	82.3	86.5	98.9	90.2
08-Jun-01	07:59:34	-1.2	-0.4	-0.2	-0.7	0.8	0.1	98.4	83.9	81.2	84.4	98.3	89.7
08-Jun-01	08:19:34	-0.9	0.1	-0.4	-0.7	0.3	2.3	98.9	83.9	83.8	85.9	97.8	90.8
08-Jun-01	08:39:34	-1.2	0.6	-0.2	-0.7	-0.7	0.6	96.2	83.4	83.3	84.4	96.6	88
08-Jun-01	08:59:34	-0.9	1.3	-0.2	-0.7	-1.2	-0.4	94.6	83.4	81.2	86.5	97.8	88.6
08-Jun-01	09:19:34	-0.2	1.3	-0.4	-0.7	-0.7	-0.7	100	79.7	82.3	85.4	100	88.6
08-Jun-01	09:39:34	0.1	0.1	-0.2	-0.7	-0.9	-0.9	94.6	81.3	83.8	84.9	97.8	88.6
08-Jun-01	09:59:34	-0.9	-0.2	-0.4	-0.4	-1.4	-0.7	94	83.4	82.8	85.4	97.2	88
08-Jun-01	10:19:34	-0.9	-0.2	-0.4	-0.7	-0.4	-0.7	97.3	83.4	81.7	84.9	100	88
08-Jun-01	10:39:34	1.3	-0.2	-0.2	-0.7	-0.7	-0.9	97.8	81.8	83.3	87.5	98.3	88.6
08-Jun-01	10:59:34	4.1	-0.9	-0.2	-0.7	-1.2	-0.7	91.9	81.3	83.8	84.9	97.2	88.6
08-Jun-01	11:19:34	0.6	-0.4	-0.2	-0.9	-1.4	-0.4	93.5	82.9	82.8	84.9	96.1	88.6
08-Jun-01	11:39:34	-0.9	-0.7	-0.2	-0.4	-0.7	-0.7	94.6	82.3	81.2	84.9	100	88.6
08-Jun-01	11:59:34	-0.7	-1.2	-0.4	-0.9	-0.4	-0.9	97.3	82.3	81.7	84.4	97.8	90.8
08-Jun-01	12:19:34	-0.7	-1.2	-0.2	-0.7	-1.2	-0.7	96.7	82.3	80.7	84.9	96.1	88
08-Jun-01	12:39:34	-0.9	-1.2	-0.2	-0.7	-1.2	-0.9	94.6	82.9	82.8	85.4	95.5	88
08-Jun-01	12:59:34	-0.7	-1.2	-0.4	-0.9	-0.4	-0.9	97.3	82.9	80.7	84.4	100	88

08-Jun-01	13:19:34	-0.7	-0.9	-0.4	-0.9	-0.7	-0.9	94.6	82.3	80.7	86.5	97.8	88
08-Jun-01	13:39:34	-0.4	-1.2	-0.4	-0.7	0.3	-0.9	99.5	81.8	80.2	84.9	98.3	88
08-Jun-01	13:59:34	-0.4	-1.2	-0.4	-0.7	1.6	-1.2	94.6	82.3	80.7	84.4	99.5	87.5
08-Jun-01	14:19:34	-0.9	-1.4	-0.2	-0.7	1.1	-0.9	94.6	82.3	80.2	84.4	96.1	87.5
08-Jun-01	14:39:34	-0.9	-1.4	-0.2	-1.2	-0.2	-0.9	94	81.8	81.2	84.4	95.5	87.5
08-Jun-01	14:59:34	-0.9	-1.4	-0.2	-0.7	-0.9	-0.9	97.3	81.8	82.3	84.9	95.5	86.9
08-Jun-01	15:19:34	-1.2	-1.2	0.1	-0.4	-1.2	-0.9	92.9	81.8	81.7	84.4	95.5	86.9
08-Jun-01	15:39:34	-1.2	-1.2	0.3	-0.9	-1.4	-0.7	98.4	81.8	82.8	83.8	95.5	88.6
08-Jun-01	15:59:34	-1.2	-1.4	0.1	-0.9	-1.7	0.1	100	85.5	80.7	83.8	95.5	86.9
08-Jun-01	16:19:34	-1.2	-0.4	-0.2	-0.9	-0.7	1.8	96.7	85	80.7	83.3	100	85.3
08-Jun-01	16:39:34	1.3	0.3	-0.2	-0.9	-0.7	0.1	98.9	82.9	80.7	83.3	96.6	86.9
08-Jun-01	16:59:34	3.6	1.1	-0.2	-0.7	-0.7	-0.7	94	83.4	82.8	84.9	100	87.5
08-Jun-01	17:19:34	-0.2	1.6	-0.2	-0.7	-0.7	-0.9	93.5	79.7	81.2	84.4	97.2	87.5
08-Jun-01	17:39:34	-0.9	-0.2	-0.2	-0.9	-0.7	-1.2	97.3	81.3	83.3	85.9	100	88
08-Jun-01	17:59:34	-0.4	-0.4	-0.2	-0.7	-0.9	-0.9	97.3	83.9	81.2	84.4	97.8	88
08-Jun-01	18:19:34	-0.7	-0.4	-0.2	-0.9	-0.7	-0.9	95.1	84.5	82.3	84.9	100	88
08-Jun-01	18:39:34	-0.9	-0.7	-0.2	-0.7	-0.7	-0.7	95.1	82.3	82.8	84.9	97.8	88
08-Jun-01	18:59:34	-0.9	-0.4	-0.2	-0.4	-0.4	-0.7	100	86.1	81.2	85.4	100	88
08-Jun-01	19:19:34	-0.7	-0.4	-0.2	-0.7	-0.2	-0.7	97.8	82.3	81.7	83.8	100	88.6
08-Jun-01	19:39:34	-1.2	-0.4	0.1	-0.7	0.3	-0.7	100	86.1	83.3	86.5	100	89.1
08-Jun-01	19:59:34	-0.7	0.1	0.1	-0.4	0.8	-0.9	94.6	83.9	83.3	84.4	98.9	88
08-Jun-01	20:19:34	-0.7	-0.4	-0.2	-0.7	0.3	-0.9	97.3	85.5	83.8	87	96.6	88
08-Jun-01	20:39:34	-0.9	-0.2	-0.4	-0.4	-0.9	-0.7	94.6	85.5	82.3	84.4	95.5	89.7
08-Jun-01	20:59:34	-0.9	-0.4	-0.2	-0.7	-0.7	-0.7	100	82.9	81.2	86.5	100	88.6
08-Jun-01	21:19:34	-0.9	-0.4	0.1	-0.7	-0.4	-0.9	97.3	86.1	81.7	83.8	98.3	88.6
08-Jun-01	21:39:34	-0.9	0.1	-0.2	-0.4	-0.7	-0.7	97.3	85.5	83.3	85.9	100	90.2
08-Jun-01	21:59:34	-0.9	-0.4	-0.2	-0.9	-0.7	-0.9	94.6	85	81.2	83.8	97.8	88.6
08-Jun-01	22:19:34	-1.2	0.1	-0.2	-0.4	-0.7	-0.7	97.3	86.1	81.2	84.9	100	90.2
08-Jun-01	22:39:34	1.3	-0.2	-0.2	-0.9	-0.4	-0.7	98.9	81.8	82.3	86.5	100	89.1
08-Jun-01	22:59:34	3.9	-0.4	0.1	-0.7	-0.9	-0.7	94.6	86.1	82.8	84.4	100	88.6
08-Jun-01	23:19:34	-0.2	0.1	0.1	-0.9	-0.4	-0.7	94.6	83.9	83.3	87	100	90.2
08-Jun-01	23:39:34	-0.7	-0.4	0.3	-0.7	-1.2	-0.7	96.2	86.1	82.8	84.4	100	88.6
08-Jun-01	23:59:34	-0.7	-0.2	0.1	-0.7	-0.4	-0.2	100	85.5	81.2	85.4	100	88
09-Jun-01	00:19:34	-0.9	0.1	-0.2	-0.9	-0.7	1.3	96.7	83.4	84.3	87	100	85.9
09-Jun-01	00:39:34	-0.7	0.3	-0.2	-0.7	-0.2	0.1	97.3	83.4	83.3	84.9	100	88
09-Jun-01	00:59:34	-0.7	0.8	0.1	-0.7	-0.9	-0.4	97.8	84.5	83.3	84.9	100	88.6
09-Jun-01	01:19:34	-0.9	0.8	-0.2	-0.7	-0.4	-0.7	96.2	80.7	82.8	85.9	100	88
09-Jun-01	01:39:34	-0.9	-0.4	-0.2	-0.4	0.3	-0.7	100	84.5	82.3	84.9	100	88.6
09-Jun-01	01:59:34	-1.2	-0.2	-0.2	-0.9	1.1	-0.7	96.2	86.1	83.8	87	100	89.7
09-Jun-01	02:19:34	-0.9	0.1	-0.4	-0.9	0.3	-0.7	98.4	83.9	84.3	84.4	96.6	88.6
09-Jun-01	02:39:34	-0.9	-0.4	-0.2	-0.7	-1.2	-0.7	100	85	83.3	85.9	96.1	90.2
09-Jun-01	02:59:34	-0.9	-0.2	-0.2	-0.7	-0.7	-0.7	96.2	85.5	82.3	85.9	100	88
09-Jun-01	03:19:34	-0.9	0.1	-0.2	-0.4	-0.9	-0.4	97.3	81.8	83.8	84.9	98.3	90.2
09-Jun-01	03:39:34	-0.9	-0.7	-0.4	-0.7	-0.7	-0.7	95.1	86.6	84.3	86.5	100	89.7
09-Jun-01	03:59:34	-0.9	-0.2	-0.2	-0.7	-0.2	-0.7	99.5	85	83.3	84.9	100	89.7
09-Jun-01	04:19:34	-0.9	-0.2	-0.2	-0.7	-0.9	-0.9	97.3	81.8	82.3	85.4	100	90.2
09-Jun-01	04:39:34	0.8	-0.4	-0.2	-0.7	-0.2	-0.7	98.4	85.5	83.3	87	100	88
09-Jun-01	04:59:34	4.4	0.3	-0.2	-0.7	-0.7	-0.4	95.1	83.9	84.3	85.9	100	90.2
09-Jun-01	05:19:34	-0.2	-0.4	-0.2	-0.9	-0.4	-0.7	94.6	86.1	84.3	85.4	100	90.2

09-Jun-01	05:39:34	-1.2	0.1	-0.4	-0.7	-1.2	-0.4	96.7	85.5	83.8	84.4	100	88.6
09-Jun-01	05:59:34	-0.7	0.1	-0.2	-0.7	-0.2	-0.7	97.8	81.8	82.8	87.5	100	90.2
09-Jun-01	06:19:34	-0.9	-0.7	-0.2	-0.7	-0.9	-0.7	100	85.5	82.8	84.4	100	88.6
09-Jun-01	06:39:34	-0.7	0.1	-0.2	-0.4	-0.4	-0.4	97.8	83.4	83.8	85.9	100	90.8
09-Jun-01	06:59:34	-0.7	-0.2	-0.2	-0.9	-0.9	-0.4	100	86.1	83.8	85.9	100	88.6
09-Jun-01	07:19:34	-0.9	0.1	0.1	-0.4	-0.2	-0.9	97.3	85	83.8	84.9	100	90.2
09-Jun-01	07:39:34	-0.7	-0.4	0.3	-0.7	0.6	-0.7	98.4	82.9	83.3	86.5	100	88.6
09-Jun-01	07:59:34	-1.2	-0.2	-0.2	-0.7	1.3	0.3	98.9	86.1	82.3	84.4	100	88
09-Jun-01	08:19:34	-1.2	0.1	-0.2	-0.4	0.6	1.6	97.8	83.4	81.2	84.9	97.2	85.3
09-Jun-01	08:39:34	-1.2	0.8	-0.2	-0.7	-0.4	0.1	100	83.4	83.3	87	96.6	87.5
09-Jun-01	08:59:34	-0.9	1.3	-0.2	-0.4	-1.2	-0.4	97.3	82.9	84.3	85.4	96.1	90.2
09-Jun-01	09:19:34	-1.2	1.3	-0.2	-0.7	-1.4	-0.4	98.4	79.7	84.3	84.9	96.1	88
09-Jun-01	09:39:34	-0.9	0.1	-0.2	-0.4	-1.4	-0.4	96.2	81.3	81.7	87	96.1	88
09-Jun-01	09:59:34	-1.2	0.1	-0.2	-0.7	-0.7	-0.7	100	83.9	83.3	84.9	100	89.7
09-Jun-01	10:19:34	-0.9	-0.2	-0.2	-0.7	-0.4	-0.7	100	84.5	84.3	85.9	97.8	90.2
09-Jun-01	10:39:34	1.3	-0.4	-0.2	-0.7	-1.2	-0.4	100	82.3	82.3	84.9	96.1	88.6
09-Jun-01	10:59:34	2.8	-0.7	-0.2	-0.4	-1.2	-0.9	94	85.5	81.2	84.9	95.5	88.6
09-Jun-01	11:19:34	-0.7	-0.4	-0.2	-0.9	-0.4	-0.7	97.3	82.3	82.8	84.4	100	88.6
09-Jun-01	11:39:34	-0.4	-0.7	-0.2	-0.7	-0.4	-0.7	97.3	86.1	83.3	84.4	97.8	89.7
09-Jun-01	11:59:34	-0.9	-0.4	-0.4	-0.7	-1.2	-0.7	100	82.9	82.3	84.9	96.1	89.7
09-Jun-01	12:19:34	-0.7	-0.7	-0.2	-0.7	-1.2	-0.7	100	82.9	83.8	87.5	95.5	90.8
09-Jun-01	12:39:34	-0.4	-0.9	-0.4	-0.4	-1.2	-0.7	96.7	82.9	83.8	84.9	98.3	88
09-Jun-01	12:59:34	-0.4	-0.9	-0.2	-0.9	0.1	-0.7	97.3	83.4	81.7	87	100	88.6
09-Jun-01	13:19:34	-0.7	-1.2	-0.2	-0.7	-0.4	-0.4	100	83.4	83.3	84.9	97.2	88.6
09-Jun-01	13:39:34	-0.7	-0.7	-0.2	-0.9	0.3	-0.7	98.9	86.6	83.3	84.9	97.8	88.6
09-Jun-01	13:59:34	-0.9	-0.4	-0.2	-0.7	1.1	-0.7	98.9	82.9	81.7	87	97.2	88.6
09-Jun-01	14:19:34	-0.9	-0.4	-0.2	-0.7	0.3	-0.7	97.3	86.1	83.8	84.4	94.9	88
09-Jun-01	14:39:34	-0.7	-0.7	-0.4	-0.7	-0.4	-0.7	96.7	82.9	82.3	84.4	94.9	88
09-Jun-01	14:59:34	-1.2	-0.9	-0.2	-0.4	-0.9	-0.9	100	82.9	83.3	85.4	94.9	88
09-Jun-01	15:19:34	-0.9	-1.2	0.1	-0.7	-1.4	-1.2	94.6	83.4	82.8	84.4	97.2	88
09-Jun-01	15:39:34	-0.9	-0.7	0.3	-0.7	-0.4	-0.9	99.5	83.9	83.3	84.4	100	87.5
09-Jun-01	15:59:34	-0.9	-0.7	0.1	-0.9	-0.7	0.1	94.6	85.5	82.8	85.4	95.5	87.5
09-Jun-01	16:19:34	-0.7	-0.2	-0.4	-0.7	-1.2	1.8	97.3	85	82.3	84.9	94.9	85.3
09-Jun-01	16:39:34	1.1	0.8	-0.2	-0.7	-0.7	-0.2	97.8	83.9	83.3	84.4	100	88
09-Jun-01	16:59:34	3.9	1.3	-0.2	-0.7	-0.4	-0.7	93.5	83.9	83.3	85.4	97.8	88
09-Jun-01	17:19:34	0.1	1.8	-0.4	-0.7	-1.2	-0.7	94	80.7	83.3	84.9	94.9	88
09-Jun-01	17:39:34	-0.9	0.1	-0.2	-0.9	-0.7	-0.9	98.4	82.3	84.3	87	100	88.6
09-Jun-01	17:59:34	-0.7	0.1	-0.4	-0.9	-0.4	-0.9	96.2	85	85.4	84.9	97.8	88.6
09-Jun-01	18:19:34	-0.7	-0.2	-0.2	-0.7	-0.9	-1.2	98.9	85	83.3	85.9	98.9	88
09-Jun-01	18:39:34	-0.7	-0.2	-0.4	-0.4	0.1	-1.2	97.3	82.9	83.3	84.9	100	88.6
09-Jun-01	18:59:34	-0.4	-0.4	-0.2	-0.7	-0.7	-1.2	98.4	86.1	83.3	85.9	95.5	88
09-Jun-01	19:19:34	-0.9	-0.4	-0.4	-0.7	-0.9	-1.2	97.8	82.3	84.3	84.9	98.3	88
09-Jun-01	19:39:34	-0.7	-0.7	-0.2	-0.9	0.1	-1.2	97.3	86.1	83.8	85.4	98.3	88
09-Jun-01	19:59:34	-0.9	-0.4	-0.2	-0.7	1.1	-0.9	100	82.3	82.8	84.4	97.8	88
09-Jun-01	20:19:34	-0.7	-0.2	-0.2	-1.2	0.6	-0.9	100	86.1	83.3	85.9	95.5	88
09-Jun-01	20:39:34	-0.7	-0.4	-0.2	-0.7	-0.4	-1.2	97.3	82.9	83.3	84.9	94.9	90.8
09-Jun-01	20:59:34	-0.9	-0.7	-0.4	-0.9	-1.2	-0.9	96.7	86.6	84.3	85.9	96.1	88
09-Jun-01	21:19:34	-0.7	-0.2	-0.2	-0.7	-0.4	-0.9	100	83.4	83.3	84.4	100	88
09-Jun-01	21:39:34	-0.7	-0.4	-0.2	-1.2	-0.4	-1.2	97.3	86.1	82.8	85.4	97.2	88

09-Jun-01	21:59:34	-0.4	-0.4	-0.2	-0.4	-1.2	-1.2	100	83.4	83.3	84.9	97.8	88
09-Jun-01	22:19:34	-0.2	-0.4	-0.4	-0.9	-0.2	-0.9	100	86.1	83.3	84.9	100	90.2
09-Jun-01	22:39:34	1.8	-0.4	-0.4	-0.4	-0.4	-1.2	100	82.9	83.3	84.9	97.2	88
09-Jun-01	22:59:34	3.1	-0.4	-0.2	-0.9	-0.7	-1.2	92.9	86.1	83.3	84.9	100	88
09-Jun-01	23:19:34	-0.2	-0.4	0.1	-0.7	-0.4	-1.2	94.6	82.9	83.3	85.4	98.3	88
09-Jun-01	23:39:34	-0.9	-0.4	0.1	-0.9	-1.2	-1.2	96.7	86.6	83.3	84.9	97.8	88
09-Jun-01	23:59:34	-0.7	-0.4	-0.2	-0.9	-0.4	-0.2	100	82.9	82.8	87	100	88
10-Jun-01	00:19:34	-0.7	-0.4	-0.4	-0.7	-0.4	1.3	100	85.5	83.3	84.9	97.2	87.5
10-Jun-01	00:39:34	-0.9	0.6	-0.2	-1.2	-0.7	-0.2	99.5	84.5	83.3	85.4	100	87.5
10-Jun-01	00:59:34	-0.9	1.3	-0.2	-0.7	-0.2	-0.7	98.4	86.6	84.3	87	98.3	88
10-Jun-01	01:19:34	-0.7	1.8	-0.4	-0.7	-0.7	-0.9	99.5	80.7	84.3	84.9	97.2	88
10-Jun-01	01:39:34	-0.7	0.1	-0.4	-0.9	0.1	-0.9	98.9	82.3	82.8	87	97.8	88.6
10-Jun-01	01:59:34	-0.7	-0.7	-0.4	-0.9	1.1	-0.9	100	85	85.4	84.4	97.8	88
10-Jun-01	02:19:34	-0.7	-0.4	-0.4	-0.9	0.8	-1.2	97.8	85	82.8	84.9	95.5	88
10-Jun-01	02:39:34	-0.7	-0.7	-0.2	-0.4	-0.7	-1.2	97.3	83.4	83.3	85.9	94.9	88.6
10-Jun-01	02:59:34	-0.9	-0.9	-0.4	-0.9	-1.4	-0.9	100	86.6	84.3	84.9	97.8	88.6
10-Jun-01	03:19:34	-0.9	-0.7	-0.2	-0.7	-0.2	-1.2	96.7	83.4	82.8	85.9	100	88
10-Jun-01	03:39:34	-1.2	-0.7	-0.4	-0.9	-0.7	-0.9	95.6	86.6	83.3	84.9	96.6	90.8
10-Jun-01	03:59:34	-0.9	-0.7	-0.4	-0.9	-0.4	-0.9	100	83.4	85.4	87.5	100	88
10-Jun-01	04:19:34	-1.2	-0.7	-0.4	-0.7	-0.2	-1.2	97.3	87.7	84.3	85.4	100	90.8
10-Jun-01	04:39:34	1.3	-0.7	-0.4	-0.9	-1.2	-1.2	100	83.4	82.8	84.9	97.2	88
10-Jun-01	04:59:34	3.9	-0.7	-0.4	-0.7	-0.2	-0.9	94	87.2	84.9	85.9	100	88
10-Jun-01	05:19:34	0.1	-0.7	-0.7	-0.7	-0.4	-1.2	94.6	83.4	82.3	84.9	97.2	90.2
10-Jun-01	05:39:34	-0.9	-0.7	-0.4	-0.9	-0.7	-0.9	94.6	86.6	83.3	87.5	100	90.2
10-Jun-01	05:59:34	-0.7	-0.7	-0.4	-0.7	-0.2	-0.7	100	83.4	84.3	84.9	98.3	88.6
10-Jun-01	06:19:34	0.1	-0.9	-0.2	-1.2	-0.9	-0.9	100	87.2	83.3	87	95.5	88
10-Jun-01	06:39:34	0.1	-0.4	-0.2	-0.9	-0.4	-0.9	100	82.9	83.3	84.4	100	88
10-Jun-01	06:59:34	0.1	-0.9	-0.2	-1.2	0.1	-0.9	100	86.6	83.8	85.4	100	90.2
10-Jun-01	07:19:34	0.3	-0.4	0.1	-0.4	-0.9	-1.2	100	83.4	83.3	84.9	97.8	90.2
10-Jun-01	07:39:34	-0.7	-0.7	-0.2	-0.9	-0.2	-0.9	94.6	86.1	83.8	84.9	97.8	88
10-Jun-01	07:59:34	-0.7	-0.4	-0.2	-0.4	0.8	-0.2	100	82.9	82.8	84.9	97.8	88.6
10-Jun-01	08:19:34	-0.7	-0.7	-0.2	-1.2	0.3	1.6	97.3	85.5	84.3	84.9	96.1	85.9
10-Jun-01	08:39:34	-0.9	0.6	-0.4	-0.9	-0.7	-0.2	100	84.5	82.8	84.9	95.5	88
10-Jun-01	08:59:34	-0.9	1.3	-0.4	-0.7	-1.2	-0.7	96.7	83.4	85.4	85.9	96.1	88
10-Jun-01	09:19:34	-0.9	1.8	-0.2	-0.7	-1.4	-0.7	99.5	80.7	83.3	84.9	96.1	90.2
10-Jun-01	09:39:34	-0.9	0.3	-0.4	-0.9	-0.7	-1.2	96.7	82.3	84.3	84.4	100	90.8
10-Jun-01	09:59:34	-0.7	0.1	-0.2	-0.9	-0.4	-1.2	100	85	83.3	84.4	97.8	90.2
10-Jun-01	10:19:34	-0.9	-0.2	-0.2	-1.2	-1.2	-0.7	98.9	84.5	83.3	85.4	98.3	88
10-Jun-01	10:39:34	1.6	-0.4	-0.4	-0.7	-0.2	-0.9	100	82.9	84.3	84.4	100	90.8
10-Jun-01	10:59:34	-0.2	-0.7	-0.4	-0.7	-0.7	-0.7	95.1	82.9	82.8	84.9	96.1	89.7
10-Jun-01	11:19:34	-0.7	-0.7	-0.4	-0.9	-0.7	-0.7	99.5	86.1	84.9	84.4	100	88.6
10-Jun-01	11:39:34	-0.9	-0.7	-0.7	-0.9	-0.2	-0.9	97.3	83.4	82.3	84.4	100	90.2
10-Jun-01	11:59:34	-0.7	-1.2	-0.4	-1.2	-0.9	-0.9	98.4	83.4	84.9	87	96.1	90.8
10-Jun-01	12:19:34	-0.9	-0.4	-0.4	-0.9	-0.7	-0.9	100	84.5	82.8	84.4	100	88
10-Jun-01	12:39:34	-1.2	-0.9	-0.4	-0.9	0.1	-0.9	99.5	83.4	83.8	84.4	100	88
10-Jun-01	12:59:34	-0.9	-0.9	-0.4	-0.9	-0.4	-0.7	96.7	83.4	82.8	86.5	97.8	88.6
10-Jun-01	13:19:34	-1.2	-0.7	-0.4	-0.9	0.1	-0.9	99.5	83.9	82.3	85.4	100	90.2
10-Jun-01	13:39:34	-1.2	-0.9	-0.4	-0.7	0.6	-0.9	96.7	85.5	82.8	84.9	100	89.1
10-Jun-01	13:59:34	-0.9	-0.7	-0.4	-0.2	1.3	-0.9	97.3	83.4	82.3	84.9	99.5	90.2

10-Jun-01	14:19:34	-0.9	-0.7	-0.4	-0.2	0.8	-0.7	100	82.9	82.3	85.4	96.1	90.2
10-Jun-01	14:39:34	-0.9	-0.7	-0.2	-0.2	-0.4	-0.9	95.1	85	82.8	85.4	95.5	88
10-Jun-01	14:59:34	-0.7	-0.4	-0.2	0.3	0.1	-0.9	98.4	82.9	83.3	85.4	100	90.2
10-Jun-01	15:19:34	-0.9	-0.7	0.3	0.3	-0.7	-0.9	97.3	82.9	83.3	85.4	96.6	89.1
10-Jun-01	15:39:34	-0.7	-0.2	0.3	0.8	-0.2	-0.9	97.8	83.4	82.8	84.9	100	88
10-Jun-01	15:59:34	-1.2	-0.4	0.3	0.6	-0.4	0.3	99.5	82.9	81.7	84.4	97.8	88
10-Jun-01	16:19:34	-0.9	-0.4	-0.4	0.6	0.1	2.1	97.8	83.4	81.7	83.8	100	85.3
10-Jun-01	16:39:34	1.1	0.3	-0.4	0.3	-0.4	0.1	98.9	83.4	81.7	84.4	97.2	88
10-Jun-01	16:59:34	3.4	1.1	-0.4	0.1	-0.2	-0.7	92.4	83.4	81.2	84.4	100	88
10-Jun-01	17:19:34	-0.2	1.6	-0.4	0.1	-0.4	-0.9	94.6	80.7	83.3	84.4	97.8	88
10-Jun-01	17:39:34	0.1	0.3	-0.7	0.1	-0.2	-0.9	97.8	81.3	82.3	84.4	100	88.6
10-Jun-01	17:59:34	-0.2	-0.2	-0.4	-0.2	-0.4	-0.9	99.5	83.4	82.8	83.8	97.8	90.2
10-Jun-01	18:19:34	0.1	0.1	-0.7	-0.4	-0.2	-0.7	99.5	83.9	85.4	83.8	100	88.6
10-Jun-01	18:39:34	0.1	-0.4	-0.7	-0.2	-0.2	-0.9	97.8	82.3	81.7	83.8	97.8	89.1
10-Jun-01	18:59:34	-0.2	-0.4	-0.7	0.1	-0.2	-0.9	94.6	86.1	85.4	84.9	100	88
10-Jun-01	19:19:34	-0.2	-0.4	-0.4	0.3	0.1	-0.9	96.2	82.3	83.3	84.4	100	90.8
10-Jun-01	19:39:34	-0.4	-0.4	-0.7	-0.2	0.6	-0.7	99.5	85.5	82.8	84.4	98.9	89.7
10-Jun-01	19:59:34	-0.4	-0.2	-0.4	-0.4	1.3	-1.2	99.5	81.8	83.8	83.8	98.3	88.6
10-Jun-01	20:19:34	-0.4	-0.2	-0.4	-0.4	0.8	-0.7	94	85	81.7	83.8	95.5	88.6
10-Jun-01	20:39:34	-0.2	-0.2	-0.4	-0.2	-0.4	-0.9	96.7	82.3	82.8	83.3	94.9	89.1
10-Jun-01	20:59:34	-0.4	-0.2	-0.4	-0.2	-0.2	-0.7	97.3	83.9	81.2	83.3	100	90.8
10-Jun-01	21:19:34	-0.4	-0.2	-0.7	-0.2	-0.4	-0.7	94.6	82.9	82.8	83.3	97.2	90.8
10-Jun-01	21:39:34	-0.7	-0.4	-0.7	-0.4	-0.2	-0.9	97.3	86.1	81.7	83.3	100	88.6
10-Jun-01	21:59:34	-0.4	-0.2	-0.7	-0.4	-0.2	-0.9	94.6	82.3	81.2	83.3	97.2	90.8
10-Jun-01	22:19:34	-0.7	0.1	-0.7	-0.7	-0.2	-0.7	96.7	84.5	81.2	83.3	100	88
10-Jun-01	22:39:34	1.3	-0.4	-0.7	-0.7	-0.2	-0.9	97.3	85	81.2	82.8	97.2	89.1
10-Jun-01	22:59:34	4.4	0.1	-0.9	-0.4	-0.2	-0.9	91.9	82.9	80.7	84.4	100	90.8
10-Jun-01	23:19:34	0.3	-0.4	-0.9	-0.4	-0.2	-0.9	91.9	85.5	80.7	82.8	97.8	88
10-Jun-01	23:39:34	-0.4	-0.2	-0.9	-0.2	-0.4	-0.4	96.7	82.3	80.7	82.8	100	89.7
10-Jun-01	23:59:34	-0.7	-0.4	-0.7	-0.4	-0.4	-0.2	94	86.6	80.7	82.8	97.8	89.1
11-Jun-01	00:19:34	-0.9	-0.4	-0.7	-0.4	-0.2	1.6	96.2	83.9	80.7	82.3	100	85.9
11-Jun-01	00:39:34	-0.4	0.3	-0.7	-0.7	-0.2	0.1	97.8	83.9	80.7	82.3	97.8	88
11-Jun-01	00:59:34	-0.7	0.8	-0.7	-0.2	-0.2	-0.4	95.1	85	80.2	84.9	100	88.6
11-Jun-01	01:19:34	-0.7	0.8	-0.4	-0.2	0.1	-0.7	95.1	82.3	79.7	82.8	100	89.1
11-Jun-01	01:39:34	-0.7	0.1	-0.7	-0.4	0.6	-0.7	98.4	82.3	79.7	82.3	100	90.8
11-Jun-01	01:59:34	-0.9	-0.4	-0.4	-0.7	1.3	-0.7	97.3	86.6	79.7	82.3	98.9	90.8
11-Jun-01	02:19:34	-0.9	-0.2	-0.7	-0.4	1.1	-0.7	99.5	85.5	79.7	85.4	94.9	88.6
11-Jun-01	02:39:34	-0.9	-0.4	-0.4	-0.2	-0.4	-0.7	99.5	85.5	79.7	83.3	94.9	89.7
11-Jun-01	02:59:34	-0.9	-0.4	-0.4	-0.4	-0.4	-0.7	97.8	87.2	79.7	82.8	100	88.6
11-Jun-01	03:19:34	-1.2	-0.4	-0.4	-0.4	-0.4	-0.9	95.6	85.5	80.2	82.8	97.2	89.1
11-Jun-01	03:39:34	-1.2	-0.2	-0.4	-0.2	-0.2	-0.7	94.6	86.6	80.2	84.9	100	89.1
11-Jun-01	03:59:34	-1.2	-0.7	-0.4	-0.4	-0.4	-0.7	97.3	85	79.7	82.8	97.2	88.6
11-Jun-01	04:19:34	-0.9	-0.4	-0.4	-0.4	0.1	-0.4	97.3	86.6	80.2	82.8	100	88.6
11-Jun-01	04:39:34	1.1	-0.4	-0.2	-0.4	-0.4	-0.4	97.3	85.5	81.2	84.9	97.8	90.8
11-Jun-01	04:59:34	3.9	-0.2	0.1	-0.2	0.1	-0.7	91.9	86.6	82.8	84.9	100	90.8
11-Jun-01	05:19:34	-0.2	-0.4	-0.2	-0.4	-0.7	-0.4	94.6	84.5	80.2	83.3	97.8	89.7
11-Jun-01	05:39:34	-0.7	-0.2	-0.7	-0.4	0.1	-0.7	95.6	86.6	80.2	82.8	100	88.6
11-Jun-01	05:59:34	-0.7	-0.4	-0.9	-0.7	-0.7	-0.4	98.9	83.4	83.3	84.9	98.3	89.7
11-Jun-01	06:19:34	-0.7	-0.4	-0.9	-0.2	0.1	-0.4	100	86.1	80.7	83.3	100	90.8

11-Jun-01	06:39:34	-0.9	-0.2	-0.9	-0.4	-0.4	-0.7	97.8	82.9	81.2	82.8	98.9	90.8
11-Jun-01	06:59:34	-0.7	0.1	-0.9	-0.7	0.1	-0.7	96.2	86.1	83.8	84.4	100	89.1
11-Jun-01	07:19:34	-0.7	-0.2	-0.9	-0.4	-0.4	-0.4	100	82.9	80.7	83.8	97.8	89.1
11-Jun-01	07:39:34	-0.9	-0.2	-1.2	-0.4	0.1	-0.7	97.3	85.5	80.7	82.8	98.3	90.8
11-Jun-01	07:59:34	-0.7	0.1	-1.2	-0.7	1.3	-0.2	99.5	82.9	80.2	82.3	98.3	90.2
11-Jun-01	08:19:34	-0.9	-0.2	-1.2	-0.7	0.8	1.3	98.9	85	80.7	82.3	96.1	86.4
11-Jun-01	08:39:34	-1.2	0.8	-0.9	-0.4	-0.4	0.1	95.6	83.9	80.7	84.9	95.5	88
11-Jun-01	08:59:34	-1.2	1.3	-0.9	0.1	-0.2	-0.7	98.9	83.4	81.2	84.4	100	88
11-Jun-01	09:19:34	-1.2	1.3	-1.2	-0.2	-0.4	-0.7	99.5	80.2	80.7	82.8	97.8	88.6
11-Jun-01	09:39:34	-0.7	0.3	-1.2	-0.2	-0.7	-0.7	98.9	82.9	80.7	82.8	100	89.7
11-Jun-01	09:59:34	-0.4	0.1	-0.7	-0.4	-0.2	-0.7	97.8	84.5	81.2	82.8	98.3	88.6
11-Jun-01	10:19:34	-0.7	0.1	-0.2	-0.4	-0.4	-0.7	97.8	84.5	82.3	82.3	100	88.6
11-Jun-01	10:39:34	1.8	-0.2	-0.2	-0.4	-0.2	-0.9	96.7	82.9	81.2	82.8	98.3	88.6
11-Jun-01	10:59:34	4.9	-0.4	-0.4	-0.4	-0.2	-0.7	89.2	87.2	80.7	82.8	100	88.6
11-Jun-01	11:19:34	0.6	-0.4	-0.7	-0.2	-0.4	-0.7	91.9	82.9	80.7	82.8	97.8	88.6
11-Jun-01	11:39:34	-0.2	-0.4	-0.9	-0.4	-0.2	-0.9	99.5	86.1	80.2	82.8	100	88.6
11-Jun-01	11:59:34	-0.4	-0.4	-0.9	-0.4	-0.2	-0.9	94	82.9	80.7	82.3	97.8	90.8
11-Jun-01	12:19:34	-0.2	-0.9	-0.7	-0.4	-0.2	-0.7	96.7	82.9	83.3	82.8	100	90.2
11-Jun-01	12:39:34	-0.4	-0.4	-0.7	-0.4	-0.7	-0.7	97.3	82.9	80.7	82.8	97.8	88.6
11-Jun-01	12:59:34	-0.4	-0.7	-0.7	-0.4	0.1	-0.9	96.2	82.3	83.3	82.8	100	89.7
11-Jun-01	13:19:34	-0.2	-0.9	-0.7	-0.4	-0.7	-0.9	94.6	82.3	80.7	82.8	97.8	90.8
11-Jun-01	13:39:34	-0.2	-1.2	-0.7	-0.4	0.6	-0.4	96.7	82.3	81.2	82.3	97.8	88.6
11-Jun-01	13:59:34	-0.4	-1.2	-0.9	-0.4	1.6	-0.7	97.8	81.8	80.7	82.3	97.8	88.6
11-Jun-01	14:19:34	0.1	-1.2	-0.7	-0.7	1.1	-0.7	95.6	81.8	80.7	82.3	95.5	88
11-Jun-01	14:39:34	-0.2	-1.2	-0.4	-0.7	-0.2	-0.7	97.8	81.3	79.7	82.3	95.5	88.6
11-Jun-01	14:59:34	-0.2	-0.9	-0.7	-0.4	-0.7	-0.9	94.6	84.5	80.2	83.3	94.9	90.8
11-Jun-01	15:19:34	-0.7	-0.9	-0.7	-0.4	-0.7	-0.7	96.7	81.8	80.2	82.3	100	90.8
11-Jun-01	15:39:34	-0.7	-1.2	-0.4	-0.7	0.1	-0.7	95.1	80.7	81.2	82.3	97.8	90.2
11-Jun-01	15:59:34	-0.4	-0.9	0.1	-0.4	-0.9	0.3	99.5	83.4	81.2	82.3	97.8	88.6
11-Jun-01	16:19:34	-0.7	-0.7	0.6	-0.4	-0.2	1.8	97.3	82.3	82.8	81.7	100	85.9
11-Jun-01	16:39:34	2.1	-0.2	0.3	-0.4	-0.4	0.3	97.3	81.8	81.2	81.7	96.6	88
11-Jun-01	16:59:34	4.4	0.8	0.1	-0.4	-0.7	-0.4	90.8	81.3	81.2	81.7	100	88.6
11-Jun-01	17:19:34	0.1	1.3	-0.2	-0.4	0.1	-0.7	93.5	80.2	81.2	82.3	100	90.2
11-Jun-01	17:39:34	-0.4	0.1	-0.7	-0.7	-0.7	-0.7	94.6	80.7	80.7	82.3	96.1	88.6
11-Jun-01	17:59:34	-0.7	-0.2	-0.9	-0.9	-0.7	-0.7	98.9	85	80.7	82.3	100	88
11-Jun-01	18:19:34	-0.7	0.1	-0.7	-0.7	0.1	-0.7	96.2	83.4	81.2	82.3	100	88
11-Jun-01	18:39:34	-0.7	-0.2	-0.7	-0.7	-0.7	-0.7	98.9	83.9	83.3	82.3	96.6	88.6
11-Jun-01	18:59:34	-0.7	-0.2	-0.9	-0.7	-0.7	-0.7	96.2	83.9	80.7	82.8	100	90.8
11-Jun-01	19:19:34	-0.9	-0.4	-0.9	-0.4	-0.2	-0.4	97.8	83.4	81.7	82.3	100	90.8
11-Jun-01	19:39:34	-0.7	-0.2	-0.7	-0.7	0.6	-0.7	97.3	83.9	83.3	82.3	100	90.8
11-Jun-01	19:59:34	-0.7	0.1	-0.9	-0.7	1.6	-0.7	99.5	81.8	80.7	82.3	100	90.8
11-Jun-01	20:19:34	-0.4	-0.2	-0.7	-0.7	0.8	-0.4	96.2	84.5	82.3	82.3	96.6	88.6
11-Jun-01	20:39:34	-0.7	0.1	-0.7	-0.2	-0.7	-0.7	94.6	81.3	83.3	82.8	96.1	91.3
11-Jun-01	20:59:34	-0.7	0.1	-0.9	-0.7	-1.2	-0.4	98.4	85	80.7	82.3	95.5	88.6
11-Jun-01	21:19:34	-0.7	0.3	-0.7	-0.7	-0.7	-0.7	96.2	81.8	83.3	82.3	100	89.1
11-Jun-01	21:39:34	-0.7	-0.2	-0.4	-0.7	0.1	-0.4	94.6	85	82.8	84.4	100	89.7
11-Jun-01	21:59:34	-0.7	0.1	-0.2	-0.4	-0.9	-0.4	100	82.9	83.3	82.3	97.2	90.8
11-Jun-01	22:19:34	-0.7	-0.2	0.1	-0.4	-0.7	-0.7	100	85.5	83.3	82.3	100	90.8
11-Jun-01	22:39:34	1.6	0.3	-0.2	-0.4	0.1	-0.7	97.8	83.4	83.3	82.3	100	90.2

11-Jun-01	22:59:34	2.8	0.1	-0.4	-0.4	-0.9	-0.7	91.3	85	81.7	83.3	97.2	90.2
11-Jun-01	23:19:34	-0.4	0.3	-0.7	-0.4	-0.4	-0.7	93.5	83.9	81.2	81.7	100	89.1
11-Jun-01	23:39:34	-0.7	0.1	-0.4	-0.7	-0.2	-0.4	97.3	83.4	83.3	82.3	100	89.7
11-Jun-01	23:59:34	-0.7	-0.2	-0.9	-0.7	-0.7	0.1	98.9	84.5	83.8	84.9	97.2	89.7
12-Jun-01	00:19:34	-0.9	0.1	-0.7	-0.4	-0.9	1.6	97.3	82.9	81.7	82.3	100	86.9
12-Jun-01	00:39:34	-0.7	0.3	-0.4	-0.4	-0.4	0.1	96.7	83.4	83.3	84.9	100	88.6
12-Jun-01	00:59:34	-0.9	0.8	-0.7	-0.2	0.1	-0.4	97.3	83.9	84.3	84.9	100	88.6
12-Jun-01	01:19:34	-0.9	0.8	-0.7	-0.4	-0.7	-0.7	96.2	80.7	81.7	82.3	97.8	90.2
12-Jun-01	01:39:34	-0.9	-0.4	-0.7	-0.7	-0.2	-0.4	100	85	83.3	84.9	98.3	90.8
12-Jun-01	01:59:34	-0.9	0.1	-0.7	-0.2	0.8	-0.4	95.6	85.5	84.3	83.3	98.3	89.1
12-Jun-01	02:19:34	-0.9	0.1	-0.7	-0.7	0.3	-0.7	96.7	83.9	82.8	82.3	96.6	90.2
12-Jun-01	02:39:34	-0.9	-0.4	-0.4	-0.4	-0.9	-0.4	98.9	85.5	81.7	85.4	96.1	88.6
12-Jun-01	02:59:34	-0.7	-0.2	-0.7	-0.2	-1.2	-0.4	97.3	83.4	83.8	82.3	100	89.1
12-Jun-01	03:19:34	-1.2	-0.4	-0.7	-0.7	-0.2	-0.7	95.6	85.5	83.3	82.3	100	91.3
12-Jun-01	03:39:34	-0.9	0.1	-0.4	-0.4	0.1	-0.7	100	84.5	83.3	84.9	100	90.8
12-Jun-01	03:59:34	-0.9	-0.4	-0.2	-0.4	-1.2	-0.7	96.7	85	83.3	82.3	97.2	90.8
12-Jun-01	04:19:34	-1.2	-0.2	-0.2	-0.4	-0.4	-0.4	96.7	85	83.8	84.9	100	89.7
12-Jun-01	04:39:34	1.3	0.1	-0.2	-0.2	-0.2	-0.7	98.4	81.8	82.8	84.4	100	89.1
12-Jun-01	04:59:34	2.3	-0.2	-0.7	-0.2	-0.4	-0.4	90.3	85.5	81.2	83.8	97.8	89.7
12-Jun-01	05:19:34	-0.4	-0.2	-0.7	-0.4	-0.9	-0.4	99.5	82.9	85.4	82.8	100	90.8
12-Jun-01	05:39:34	-0.9	-0.4	-0.7	-0.4	-0.2	-0.4	97.3	86.1	84.3	84.9	100	90.8
12-Jun-01	05:59:34	-1.2	0.1	-0.7	0.1	0.1	-0.7	99.5	84.5	82.3	84.4	100	90.2
12-Jun-01	06:19:34	-0.7	-0.4	-0.4	-0.7	-0.7	-0.4	97.3	85	82.8	82.3	98.9	89.7
12-Jun-01	06:39:34	-0.9	0.1	-0.7	-0.4	-0.4	-0.4	98.9	85	84.3	84.9	100	90.8
12-Jun-01	06:59:34	-0.9	0.1	-0.7	-0.2	0.1	-0.7	98.9	82.9	85.4	82.8	99.5	91.3
12-Jun-01	07:19:34	-0.9	0.1	-0.7	-0.4	-0.9	-0.4	96.2	85	84.3	82.3	98.3	90.2
12-Jun-01	07:39:34	-0.7	0.1	-0.4	-0.4	0.1	-0.7	99.5	80.7	82.8	83.3	98.9	89.1
12-Jun-01	07:59:34	-0.9	0.1	-0.4	-0.7	1.1	0.1	97.8	85.5	82.8	82.3	98.3	89.7
12-Jun-01	08:19:34	-0.7	0.3	-0.7	-0.4	0.3	1.3	98.9	83.4	82.8	84.9	96.6	86.9
12-Jun-01	08:39:34	-0.7	1.1	-0.7	-0.4	-0.7	-0.2	100	82.9	83.3	83.3	96.1	88
12-Jun-01	08:59:34	-0.7	1.3	-0.4	0.1	-0.2	-0.4	97.3	82.3	83.8	84.4	100	90.8
12-Jun-01	09:19:34	-0.9	1.6	-0.7	-0.2	-0.7	-0.4	100	79.2	83.8	82.8	97.8	88.6
12-Jun-01	09:39:34	-1.2	0.3	-0.4	-0.4	-0.4	-0.7	97.3	81.3	83.3	82.3	100	89.1
12-Jun-01	09:59:34	-0.9	0.3	-0.4	-0.7	-0.7	-0.7	100	83.4	83.8	82.3	97.8	89.1
12-Jun-01	10:19:34	-0.9	0.1	0.1	-0.2	-0.4	-0.4	99.5	83.4	83.8	84.9	100	90.2
12-Jun-01	10:39:34	2.3	-0.2	0.1	-0.4	-0.4	-0.7	100	81.8	83.3	82.8	97.8	91.3
12-Jun-01	10:59:34	0.6	-0.2	-0.4	-0.4	-0.2	-0.7	94.6	85	82.3	82.8	100	89.1
12-Jun-01	11:19:34	-0.7	-0.4	-0.7	-0.7	-0.4	-0.7	98.4	82.3	81.7	82.8	97.8	88.6
12-Jun-01	11:39:34	-1.2	-0.4	-0.4	-0.4	0.1	-0.7	97.8	83.4	81.2	84.9	100	88.6
12-Jun-01	11:59:34	-0.9	-0.7	-0.7	-0.2	-0.4	-0.7	100	81.8	80.7	83.3	97.8	88.6
12-Jun-01	12:19:34	-0.7	-0.4	-0.7	-0.4	0.3	-0.7	95.6	83.4	81.2	82.8	100	88.6
12-Jun-01	12:39:34	-0.7	-0.7	-0.9	-0.7	-0.7	-0.7	100	81.8	80.7	82.8	97.2	88
12-Jun-01	12:59:34	-0.7	-0.7	-0.9	-0.7	-0.2	-0.7	96.7	81.8	80.7	82.8	100	88.6
12-Jun-01	13:19:34	-0.9	-0.7	-0.7	-0.7	-0.2	-0.9	98.9	81.8	80.7	82.8	98.3	88.6
12-Jun-01	13:39:34	-0.9	-0.9	-0.7	-0.7	0.6	-0.7	99.5	81.3	81.7	82.8	98.3	88.6
12-Jun-01	13:59:34	-0.4	-1.2	-0.7	-0.7	1.6	-0.9	97.3	81.3	80.7	82.8	98.3	88.6
12-Jun-01	14:19:34	-0.9	-0.9	-0.7	-0.7	1.1	-0.7	97.8	80.7	80.7	82.8	96.1	89.1
12-Jun-01	14:39:34	-0.9	-1.2	-0.7	-0.7	-0.2	-0.7	96.7	81.3	80.7	82.8	95.5	90.2
12-Jun-01	14:59:34	-0.7	-1.2	-0.9	-0.4	-0.4	-0.7	99.5	80.7	80.7	83.8	100	88.6

12-Jun-01	15:19:34	-0.4	-1.2	-0.9	-0.2	-0.4	-0.9	96.2	80.7	80.7	82.8	96.1	88.6
12-Jun-01	15:39:34	-0.7	-1.7	-0.7	-0.4	-0.2	-0.7	97.3	81.3	81.7	82.3	100	90.2
12-Jun-01	15:59:34	-0.7	-1.2	0.1	-0.7	-0.7	0.1	97.3	81.3	81.7	82.3	96.6	88
12-Jun-01	16:19:34	-0.9	-0.9	0.3	-0.7	-0.4	1.8	97.3	82.9	83.3	82.3	100	85.3
12-Jun-01	16:39:34	1.6	-0.2	0.3	-0.7	-0.4	0.1	100	81.8	81.7	82.3	97.8	88
12-Jun-01	16:59:34	3.6	0.8	-0.4	-0.7	-0.7	-0.4	91.9	80.7	80.7	82.3	100	88.6
12-Jun-01	17:19:34	-0.2	1.3	-0.4	-0.7	-0.4	-0.4	97.3	79.2	81.2	82.3	97.8	90.8
12-Jun-01	17:39:34	-0.9	0.1	-0.7	-0.7	-0.9	-0.4	99.5	81.8	80.7	82.3	100	89.7
12-Jun-01	17:59:34	-1.2	-0.2	-0.7	-0.9	-0.2	-0.7	100	83.4	81.7	82.3	100	89.7
12-Jun-01	18:19:34	-0.7	0.1	-0.9	-0.7	-0.7	-0.7	96.2	82.3	83.8	84.9	100	90.2
12-Jun-01	18:39:34	-0.7	-0.4	-0.7	-0.2	0.1	-0.4	100	83.4	82.3	82.8	100	88.6
12-Jun-01	18:59:34	-0.9	0.1	-0.7	-0.4	-0.9	-0.4	97.3	82.3	80.7	83.8	97.8	89.7
12-Jun-01	19:19:34	-0.9	-0.2	-0.7	-0.7	-0.4	-0.4	99.5	83.4	81.7	82.3	100	90.8
12-Jun-01	19:39:34	-1.2	0.1	-0.4	-0.9	0.6	-0.4	98.9	82.9	83.3	82.3	100	91.3
12-Jun-01	19:59:34	-0.9	0.1	-0.7	-0.4	1.1	-0.7	100	82.9	83.3	84.9	100	91.3
12-Jun-01	20:19:34	-0.9	0.3	-0.9	-0.4	0.6	-0.7	99.5	82.3	80.7	82.8	97.2	90.8
12-Jun-01	20:39:34	-0.7	-0.2	-0.7	-0.7	-0.7	-0.7	96.7	83.9	81.2	83.3	96.1	90.8
12-Jun-01	20:59:34	-0.7	0.3	-0.7	-0.4	-0.9	-0.7	100	81.3	83.3	84.9	100	91.3
12-Jun-01	21:19:34	-0.7	-0.2	-0.7	-0.4	-0.2	-0.4	100	85	81.2	82.8	100	90.8
12-Jun-01	21:39:34	-0.7	0.1	-0.4	-0.4	-0.9	-0.7	99.5	80.7	82.8	84.9	98.3	89.1
12-Jun-01	21:59:34	-0.4	0.1	-0.2	-0.4	-0.4	-0.7	98.4	83.9	82.8	82.8	100	89.1
12-Jun-01	22:19:34	-0.7	0.3	0.3	-0.7	-0.7	-0.4	98.4	80.7	83.3	82.8	97.8	89.7
12-Jun-01	22:39:34	1.8	-0.2	-0.2	-0.4	-0.7	-0.4	98.9	83.9	82.3	84.4	100	89.7
12-Jun-01	22:59:34	0.8	0.1	-0.4	-0.2	-0.4	-0.4	93.5	81.3	81.2	83.8	100	89.7
12-Jun-01	23:19:34	-0.4	-0.2	-0.7	-0.4	-0.9	-0.4	97.8	83.9	82.3	82.8	100	89.7
12-Jun-01	23:39:34	-1.2	0.1	-0.4	-0.7	-0.2	-0.7	100	81.3	83.3	84.9	100	90.2
12-Jun-01	23:59:34	-0.9	-0.2	-0.7	-0.4	-0.9	0.1	99.5	84.5	84.3	83.8	97.8	89.7
13-Jun-01	00:19:34	-0.9	0.3	-0.7	-0.7	-0.7	1.3	97.3	82.9	84.9	82.8	100	86.9
13-Jun-01	00:39:34	-0.9	0.6	-0.7	-0.7	-0.2	0.1	100	83.4	85.4	84.9	100	88.6
13-Jun-01	00:59:34	-0.7	0.8	-0.4	-0.7	-0.9	-0.7	100	82.9	84.9	82.8	100	90.8
13-Jun-01	01:19:34	-0.9	0.8	-0.7	-0.9	-0.4	-0.4	97.8	80.7	84.3	84.4	100	89.7
13-Jun-01	01:39:34	-0.7	-0.2	-0.7	-0.4	0.1	-0.7	100	83.4	83.3	84.4	100	89.7
13-Jun-01	01:59:34	-0.7	0.1	-0.4	-0.7	1.3	-0.4	100	83.4	83.3	82.8	100	90.8
13-Jun-01	02:19:34	-0.9	-0.2	-0.7	-0.7	0.6	-0.4	100	80.7	82.3	84.9	97.2	89.7
13-Jun-01	02:39:34	-0.7	-0.2	-0.7	-0.7	-0.7	-0.2	100	83.9	81.7	82.8	96.6	89.7
13-Jun-01	02:59:34	-0.7	-0.2	-0.4	-0.7	-0.9	-0.4	97.3	81.3	81.7	83.3	100	90.2
13-Jun-01	03:19:34	-0.9	-0.4	-0.7	-0.7	-0.2	-0.7	100	84.5	83.3	84.4	100	90.8
13-Jun-01	03:39:34	-0.4	-0.2	-0.4	-0.7	-1.2	-0.4	100	81.3	83.8	82.8	97.8	91.3
13-Jun-01	03:59:34	-0.4	-0.2	-0.2	-0.7	-0.4	-0.4	97.8	84.5	83.8	84.9	100	90.8
13-Jun-01	04:19:34	-0.4	0.1	0.1	-0.4	0.1	-0.4	98.4	81.8	83.8	83.3	100	90.8
13-Jun-01	04:39:34	1.6	-0.2	0.1	-0.9	-1.2	-0.4	97.8	85	81.7	82.8	98.9	90.8
13-Jun-01	04:59:34	-0.4	0.1	-0.4	-0.4	-0.4	-0.7	96.7	82.3	83.3	84.4	100	90.8
13-Jun-01	05:19:34	-0.9	-0.4	-0.7	-0.7	-0.4	-0.4	100	85	83.8	82.8	98.9	90.2
13-Jun-01	05:39:34	-0.7	0.1	-0.7	-0.9	-0.7	-0.7	100	82.3	83.3	84.4	100	89.7
13-Jun-01	05:59:34	-0.9	-0.2	-0.4	-0.2	-0.2	-0.4	97.3	85.5	81.7	84.9	100	89.7
13-Jun-01	06:19:34	-1.2	0.1	-0.7	-0.7	-0.7	-0.2	100	82.3	82.3	82.8	97.8	89.7
13-Jun-01	06:39:34	-0.7	-0.2	-0.4	-0.7	-0.7	-0.4	96.7	85	82.8	84.9	100	90.2
13-Jun-01	06:59:34	-0.9	0.3	-0.7	-0.2	-0.2	-0.4	100	81.8	82.8	83.3	100	91.3
13-Jun-01	07:19:34	-0.7	-0.2	-0.4	-0.9	-0.9	-0.4	100	83.9	83.3	82.8	98.9	90.8

13-Jun-01	07:39:34	-0.9	0.1	-0.7	-0.4	0.1	-0.4	100	80.7	83.3	84.9	100	90.8
13-Jun-01	07:59:34	-0.9	0.1	-0.4	-0.7	0.8	0.1	100	83.9	84.9	83.3	98.9	89.7
13-Jun-01	08:19:34	-0.9	0.3	-0.4	-0.9	0.3	1.8	97.3	82.9	83.3	83.3	97.8	86.4
13-Jun-01	08:39:34	-0.9	0.8	-0.4	-1.2	-1.2	0.1	100	82.3	81.7	83.3	97.2	88
13-Jun-01	08:59:34	-0.4	1.3	-0.4	-0.4	-0.7	-0.2	100	81.3	81.7	84.4	100	88.6
13-Jun-01	09:19:34	-0.9	1.6	-0.4	-0.7	-0.7	-0.4	98.9	78.6	83.8	82.8	98.3	90.2
13-Jun-01	09:39:34	-0.7	0.1	-0.2	-0.7	-1.2	-0.4	100	80.7	83.3	82.8	100	90.8
13-Jun-01	09:59:34	-0.7	0.3	0.1	-0.7	-0.2	-0.2	100	82.9	83.3	82.8	100	90.8
13-Jun-01	10:19:34	-0.7	0.1	0.3	-0.9	-0.9	-0.7	100	82.9	83.8	82.8	97.2	91.3
13-Jun-01	10:39:34	2.1	-0.2	0.1	-0.7	-0.7	-0.4	98.9	80.7	83.3	84.9	100	89.7
13-Jun-01	10:59:34	-0.4	-0.2	-0.2	-0.7	-0.7	-0.7	99.5	84.5	81.2	82.8	97.8	90.8
13-Jun-01	11:19:34	-0.7	-0.2	-0.2	-0.7	-0.9	-0.7	97.3	80.7	81.2	82.8	100	89.1
13-Jun-01	11:39:34	-0.9	-0.2	-0.4	-0.7	-0.2	-0.7	100	83.4	80.7	82.8	100	90.8
13-Jun-01	11:59:34	-0.7	-0.4	-0.4	-0.7	-1.2	-0.7	100	81.3	81.2	82.8	97.8	89.1
13-Jun-01	12:19:34	-0.7	-0.7	-0.4	-0.9	-0.4	-0.7	96.2	81.8	81.2	82.8	100	89.7
13-Jun-01	12:39:34	-0.9	-0.7	-0.7	-0.9	-1.2	-0.4	100	81.8	81.2	82.3	97.8	90.8
13-Jun-01	12:59:34	-0.9	-0.4	-0.4	-0.7	-0.4	-0.7	100	81.3	81.2	82.8	100	90.8
13-Jun-01	13:19:34	-0.9	-0.7	-0.7	-0.9	-0.2	-0.4	98.4	81.3	80.7	82.3	100	88.6
13-Jun-01	13:39:34	-0.4	-0.7	-0.7	-0.9	0.6	-0.9	97.3	81.3	81.2	82.3	100	90.2
13-Jun-01	13:59:34	-0.9	-0.7	-0.4	-0.9	1.3	-0.7	99.5	81.8	81.2	82.3	98.9	91.3
13-Jun-01	14:19:34	-0.4	-0.7	-0.7	-0.9	0.6	-0.7	100	81.8	81.2	82.3	97.2	88.6
13-Jun-01	14:39:34	-0.7	-0.7	-0.7	-1.2	-0.7	-0.7	96.7	81.3	80.7	82.3	96.1	89.1
13-Jun-01	14:59:34	-0.7	-0.4	-0.7	-0.7	-1.4	-0.7	100	80.7	80.7	83.3	97.2	89.1
13-Jun-01	15:19:34	-1.2	-0.4	-0.4	-0.7	-0.2	-0.4	97.3	83.9	80.7	82.3	100	88.6
13-Jun-01	15:39:34	-0.7	-0.2	-0.4	-0.9	-0.9	-0.7	97.3	83.4	82.3	82.3	96.6	91.3
13-Jun-01	15:59:34	-1.2	0.1	-0.2	-0.7	-0.7	0.1	96.2	81.8	82.3	82.3	100	89.7
13-Jun-01	16:19:34	-0.7	0.3	0.3	-0.9	-0.4	1.3	97.3	83.4	82.8	82.3	97.8	85.9
13-Jun-01	16:39:34	1.6	1.1	0.1	-1.2	-0.9	0.1	100	82.3	82.3	82.3	100	88
13-Jun-01	16:59:34	4.6	1.8	0.1	-1.2	0.1	-0.4	91.9	81.3	81.2	82.3	100	88.6
13-Jun-01	17:19:34	0.6	2.1	-0.2	-1.2	-1.2	-0.4	94.6	78.1	80.7	82.3	97.2	90.2
13-Jun-01	17:39:34	-0.4	0.6	-0.4	-1.2	-0.4	-0.7	99.5	79.7	80.7	82.3	100	91.3
13-Jun-01	17:59:34	-0.7	0.3	-0.7	-0.7	-0.9	-0.7	97.3	82.3	82.3	84.4	97.8	90.2
13-Jun-01	18:19:34	-0.9	0.3	-0.7	-0.7	-0.4	-0.7	97.3	82.3	80.7	82.3	100	90.2
13-Jun-01	18:39:34	-0.7	0.3	-0.7	-0.9	-0.4	-0.4	100	82.3	82.3	82.3	99.5	90.2
13-Jun-01	18:59:34	-0.9	0.1	-0.4	-0.4	-1.2	-0.4	97.3	81.3	80.7	83.3	98.9	91.3
13-Jun-01	19:19:34	-0.7	0.3	-0.4	-0.7	-0.2	-0.7	100	83.9	83.3	82.3	100	90.8
13-Jun-01	19:39:34	-0.7	0.1	-0.4	-0.9	0.3	-0.4	100	82.9	81.2	82.3	100	90.8
13-Jun-01	19:59:34	-0.7	0.1	-0.7	-0.9	1.3	-0.7	98.4	81.3	81.2	82.3	100	90.2
13-Jun-01	20:19:34	-0.9	0.3	-0.7	-1.2	0.6	-0.4	97.8	83.4	80.7	83.8	97.2	89.7
13-Jun-01	20:39:34	-0.7	0.3	-0.7	-0.4	-0.7	-0.7	98.9	82.9	81.2	83.3	96.1	90.8
13-Jun-01	20:59:34	-0.9	0.3	-0.4	-0.9	-1.2	-0.4	100	81.8	81.2	82.3	98.3	91.3
13-Jun-01	21:19:34	-0.7	0.1	-0.4	-0.9	-0.4	-0.4	97.8	83.9	81.2	82.3	100	90.8
13-Jun-01	21:39:34	-0.9	0.3	-0.2	-1.2	-1.2	-0.7	98.9	81.3	81.7	82.3	97.2	90.8
13-Jun-01	21:59:34	-0.7	0.1	0.1	-0.9	-0.4	-0.7	96.7	83.4	82.3	84.4	100	89.7
13-Jun-01	22:19:34	-0.7	-0.2	0.3	-0.4	-0.4	-0.7	97.8	83.4	83.3	82.8	97.8	89.7
13-Jun-01	22:39:34	1.6	0.1	0.1	-0.9	-0.7	-0.4	99.5	81.3	82.8	82.3	100	90.8
13-Jun-01	22:59:34	4.4	0.1	0.1	-0.4	-0.2	-0.7	91.3	84.5	81.2	83.8	100	90.8
13-Jun-01	23:19:34	0.1	-0.2	-0.2	-0.7	-0.9	-0.7	97.3	82.9	80.7	82.8	98.9	90.8
13-Jun-01	23:39:34	-0.7	0.1	-0.4	-0.9	-0.2	-0.4	97.8	82.3	80.7	82.3	100	90.8

13-Jun-01	23:59:34	-0.7	-0.2	-0.2	-0.4	-0.7	0.1	97.8	84.5	81.7	84.9	97.8	90.2
14-Jun-01	00:19:34	-0.9	-0.2	-0.4	-0.4	-0.9	1.3	100	82.9	81.7	82.8	100	86.9
14-Jun-01	00:39:34	-0.7	0.3	-0.4	-0.7	0.1	0.1	98.9	82.9	81.2	82.8	100	88.6
14-Jun-01	00:59:34	-0.7	0.8	-0.7	-0.7	-0.9	-0.7	97.8	83.4	83.3	85.4	97.8	90.8
14-Jun-01	01:19:34	-0.7	1.3	-0.4	-0.4	-0.7	-0.4	100	80.7	81.2	82.8	100	90.8
14-Jun-01	01:39:34	-0.7	0.1	-0.4	-0.7	0.3	-0.4	100	81.3	81.2	82.8	100	89.7
14-Jun-01	01:59:34	-0.7	0.1	-0.4	-0.9	1.3	-0.4	97.8	85	82.3	84.4	100	90.8
14-Jun-01	02:19:34	-0.9	0.1	-0.4	-0.7	0.6	-0.7	97.8	83.4	83.3	82.8	97.2	91.3
14-Jun-01	02:39:34	-0.9	-0.2	-0.4	-0.7	-0.9	-0.4	100	83.4	81.7	82.8	96.1	91.3
14-Jun-01	02:59:34	-0.4	0.1	-0.4	-0.7	-0.9	-0.7	97.3	82.3	81.2	84.9	100	91.3
14-Jun-01	03:19:34	-0.7	-0.4	-0.4	-0.7	-0.2	-0.7	100	85	81.7	82.8	100	91.3
14-Jun-01	03:39:34	-0.9	-0.2	-0.4	-0.7	-0.7	-0.7	99.5	82.9	82.8	82.8	97.8	91.3
14-Jun-01	03:59:34	-0.7	0.1	0.1	-0.7	-0.4	-0.7	100	83.4	82.8	84.9	100	91.3
14-Jun-01	04:19:34	-0.4	-0.2	0.1	-0.7	0.1	-0.4	98.4	85	83.3	82.8	100	91.3
14-Jun-01	04:39:34	1.6	-0.2	-0.2	-0.7	-0.9	-0.7	98.9	82.9	82.3	82.8	97.2	91.3
14-Jun-01	04:59:34	0.8	0.1	-0.2	-0.7	-0.4	-0.4	93.5	82.9	81.2	84.4	100	90.8
14-Jun-01	05:19:34	-0.4	-0.2	-0.4	-0.7	-0.2	-0.7	99.5	85.5	81.2	82.8	100	90.8
14-Jun-01	05:39:34	-0.7	-0.2	-0.4	-0.9	-0.9	-0.4	100	82.3	82.3	84.4	100	90.2
14-Jun-01	05:59:34	-0.7	-0.2	-0.4	-0.2	-0.4	-0.7	99.5	83.4	83.3	83.3	100	90.2
14-Jun-01	06:19:34	-0.7	-0.2	-0.4	-0.7	-0.9	-0.7	97.8	83.9	80.7	82.8	99.5	90.8
14-Jun-01	06:39:34	-0.7	0.1	-0.4	-0.7	-0.2	-0.7	100	81.3	81.7	84.9	100	91.3
14-Jun-01	06:59:34	-0.7	0.1	-0.4	-0.4	-0.4	-0.4	100	83.4	83.3	83.3	98.9	90.2
14-Jun-01	07:19:34	-0.7	0.1	-0.4	-0.7	-1.2	-0.4	97.3	83.9	83.3	82.8	97.8	90.2
14-Jun-01	07:39:34	-0.7	0.1	-0.4	-0.7	0.1	-0.4	100	80.7	81.2	84.9	98.9	89.7
14-Jun-01	07:59:34	-0.9	0.3	-0.4	-0.4	1.1	0.1	100	82.9	81.7	83.3	98.3	90.2
14-Jun-01	08:19:34	-0.4	0.3	-0.2	-0.9	0.3	1.8	97.8	82.9	81.2	82.8	97.2	86.9
14-Jun-01	08:39:34	-0.7	0.8	-0.4	-0.9	-0.7	0.3	100	82.3	81.2	83.3	97.2	88.6
14-Jun-01	08:59:34	-0.9	1.6	-0.7	-0.4	-1.2	-0.2	96.7	81.3	80.7	84.9	97.8	90.2
14-Jun-01	09:19:34	-0.9	1.8	-0.4	-0.4	-0.2	-0.4	99.5	79.2	80.7	83.3	100	89.7
14-Jun-01	09:39:34	-1.2	0.6	-0.2	-0.7	-0.9	-0.7	97.3	80.7	82.8	83.3	97.8	89.7
14-Jun-01	09:59:34	-0.9	0.3	-0.2	-0.4	-0.4	-0.4	97.8	82.9	83.3	82.8	100	89.7
14-Jun-01	10:19:34	-0.7	0.3	0.3	-0.4	-0.7	-0.4	97.8	82.9	83.3	82.8	98.3	89.7
14-Jun-01	10:39:34	2.1	0.3	0.1	-0.9	-0.7	-0.7	100	81.8	82.8	83.3	100	90.2
14-Jun-01	10:59:34	2.3	0.1	-0.2	-1.2	-0.2	-0.7	92.9	82.9	81.2	83.8	100	90.8
14-Jun-01	11:19:34	-0.2	-0.2	-0.2	-0.9	-0.9	-0.7	98.4	81.3	81.2	83.3	97.8	89.1
14-Jun-01	11:39:34	-0.7	0.3	-0.4	-0.4	-0.2	-0.7	99.5	82.3	80.7	82.3	100	90.8
14-Jun-01	11:59:34	-0.7	0.1	-0.4	-0.7	-0.9	-0.4	96.7	83.4	80.7	82.8	97.8	89.7
14-Jun-01	12:19:34	-0.9	-0.2	-0.4	-0.7	-0.7	-0.4	97.3	81.3	81.2	82.3	100	90.2
14-Jun-01	12:39:34	-1.2	0.3	-0.7	-0.7	-0.7	-0.4	98.9	81.8	81.2	82.3	98.3	90.8
14-Jun-01	12:59:34	-0.9	0.1	-0.7	-0.9	-0.7	-0.7	96.7	81.3	80.7	82.8	100	91.3
14-Jun-01	13:19:34	-0.7	0.1	-0.9	-0.4	-0.2	-0.4	100	82.9	83.3	84.9	100	91.3
14-Jun-01	13:39:34	-0.7	0.1	-0.4	-0.4	0.8	-0.4	98.4	83.9	80.7	83.3	100	89.7
14-Jun-01	13:59:34	-0.9	0.1	-0.4	-0.7	1.6	-0.4	97.3	81.8	80.7	84.4	100	89.7
14-Jun-01	14:19:34	-0.7	0.1	-0.7	-0.4	0.6	-0.7	98.4	81.8	80.7	84.4	97.2	91.3
14-Jun-01	14:39:34	-0.4	0.1	-0.2	-0.7	-0.4	-0.7	100	83.4	81.2	84.4	96.1	89.7
14-Jun-01	14:59:34	-0.4	-0.2	-0.4	-0.4	-1.2	-0.7	97.3	81.3	80.7	85.4	97.8	89.1
14-Jun-01	15:19:34	-0.4	0.1	-0.4	-0.4	-0.4	-0.7	94.6	82.3	80.7	84.4	100	91.3
14-Jun-01	15:39:34	-0.7	-0.2	-0.2	-0.7	-0.9	-0.4	100	83.4	82.3	84.4	97.8	89.7
14-Jun-01	15:59:34	-0.7	0.3	0.1	-0.4	-0.4	0.1	100	81.8	82.8	84.4	100	89.7

14-Jun-01	16:19:34	0.1	0.3	0.3	-0.4	-0.9	1.3	99.5	82.9	83.3	84.4	97.8	87.5
14-Jun-01	16:39:34	2.3	1.1	0.3	-0.7	-0.2	-0.2	100	82.3	82.8	84.4	100	88.6
14-Jun-01	16:59:34	5.1	1.8	0.1	-0.7	-0.9	-0.4	92.4	83.4	81.7	83.8	97.8	91.9
14-Jun-01	17:19:34	0.8	2.1	-0.4	-1.2	-0.4	-0.4	96.2	79.2	80.7	83.8	100	89.7
14-Jun-01	17:39:34	-0.4	0.8	-0.7	-1.2	-0.7	-0.9	100	80.7	80.7	83.8	98.9	89.1
14-Jun-01	17:59:34	-0.4	0.3	-0.7	-1.2	-0.9	-0.4	97.3	82.9	80.7	83.8	100	90.2
14-Jun-01	18:19:34	-0.4	0.3	-0.7	-1.2	0.1	-0.7	96.2	82.9	81.2	83.8	100	89.1
14-Jun-01	18:39:34	-0.4	0.1	-0.9	-1.2	-1.4	-0.7	97.3	81.8	83.3	83.3	97.8	89.7
14-Jun-01	18:59:34	-0.4	0.1	-0.9	-0.9	-0.2	-0.7	96.7	82.9	80.7	84.4	100	89.7
14-Jun-01	19:19:34	-0.2	0.1	-0.7	-0.9	-0.2	-0.4	100	84.5	81.2	83.3	100	89.7
14-Jun-01	19:39:34	-0.2	0.1	-0.7	-0.9	0.3	-0.7	100	82.3	81.2	83.3	100	90.2
14-Jun-01	19:59:34	-0.2	0.3	-0.7	-1.2	1.3	-0.7	96.2	82.3	81.2	83.3	98.9	90.2
14-Jun-01	20:19:34	-0.7	0.1	-0.7	-1.2	0.3	-0.7	96.7	84.5	81.2	85.4	96.6	90.2
14-Jun-01	20:39:34	-0.7	0.1	-0.7	-0.4	-0.7	-0.7	100	82.9	81.2	84.4	96.1	89.7
14-Jun-01	20:59:34	-0.2	0.1	-0.9	-0.7	-1.2	-0.7	97.8	82.3	81.2	83.3	99.5	90.2
14-Jun-01	21:19:34	-0.7	0.3	-0.7	-0.9	-0.2	-0.4	95.1	85	80.7	83.3	100	90.8
14-Jun-01	21:39:34	-0.4	-0.2	-0.4	-0.9	-1.2	-0.4	98.9	83.9	82.3	83.3	97.8	91.3
14-Jun-01	21:59:34	-0.4	0.1	-0.2	-1.2	-0.2	-0.7	99.5	81.8	82.8	84.9	100	90.8
14-Jun-01	22:19:34	-0.7	0.3	0.1	-0.7	-0.9	-0.7	99.5	82.3	83.3	85.4	97.8	91.3
14-Jun-01	22:39:34	1.8	0.1	0.1	-0.7	-0.9	-0.7	100	84.5	82.8	83.3	100	91.3
14-Jun-01	22:59:34	4.6	0.1	-0.2	-0.4	-0.4	-0.4	92.9	83.4	81.2	84.9	100	90.8
14-Jun-01	23:19:34	0.6	-0.2	-0.4	-0.7	-0.9	-0.7	94	82.3	80.7	83.3	100	91.3
14-Jun-01	23:39:34	-0.7	0.1	-0.4	-1.2	-0.2	-0.7	95.1	82.9	81.2	83.3	100	91.3
14-Jun-01	23:59:34	-0.4	-0.2	-0.4	-0.9	-0.7	0.1	97.8	85	81.2	83.3	97.8	90.8
15-Jun-01	00:19:34	-0.4	-0.2	-0.4	-1.2	-0.7	1.8	97.3	83.4	83.3	84.4	100	88
15-Jun-01	00:39:34	-0.4	0.3	-0.4	-0.7	0.1	0.3	100	83.4	81.2	85.4	100	88.6
15-Jun-01	00:59:34	-0.7	1.1	-0.4	-0.7	-1.2	-0.7	96.7	86.1	81.2	83.3	97.8	89.1
15-Jun-01	01:19:34	-0.4	1.1	-0.4	-0.9	-0.2	-0.7	95.1	80.7	83.3	83.3	100	89.7
15-Jun-01	01:39:34	-0.7	0.1	-0.4	-1.2	0.6	-0.7	100	83.4	81.2	83.3	100	89.7
15-Jun-01	01:59:34	-0.7	0.1	-0.4	-0.7	1.3	-0.4	100	83.4	82.8	85.4	100	90.2
15-Jun-01	02:19:34	-0.7	-0.2	-0.4	-0.7	0.6	-0.4	99.5	83.4	80.7	83.8	97.2	90.8
15-Jun-01	02:39:34	-0.4	0.1	-0.7	-0.7	-0.7	-0.7	98.9	85.5	80.7	83.3	96.6	90.8
15-Jun-01	02:59:34	-0.4	-0.2	-0.7	-1.2	-0.4	-0.7	97.3	85.5	80.7	83.3	100	90.8
15-Jun-01	03:19:34	0.1	-0.2	-0.7	-1.2	-0.2	-0.4	97.3	83.4	80.7	83.8	100	90.8
15-Jun-01	03:39:34	0.6	0.1	-0.4	-0.9	-0.7	-0.4	97.3	82.3	81.7	85.4	100	91.9
15-Jun-01	03:59:34	0.6	-0.2	-0.2	-0.7	0.1	-0.7	97.3	85	82.3	83.3	100	91.3
15-Jun-01	04:19:34	0.6	-0.2	0.1	-0.9	-1.2	-0.4	96.7	85.5	83.3	83.8	97.8	90.8
15-Jun-01	04:39:34	0.8	-0.2	-0.2	-1.2	-0.2	-0.7	94.6	84.5	82.3	83.8	100	90.8
15-Jun-01	04:59:34	-0.4	-0.2	-0.2	-0.7	-0.4	-0.4	97.3	82.9	81.2	84.9	99.5	90.8
15-Jun-01	05:19:34	0.1	0.1	-0.7	-0.9	-0.9	-0.4	99.5	82.9	80.7	83.3	100	90.8
15-Jun-01	05:39:34	0.1	-0.2	-0.4	-0.9	-0.2	-0.7	99.5	85.5	81.2	83.3	100	90.8
15-Jun-01	05:59:34	0.6	-0.2	-0.7	-1.2	-1.2	-0.7	100	85.5	81.2	83.8	97.8	90.2
15-Jun-01	06:19:34	-0.2	-0.2	-0.4	-0.7	-0.4	-0.7	94.6	83.4	83.3	84.9	100	90.2
15-Jun-01	06:39:34	-0.4	-0.2	-0.7	-0.7	-0.4	-0.4	100	82.9	80.7	83.3	100	90.8
15-Jun-01	06:59:34	-0.4	0.1	-0.7	-0.9	-0.7	-0.7	97.3	83.4	80.7	83.3	100	90.8
15-Jun-01	07:19:34	-0.4	-0.2	-0.7	-0.9	0.1	-0.4	99.5	85.5	80.7	83.3	100	90.8
15-Jun-01	07:39:34	-0.7	0.1	-0.7	-0.7	0.6	-0.4	97.3	84.5	81.2	85.4	100	91.3
15-Jun-01	07:59:34	-0.2	-0.2	-0.7	-0.7	1.3	0.6	100	82.3	80.7	83.3	100	92.4
15-Jun-01	08:19:34	0.3	0.3	-0.7	-0.7	1.1	2.6	100	83.9	80.7	83.3	97.8	95.8

15-Jun-01	08:39:34	0.3	1.1	-0.7	-0.7	-0.4	0.6	96.7	83.9	81.2	83.3	97.2	89.1
15-Jun-01	08:59:34	-0.4	1.8	-0.7	-0.7	-0.9	-0.4	97.8	84.5	81.2	84.4	97.8	90.2
15-Jun-01	09:19:34	-0.4	2.1	-0.7	-0.7	-0.4	-0.9	95.1	79.7	81.2	83.3	100	90.2
15-Jun-01	09:39:34	-0.4	0.8	-0.4	-0.7	-1.2	-0.7	100	81.3	82.8	83.3	97.8	90.2
15-Jun-01	09:59:34	-0.2	0.3	-0.2	-0.7	-0.2	-0.7	99.5	83.4	82.8	83.3	100	90.2
15-Jun-01	10:19:34	-0.2	0.3	-0.2	-0.9	-0.7	-0.7	100	83.4	83.3	83.3	97.8	90.2
15-Jun-01	10:39:34	2.8	0.1	0.1	-0.9	-0.4	-0.7	100	81.8	82.8	83.8	100	90.2
15-Jun-01	10:59:34	5.4	-0.2	-0.2	-0.7	-0.7	-0.4	91.9	85	81.2	84.4	98.3	90.2
15-Jun-01	11:19:34	1.1	-0.4	-0.7	-0.9	-0.7	-0.7	97.3	82.3	80.7	84.4	98.9	89.7
15-Jun-01	11:39:34	0.3	-0.2	-0.4	-1.2	-0.4	-0.9	100	84.5	81.2	83.8	100	89.1
15-Jun-01	11:59:34	0.6	-0.2	-0.4	-0.9	-0.2	-0.9	99.5	82.3	81.2	83.8	99.5	89.1
15-Jun-01	12:19:34	0.6	-0.2	-0.7	-0.9	-0.4	-0.7	100	84.5	81.2	83.3	100	89.7
15-Jun-01	12:39:34	0.6	-0.2	-0.7	-0.9	-0.2	-0.7	98.9	82.9	81.2	83.3	100	89.7
15-Jun-01	12:59:34	0.3	-0.4	-0.9	-0.9	-0.7	-0.7	97.3	82.9	80.7	83.3	98.9	89.1
15-Jun-01	13:19:34	0.6	-0.2	-0.4	-0.9	0.1	-0.9	100	82.9	81.2	83.3	100	90.2
15-Jun-01	13:39:34	0.6	-0.4	-0.4	-0.9	0.8	-0.9	97.3	82.9	80.7	83.8	100	92.4
15-Jun-01	13:59:34	0.3	-0.4	-0.9	-0.9	1.8	-0.9	100	82.3	80.7	83.3	100	90.8
15-Jun-01	14:19:34	0.3	-0.7	-0.7	-0.9	1.3	-0.9	97.8	82.3	80.7	83.3	97.8	89.7
15-Jun-01	14:39:34	0.6	-0.4	-0.7	-0.9	0.1	-0.7	100	81.8	81.2	83.3	97.8	91.9
15-Jun-01	14:59:34	0.1	-0.4	-0.4	-0.9	-0.4	-0.4	97.8	82.3	81.2	83.8	97.8	89.7
15-Jun-01	15:19:34	0.3	-0.7	-0.4	-0.7	-0.9	-0.7	100	82.9	80.7	83.3	98.3	89.1
15-Jun-01	15:39:34	0.1	-0.4	-0.2	-0.9	0.1	-0.7	97.3	81.8	82.8	82.8	100	89.1
15-Jun-01	15:59:34	0.3	-0.4	0.1	-1.2	-0.7	0.3	97.3	85.5	84.3	82.8	97.2	91.9
15-Jun-01	16:19:34	0.3	-0.2	0.1	-1.2	-0.4	1.8	97.8	82.9	84.3	82.8	100	90.8
15-Jun-01	16:39:34	2.6	0.6	0.3	-1.2	-0.2	0.6	100	83.4	83.3	82.8	98.9	88
15-Jun-01	16:59:34	3.9	1.6	0.1	-0.9	-0.9	-0.4	93.5	82.9	82.3	82.8	99.5	88.6
15-Jun-01	17:19:34	0.3	1.6	-0.2	-1.2	-0.2	-0.7	98.9	79.7	81.2	82.8	100	88.6
15-Jun-01	17:39:34	0.1	0.3	-0.4	-1.2	-0.7	-0.9	96.7	80.7	81.2	82.8	97.8	88.6
15-Jun-01	17:59:34	0.1	0.3	-0.7	-0.9	-0.4	-0.9	99.5	83.4	80.7	82.8	100	88.6
15-Jun-01	18:19:34	0.3	0.3	-0.4	-0.9	-0.2	-0.9	98.4	83.4	82.8	82.8	99.5	89.1
15-Jun-01	18:39:34	-0.2	-0.2	-0.4	-0.9	-0.9	-0.9	96.7	82.9	81.2	82.8	98.9	89.1
15-Jun-01	18:59:34	0.1	-0.4	-0.7	-0.9	-0.2	-0.7	100	82.3	80.7	83.3	100	89.1
15-Jun-01	19:19:34	0.1	-0.2	-0.7	-0.7	-0.4	-0.7	99.5	82.9	80.7	82.8	98.9	91.3
15-Jun-01	19:39:34	-0.2	0.1	-0.9	-0.9	0.1	-0.9	100	85.5	81.2	82.8	98.9	89.1
15-Jun-01	19:59:34	0.1	-0.2	-0.7	-1.2	1.1	-0.9	95.6	82.3	80.7	82.8	98.9	92.4
15-Jun-01	20:19:34	-0.4	-0.2	-0.7	-1.2	0.6	-0.7	100	82.9	80.7	82.8	96.6	90.8
15-Jun-01	20:39:34	-0.2	-0.2	-0.4	-0.9	-0.7	-0.7	97.8	85.5	81.2	84.9	96.1	89.7
15-Jun-01	20:59:34	-0.2	-0.2	-0.4	-0.7	-0.9	-0.7	97.3	82.9	81.2	83.3	97.8	88.6
15-Jun-01	21:19:34	-0.2	-0.4	-0.4	-0.7	-0.2	-0.7	98.4	82.9	81.2	82.8	100	88.6
15-Jun-01	21:39:34	-0.4	-0.2	-0.2	-0.9	-0.7	-0.9	99.5	83.4	82.8	82.8	97.8	88.6
15-Jun-01	21:59:34	-0.7	-0.4	-0.2	-1.2	-0.7	-0.7	96.7	85	83.3	84.9	100	88
15-Jun-01	22:19:34	-0.4	-0.2	0.1	-0.7	-0.2	-0.7	98.9	82.3	83.8	84.4	100	88
15-Jun-01	22:39:34	2.3	0.1	0.1	-0.7	-0.9	-0.7	100	85	83.3	82.8	97.2	88
15-Jun-01	22:59:34	4.1	-0.2	0.1	-0.4	-0.4	-0.4	93.5	83.4	81.7	84.4	100	88
15-Jun-01	23:19:34	0.6	0.1	-0.2	-0.7	-0.2	-0.4	94.6	82.3	81.2	83.3	98.9	88
15-Jun-01	23:39:34	0.1	-0.2	-0.4	-1.2	-0.7	-0.4	97.3	83.9	81.2	83.3	100	88
15-Jun-01	23:59:34	0.1	-0.4	-0.7	-1.2	-0.2	0.1	100	85.5	80.7	82.8	100	88
16-Jun-01	00:19:34	0.1	-0.2	-0.7	-0.7	-1.2	1.8	97.3	83.4	80.7	84.9	97.8	86.4
16-Jun-01	00:39:34	-0.2	0.3	-0.7	-0.7	-0.2	0.3	96.7	83.4	81.2	83.3	100	87.5

16-Jun-01	00:59:34	-0.2	1.1	-0.7	-0.9	-0.7	-0.4	100	86.1	81.2	82.8	97.8	88
16-Jun-01	01:19:34	-0.2	1.3	-0.7	-1.2	-0.2	-0.9	94.6	82.3	80.7	82.8	100	88
16-Jun-01	01:39:34	-0.2	0.1	-0.7	-0.7	0.3	-0.4	98.9	81.8	82.8	84.9	100	88.6
16-Jun-01	01:59:34	0.1	0.1	-0.4	-0.4	1.3	-0.9	96.2	83.9	81.2	83.3	99.5	88
16-Jun-01	02:19:34	-0.2	0.1	-0.7	-0.7	0.8	-0.7	97.8	83.9	81.2	83.3	97.2	88
16-Jun-01	02:39:34	-0.2	-0.4	-0.7	-0.9	-0.4	-0.9	94.6	85.5	81.2	83.3	96.1	88.6
16-Jun-01	02:59:34	-0.2	-0.4	-0.7	-1.2	-0.9	-0.7	100	84.5	80.7	84.9	98.9	88
16-Jun-01	03:19:34	-0.4	-0.4	-0.7	-0.7	-0.2	-0.7	94.6	82.9	80.7	83.8	100	88
16-Jun-01	03:39:34	-0.4	-0.4	-0.2	-0.7	-0.4	-0.9	99.5	84.5	82.8	83.3	97.8	88.6
16-Jun-01	03:59:34	-0.4	-0.4	-0.2	-0.9	-0.7	-0.7	100	85.5	82.8	83.3	100	89.1
16-Jun-01	04:19:34	-0.2	-0.7	-0.2	-1.2	-0.2	-0.7	98.9	82.9	83.3	84.9	100	90.2
16-Jun-01	04:39:34	1.6	-0.2	0.1	-0.4	-0.7	-0.4	100	83.4	82.8	84.4	97.8	88
16-Jun-01	04:59:34	3.9	-0.4	-0.4	-0.4	-0.7	-0.7	92.4	85.5	81.2	83.8	100	88
16-Jun-01	05:19:34	0.6	-0.4	-0.7	-0.4	-0.2	-0.7	94.6	85.5	80.7	83.3	100	88
16-Jun-01	05:39:34	0.1	-0.4	-0.7	-0.9	-0.7	-0.9	100	83.4	80.7	82.8	97.8	89.1
16-Jun-01	05:59:34	-0.2	-0.2	-0.9	-1.2	-0.7	-0.7	97.8	83.4	81.2	82.8	100	89.1
16-Jun-01	06:19:34	-0.2	-0.2	-0.9	-1.2	0.1	-0.7	98.9	85.5	81.2	82.8	100	88
16-Jun-01	06:39:34	-0.2	-0.4	-0.7	-0.9	-0.4	-0.7	100	86.1	81.2	84.9	97.8	88.6
16-Jun-01	06:59:34	-0.4	-0.2	-0.7	-0.7	-0.4	-0.7	98.9	84.5	81.2	84.4	100	90.2
16-Jun-01	07:19:34	-0.2	-0.2	-0.7	-0.7	-0.2	-0.4	97.3	82.3	81.2	83.3	100	89.7
16-Jun-01	07:39:34	-0.2	-0.2	-0.7	-1.2	0.6	-0.4	95.1	83.4	80.7	83.3	100	90.2
16-Jun-01	07:59:34	-0.2	-0.2	-0.7	-1.2	1.6	0.3	99.5	85	81.2	83.8	100	88
16-Jun-01	08:19:34	-0.2	-0.2	-0.7	-0.7	0.8	2.1	96.7	82.9	80.7	84.9	97.2	85.3
16-Jun-01	08:39:34	-0.4	0.6	-0.7	-0.4	-0.4	0.3	99.5	83.4	80.7	84.9	96.1	88
16-Jun-01	08:59:34	-0.2	1.3	-0.4	-0.7	-0.9	-0.7	99.5	83.4	81.2	84.4	98.3	88
16-Jun-01	09:19:34	0.1	1.8	-0.4	-0.7	-0.2	-0.9	97.3	80.2	81.2	83.8	100	89.1
16-Jun-01	09:39:34	-0.2	0.6	-0.4	-0.7	-0.4	-0.9	96.2	80.7	83.3	83.3	98.3	88.6
16-Jun-01	09:59:34	-0.2	0.3	0.1	-0.7	-0.7	-1.2	97.3	83.4	82.8	83.3	99.5	88.6
16-Jun-01	10:19:34	-0.4	0.1	0.1	-0.9	-0.2	-0.9	98.9	83.4	83.3	83.3	100	88.6
16-Jun-01	10:39:34	2.1	0.1	0.1	-0.9	-0.4	-1.2	100	82.3	83.3	83.3	97.2	88.6
16-Jun-01	10:59:34	4.6	-0.4	0.1	-0.9	-0.4	-0.9	96.2	83.9	81.7	83.3	100	88.6
16-Jun-01	11:19:34	1.1	-0.2	-0.2	-0.9	-0.4	-1.2	95.1	82.9	81.2	83.3	100	88
16-Jun-01	11:39:34	0.1	-0.4	-0.4	-0.9	-0.7	-0.7	97.3	85.5	81.7	84.9	98.3	88.6
16-Jun-01	11:59:34	-0.2	-0.2	-0.4	-0.7	-0.4	-0.9	96.2	82.3	81.2	84.4	100	88.6
16-Jun-01	12:19:34	-0.2	-0.2	-0.7	-0.9	-0.4	-0.7	96.7	83.4	80.7	84.4	98.9	88.6
16-Jun-01	12:39:34	-0.4	-0.2	-0.7	-0.9	-0.4	-0.9	96.7	82.9	80.7	83.3	100	88.6
16-Jun-01	12:59:34	0.1	-0.4	-0.7	-0.9	0.1	-0.9	100	83.4	81.2	83.3	100	88.6
16-Jun-01	13:19:34	-0.2	-0.4	-0.4	-0.9	-0.4	-0.7	94	83.4	81.2	83.3	100	89.1
16-Jun-01	13:39:34	0.3	-0.4	-0.7	-0.9	0.8	-0.9	96.2	85.5	80.7	83.3	100	91.3
16-Jun-01	13:59:34	0.3	-0.2	-0.7	-0.9	1.6	-0.4	100	82.9	81.2	83.3	100	89.7
16-Jun-01	14:19:34	-0.2	-0.4	-0.7	-0.7	1.1	-0.9	100	82.9	81.7	85.4	97.8	91.3
16-Jun-01	14:39:34	-0.4	-0.4	-0.4	-0.7	0.6	-0.9	94.6	83.9	81.2	83.3	100	90.8
16-Jun-01	14:59:34	-0.7	-0.2	-0.2	-0.7	0.3	-0.9	96.7	82.9	81.2	83.8	97.8	91.3
16-Jun-01	15:19:34	-0.4	-0.4	-0.4	-0.9	-0.2	-0.7	96.2	85.5	81.7	83.8	97.8	89.7
16-Jun-01	15:39:34	-0.4	-0.4	-0.2	-0.7	-0.4	-0.7	96.2	83.4	83.3	83.3	97.2	88.6
16-Jun-01	15:59:34	-0.2	-0.7	0.1	-0.9	-0.4	-0.2	96.7	83.4	83.3	83.8	96.1	89.7
16-Jun-01	16:19:34	0.6	-0.2	0.1	-1.2	0.3	1.3	100	84.5	84.3	83.8	100	88
16-Jun-01	16:39:34	2.3	0.3	0.1	-0.9	-0.2	-0.2	100	83.4	83.8	83.3	97.8	88.6
16-Jun-01	16:59:34	4.4	1.3	0.1	-1.2	-0.2	-0.7	94.6	85	82.8	84.9	96.6	88.6

16-Jun-01	17:19:34	1.3	1.8	-0.2	-0.7	0.1	-0.7	95.6	81.8	81.7	84.4	99.5	89.1
16-Jun-01	17:39:34	0.3	0.8	-0.2	-0.9	0.6	-0.7	97.8	82.3	81.7	83.3	100	89.7
16-Jun-01	17:59:34	0.6	0.6	-0.4	-0.9	0.1	-0.9	96.7	83.9	81.7	83.3	96.6	90.8
16-Jun-01	18:19:34	0.1	-0.2	-0.7	-1.2	-0.2	-0.7	100	82.9	81.7	83.3	97.8	91.3
16-Jun-01	18:39:34	0.1	-0.2	-0.7	-0.9	0.6	-0.7	98.4	83.4	81.2	83.3	100	89.7
16-Jun-01	18:59:34	-0.2	-0.7	-0.4	-0.7	0.1	-0.7	95.6	83.4	81.2	84.4	97.8	90.2
16-Jun-01	19:19:34	-0.4	-0.7	-0.4	-0.9	-0.2	-0.7	95.1	86.1	81.2	83.8	96.6	90.2
16-Jun-01	19:39:34	-0.4	-0.7	-0.7	-1.2	0.6	-0.9	100	83.4	81.7	83.8	97.8	89.7
16-Jun-01	19:59:34	-0.7	-0.4	-0.4	-1.2	1.8	-0.9	97.3	85.5	81.7	83.8	97.8	89.1
16-Jun-01	20:19:34	-0.7	-0.7	-0.4	-1.2	0.8	-0.9	97.3	83.4	81.7	83.8	94.9	90.2
16-Jun-01	20:39:34	0.1	-0.4	-0.7	-0.7	-0.2	-0.7	100	83.4	81.7	84.9	94.9	90.8
16-Jun-01	20:59:34	0.3	-0.7	-0.4	-0.7	-0.7	-0.7	94.6	85.5	81.7	83.8	95.5	91.3
16-Jun-01	21:19:34	-0.2	-0.7	-0.2	-0.9	-0.4	-0.7	95.1	83.4	81.7	83.8	98.9	89.7
16-Jun-01	21:39:34	-0.4	-0.4	0.1	-1.2	0.1	-0.9	94.6	86.1	83.3	83.8	100	89.7
16-Jun-01	21:59:34	-0.4	-0.7	0.1	-1.4	-0.4	-0.9	95.6	83.4	83.3	83.8	96.6	90.2
16-Jun-01	22:19:34	-0.7	-0.4	0.1	-0.9	-1.2	-0.9	97.3	83.4	83.8	85.4	97.2	91.3
16-Jun-01	22:39:34	0.8	-0.4	0.1	-0.7	-0.2	-0.7	99.5	86.1	83.3	83.8	100	90.2
16-Jun-01	22:59:34	3.4	-0.4	-0.2	-0.7	0.1	-0.4	97.3	82.9	82.3	84.4	97.8	89.7
16-Jun-01	23:19:34	0.1	-0.4	-0.2	-0.9	-0.7	-0.9	94.6	83.9	81.7	83.8	96.1	89.7
16-Jun-01	23:39:34	-0.7	-0.4	-0.4	-1.2	0.1	-0.7	98.9	85.5	81.7	83.8	100	90.2
16-Jun-01	23:59:34	-0.4	-0.7	-0.7	-1.2	0.1	-0.2	96.2	82.9	81.7	83.8	99.5	90.2
17-Jun-01	00:19:34	-0.4	-0.4	-0.7	-0.7	-0.4	1.3	100	85.5	81.2	85.4	96.6	86.9
17-Jun-01	00:39:34	-0.2	0.3	-0.7	-0.4	-0.2	0.1	95.6	86.1	81.2	83.8	100	88.6
17-Jun-01	00:59:34	-0.2	1.1	-0.7	-0.9	0.1	-0.7	100	87.2	81.2	83.8	97.8	91.9
17-Jun-01	01:19:34	-0.2	1.3	-0.7	-1.2	-0.4	-0.4	96.7	82.3	81.2	83.8	97.8	89.7
17-Jun-01	01:39:34	-0.2	-0.2	-0.7	-0.7	0.8	-0.9	95.6	82.3	81.7	85.4	98.3	89.1
17-Jun-01	01:59:34	-0.2	-0.4	-0.9	-0.4	1.6	-0.7	97.8	84.5	81.7	83.8	97.8	91.9
17-Jun-01	02:19:34	-0.4	-0.4	-0.7	-0.9	1.1	-0.7	100	84.5	81.2	83.8	94.9	91.3
17-Jun-01	02:39:34	-0.4	-0.4	-0.7	-1.2	-0.4	-0.9	97.3	86.1	81.2	83.8	95.5	89.1
17-Jun-01	02:59:34	-0.4	-0.7	-0.4	-0.7	-0.9	-0.7	94	83.4	81.2	85.4	95.5	90.8
17-Jun-01	03:19:34	0.1	-0.4	-0.7	-0.7	-0.2	-0.7	100	83.4	81.2	83.8	100	89.7
17-Jun-01	03:39:34	0.3	-0.4	-0.4	-1.2	0.3	-0.7	100	86.1	83.3	83.8	98.9	91.3
17-Jun-01	03:59:34	0.3	-0.7	0.1	-1.2	-0.9	-0.7	100	85	83.3	84.4	96.1	90.8
17-Jun-01	04:19:34	0.6	-0.4	0.1	-0.7	-0.2	-0.7	99.5	83.4	83.3	84.9	100	91.9
17-Jun-01	04:39:34	3.6	-0.4	0.1	-0.7	-0.2	-0.7	96.7	86.1	82.8	83.8	98.3	89.7
17-Jun-01	04:59:34	1.1	-0.4	-0.4	-0.7	-0.7	-0.4	94.6	85.5	81.7	84.4	96.1	90.8
17-Jun-01	05:19:34	-0.2	-0.4	-0.7	-0.7	-0.2	-0.9	96.7	83.4	81.7	84.4	100	91.3
17-Jun-01	05:39:34	-0.4	-0.4	-0.7	-0.9	0.3	-0.7	97.3	85.5	81.7	84.4	100	90.8
17-Jun-01	05:59:34	-0.7	-0.7	-0.9	-0.9	-0.7	-0.4	99.5	85.5	81.2	85.4	96.6	90.8
17-Jun-01	06:19:34	-0.4	-0.4	-0.9	-0.4	-0.4	-0.7	100	82.9	81.2	84.9	100	90.8
17-Jun-01	06:39:34	-0.7	-0.2	-0.9	-0.9	0.3	-0.4	97.3	83.9	82.8	83.8	100	90.2
17-Jun-01	06:59:34	-0.4	-0.2	-0.7	-0.9	-0.7	-0.9	97.3	86.1	81.2	84.4	97.2	91.3
17-Jun-01	07:19:34	-0.7	-0.2	-0.9	-0.7	-0.4	-0.9	99.5	82.9	81.2	85.4	98.9	91.3
17-Jun-01	07:39:34	-0.7	0.1	-0.7	-0.7	0.3	-0.4	97.8	83.4	81.7	83.8	98.9	90.8
17-Jun-01	07:59:34	-0.4	0.1	-0.9	-0.9	1.3	0.1	97.3	85.5	80.7	83.8	98.3	90.2
17-Jun-01	08:19:34	-0.7	-0.2	-0.7	-0.9	0.8	1.6	99.5	83.4	81.2	83.8	95.5	87.5
17-Jun-01	08:39:34	-0.4	0.6	-0.7	-0.7	-0.4	-0.2	98.4	83.4	81.2	85.4	95.5	88.6
17-Jun-01	08:59:34	-0.7	1.3	-0.7	-0.7	-0.9	-0.4	97.3	83.4	81.2	84.4	97.2	89.7
17-Jun-01	09:19:34	-0.4	1.8	-0.7	-0.7	0.1	-0.9	99.5	80.7	81.7	83.8	100	91.3

17-Jun-01	09:39:34	-0.4	0.6	-0.7	-0.7	-0.4	-0.7	97.3	81.3	82.8	83.3	97.8	90.8
17-Jun-01	09:59:34	-0.7	-0.2	-0.2	-0.9	-1.2	-0.7	97.3	83.4	83.3	83.3	96.1	89.7
17-Jun-01	10:19:34	-0.7	-0.2	-0.2	-0.9	-0.2	-0.7	97.3	82.3	83.3	83.3	100	91.9
17-Jun-01	10:39:34	1.1	-0.4	-0.2	-0.9	-0.2	-0.7	98.9	84.5	82.8	83.3	98.9	90.8
17-Jun-01	10:59:34	3.6	-0.7	-0.4	-0.9	-0.7	-0.9	97.3	85	81.7	83.3	96.1	90.8
17-Jun-01	11:19:34	0.1	-0.7	-0.7	-1.2	-0.2	-0.7	95.1	82.9	81.7	83.3	100	91.9
17-Jun-01	11:39:34	-0.4	-0.2	-0.7	-0.9	0.1	-0.7	97.8	82.9	81.2	85.4	100	90.8
17-Jun-01	11:59:34	-0.4	-0.4	-0.9	-0.4	-0.7	-0.7	100	85.5	81.2	84.4	96.6	89.7
17-Jun-01	12:19:34	-0.4	-0.4	-0.7	-0.7	-0.4	-0.9	100	85.5	81.2	83.3	100	89.7
17-Jun-01	12:39:34	-0.9	-0.7	-0.9	-0.9	0.1	-0.7	99.5	82.9	81.2	83.8	100	91.9
17-Jun-01	12:59:34	-0.7	-0.7	-0.9	-0.9	-0.7	-0.7	99.5	83.4	81.2	83.3	97.2	90.2
17-Jun-01	13:19:34	-0.7	-0.7	-0.9	-0.9	-0.7	-0.7	99.5	86.1	80.7	83.3	98.9	89.7
17-Jun-01	13:39:34	-0.4	-0.7	-0.9	-1.2	0.6	-0.7	97.3	83.4	81.7	83.3	98.9	89.7
17-Jun-01	13:59:34	-0.4	-0.7	-0.9	-0.9	1.8	-0.9	98.9	83.4	81.7	83.3	97.8	89.7
17-Jun-01	14:19:34	-0.4	-0.7	-0.7	-0.9	1.3	-0.9	100	85	81.2	83.3	94.9	89.7
17-Jun-01	14:39:34	-0.2	-0.9	-0.7	-0.9	0.1	-0.9	97.8	85	81.2	83.3	95.5	90.8
17-Jun-01	14:59:34	-0.2	-0.7	-0.4	-0.9	-0.9	-0.9	96.7	82.9	81.2	83.8	95.5	91.3
17-Jun-01	15:19:34	-0.4	-0.7	-0.7	-0.4	-0.4	-0.7	97.8	85.5	81.7	83.3	100	90.2
17-Jun-01	15:39:34	-0.2	-0.7	-0.4	-0.9	-0.2	-0.7	100	85.5	83.3	82.8	98.3	91.3
17-Jun-01	15:59:34	0.1	-0.7	-0.4	-1.2	-0.9	0.1	99.5	85	83.3	82.8	96.1	90.2
17-Jun-01	16:19:34	0.6	-0.2	-0.2	-0.9	-0.2	1.3	99.5	84.5	83.8	83.3	100	87.5
17-Jun-01	16:39:34	2.6	0.3	0.1	-1.2	-0.2	0.1	96.2	83.9	82.8	82.8	98.9	88.6
17-Jun-01	16:59:34	1.1	0.8	-0.2	-1.2	-0.7	-0.7	94.6	85	81.7	82.8	96.6	90.2
17-Jun-01	17:19:34	-0.2	1.1	-0.7	-1.2	-0.4	-0.7	97.8	82.3	81.2	82.8	100	89.7
17-Jun-01	17:39:34	-0.7	0.1	-0.7	-1.2	0.1	-0.7	99.5	82.3	81.2	85.4	100	91.9
17-Jun-01	17:59:34	-0.4	-0.2	-0.7	-0.4	-0.9	-0.7	100	84.5	81.2	83.3	97.8	90.2
17-Jun-01	18:19:34	-0.4	-0.2	-0.9	-0.9	-0.2	-0.7	96.7	84.5	81.2	83.3	100	90.2
17-Jun-01	18:39:34	-0.7	-0.4	-1.2	-1.2	-0.2	-0.7	97.3	86.1	83.3	83.3	98.3	91.3
17-Jun-01	18:59:34	-0.7	-0.4	-0.7	-0.9	-0.9	-0.9	99.5	83.9	81.2	84.4	96.6	91.3
17-Jun-01	19:19:34	-0.7	-0.4	-0.9	-0.9	-0.2	-0.7	100	83.4	81.2	83.3	100	90.8
17-Jun-01	19:39:34	-0.7	-0.2	-0.9	-1.2	0.6	-0.9	95.1	86.1	81.7	83.3	100	91.3
17-Jun-01	19:59:34	-0.7	-0.4	-0.9	-1.2	1.8	-0.4	100	86.1	81.2	85.4	100	90.8
17-Jun-01	20:19:34	-0.7	-0.4	-0.9	-0.7	1.1	-0.7	99.5	83.4	81.7	83.8	95.5	91.3
17-Jun-01	20:39:34	-0.4	-0.2	-0.9	-0.9	-0.4	-0.4	98.4	86.1	81.2	83.3	96.1	90.2
17-Jun-01	20:59:34	-0.4	-0.7	-0.7	-1.2	-0.9	-0.7	97.3	85.5	81.2	83.3	96.1	91.3
17-Jun-01	21:19:34	-0.7	-0.4	-0.7	-0.7	-0.4	-0.9	99.5	83.9	81.7	84.9	100	90.8
17-Jun-01	21:39:34	-0.7	-0.2	-0.7	-0.7	0.1	-0.7	97.8	83.9	83.3	83.3	100	90.8
17-Jun-01	21:59:34	-0.9	-0.2	-0.4	-0.9	-0.7	-0.4	98.4	86.1	83.3	83.3	96.6	91.9
17-Jun-01	22:19:34	-0.7	-0.4	-0.2	-0.9	-0.2	-0.7	97.8	85.5	83.3	85.4	100	89.7
17-Jun-01	22:39:34	1.3	-0.2	-0.2	-0.7	0.1	-0.4	97.3	83.4	82.8	84.4	98.9	91.9
17-Jun-01	22:59:34	1.3	-0.2	-0.4	-0.4	-1.2	-0.7	94.6	86.1	81.7	84.4	97.2	91.3
17-Jun-01	23:19:34	-0.4	-0.4	-0.9	-0.7	-0.4	-0.7	97.3	85.5	81.7	83.8	100	90.2
17-Jun-01	23:39:34	-0.4	-0.2	-0.9	-1.2	-0.2	-0.7	100	83.4	83.8	83.8	99.5	91.3
17-Jun-01	23:59:34	-0.7	-0.2	-0.9	-1.2	-0.9	0.1	98.9	86.1	81.7	85.4	97.8	90.8
18-Jun-01	00:19:34	-0.4	-0.4	-0.7	-0.7	-0.2	1.1	100	83.9	81.7	85.4	100	88
18-Jun-01	00:39:34	-0.4	-0.2	-0.9	-0.9	-0.2	-0.2	97.8	83.9	82.8	83.3	100	88.6
18-Jun-01	00:59:34	-0.7	0.3	-0.9	-1.4	-0.9	-0.7	97.3	84.5	83.3	83.8	98.3	90.2
18-Jun-01	01:19:34	-0.4	1.1	-0.9	-0.9	-0.2	-0.7	99.5	82.3	81.7	85.4	100	91.3
18-Jun-01	01:39:34	-0.4	0.1	-0.7	-0.7	0.6	-0.7	96.2	85	81.7	83.3	100	90.8

18-Jun-01	01:59:34	-0.7	0.1	-0.7	-1.2	1.3	-0.4	100	85	83.3	83.8	100	91.9
18-Jun-01	02:19:34	-0.4	-0.2	-0.9	-1.2	0.8	-0.7	98.4	85	82.3	85.9	96.6	91.3
18-Jun-01	02:39:34	-0.7	-0.2	-0.9	-0.7	-0.7	-0.7	100	86.1	81.7	83.8	96.1	90.2
18-Jun-01	02:59:34	-0.7	-0.4	-0.7	-1.2	-0.9	-0.7	95.1	85.5	83.3	83.8	98.3	91.3
18-Jun-01	03:19:34	-0.7	-0.2	-0.7	-1.4	0.1	-0.4	100	83.4	82.8	85.4	100	91.9
18-Jun-01	03:39:34	-0.7	-0.2	-0.7	-0.4	-0.7	-0.4	96.2	86.1	83.3	84.9	97.8	90.8
18-Jun-01	03:59:34	-0.7	-0.4	-0.4	-0.9	-0.9	-0.4	98.9	85.5	83.3	83.3	100	91.9
18-Jun-01	04:19:34	-0.7	-0.2	-0.4	-1.2	-0.2	-0.7	97.8	83.4	83.8	83.8	100	90.2
18-Jun-01	04:39:34	1.6	-0.2	-0.4	-0.7	-0.7	-0.7	100	85.5	82.8	85.4	97.8	91.3
18-Jun-01	04:59:34	1.6	-0.4	-0.7	-0.7	-0.4	-0.7	94.6	86.1	82.3	84.9	100	92.4
18-Jun-01	05:19:34	-0.4	-0.4	-0.7	-0.9	0.3	-0.4	97.8	83.4	81.7	83.8	100	89.7
18-Jun-01	05:39:34	-0.7	-0.2	-0.7	-1.2	-0.7	-0.7	100	85.5	83.3	83.8	97.2	90.8
18-Jun-01	05:59:34	-0.9	-0.2	-0.9	-1.2	-0.4	-0.4	97.8	86.1	81.7	85.9	100	91.9
18-Jun-01	06:19:34	-0.4	-0.4	-0.7	-0.7	-0.2	-0.7	97.3	83.9	82.3	85.4	100	90.2
18-Jun-01	06:39:34	-0.7	-0.2	-0.7	-1.2	-0.9	-0.7	100	83.9	83.3	83.8	97.2	91.9
18-Jun-01	06:59:34	-0.7	-0.2	-0.9	-1.4	-0.4	-0.7	95.1	86.1	83.8	83.8	100	90.8
18-Jun-01	07:19:34	-0.7	0.1	-0.7	-0.7	0.1	-0.4	100	83.9	81.7	85.4	100	91.9
18-Jun-01	07:39:34	-0.7	-0.2	-0.7	-0.9	1.1	-0.4	96.2	83.4	83.3	83.8	100	91.9
18-Jun-01	07:59:34	-0.9	-0.4	-0.9	-1.2	1.8	0.1	100	83.4	81.7	83.8	100	90.8
18-Jun-01	08:19:34	-0.7	-0.2	-0.7	-1.2	1.1	1.3	97.3	85.5	81.2	85.9	96.6	88
18-Jun-01	08:39:34	-0.7	0.8	-0.7	-0.4	-0.2	0.1	100	84.5	83.3	84.4	96.1	88
18-Jun-01	08:59:34	-0.9	1.3	-0.9	-0.7	-0.9	-0.7	96.7	83.4	81.7	84.4	96.1	91.3
18-Jun-01	09:19:34	-0.7	1.6	-0.7	-0.7	-0.4	-0.4	99.5	80.7	81.7	84.9	100	89.7
18-Jun-01	09:39:34	-0.7	0.3	-0.7	-0.9	-0.4	-0.4	97.3	82.9	83.8	84.4	97.8	89.7
18-Jun-01	09:59:34	-1.2	0.1	-0.4	-1.2	-0.7	-0.4	99.5	83.9	83.3	83.8	98.3	91.9
18-Jun-01	10:19:34	-0.9	0.1	-0.2	-1.2	-0.2	-0.7	100	84.5	83.3	83.8	100	89.7
18-Jun-01	10:39:34	2.6	-0.2	-0.2	-1.2	-0.9	-0.9	100	82.9	83.3	85.9	97.8	90.8
18-Jun-01	10:59:34	4.4	-0.4	-0.4	-0.4	-0.9	-0.4	92.4	82.9	82.3	84.9	97.8	90.8
18-Jun-01	11:19:34	-0.2	-0.4	-0.4	-0.7	-0.9	-0.7	97.3	82.9	81.7	84.4	97.2	89.7
18-Jun-01	11:39:34	-0.9	-0.7	-0.7	-0.9	-0.2	-0.4	97.3	82.9	81.7	84.4	100	91.9
18-Jun-01	11:59:34	-1.4	-0.7	-0.9	-0.9	0.1	-0.4	98.9	82.9	81.7	84.4	97.8	89.7
18-Jun-01	12:19:34	-1.4	-0.7	-0.9	-0.9	-0.7	-0.7	96.2	82.9	81.7	85.9	95.5	92.4
18-Jun-01	12:39:34	-1.2	-0.9	-0.9	-0.7	-0.2	-0.9	100	83.4	81.7	84.4	98.9	90.8
18-Jun-01	12:59:34	-0.9	-0.7	-0.9	-0.9	0.3	-0.7	97.8	83.4	81.2	83.8	100	92.4
18-Jun-01	13:19:34	-1.2	-0.4	-0.9	-0.9	0.1	-0.7	95.1	82.9	81.7	83.8	97.8	90.2
18-Jun-01	13:39:34	-1.4	-0.9	-0.9	-1.2	0.8	-0.7	97.3	82.9	81.7	83.8	98.9	92.4
18-Jun-01	13:59:34	-1.2	-0.7	-0.7	-0.9	1.3	-0.7	95.1	82.9	81.7	84.9	99.5	90.2
18-Jun-01	14:19:34	-0.4	-0.7	-0.9	-0.7	1.3	-0.7	100	82.9	81.7	85.4	95.5	92.4
18-Jun-01	14:39:34	0.1	-0.9	-0.7	-0.9	0.3	-0.7	100	82.9	81.2	83.8	94.9	90.2
18-Jun-01	14:59:34	0.3	-0.9	-0.7	-0.7	-0.4	-0.7	100	82.9	81.2	84.4	94.4	92.4
18-Jun-01	15:19:34	0.1	-0.7	-0.7	-0.9	0.1	-0.9	100	83.4	82.3	83.8	98.9	90.8
18-Jun-01	15:39:34	0.3	-0.4	-0.7	-0.9	0.3	-0.7	100	82.9	83.3	83.3	98.3	91.9
18-Jun-01	15:59:34	0.6	-0.9	0.1	-0.9	-0.2	-0.2	100	82.9	83.3	83.3	96.6	90.8
18-Jun-01	16:19:34	0.6	-0.7	0.1	-1.2	-0.7	1.3	100	83.4	83.8	83.3	97.8	87.5
18-Jun-01	16:39:34	0.6	0.3	0.1	-0.9	0.3	0.1	94.6	82.9	83.3	83.3	100	88.6
18-Jun-01	16:59:34	-0.7	1.1	-0.2	-0.9	-0.2	-0.4	98.9	83.4	81.7	85.4	97.8	89.7
18-Jun-01	17:19:34	-0.9	1.6	-0.7	-0.7	-0.7	-0.7	97.3	80.7	81.7	83.8	97.2	89.7
18-Jun-01	17:39:34	-0.9	0.3	-0.7	-0.9	-0.9	-0.7	97.8	81.8	81.2	83.3	95.5	92.4
18-Jun-01	17:59:34	-0.9	0.1	-0.9	-0.9	-0.7	-0.4	100	83.9	81.7	83.3	99.5	91.3

18-Jun-01	18:19:34	-0.7	0.1	-0.7	-1.2	0.1	-0.7	97.8	83.9	83.3	84.9	100	90.8
18-Jun-01	18:39:34	-0.9	0.1	-0.7	-0.4	-0.2	-0.7	100	82.9	81.7	85.4	97.8	92.4
18-Jun-01	18:59:34	-0.9	-0.4	-0.7	-0.7	-0.9	-0.4	100	82.9	81.7	84.4	96.1	90.2
18-Jun-01	19:19:34	-0.7	-0.4	-0.7	-0.9	-0.7	-0.7	97.3	83.9	82.3	83.8	99.5	90.8
18-Jun-01	19:39:34	-0.7	0.1	-0.9	-1.2	0.3	-0.4	98.4	83.4	83.3	83.8	100	91.9
18-Jun-01	19:59:34	-0.7	-0.2	-0.9	-1.2	1.3	-0.7	97.3	82.3	82.3	85.9	100	91.3
18-Jun-01	20:19:34	-0.7	-0.4	-0.7	-0.7	0.8	-0.4	100	85	81.7	84.4	96.6	90.8
18-Jun-01	20:39:34	-0.7	0.1	-0.9	-1.2	-0.4	-0.7	96.7	83.4	83.8	83.8	95.5	92.4
18-Jun-01	20:59:34	-0.9	-0.2	-0.7	-0.9	-0.9	-0.4	100	83.4	81.7	85.4	95.5	91.9
18-Jun-01	21:19:34	-0.9	-0.2	-0.7	-0.7	-0.4	-0.4	100	83.4	81.7	85.4	100	90.8
18-Jun-01	21:39:34	-0.7	-0.4	-0.7	-0.9	0.3	-0.4	95.1	85	83.8	83.8	100	91.9
18-Jun-01	21:59:34	-0.7	-0.2	-0.7	-0.9	-0.2	-0.7	94.6	85	83.8	84.4	98.3	91.3
18-Jun-01	22:19:34	-0.7	-0.4	-0.2	-0.7	-0.7	-0.4	97.3	85.5	83.3	85.4	96.6	90.2
18-Jun-01	22:39:34	1.3	-0.2	-0.2	-0.9	-0.4	-0.4	100	83.4	83.3	83.8	100	91.9
18-Jun-01	22:59:34	3.9	-0.2	-0.7	-0.7	0.3	-0.7	94	86.1	82.3	84.9	100	92.4
18-Jun-01	23:19:34	-0.2	-0.4	-0.9	-0.9	0.1	-0.4	94.6	83.4	81.7	84.4	98.9	90.8
18-Jun-01	23:39:34	-0.7	-0.2	-0.7	-1.2	-0.7	-0.4	97.8	86.6	82.8	84.9	96.6	91.9
18-Jun-01	23:59:34	-0.9	-0.4	-0.9	-0.9	-0.7	-0.2	100	85.5	83.3	85.4	100	90.8
19-Jun-01	00:19:34	-0.9	0.1	-0.9	-0.7	0.1	1.1	99.5	86.1	83.8	83.8	100	88.6
19-Jun-01	00:39:34	-0.7	0.3	-0.7	-0.9	0.3	0.1	98.9	85.5	83.8	84.4	100	89.1
19-Jun-01	00:59:34	-1.2	0.8	-0.7	-0.7	-0.7	-0.4	100	84.5	83.8	85.4	96.6	90.8
19-Jun-01	01:19:34	-0.7	1.1	-0.7	-0.7	-0.7	-0.7	100	82.9	83.3	84.4	98.9	92.4
19-Jun-01	01:39:34	-0.7	0.1	-0.7	-0.9	0.3	-0.4	98.9	82.9	83.3	84.4	100	90.2
19-Jun-01	01:59:34	-0.9	-0.2	-0.7	-0.9	1.3	-0.4	100	85	83.3	85.9	100	91.9
19-Jun-01	02:19:34	-0.9	-0.2	-0.7	-0.4	0.8	-0.7	100	85	82.3	84.4	97.2	92.4
19-Jun-01	02:39:34	-0.9	-0.4	-0.7	-0.9	-0.2	-0.4	97.8	86.1	82.3	84.4	95.5	90.8
19-Jun-01	02:59:34	-0.9	-0.2	-0.7	-1.2	-0.9	-0.7	100	83.4	82.8	85.9	95.5	92.4
19-Jun-01	03:19:34	-1.2	-0.2	-0.7	-0.7	-0.4	-0.7	100	86.1	83.3	84.4	100	90.8
19-Jun-01	03:39:34	-0.9	-0.4	-0.4	-0.9	0.1	-0.4	100	84.5	83.3	84.4	100	90.8
19-Jun-01	03:59:34	-0.9	-0.2	-0.4	-1.2	-0.2	-0.7	99.5	83.9	83.8	85.9	99.5	91.9
19-Jun-01	04:19:34	-0.7	-0.4	-0.2	-0.4	-0.7	-0.4	100	86.6	83.3	84.9	96.6	91.3
19-Jun-01	04:39:34	1.6	-0.4	-0.2	-0.9	-0.7	-0.7	97.8	85	83.3	83.8	100	90.8
19-Jun-01	04:59:34	-0.2	-0.2	-0.7	-0.7	0.1	-0.7	96.7	85	82.8	84.9	100	92.4
19-Jun-01	05:19:34	-0.9	-0.4	-0.7	-0.9	0.1	-0.7	97.3	86.6	84.3	84.4	100	92.4
19-Jun-01	05:39:34	-0.9	-0.4	-0.9	-1.2	-0.7	-0.4	97.3	83.4	83.8	85.9	97.2	90.2
19-Jun-01	05:59:34	-1.2	-0.2	-0.9	-0.4	-0.7	-0.4	100	86.1	83.8	84.9	100	91.9
19-Jun-01	06:19:34	-0.9	-0.2	-0.9	-0.9	-0.2	-0.7	100	85	83.3	83.8	100	92.4
19-Jun-01	06:39:34	-0.9	0.1	-0.7	-1.2	0.1	-0.4	100	85.5	83.8	85.9	100	90.8
19-Jun-01	06:59:34	-1.2	-0.2	-0.7	-0.4	-0.4	-0.7	100	86.1	83.3	84.9	97.2	92.4
19-Jun-01	07:19:34	-0.7	0.1	-0.9	-0.9	-0.4	-0.4	98.4	83.4	83.8	83.8	99.5	91.9
19-Jun-01	07:39:34	-0.9	-0.4	-0.7	-1.2	0.1	-0.7	96.7	85.5	83.3	85.9	100	90.8
19-Jun-01	07:59:34	-0.9	0.1	-0.7	-0.7	1.1	-0.2	100	83.4	82.3	84.9	100	90.8
19-Jun-01	08:19:34	-0.9	-0.2	-0.7	-0.9	0.6	1.3	97.3	85	82.8	83.8	97.2	88.6
19-Jun-01	08:39:34	-0.7	0.3	-0.7	-1.2	-0.4	0.1	100	84.5	83.3	85.9	96.1	88.6
19-Jun-01	08:59:34	-0.9	1.3	-0.7	-0.9	-0.9	-0.4	98.4	83.4	82.8	84.4	95.5	89.7
19-Jun-01	09:19:34	-0.9	1.6	-0.9	-0.7	-0.7	-0.2	100	81.3	82.3	84.4	100	91.9
19-Jun-01	09:39:34	-0.7	0.3	-0.7	-0.9	0.1	-0.4	98.4	82.3	83.8	84.4	100	90.2
19-Jun-01	09:59:34	-1.2	0.1	-0.4	-0.7	-0.2	-0.7	100	83.9	83.8	85.9	98.9	90.2
19-Jun-01	10:19:34	-0.7	0.3	-0.2	-0.4	-0.9	-0.7	100	84.5	84.3	84.4	97.2	92.4

19-Jun-01	10:39:34	2.3	0.3	-0.4	-0.9	-0.2	-0.7	100	82.9	83.8	84.4	100	91.3
19-Jun-01	10:59:34	0.3	0.1	-0.4	-1.2	0.1	-0.4	95.1	84.5	82.8	85.9	100	90.2
19-Jun-01	11:19:34	-0.7	-0.2	-0.7	-0.7	-0.2	-0.4	96.7	82.9	82.3	84.4	97.8	91.9
19-Jun-01	11:39:34	-0.9	-0.2	-0.7	-0.9	-0.7	-0.7	98.9	82.9	81.7	84.4	97.2	91.3
19-Jun-01	11:59:34	-0.4	0.1	-0.7	-1.2	-0.4	-0.4	98.9	82.9	81.7	85.9	100	90.8
19-Jun-01	12:19:34	-0.4	0.1	-0.7	-0.7	0.3	-0.4	96.7	82.9	83.3	85.4	100	93
19-Jun-01	12:39:34	-0.7	0.1	-0.7	-0.7	-0.4	-0.7	100	83.4	81.7	84.4	97.2	90.8
19-Jun-01	12:59:34	-0.4	0.3	-1.2	-1.2	-0.7	-0.7	97.8	82.9	81.7	84.4	98.3	90.8
19-Jun-01	13:19:34	-0.7	0.3	-0.7	-0.9	0.1	-0.7	100	83.4	82.3	85.9	100	90.2
19-Jun-01	13:39:34	-0.7	0.3	-0.9	-0.7	0.6	-0.7	97.8	82.9	81.2	84.9	100	91.9
19-Jun-01	13:59:34	-0.7	0.1	-0.7	-0.9	1.8	-0.7	100	82.9	82.8	85.4	100	90.2
19-Jun-01	14:19:34	-0.7	0.1	-0.7	-0.7	1.3	-0.4	97.3	82.9	81.2	84.4	96.1	89.7
19-Jun-01	14:39:34	-0.7	0.3	-0.7	-1.2	0.1	-0.7	100	82.3	81.7	84.4	95.5	90.8
19-Jun-01	14:59:34	-0.4	0.3	-0.7	-1.2	-0.7	-0.7	97.8	82.3	81.7	84.4	95.5	90.8
19-Jun-01	15:19:34	-0.7	0.1	-0.7	-0.9	-0.9	-0.4	97.8	82.9	82.3	84.4	97.2	90.2
19-Jun-01	15:39:34	-0.7	0.6	-0.4	-0.9	-0.4	-0.7	100	82.3	83.3	84.4	100	89.7
19-Jun-01	15:59:34	-0.4	0.6	-0.4	-1.2	0.1	0.1	97.3	82.3	83.3	85.9	100	90.2
19-Jun-01	16:19:34	-0.7	0.6	-0.2	-0.4	-0.4	1.6	97.8	82.9	83.8	84.9	97.8	88.6
19-Jun-01	16:39:34	1.8	1.3	-0.2	-0.9	-0.7	0.1	98.9	82.9	83.3	83.8	98.3	88.6
19-Jun-01	16:59:34	2.6	2.6	-0.4	-0.9	0.1	-0.4	94.6	81.8	82.3	84.4	100	90.2
19-Jun-01	17:19:34	-0.7	2.8	-0.4	-1.2	0.1	-0.7	98.9	79.2	81.7	84.4	100	92.4
19-Jun-01	17:39:34	-0.7	1.3	-0.7	-1.2	-0.9	-0.4	98.4	80.2	81.7	84.4	97.2	91.9
19-Jun-01	17:59:34	-0.7	1.1	-0.9	-1.2	-0.7	-0.4	97.8	82.3	83.3	84.4	100	90.8
19-Jun-01	18:19:34	-0.7	0.3	-0.7	-1.2	0.1	-0.7	100	79.7	83.3	84.4	100	92.4
19-Jun-01	18:39:34	-0.7	0.1	-0.7	-0.9	0.1	-0.7	100	81.3	83.3	87	100	90.8
19-Jun-01	18:59:34	-0.7	-0.2	-0.9	-0.7	-0.7	-0.4	100	81.8	83.3	84.4	97.8	92.4
19-Jun-01	19:19:34	-0.7	-0.2	-0.9	-0.9	-0.4	-0.7	97.8	82.9	83.3	84.4	100	90.8
19-Jun-01	19:39:34	-0.7	-0.2	-0.9	-1.2	0.3	-0.7	97.3	83.4	82.3	85.9	100	92.4
19-Jun-01	19:59:34	-1.2	0.1	-0.9	-0.7	1.3	-0.2	100	81.8	82.8	85.9	100	90.2
19-Jun-01	20:19:34	-1.2	0.1	-0.7	-0.7	0.8	-0.4	97.3	85.5	83.8	84.4	97.2	92.4
19-Jun-01	20:39:34	-0.9	-0.2	-0.9	-1.2	-0.7	-0.4	100	82.3	82.8	85.9	96.1	90.8
19-Jun-01	20:59:34	-0.7	0.1	-0.7	-0.4	-0.9	-0.7	97.3	82.9	82.8	85.4	97.8	92.4
19-Jun-01	21:19:34	-0.9	-0.2	-0.9	-0.7	-0.2	-0.4	100	83.9	82.8	84.4	100	90.8
19-Jun-01	21:39:34	-0.7	0.3	-0.7	-1.2	0.1	-0.4	98.4	81.8	83.3	85.9	100	92.4
19-Jun-01	21:59:34	-0.7	-0.2	-0.4	-0.4	-0.2	-0.4	100	85	83.8	85.4	98.9	90.8
19-Jun-01	22:19:34	-0.4	-0.2	-0.2	-0.7	-0.9	-0.7	98.4	82.3	83.8	84.4	98.9	92.4
19-Jun-01	22:39:34	1.8	0.3	-0.2	-0.9	-0.2	-0.4	97.8	82.9	83.3	86.5	100	90.8
19-Jun-01	22:59:34	1.8	0.1	-0.7	-0.7	0.3	-0.4	92.4	84.5	82.3	84.9	100	91.9
19-Jun-01	23:19:34	-0.4	0.1	-0.7	-0.7	-0.4	-0.4	100	82.3	82.8	84.4	98.3	91.3
19-Jun-01	23:39:34	-0.7	0.1	-0.7	-1.2	-0.7	-0.2	96.7	85.5	83.3	86.5	98.9	91.9
19-Jun-01	23:59:34	-1.2	-0.2	-0.9	-0.7	-0.2	0.1	100	82.9	83.3	85.4	100	90.8
20-Jun-01	00:19:34	-0.9	0.3	-0.7	-0.7	0.3	1.1	99.5	85	83.3	84.4	100	88
20-Jun-01	00:39:34	-0.9	0.8	-0.9	-1.2	-0.2	0.1	97.8	83.4	83.3	86.5	98.9	88.6
20-Jun-01	00:59:34	-1.2	1.6	-0.7	-0.9	-0.9	-0.4	100	83.4	83.3	85.4	98.9	91.9
20-Jun-01	01:19:34	-0.7	1.6	-0.7	-0.7	-0.4	-0.4	97.8	80.7	83.3	83.8	100	92.4
20-Jun-01	01:39:34	-0.9	0.6	-0.9	-1.2	0.3	-0.7	100	81.8	83.3	86.5	100	91.3
20-Jun-01	01:59:34	-0.7	0.1	-0.7	-0.7	1.1	-0.4	100	83.4	83.3	85.4	100	92.4
20-Jun-01	02:19:34	-0.9	0.3	-0.7	-0.7	0.8	-0.7	97.8	82.9	83.3	83.8	97.2	91.3
20-Jun-01	02:39:34	-0.7	0.3	-0.7	-1.2	-0.4	-0.4	100	85.5	83.3	86.5	96.1	92.4

20-Jun-01	02:59:34	-0.7	0.1	-0.7	-0.7	-1.2	-0.7	98.4	82.9	83.3	85.4	97.2	91.3
20-Jun-01	03:19:34	-0.9	0.1	-0.7	-0.9	-0.4	-0.2	100	84.5	83.3	83.8	100	91.9
20-Jun-01	03:39:34	-0.7	0.1	-0.4	-1.2	0.1	-0.4	100	85	83.8	86.5	100	91.9
20-Jun-01	03:59:34	-0.7	0.1	-0.4	-0.7	0.1	-0.2	100	82.3	84.3	84.9	100	91.9
20-Jun-01	04:19:34	-0.7	0.3	-0.4	-0.9	-0.7	-0.7	99.5	85.5	84.3	83.8	97.8	92.4
20-Jun-01	04:39:34	1.1	0.1	-0.4	-0.9	-0.7	-0.4	97.3	84.5	83.8	86.5	100	90.8
20-Jun-01	04:59:34	-0.7	0.3	-0.4	-0.7	-0.2	-0.4	100	82.9	83.3	84.9	100	92.4
20-Jun-01	05:19:34	-0.9	0.1	-0.7	-0.7	0.1	-0.2	100	85.5	83.8	84.4	100	91.3
20-Jun-01	05:39:34	-0.9	0.1	-0.7	-1.2	-0.7	-0.4	99.5	83.9	84.3	86.5	98.9	92.4
20-Jun-01	05:59:34	-1.2	0.3	-0.7	-0.7	-0.2	-0.2	100	83.4	82.8	85.4	100	91.9
20-Jun-01	06:19:34	-0.7	0.1	-0.7	-0.7	0.3	-0.4	100	85.5	83.3	83.8	100	91.9
20-Jun-01	06:39:34	-0.9	0.1	-0.7	-1.2	-0.4	-0.4	100	82.3	83.3	86.5	98.3	92.4
20-Jun-01	06:59:34	-1.2	0.6	-0.7	-0.7	-0.7	-0.2	100	85.5	83.8	84.9	100	90.2
20-Jun-01	07:19:34	-0.9	0.3	-0.9	-0.9	0.1	-0.7	99.5	82.3	84.3	84.4	100	92.4
20-Jun-01	07:39:34	-0.9	0.3	-0.7	-0.9	0.6	-0.4	97.8	83.4	83.8	86.5	100	90.8
20-Jun-01	07:59:34	-0.9	0.1	-0.7	-0.7	1.3	-0.2	100	82.3	83.3	84.9	100	90.8
20-Jun-01	08:19:34	-0.7	0.3	-0.7	-0.9	0.8	1.1	98.9	85	83.3	84.4	97.8	88.6
20-Jun-01	08:39:34	-0.7	1.1	-0.7	-0.9	-0.7	0.1	99.5	83.4	83.3	86.5	97.2	88.6
20-Jun-01	08:59:34	-0.7	1.8	-0.7	-0.7	-1.2	-0.4	100	82.9	82.8	84.9	97.2	91.9
20-Jun-01	09:19:34	-0.4	2.3	-0.7	-0.7	-0.2	-0.7	99.5	80.2	83.3	84.4	100	90.2
20-Jun-01	09:39:34	-0.7	1.1	-0.7	-0.9	-0.2	-0.7	100	80.7	84.3	84.4	100	91.9
20-Jun-01	09:59:34	-0.7	0.3	-0.2	-0.7	-0.9	-0.4	100	83.4	84.3	86.5	98.9	90.2
20-Jun-01	10:19:34	-0.4	0.3	-0.2	-0.7	-0.2	-0.7	100	83.4	84.3	84.4	100	91.3
20-Jun-01	10:39:34	1.8	0.3	-0.2	-0.9	-0.4	-0.7	97.8	82.3	83.3	84.4	98.9	90.2
20-Jun-01	10:59:34	-0.2	-0.2	-0.4	-1.2	-0.4	-0.4	99.5	82.3	82.8	85.9	100	90.8
20-Jun-01	11:19:34	-0.4	-0.4	-0.4	-0.4	0.1	-0.4	97.3	82.3	82.8	85.4	100	93
20-Jun-01	11:39:34	-0.4	-0.7	-0.7	-0.9	-0.7	-0.7	100	82.3	82.8	84.4	98.3	90.2
20-Jun-01	11:59:34	-0.4	-0.7	-0.9	-1.2	-0.2	-0.7	98.9	82.3	82.3	84.4	100	91.9
20-Jun-01	12:19:34	-0.7	-0.7	-0.9	-0.9	-0.2	-0.9	99.5	82.3	83.8	86.5	98.9	90.2
20-Jun-01	12:39:34	-0.2	-0.7	-0.7	-0.4	-0.9	-0.7	100	82.9	83.3	84.9	97.8	91.3
20-Jun-01	12:59:34	-0.4	-0.2	-0.7	-0.7	-0.7	-0.7	97.3	82.3	82.8	84.4	98.9	90.2
20-Jun-01	13:19:34	-0.2	-0.2	-1.2	-1.2	-0.2	-0.4	100	82.3	82.3	84.4	100	90.2
20-Jun-01	13:39:34	-0.4	-0.4	-0.7	-0.9	0.8	-0.7	100	81.8	81.7	86.5	100	90.8
20-Jun-01	13:59:34	0.1	-0.2	-0.7	-0.4	1.3	-0.7	98.9	81.8	81.7	84.9	100	90.8
20-Jun-01	14:19:34	-0.2	-0.2	-0.7	-0.7	0.8	-0.7	100	81.3	81.7	84.4	97.2	90.8
20-Jun-01	14:39:34	-0.2	-0.2	-0.9	-0.9	-0.2	-0.7	97.3	80.7	82.3	84.4	96.6	90.8
20-Jun-01	14:59:34	-0.2	-0.2	-0.9	-0.9	-0.9	-0.7	100	80.7	82.3	84.9	96.1	91.3
20-Jun-01	15:19:34	-0.4	-0.2	-0.7	-0.9	-0.9	-0.4	97.3	80.7	82.8	84.4	97.2	90.2
20-Jun-01	15:39:34	-0.2	-0.2	-0.4	-0.9	-0.4	-0.9	100	80.7	83.3	84.4	100	91.3
20-Jun-01	15:59:34	-0.2	-0.2	-0.2	-1.2	-0.2	0.1	97.3	80.7	83.8	84.4	98.9	90.2
20-Jun-01	16:19:34	0.1	-0.2	-0.2	-1.4	-0.7	2.1	100	81.3	85.4	84.4	97.2	87.5
20-Jun-01	16:39:34	2.6	0.6	0.1	-0.7	-0.9	0.1	100	81.3	83.3	85.9	98.3	89.1
20-Jun-01	16:59:34	0.1	1.3	-0.4	-0.7	-0.4	-0.7	96.7	80.7	83.3	84.4	100	92.4
20-Jun-01	17:19:34	-0.4	1.8	-0.4	-0.9	0.1	-0.7	98.4	78.6	82.8	84.4	100	90.8
20-Jun-01	17:39:34	-0.7	0.8	-0.7	-0.9	-0.7	-0.4	100	80.2	82.8	85.9	97.8	91.9
20-Jun-01	17:59:34	-0.7	0.3	-0.9	-0.4	-0.4	-0.7	100	82.3	83.3	85.4	100	91.9
20-Jun-01	18:19:34	-0.7	0.1	-0.7	-0.7	0.1	-0.7	97.8	82.9	82.8	84.4	100	91.3
20-Jun-01	18:39:34	-0.4	-0.2	-0.9	-1.2	-0.4	-0.7	100	81.3	83.3	85.9	99.5	91.3
20-Jun-01	18:59:34	-0.7	-0.4	-0.7	-0.7	-0.7	-0.7	97.8	83.4	83.3	84.9	99.5	93

20-Jun-01	19:19:34	-0.4	-0.2	-0.9	-0.7	-0.2	-0.7	97.3	81.8	83.8	84.4	100	93
20-Jun-01	19:39:34	-0.4	-0.4	-0.7	-1.2	0.3	-0.7	98.4	83.9	83.3	84.4	100	91.3
20-Jun-01	19:59:34	-0.9	-0.2	-0.9	-0.7	1.3	-0.4	100	81.8	83.3	85.9	100	90.8
20-Jun-01	20:19:34	-0.7	-0.4	-0.9	-0.4	0.6	-0.4	97.3	84.5	82.3	84.4	97.8	93
20-Jun-01	20:39:34	-0.4	-0.2	-0.7	-0.9	-0.4	-0.7	98.4	81.8	83.3	84.4	97.2	93
20-Jun-01	20:59:34	-0.4	-0.2	-0.7	-0.7	-0.9	-0.7	100	83.9	82.8	85.9	98.9	93
20-Jun-01	21:19:34	-0.7	-0.4	-0.9	-0.4	-0.4	-0.9	97.3	83.4	83.3	84.4	100	92.4
20-Jun-01	21:39:34	-0.4	0.1	-0.7	-0.9	-0.2	-0.9	100	82.9	84.3	84.4	100	90.8
20-Jun-01	21:59:34	-0.7	-0.4	-0.4	-0.7	-0.7	-0.4	97.8	84.5	83.8	85.9	99.5	90.8
20-Jun-01	22:19:34	-0.4	-0.2	-0.4	-0.4	-0.2	-0.4	98.4	82.3	84.3	84.4	100	91.9
20-Jun-01	22:39:34	1.8	0.1	-0.2	-0.9	0.1	-0.4	97.3	85	83.3	84.4	100	93
20-Jun-01	22:59:34	0.1	-0.2	-0.7	-0.9	-0.9	-0.7	95.6	82.3	83.3	84.9	98.9	93
20-Jun-01	23:19:34	-0.7	0.1	-0.7	-0.7	-0.4	-0.7	97.8	85	83.3	84.4	100	92.4
20-Jun-01	23:39:34	-0.7	-0.4	-0.7	-1.2	-0.2	-0.4	100	84.5	83.3	84.9	100	90.8
20-Jun-01	23:59:34	-0.7	0.1	-0.7	-0.7	-0.7	-0.2	97.8	82.9	83.3	85.9	98.3	90.8
21-Jun-01	00:19:34	-0.7	-0.2	-0.9	-0.4	-0.4	1.1	100	83.9	83.8	84.4	100	88.6
21-Jun-01	00:39:34	-0.7	0.3	-0.7	-1.2	0.1	-0.2	97.3	83.9	84.3	84.4	100	89.7
21-Jun-01	00:59:34	-0.4	1.1	-0.9	-0.7	-0.9	-0.7	100	83.4	84.3	85.9	98.3	93
21-Jun-01	01:19:34	-0.7	1.3	-0.7	-0.4	-0.4	-0.7	100	81.3	84.9	84.4	100	91.9
21-Jun-01	01:39:34	-0.7	0.1	-0.7	-0.9	0.3	-0.7	98.9	81.8	83.8	84.9	100	90.8
21-Jun-01	01:59:34	-0.9	-0.2	-0.7	-0.7	1.1	-0.4	100	83.9	83.3	85.9	100	90.8
21-Jun-01	02:19:34	-0.7	-0.2	-0.7	-0.4	0.8	-0.4	100	81.3	83.3	84.4	97.8	91.9
21-Jun-01	02:39:34	-0.4	-0.2	-0.7	-1.2	-0.4	-0.7	99.5	85	83.3	84.4	97.2	93
21-Jun-01	02:59:34	-0.9	-0.2	-0.9	-0.7	-0.7	-0.7	100	82.9	83.8	85.9	98.9	93
21-Jun-01	03:19:34	-0.9	0.1	-0.7	-0.7	-0.2	-0.4	99.5	85	83.3	84.4	100	90.8
21-Jun-01	03:39:34	-0.7	-0.2	-0.4	-0.9	0.1	-0.4	100	84.5	84.9	84.9	100	90.8
21-Jun-01	03:59:34	-0.4	-0.2	-0.4	-0.7	-0.9	-0.7	97.3	82.9	84.3	85.9	97.8	90.8
21-Jun-01	04:19:34	-0.7	-0.4	-0.4	-0.7	-0.4	-0.4	100	85	85.4	84.4	100	93
21-Jun-01	04:39:34	1.3	-0.4	-0.4	-1.2	0.1	-0.7	97.3	82.3	83.8	84.4	100	93
21-Jun-01	04:59:34	-0.4	-0.2	-0.7	-0.7	-0.2	-0.9	100	85	83.3	84.9	100	93
21-Jun-01	05:19:34	-0.7	-0.4	-0.7	-0.7	-0.9	-0.7	99.5	84.5	83.3	84.4	99.5	91.9
21-Jun-01	05:39:34	-0.4	-0.2	-0.7	-0.9	-0.4	-0.7	100	82.3	83.3	84.4	100	90.8
21-Jun-01	05:59:34	-0.9	-0.2	-0.9	-0.7	-0.2	-0.7	100	85.5	84.3	86.5	100	93
21-Jun-01	06:19:34	-0.7	-0.2	-0.9	-0.7	-0.7	-0.7	98.9	82.3	83.8	84.4	98.3	93
21-Jun-01	06:39:34	-0.7	0.1	-0.7	-1.2	-0.4	-0.7	100	83.9	83.8	84.4	100	90.8
21-Jun-01	06:59:34	-0.7	-0.4	-0.9	-0.9	0.1	-0.4	97.8	82.9	83.8	85.9	100	90.8
21-Jun-01	07:19:34	-0.7	0.1	-0.7	-0.7	-0.2	-0.7	100	83.4	84.3	84.9	100	91.3
21-Jun-01	07:39:34	-0.7	-0.2	-0.7	-1.2	0.3	-0.7	98.4	81.8	84.3	84.4	100	93
21-Jun-01	07:59:34	-0.4	-0.2	-0.9	-0.7	1.1	-0.2	100	85	83.8	86.5	100	90.8
21-Jun-01	08:19:34	-0.7	-0.2	-0.7	-0.4	0.8	1.1	99.5	83.4	83.3	84.9	97.8	88.6
21-Jun-01	08:39:34	-0.7	0.8	-0.7	-1.2	-0.2	0.1	98.9	83.4	83.3	84.4	97.8	89.7
21-Jun-01	08:59:34	-0.7	1.6	-0.9	-0.9	-0.9	-0.4	98.9	82.3	83.8	84.9	97.2	93
21-Jun-01	09:19:34	-0.4	1.8	-0.9	-0.9	-0.2	-0.7	100	80.2	83.8	84.9	100	90.8
21-Jun-01	09:39:34	-0.4	0.8	-0.4	-1.2	0.1	-0.4	100	80.7	84.3	84.9	100	92.4
21-Jun-01	09:59:34	-0.7	0.1	-0.2	-0.7	-0.7	-0.7	99.5	82.9	84.3	87	97.8	93.6
21-Jun-01	10:19:34	-0.7	0.3	-0.4	-0.4	-0.7	-0.7	98.9	83.4	85.4	84.9	100	93
21-Jun-01	10:39:34	2.1	0.3	-0.4	-0.9	0.1	-0.7	100	81.8	83.8	84.9	100	92.4
21-Jun-01	10:59:34	0.1	-0.2	-0.7	-0.9	-0.7	-0.7	97.8	81.8	83.3	84.9	97.8	90.8
21-Jun-01	11:19:34	-0.4	-0.7	-0.4	-0.7	-0.4	-0.7	100	82.3	83.3	87.5	100	90.8

21-Jun-01	11:39:34	-0.4	-0.7	-0.9	-0.7	0.1	-0.4	98.4	81.8	83.8	84.4	100	93
21-Jun-01	11:59:34	-0.2	-0.4	-0.9	-0.9	-0.2	-0.7	100	81.8	83.8	84.9	98.3	93
21-Jun-01	12:19:34	-0.4	-0.7	-0.7	-1.2	-0.7	-0.9	100	81.3	83.3	84.4	97.8	92.4
21-Jun-01	12:39:34	-0.4	-0.7	-0.7	-0.4	-0.2	-0.4	98.4	81.3	83.3	87	100	90.8
21-Jun-01	12:59:34	-0.2	-0.7	-0.7	-0.9	-0.4	-0.7	100	81.3	83.3	84.4	98.9	93
21-Jun-01	13:19:34	-0.2	-0.7	-0.9	-0.9	-0.7	-0.7	100	81.3	83.3	85.4	97.8	93
21-Jun-01	13:39:34	-0.4	-0.4	-1.2	-1.2	0.3	-0.7	100	80.7	83.8	87	98.9	90.8
21-Jun-01	13:59:34	-0.4	-0.4	-0.9	-0.7	1.3	-0.4	97.8	80.7	83.3	85.4	98.9	92.4
21-Jun-01	14:19:34	-0.4	-0.7	-0.7	-0.9	0.8	-0.4	99.5	80.7	83.3	84.9	96.6	92.4
21-Jun-01	14:39:34	-0.2	-1.2	-0.7	-1.2	-0.4	-0.7	100	80.7	83.3	84.9	96.1	92.4
21-Jun-01	14:59:34	-0.2	-1.2	-0.7	-0.9	-0.9	-0.7	100	80.7	82.8	84.9	96.1	91.3
21-Jun-01	15:19:34	-0.2	-0.9	-0.7	-0.7	-0.2	-0.7	96.7	80.7	83.3	85.4	100	91.3
21-Jun-01	15:39:34	-0.4	-0.9	-0.4	-0.9	-0.2	-0.7	99.5	80.7	84.3	84.9	99.5	90.8
21-Jun-01	15:59:34	-0.2	-1.2	-0.4	-0.9	-0.9	0.1	96.7	80.7	85.9	84.9	97.2	90.2
21-Jun-01	16:19:34	-0.2	-0.9	-0.2	-0.9	-0.4	1.6	97.8	81.8	85.9	87	100	87.5
21-Jun-01	16:39:34	2.3	0.1	-0.2	-0.7	0.1	0.1	99.5	82.3	84.3	84.4	100	89.7
21-Jun-01	16:59:34	1.3	0.6	-0.4	-0.9	-0.4	-0.9	95.1	81.8	83.3	84.9	97.8	90.8
21-Jun-01	17:19:34	-0.4	0.8	-0.4	-1.2	-0.4	-0.7	100	80.2	83.3	86.5	100	93.6
21-Jun-01	17:39:34	-0.4	-0.2	-0.7	-0.7	0.1	-0.9	100	80.7	84.3	86.5	100	90.8
21-Jun-01	17:59:34	-0.4	-0.7	-0.7	-0.9	0.1	-0.9	99.5	83.4	85.9	84.9	100	93
21-Jun-01	18:19:34	-0.4	-0.7	-0.9	-1.2	-0.7	-0.4	99.5	83.4	85.4	87	98.3	90.8
21-Jun-01	18:39:34	-0.4	-0.9	-0.7	-0.4	-0.2	-0.7	100	80.7	85.4	86.5	100	93.6
21-Jun-01	18:59:34	-0.4	-1.2	-0.7	-0.4	0.1	-0.7	100	80.7	84.9	84.9	100	93
21-Jun-01	19:19:34	-0.7	-1.4	-0.7	-0.7	0.1	-0.7	100	81.8	84.3	84.9	100	91.3
21-Jun-01	19:39:34	-0.7	-1.4	-0.7	-1.2	0.3	-0.4	100	84.5	83.8	87	100	93
21-Jun-01	19:59:34	-0.9	-0.9	-0.7	-0.4	1.1	-0.7	100	85.5	84.3	85.9	100	93.6
21-Jun-01	20:19:34	-0.4	-0.9	-0.7	-0.7	0.8	-0.9	100	82.3	85.9	84.9	97.8	92.4
21-Jun-01	20:39:34	-0.4	-1.4	-0.9	-0.9	-0.7	-0.4	100	82.3	85.4	87	97.2	90.8
21-Jun-01	20:59:34	-0.7	-1.2	-0.7	-0.4	-0.7	-0.4	96.7	85.5	85.4	84.9	100	93
21-Jun-01	21:19:34	-0.7	-0.4	-0.9	-0.9	-0.2	-0.7	100	86.1	85.4	84.9	100	93.6
21-Jun-01	21:39:34	-0.7	-0.7	-0.4	-0.7	0.1	-0.9	97.3	82.3	84.9	86.5	100	91.3
21-Jun-01	21:59:34	-0.9	-1.2	-0.4	-0.4	-0.9	-0.4	97.3	82.9	85.4	84.9	97.8	90.8
21-Jun-01	22:19:34	-0.7	-0.9	-0.2	-1.2	-0.4	-0.7	97.8	86.1	85.9	87	100	93
21-Jun-01	22:39:34	1.8	-0.4	-0.4	-0.7	-0.2	-0.7	98.4	86.1	84.3	85.9	100	93.6
21-Jun-01	22:59:34	2.3	-0.2	-0.4	-0.4	0.1	-0.7	92.9	82.9	83.3	84.9	100	93
21-Jun-01	23:19:34	-0.4	-1.2	-0.7	-0.7	-0.7	-0.7	100	82.9	83.3	84.9	98.3	90.8
21-Jun-01	23:39:34	-0.4	-1.2	-0.7	-0.9	-0.2	-0.4	100	86.1	84.3	87.5	100	91.3
21-Jun-01	23:59:34	-0.4	-0.4	-0.7	-0.7	-0.2	-0.4	100	86.1	85.9	85.4	100	90.8
22-Jun-01	00:19:34	-0.7	-0.2	-0.4	-0.9	-0.7	0.8	98.9	85.5	86.5	84.9	98.3	89.1
22-Jun-01	00:39:34	-0.7	0.1	-0.7	-0.9	-0.2	0.1	100	84.5	85.4	87	100	89.7
22-Jun-01	00:59:34	-0.7	0.3	-0.7	-0.4	0.1	-0.4	100	83.9	85.4	84.9	100	93
22-Jun-01	01:19:34	-0.4	0.6	-0.9	-0.9	-0.2	-0.7	100	82.3	85.4	86.5	100	91.3
22-Jun-01	01:39:34	-0.7	-0.7	-0.7	-0.9	0.3	-0.7	100	82.9	84.3	85.9	100	91.3
22-Jun-01	01:59:34	-0.4	-0.7	-0.9	-0.7	1.1	-0.7	100	85.5	84.3	84.9	100	93
22-Jun-01	02:19:34	-0.7	-0.7	-0.7	-0.9	0.8	-0.7	98.9	85.5	83.8	87	97.8	92.4
22-Jun-01	02:39:34	-0.4	-0.7	-0.9	-0.4	-0.4	-0.7	100	82.3	83.8	85.4	97.2	91.3
22-Jun-01	02:59:34	-0.7	-1.2	-0.7	-0.9	-0.7	-0.7	97.8	85.5	84.3	84.9	98.9	93
22-Jun-01	03:19:34	-0.4	-0.4	-0.7	-0.9	0.1	-0.4	100	86.1	83.8	87	100	93.6
22-Jun-01	03:39:34	-0.7	-0.7	-0.4	-0.4	0.1	-0.7	100	82.9	85.4	84.9	100	91.3

22-Jun-01	03:59:34	-0.7	-1.2	-0.7	-1.2	-0.7	-0.7	100	82.9	85.9	85.4	98.3	93.6
22-Jun-01	04:19:34	-0.7	-1.2	-0.4	-0.7	-0.2	-0.7	99.5	86.1	86.5	85.9	100	93.6
22-Jun-01	04:39:34	2.1	-0.7	-0.4	-0.7	0.1	-0.7	100	86.6	85.4	84.9	100	91.9
22-Jun-01	04:59:34	-0.2	-0.7	-0.7	-0.7	-0.4	-0.7	96.7	83.4	83.8	85.4	98.3	90.8
22-Jun-01	05:19:34	-0.7	-1.2	-0.7	-1.2	-0.7	-0.4	100	83.4	84.3	84.4	100	93.6
22-Jun-01	05:39:34	-0.9	-1.4	-0.9	-0.9	0.1	-0.9	100	85.5	83.8	87	100	93
22-Jun-01	05:59:34	-0.7	-0.7	-0.7	-0.7	-0.4	-0.7	100	86.6	83.8	84.9	99.5	91.3
22-Jun-01	06:19:34	-0.7	-0.7	-0.9	-1.2	-0.4	-0.7	100	83.4	84.9	85.4	100	93.6
22-Jun-01	06:39:34	-0.7	-0.9	-0.7	-0.4	0.1	-0.7	100	82.9	85.9	85.9	100	91.3
22-Jun-01	06:59:34	-0.9	-0.7	-0.7	-0.7	-0.4	-0.7	100	86.1	85.9	84.9	98.9	90.8
22-Jun-01	07:19:34	-0.7	-0.4	-0.9	-0.9	-0.9	-0.4	100	85.5	85.9	87	99.5	93.6
22-Jun-01	07:39:34	-0.7	-0.2	-0.9	-0.4	0.1	-0.7	100	82.3	85.9	85.9	100	90.8
22-Jun-01	07:59:34	-0.4	-0.9	-0.7	-0.9	1.1	0.1	100	82.3	85.9	84.9	100	90.8
22-Jun-01	08:19:34	-0.7	-0.4	-0.7	-0.9	0.6	1.3	100	86.1	85.4	87	97.2	88.6
22-Jun-01	08:39:34	-0.4	0.3	-0.7	-0.7	-0.4	0.1	98.4	85	85.4	84.9	97.2	89.7
22-Jun-01	08:59:34	-0.4	0.8	-0.9	-0.7	-0.9	-0.7	100	83.4	85.9	85.4	97.8	91.3
22-Jun-01	09:19:34	-0.7	1.3	-0.9	-1.2	-0.4	-0.7	99.5	80.7	83.8	84.4	100	91.9
22-Jun-01	09:39:34	-0.7	-0.4	-0.7	-0.9	-0.2	-0.7	100	82.9	85.9	87	100	90.8
22-Jun-01	09:59:34	-0.4	-0.4	-0.2	-0.4	-0.4	-0.9	97.8	85	85.9	84.9	98.9	93
22-Jun-01	10:19:34	-0.7	-0.4	-0.2	-0.9	-0.9	-0.4	99.5	85	85.9	84.9	97.8	90.8
22-Jun-01	10:39:34	2.6	-0.7	-0.2	-0.9	-0.9	-0.7	97.3	81.8	85.4	86.5	100	91.3
22-Jun-01	10:59:34	-0.2	-1.2	-0.7	-0.7	-0.2	-0.7	97.3	81.8	84.3	85.9	100	92.4
22-Jun-01	11:19:34	-0.7	-1.4	-0.4	-0.9	-0.4	-0.7	100	81.8	83.8	84.9	99.5	90.8
22-Jun-01	11:39:34	-0.4	-1.4	-0.9	-0.9	-0.2	-0.4	100	82.9	83.8	85.4	100	90.8
22-Jun-01	11:59:34	-0.4	-1.4	-0.9	-0.7	-0.2	-0.2	100	82.3	83.8	87	100	89.1
22-Jun-01	12:19:34	-0.4	-1.7	-0.9	-0.7	-0.4	-0.7	98.9	82.3	83.8	84.4	100	91.3
22-Jun-01	12:39:34	-0.4	-1.4	-0.9	-0.9	0.1	-0.7	99.5	82.3	83.8	85.4	100	90.8
22-Jun-01	12:59:34	-0.2	-1.7	-1.2	-1.2	-0.4	-0.2	100	82.3	83.8	84.4	98.3	90.8
22-Jun-01	13:19:34	0.1	-1.4	-0.9	-1.2	0.1	0.6	97.8	82.3	83.8	85.4	100	88.6
22-Jun-01	13:39:34	0.1	-1.4	-0.9	-0.9	0.6	-0.2	100	81.8	83.3	87.5	100	91.9
22-Jun-01	13:59:34	0.1	-1.4	-0.9	-0.7	1.3	-0.4	98.9	81.8	83.8	84.4	100	90.8
22-Jun-01	14:19:34	0.1	-1.4	-0.7	-0.9	1.1	-0.4	100	81.8	83.8	84.9	97.8	91.3
22-Jun-01	14:39:34	-0.2	-1.7	-0.7	-0.9	-0.2	-0.7	97.3	81.3	83.3	84.9	97.2	93
22-Jun-01	14:59:34	-0.2	-1.7	-0.7	-0.7	-0.4	-0.7	100	81.3	83.3	84.9	97.2	93
22-Jun-01	15:19:34	-0.2	-1.7	-0.7	-0.7	-0.2	-0.4	98.4	80.7	83.8	84.9	100	91.3
22-Jun-01	15:39:34	-0.2	-2.2	-0.7	-0.9	-0.2	-0.4	97.3	80.7	85.4	84.9	100	90.8
22-Jun-01	15:59:34	-0.2	-1.7	-0.2	-0.9	-0.4	-0.2	98.4	86.1	85.9	84.9	99.5	91.3
22-Jun-01	16:19:34	-0.2	-0.9	-0.4	-0.9	0.1	1.6	99.5	84.5	85.9	87	100	88.6
22-Jun-01	16:39:34	2.1	-0.4	-0.2	-0.7	-0.7	0.1	100	83.4	85.4	85.4	98.3	89.7
22-Jun-01	16:59:34	3.1	0.3	-0.4	-0.7	-0.4	-0.4	94	82.9	84.3	84.9	100	90.8
22-Jun-01	17:19:34	-0.2	0.3	-0.7	-0.9	0.1	-0.7	97.3	80.7	83.8	87	100	90.8
22-Jun-01	17:39:34	-0.7	-0.7	-0.7	-0.7	-0.4	-0.4	98.4	81.8	83.3	84.9	100	93
22-Jun-01	17:59:34	-0.7	-0.9	-0.9	-0.7	-0.2	-0.7	100	83.9	83.3	84.9	100	90.8
22-Jun-01	18:19:34	-0.4	-0.9	-1.2	-0.9	-0.4	-0.7	100	84.5	83.8	87	100	93.6
22-Jun-01	18:39:34	-0.4	-1.4	-0.9	-0.4	-0.4	-0.9	99.5	80.7	85.9	85.4	100	91.3
22-Jun-01	18:59:34	-0.4	-1.2	-0.9	-0.7	0.1	-0.7	100	86.1	83.3	85.4	100	93.6
22-Jun-01	19:19:34	-0.4	-0.4	-0.9	-0.7	-0.4	-0.7	100	86.1	83.3	84.4	100	91.3
22-Jun-01	19:39:34	-0.4	-0.7	-0.9	-0.9	0.3	-0.4	98.4	81.8	83.3	84.9	100	91.9
22-Jun-01	19:59:34	-0.7	-1.2	-0.9	-0.7	1.1	-0.9	100	85.5	83.3	87	100	92.4

22-Jun-01	20:19:34	-0.2	-0.7	-0.9	-0.7	0.8	-0.4	100	86.1	83.3	84.4	97.8	91.9
22-Jun-01	20:39:34	-0.4	-0.7	-1.2	-1.2	-0.2	-0.9	100	82.9	83.8	84.4	97.2	92.4
22-Jun-01	20:59:34	-0.4	-1.2	-0.9	-0.7	-0.4	-0.7	99.5	81.8	83.3	87	99.5	93.6
22-Jun-01	21:19:34	-0.4	-0.9	-0.9	-0.7	-0.2	-0.7	97.3	86.6	83.8	84.4	100	91.3
22-Jun-01	21:39:34	-0.7	-0.7	-0.7	-1.2	-0.4	-0.7	100	86.1	85.4	84.4	100	93.6
22-Jun-01	21:59:34	-0.7	-0.9	-0.4	-0.7	-0.4	-0.7	99.5	82.3	85.4	87	100	91.3
22-Jun-01	22:19:34	-0.4	-1.2	-0.4	-0.7	0.1	-0.7	100	86.1	85.4	84.4	100	93.6
22-Jun-01	22:39:34	2.6	-0.7	-0.7	-1.2	-0.4	-0.7	100	87.2	84.3	84.4	98.9	91.3
22-Jun-01	22:59:34	1.6	-0.4	-0.7	-0.9	-0.2	-0.7	94.6	83.4	83.8	85.4	100	93.6
22-Jun-01	23:19:34	0.1	-1.2	-0.9	-0.9	0.3	-0.7	99.5	82.3	83.3	84.4	100	91.3
22-Jun-01	23:39:34	-0.4	-0.9	-0.9	-1.2	-0.7	-0.7	100	86.6	86.5	85.9	100	93.6
22-Jun-01	23:59:34	-0.4	-0.4	-0.9	-0.7	0.1	-0.2	100	86.1	83.3	86.5	100	91.3
23-Jun-01	00:19:34	-0.7	-0.2	-1.2	-0.7	0.1	1.1	98.9	85.5	83.8	85.4	100	88.6
23-Jun-01	00:39:34	-0.4	0.1	-0.9	-0.9	-0.4	-0.2	100	84.5	85.9	86.5	100	90.2
23-Jun-01	00:59:34	-0.2	0.3	-0.9	-0.4	0.1	-0.4	100	83.4	85.9	86.5	100	90.8
23-Jun-01	01:19:34	-0.4	0.6	-0.9	-0.7	-0.2	-0.7	98.4	80.7	83.3	84.9	100	93.6
23-Jun-01	01:39:34	-0.7	-0.7	-0.9	-0.9	0.3	-0.7	100	82.9	84.3	87	100	90.8
23-Jun-01	01:59:34	-0.7	-0.9	-0.9	-0.4	1.3	-0.7	100	85.5	85.9	85.9	100	92.4
23-Jun-01	02:19:34	-0.7	-0.7	-0.9	-0.7	0.8	-0.7	100	85.5	83.3	84.9	97.8	91.3
23-Jun-01	02:39:34	-0.4	-1.2	-0.9	-0.9	-0.4	-0.7	100	81.8	83.3	87.5	97.8	93
23-Jun-01	02:59:34	-0.4	-1.2	-0.7	-0.7	-0.4	-0.9	100	86.1	84.3	85.9	100	93
23-Jun-01	03:19:34	-0.4	-0.7	-1.2	-0.9	0.1	-0.7	99.5	87.2	84.3	85.4	100	91.3
23-Jun-01	03:39:34	-0.4	-0.4	-0.7	-0.9	-0.4	-0.7	100	82.9	85.4	87.5	98.9	93.6
23-Jun-01	03:59:34	-0.4	-1.4	-0.4	-0.4	0.1	-0.7	100	84.5	85.9	84.9	100	91.9
23-Jun-01	04:19:34	-0.4	-1.2	-0.4	-0.9	0.1	-0.4	99.5	87.2	86.5	84.4	100	93
23-Jun-01	04:39:34	1.3	-0.4	-0.7	-0.9	-0.7	-0.9	97.8	86.1	85.4	87.5	100	93.6
23-Jun-01	04:59:34	-0.2	-0.9	-0.7	-0.7	0.1	-0.4	100	82.3	83.8	85.4	100	90.8
23-Jun-01	05:19:34	-0.4	-0.9	-0.9	-0.9	0.1	-0.7	99.5	86.6	83.3	84.9	100	93.6
23-Jun-01	05:39:34	-0.9	-0.7	-1.2	-1.2	-0.4	-0.7	100	86.6	85.4	87.5	100	93
23-Jun-01	05:59:34	-0.7	-0.2	-0.9	-0.7	0.1	-0.7	100	85.5	86.5	86.5	100	91.9
23-Jun-01	06:19:34	-0.4	-0.9	-0.9	-0.9	-0.2	-0.7	100	82.9	85.9	84.4	100	93.6
23-Jun-01	06:39:34	-0.4	-0.9	-0.9	-1.2	-0.2	-0.7	100	86.6	83.8	87.5	100	93
23-Jun-01	06:59:34	-0.7	-0.7	-1.2	-0.4	0.1	-0.4	100	86.6	84.3	85.4	100	91.3
23-Jun-01	07:19:34	-0.4	0.1	-0.9	-0.9	-0.2	-0.4	99.5	85	86.5	84.4	100	93.6
23-Jun-01	07:39:34	-0.7	-0.9	-0.9	-1.2	0.3	-0.9	100	82.9	85.9	87.5	100	93
23-Jun-01	07:59:34	-0.4	-1.2	-0.9	-0.7	1.1	-0.4	100	87.2	83.8	84.9	100	91.3
23-Jun-01	08:19:34	-0.4	-0.4	-0.9	-1.2	0.6	1.1	100	86.1	83.8	84.4	97.8	89.7
23-Jun-01	08:39:34	-0.4	0.1	-0.7	-0.7	-0.4	-0.2	100	85.5	84.3	87.5	97.8	90.2
23-Jun-01	08:59:34	-0.4	0.6	-0.9	-0.7	-0.2	-0.7	100	84.5	85.9	85.9	100	91.9
23-Jun-01	09:19:34	-0.7	0.3	-0.9	-0.7	0.1	-0.7	99.5	82.3	85.4	84.9	100	91.3
23-Jun-01	09:39:34	-0.7	-0.7	-0.7	-1.2	-0.4	-0.7	100	83.4	85.9	87	99.5	91.9
23-Jun-01	09:59:34	-0.4	-0.9	-0.7	-0.7	0.1	-0.7	100	85.5	85.9	87	100	93
23-Jun-01	10:19:34	-0.4	-0.7	-0.4	-0.7	-0.2	-0.7	98.9	86.1	85.9	84.9	100	93.6
23-Jun-01	10:39:34	1.6	-1.2	-0.7	-0.9	-0.4	-0.7	97.3	82.3	85.4	85.4	100	92.4
23-Jun-01	10:59:34	-0.2	-1.7	-0.7	-0.7	0.1	-0.7	100	82.9	84.3	87	100	91.3
23-Jun-01	11:19:34	-0.7	-1.4	-1.2	-0.7	-0.7	-0.9	99.5	87.7	83.8	84.9	98.9	92.4
23-Jun-01	11:39:34	-0.4	-1.2	-0.9	-0.9	-0.2	-0.7	100	83.4	83.8	84.9	100	90.8
23-Jun-01	11:59:34	-0.4	-1.4	-1.2	-0.7	0.1	-0.7	100	82.9	85.4	87	100	93.6
23-Jun-01	12:19:34	-0.4	-1.9	-1.2	-0.4	-0.4	-0.7	100	82.9	83.8	84.9	100	91.3

23-Jun-01	12:39:34	-0.4	-1.9	-0.9	-0.9	0.1	-0.7	100	82.3	83.3	84.9	100	90.8
23-Jun-01	12:59:34	-0.4	-1.7	-0.9	-1.2	-0.4	-0.7	100	87.2	83.8	87.5	99.5	90.8
23-Jun-01	13:19:34	-0.7	-1.2	-1.2	-0.7	-0.2	-0.9	99.5	82.9	83.3	85.4	100	93
23-Jun-01	13:39:34	-0.4	-1.7	-0.9	-0.9	0.6	-0.7	100	82.3	83.3	84.9	100	93.6
23-Jun-01	13:59:34	-0.2	-1.7	-1.2	-0.9	1.6	-0.7	100	82.3	83.8	84.9	100	90.8
23-Jun-01	14:19:34	-0.4	-1.4	-0.9	-0.9	1.1	-0.9	100	86.6	83.3	87	97.8	90.8
23-Jun-01	14:39:34	-0.4	-1.7	-0.9	-0.7	0.1	-0.7	98.9	82.9	83.3	85.9	97.8	93.6
23-Jun-01	14:59:34	-0.7	-1.7	-0.7	-0.7	-0.4	-0.9	100	82.3	83.3	85.9	97.8	91.3
23-Jun-01	15:19:34	-0.2	-2.2	-0.9	-0.7	0.1	-0.7	98.4	82.3	83.8	84.9	100	90.8
23-Jun-01	15:39:34	-0.4	-1.7	-0.7	-0.7	-0.4	-0.9	100	86.6	85.4	84.9	98.9	93
23-Jun-01	15:59:34	-0.7	-1.2	-0.7	-0.9	-0.4	0.1	99.5	86.1	85.4	84.9	100	90.8
23-Jun-01	16:19:34	-0.4	-1.4	-0.4	-0.9	0.1	1.3	99.5	83.4	85.4	84.9	100	88
23-Jun-01	16:39:34	1.8	-0.7	-0.4	-0.9	-0.7	-0.2	97.3	83.4	84.9	87.5	100	90.2
23-Jun-01	16:59:34	-0.2	0.1	-0.7	-0.7	0.1	-0.4	100	83.4	83.8	84.9	100	90.8
23-Jun-01	17:19:34	-0.4	0.3	-0.9	-0.9	-0.4	-0.7	98.4	81.8	83.3	84.9	100	90.8
23-Jun-01	17:39:34	-0.4	-0.9	-0.9	-1.2	-0.2	-0.7	100	82.9	83.3	87.5	100	93.6
23-Jun-01	17:59:34	-0.4	-0.9	-1.4	-0.4	-0.2	-0.7	100	85	83.3	85.4	100	91.3
23-Jun-01	18:19:34	-0.7	-0.9	-1.2	-0.9	-0.4	-0.7	99.5	85.5	83.8	84.9	99.5	93.6
23-Jun-01	18:39:34	-0.4	-1.2	-0.9	-1.2	-0.2	-0.9	100	81.8	86.5	87.5	100	90.8
23-Jun-01	18:59:34	-0.7	-1.2	-1.2	-0.7	0.3	-0.7	99.5	86.1	83.8	85.9	100	93.6
23-Jun-01	19:19:34	-0.7	-0.7	-1.2	-0.7	-0.7	-0.9	100	86.1	83.8	84.9	100	91.3
23-Jun-01	19:39:34	-0.4	-0.7	-1.2	-1.2	0.3	-0.7	100	82.9	85.9	85.9	100	93
23-Jun-01	19:59:34	-0.4	-1.2	-1.2	-0.7	1.1	-0.7	100	82.3	83.8	87	100	93.6
23-Jun-01	20:19:34	-0.4	-0.9	-1.2	-0.7	0.8	-0.7	100	86.6	84.3	84.9	97.8	91.3
23-Jun-01	20:39:34	-0.7	-0.7	-0.9	-0.9	-0.4	-0.7	100	86.1	83.3	85.4	97.8	93.6
23-Jun-01	20:59:34	-0.2	-0.9	-0.9	-0.7	-0.4	-0.7	100	82.3	83.3	87	100	91.3
23-Jun-01	21:19:34	-0.7	-1.4	-0.9	-0.9	0.1	-0.7	100	86.6	85.4	84.4	100	93.6
23-Jun-01	21:39:34	-0.7	-0.7	-0.9	-1.2	-0.7	-0.4	100	86.6	85.9	85.9	99.5	90.8
23-Jun-01	21:59:34	-0.4	-0.4	-0.7	-0.4	-0.2	-0.7	99.5	85.5	85.9	87	100	93.6
23-Jun-01	22:19:34	-0.4	-0.7	-0.7	-0.9	0.1	-0.7	98.9	82.3	85.9	84.4	100	93.6
23-Jun-01	22:39:34	1.6	-1.2	-0.4	-0.9	-0.7	-0.9	97.3	86.6	84.9	87	100	93
23-Jun-01	22:59:34	-0.2	-0.7	-0.9	-0.7	-0.2	-0.4	100	86.1	83.8	85.9	100	91.3
23-Jun-01	23:19:34	-0.7	-0.4	-0.9	-0.9	-0.4	-0.7	100	85.5	83.3	84.4	100	93.6
23-Jun-01	23:39:34	-0.4	-0.2	-0.9	-0.9	-0.2	-0.7	100	82.3	83.8	85.4	100	92.4
23-Jun-01	23:59:34	-0.7	-1.2	-0.7	-0.7	-0.2	-0.4	99.5	85	85.9	87.5	100	91.3
24-Jun-01	00:19:34	-0.4	-0.9	-0.9	-0.7	-0.4	1.1	100	85.5	85.9	84.9	100	89.7
24-Jun-01	00:39:34	-0.4	-0.4	-1.2	-1.2	-0.2	-0.4	100	85.5	83.8	87	100	90.2
24-Jun-01	00:59:34	-0.4	0.1	-0.9	-0.9	-0.2	-0.7	100	84.5	84.3	87	100	90.8
24-Jun-01	01:19:34	-0.7	0.3	-0.9	-0.9	-0.7	-0.7	98.9	81.8	86.5	84.4	100	93.6
24-Jun-01	01:39:34	-0.4	-0.7	-1.2	-1.2	0.1	-0.7	100	83.4	85.9	87.5	100	91.9
24-Jun-01	01:59:34	-0.4	-1.2	-1.2	-0.7	1.1	-0.4	100	85.5	85.9	85.9	100	93.6
24-Jun-01	02:19:34	-0.7	-1.2	-1.2	-1.2	0.8	-0.7	100	85.5	83.8	84.4	97.8	93.6
24-Jun-01	02:39:34	-0.7	-1.2	-0.9	-0.9	-0.4	-0.7	100	86.1	83.8	87.5	97.8	90.8
24-Jun-01	02:59:34	-0.4	-0.9	-0.9	-0.4	-0.4	-0.7	100	86.6	86.5	84.9	100	90.8
24-Jun-01	03:19:34	-0.7	-0.2	-0.9	-1.2	-0.2	-0.4	100	86.1	85.9	84.4	100	93.6
24-Jun-01	03:39:34	-0.7	0.1	-0.7	-0.7	-0.4	-0.7	100	85.5	85.9	87	100	93.6
24-Jun-01	03:59:34	-0.4	-0.7	-0.4	-0.9	-0.2	-0.7	100	81.8	85.9	84.4	100	91.3
24-Jun-01	04:19:34	-0.7	-1.2	-0.4	-1.2	0.1	-0.7	99.5	86.1	85.9	87	100	91.3
24-Jun-01	04:39:34	1.1	-0.9	-0.7	-0.7	-0.4	-0.4	97.3	86.6	85.4	87	100	93.6

24-Jun-01	04:59:34	-0.4	-0.2	-0.7	-0.4	-0.2	-0.4	100	85.5	84.3	85.4	100	91.9
24-Jun-01	05:19:34	-0.4	0.1	-0.9	-0.7	0.1	-0.4	100	85	85.9	84.9	100	91.9
24-Jun-01	05:39:34	-0.7	-0.9	-0.9	-1.2	-0.2	-0.7	100	82.3	84.3	87.5	100	93.6
24-Jun-01	05:59:34	-0.4	-0.9	-1.2	-0.7	0.1	-0.7	99.5	86.6	85.9	87	100	93
24-Jun-01	06:19:34	-0.7	-0.4	-0.9	-0.9	-0.4	-0.7	100	86.1	86.5	84.9	100	90.8
24-Jun-01	06:39:34	-0.7	0.1	-0.9	-0.9	-0.2	-0.4	100	85.5	83.8	87.5	100	93.6
24-Jun-01	06:59:34	-0.7	0.1	-0.9	-0.4	0.1	-0.7	100	82.3	84.3	85.4	100	93.6
24-Jun-01	07:19:34	-0.7	-0.9	-0.9	-0.9	-0.4	-0.7	100	82.9	87	84.9	100	90.8
24-Jun-01	07:39:34	-0.4	-0.7	-0.9	-0.9	-0.2	-0.7	100	87.2	85.9	87.5	100	92.4
24-Jun-01	07:59:34	-0.7	-0.4	-1.2	-0.4	0.8	-0.4	100	86.1	83.8	84.9	100	91.3
24-Jun-01	08:19:34	-0.7	-0.2	-1.2	-0.9	0.8	0.8	100	85	84.3	84.9	98.3	89.7
24-Jun-01	08:39:34	-0.7	0.3	-0.9	-0.9	-0.4	0.1	100	84.5	85.9	87.5	97.8	90.2
24-Jun-01	08:59:34	-0.4	0.6	-1.2	-0.7	-0.4	-0.7	100	83.4	83.8	85.9	100	91.3
24-Jun-01	09:19:34	-0.7	0.6	-1.2	-0.7	-0.2	-0.7	100	80.7	85.9	84.9	100	91.3
24-Jun-01	09:39:34	-0.4	-0.4	-0.7	-1.2	-0.4	-0.4	100	82.9	85.9	85.9	100	93.6
24-Jun-01	09:59:34	-0.7	-0.9	-0.4	-0.4	0.1	-0.7	99.5	85.5	85.9	87	100	91.9
24-Jun-01	10:19:34	-0.4	-0.7	-0.4	-0.7	-0.2	-0.7	100	85.5	85.9	84.9	100	91.9
24-Jun-01	10:39:34	1.3	-1.2	-0.4	-1.2	-0.2	-0.7	97.3	82.3	85.4	84.9	100	93
24-Jun-01	10:59:34	-0.2	-1.7	-0.9	-0.9	-0.2	-0.7	100	83.4	84.3	87.5	100	93
24-Jun-01	11:19:34	-0.4	-0.9	-0.9	-0.7	-0.7	-0.7	98.9	87.7	83.8	84.9	100	91.3
24-Jun-01	11:39:34	-0.4	-0.9	-1.2	-0.9	-0.2	-0.7	100	82.9	85.9	84.9	100	93.6
24-Jun-01	11:59:34	-0.2	-1.7	-0.9	-0.7	-0.4	-0.7	99.5	82.9	84.9	87.5	100	91.3
24-Jun-01	12:19:34	-0.4	-1.2	-0.9	-0.7	-0.4	-0.7	100	88.3	84.3	84.9	100	90.8
24-Jun-01	12:39:34	-0.2	-1.2	-0.9	-0.9	0.1	-0.9	100	82.9	85.9	84.9	100	91.3
24-Jun-01	12:59:34	-0.4	-1.7	-0.9	-0.9	-0.7	-0.7	99.5	85	85.4	87.5	100	93.6
24-Jun-01	13:19:34	-0.4	-1.2	-1.2	-0.7	0.1	-0.7	100	87.7	83.8	84.9	100	90.8
24-Jun-01	13:39:34	-0.4	-1.4	-0.9	-1.2	0.6	-0.7	99.5	82.9	83.3	84.9	100	90.8
24-Jun-01	13:59:34	-0.4	-1.9	-0.9	-1.2	1.8	-0.9	100	82.9	84.3	87.5	100	93.6
24-Jun-01	14:19:34	-0.2	-2.2	-1.2	-0.4	1.3	-0.9	100	82.9	83.3	86.5	98.3	90.8
24-Jun-01	14:39:34	-0.4	-1.7	-1.2	-0.7	0.1	-0.7	100	86.6	83.8	84.9	97.8	91.9
24-Jun-01	14:59:34	-0.4	-1.2	-0.9	-0.9	-0.4	-0.7	99.5	87.2	83.3	85.9	97.8	91.3
24-Jun-01	15:19:34	-0.7	-1.2	-1.2	-0.9	-0.2	-0.7	100	82.9	84.3	84.9	100	93.6
24-Jun-01	15:39:34	-0.4	-1.4	-0.9	-0.9	-0.2	-0.7	100	86.6	85.4	87.5	100	91.3
24-Jun-01	15:59:34	-0.4	-0.7	-0.7	-0.4	-0.4	-0.2	100	87.7	85.9	85.9	100	91.3
24-Jun-01	16:19:34	-0.4	-0.4	-0.7	-0.7	0.1	1.3	100	86.1	85.9	84.9	100	88.6
24-Jun-01	16:39:34	1.6	-0.2	-0.4	-0.9	-0.4	-0.4	97.3	85	84.9	87.5	99.5	90.2
24-Jun-01	16:59:34	-0.2	0.3	-0.7	-0.4	0.1	-0.7	100	85	84.3	85.9	100	90.8
24-Jun-01	17:19:34	-0.7	0.6	-1.2	-0.9	-0.2	-0.7	100	82.3	83.8	84.9	100	93.6
24-Jun-01	17:39:34	-0.7	-0.7	-0.9	-0.9	-0.4	-0.7	100	82.9	85.4	87	100	91.3
24-Jun-01	17:59:34	-0.7	-0.9	-0.9	-0.7	-0.2	-0.4	99.5	85.5	85.4	85.4	100	93.6
24-Jun-01	18:19:34	-0.4	-0.9	-0.9	-0.9	-0.2	-0.7	100	86.1	83.8	84.9	100	92.4
24-Jun-01	18:39:34	-0.7	-1.2	-0.9	-0.9	-0.4	-0.7	98.9	86.1	85.4	87	100	92.4
24-Jun-01	18:59:34	-0.7	-0.9	-1.2	-0.4	0.3	-0.7	100	87.2	85.9	85.9	100	93.6
24-Jun-01	19:19:34	-0.7	-0.4	-1.2	-0.7	-0.2	-0.7	100	86.1	83.8	84.9	100	91.9
24-Jun-01	19:39:34	-0.7	0.1	-0.9	-0.7	0.3	-0.7	100	86.1	83.8	87.5	100	91.9
24-Jun-01	19:59:34	-0.4	0.1	-0.9	-0.7	1.3	-0.9	100	84.5	85.9	87	100	93.6
24-Jun-01	20:19:34	-0.4	-0.9	-0.9	-0.9	0.6	-0.7	100	82.9	85.9	84.9	98.3	91.3
24-Jun-01	20:39:34	-0.7	-0.9	-0.9	-0.9	-0.7	-0.4	99.5	87.2	84.3	87.5	97.8	93.6
24-Jun-01	20:59:34	-0.4	-0.7	-0.9	-0.4	-0.2	-0.9	100	86.6	83.8	85.4	100	93.6

24-Jun-01	21:19:34	-0.4	-0.2	-1.2	-0.9	-0.2	-0.7	100	85.5	85.9	84.9	100	90.8
24-Jun-01	21:39:34	-0.4	-0.4	-0.7	-0.7	-0.4	-0.7	100	82.3	85.9	87.5	100	93.6
24-Jun-01	21:59:34	-0.7	-0.9	-0.7	-0.7	-0.2	-0.7	100	86.6	85.9	84.9	100	93
24-Jun-01	22:19:34	-0.2	-0.4	-0.4	-0.9	0.1	-0.4	100	86.6	85.9	84.9	100	90.8
24-Jun-01	22:39:34	1.3	-0.2	-0.4	-0.9	-0.2	-0.7	97.3	86.1	85.4	87.5	100	92.4
24-Jun-01	22:59:34	-0.2	0.1	-0.9	-0.4	0.1	-0.9	100	85.5	84.3	85.9	100	93.6
24-Jun-01	23:19:34	-0.4	0.1	-1.2	-0.7	-0.2	-0.4	100	83.4	86.5	84.9	100	90.8
24-Jun-01	23:39:34	-0.4	-0.7	-0.9	-0.9	-0.2	-0.4	100	82.9	84.3	87.5	100	93
24-Jun-01	23:59:34	-0.7	-0.7	-1.2	-0.4	-0.2	-0.4	99.5	87.7	84.3	85.9	100	91.3
25-Jun-01	00:19:34	-0.4	-0.4	-0.9	-0.7	-0.4	0.8	100	86.1	85.4	84.9	100	89.7
25-Jun-01	00:39:34	-0.4	0.1	-0.9	-0.9	0.1	-0.4	100	85.5	86.5	87.5	100	90.2
25-Jun-01	00:59:34	-0.7	0.3	-1.2	-0.7	-0.2	-0.4	100	85	85.9	85.4	100	93
25-Jun-01	01:19:34	-0.4	0.3	-0.9	-0.7	-0.2	-0.4	100	81.3	83.8	84.9	100	91.3
25-Jun-01	01:39:34	-0.7	-0.7	-1.2	-0.9	0.1	-0.7	100	82.9	85.4	87.5	100	93.6
25-Jun-01	01:59:34	-0.7	-0.7	-1.2	-0.7	1.3	-0.7	100	87.2	85.9	84.9	100	91.3
25-Jun-01	02:19:34	-0.4	-0.7	-1.2	-0.9	0.6	-0.4	100	86.6	85.4	85.9	98.3	91.9
25-Jun-01	02:39:34	-0.7	-0.2	-0.7	-0.4	-0.4	-0.7	100	85.5	84.3	87	97.8	93.6
25-Jun-01	02:59:34	-0.7	0.1	-1.2	-0.7	-0.7	-0.7	100	85	85.9	84.9	100	93
25-Jun-01	03:19:34	-0.4	0.1	-0.9	-0.9	-0.2	-0.4	100	82.3	85.4	87.5	100	91.3
25-Jun-01	03:39:34	-0.7	-0.9	-0.7	-0.7	-0.7	-0.4	99.5	86.1	85.9	87	100	93.6
25-Jun-01	03:59:34	-0.4	-0.7	-0.7	-0.7	-0.4	-0.4	100	87.2	85.9	84.9	100	93.6
25-Jun-01	04:19:34	-0.7	-0.2	-0.7	-0.9	0.1	-0.7	99.5	86.1	85.9	87	100	90.8
25-Jun-01	04:39:34	0.8	0.1	-0.4	-0.4	-0.7	-0.7	97.3	85.5	85.4	85.4	100	93.6
25-Jun-01	04:59:34	-0.7	0.1	-0.9	-0.7	0.1	-0.7	100	85	84.3	85.9	100	93.6
25-Jun-01	05:19:34	-0.7	-0.4	-1.2	-0.7	-0.2	-0.7	100	81.8	86.5	84.9	100	93.6
25-Jun-01	05:39:34	-0.7	-0.7	-1.2	-0.9	-0.4	-0.7	100	86.6	85.9	87	100	91.3
25-Jun-01	05:59:34	-0.4	-0.4	-1.2	-0.7	-0.2	-0.4	100	86.6	84.3	86.5	100	91.9
25-Jun-01	06:19:34	-0.4	0.1	-0.9	-0.7	-0.7	-0.4	100	85.5	85.4	84.9	100	93.6
25-Jun-01	06:39:34	-0.7	0.1	-0.7	-0.7	0.1	-0.4	100	84.5	86.5	87	100	93.6
25-Jun-01	06:59:34	-0.7	-0.4	-0.9	-0.7	-0.2	-0.7	100	82.9	87	85.4	100	90.8
25-Jun-01	07:19:34	-0.4	-0.7	-1.2	-0.9	-0.7	-0.4	100	86.6	85.4	84.9	100	91.9
25-Jun-01	07:39:34	-0.7	-0.2	-0.9	-0.7	0.3	-0.4	100	86.6	84.9	87.5	100	93.6
25-Jun-01	07:59:34	-0.7	0.1	-0.9	-0.4	1.3	-0.4	100	85.5	85.9	84.9	100	91.3
25-Jun-01	08:19:34	-0.2	-0.2	-1.2	-1.2	0.8	0.8	100	83.9	86.5	87	98.9	90.2
25-Jun-01	08:39:34	-0.2	0.3	-0.9	-0.4	-0.4	-0.2	100	84.5	85.4	87	97.8	90.2
25-Jun-01	08:59:34	-0.2	1.1	-1.2	-0.7	-0.7	-0.7	100	83.4	84.3	85.9	100	93.6
25-Jun-01	09:19:34	-0.4	1.1	-0.9	-0.4	0.1	-0.7	100	81.3	85.4	84.9	100	91.3
25-Jun-01	09:39:34	-0.2	-0.2	-0.9	-0.9	-0.7	-0.4	99.5	82.9	85.9	84.9	98.9	93.6
25-Jun-01	09:59:34	-0.7	-0.2	-0.4	-0.7	-0.2	-0.7	100	85.5	86.5	87	100	91.3
25-Jun-01	10:19:34	-0.4	-0.2	-0.7	-0.7	-0.4	-0.4	100	85.5	86.5	84.9	100	93.6
25-Jun-01	10:39:34	2.3	-0.4	-0.4	-1.2	-0.4	-0.9	97.8	82.3	85.9	84.9	100	93.6
25-Jun-01	10:59:34	-0.4	-0.9	-0.7	-0.9	-0.2	-0.7	97.3	82.9	85.4	87.5	100	91.3
25-Jun-01	11:19:34	-0.4	-1.2	-0.7	-0.4	-0.7	-0.4	97.3	88.3	84.3	85.4	98.9	93
25-Jun-01	11:39:34	-0.4	-0.4	-0.7	-0.9	-0.4	-0.9	100	88.3	86.5	84.9	100	93
25-Jun-01	11:59:34	-0.2	-0.7	-1.2	-0.9	-0.2	-0.7	100	82.9	84.3	87.5	100	91.3
25-Jun-01	12:19:34	-0.2	-1.2	-0.9	-0.4	-0.4	-0.7	100	82.9	83.8	85.4	100	93.6
25-Jun-01	12:39:34	-0.2	-0.9	-1.2	-0.9	-0.2	-0.7	100	86.6	83.8	84.9	100	90.8
25-Jun-01	12:59:34	-0.4	-1.2	-0.9	-1.2	-0.7	-0.9	100	83.4	85.4	84.9	98.9	93.6
25-Jun-01	13:19:34	-0.4	-0.7	-0.9	-0.7	-0.2	-0.7	100	86.1	84.3	87	100	90.8

25-Jun-01	13:39:34	-0.4	-1.4	-0.9	-0.7	0.6	-0.7	100	83.4	83.3	84.9	100	93.6
25-Jun-01	13:59:34	-0.2	-0.9	-0.9	-0.7	1.3	-0.7	99.5	87.7	83.8	84.9	100	93
25-Jun-01	14:19:34	-0.2	-1.2	-0.9	-0.9	1.1	-0.7	95.6	83.4	83.8	84.9	98.3	91.3
25-Jun-01	14:39:34	-0.2	-1.7	-1.2	-0.4	-0.2	-0.4	100	83.4	83.8	87	97.8	93
25-Jun-01	14:59:34	0.3	-1.2	-0.9	-0.4	-0.9	-0.7	97.8	88.8	83.8	85.9	97.8	93.6
25-Jun-01	15:19:34	-0.2	-1.2	-1.2	-0.7	-0.4	-0.4	96.2	83.9	84.3	84.9	100	91.9
25-Jun-01	15:39:34	-0.2	-1.7	-0.7	-0.7	-0.4	-0.7	100	83.9	86.5	84.9	99.5	93.6
25-Jun-01	15:59:34	-0.2	-0.9	-0.7	-0.9	-0.7	-0.2	100	88.8	85.9	84.9	100	91.9
25-Jun-01	16:19:34	0.1	-0.2	-0.4	-0.9	0.1	1.1	100	85.5	85.9	84.9	100	89.1
25-Jun-01	16:39:34	2.8	0.8	-0.4	-0.7	-0.4	-0.2	100	85	85.9	87	100	90.2
25-Jun-01	16:59:34	1.6	1.3	-0.7	-0.7	-0.2	-0.4	94.6	85	84.9	84.9	100	90.8
25-Jun-01	17:19:34	0.3	-0.2	-0.9	-0.9	-0.2	-0.9	99.5	81.8	84.3	84.9	100	93.6
25-Jun-01	17:39:34	0.1	-0.7	-0.9	-0.7	-0.7	-0.7	98.9	88.3	84.3	87.5	100	91.3
25-Jun-01	17:59:34	0.3	-0.4	-0.9	-0.7	0.1	-0.7	97.8	87.7	84.9	84.9	100	93.6
25-Jun-01	18:19:34	0.3	-0.2	-1.2	-0.9	-0.2	-0.7	100	85.5	85.9	84.9	100	91.3
25-Jun-01	18:39:34	0.1	-0.7	-1.2	-0.7	-0.4	-0.7	100	87.7	84.3	87.5	100	93.6
25-Jun-01	18:59:34	0.1	-0.2	-0.9	-0.4	0.1	-0.7	100	86.1	84.3	85.9	100	93
25-Jun-01	19:19:34	-0.2	0.1	-1.2	-0.9	0.1	-0.4	98.9	86.1	83.8	85.4	100	93.6
25-Jun-01	19:39:34	-0.2	-0.4	-0.9	-1.2	0.3	-0.7	100	86.6	84.3	84.9	100	93.6
25-Jun-01	19:59:34	-0.2	-0.4	-0.9	-0.7	1.3	-0.7	100	86.6	85.9	87.5	100	90.8
25-Jun-01	20:19:34	0.1	-0.2	-0.9	-0.7	0.8	-0.7	100	83.4	83.8	85.4	98.9	93.6
25-Jun-01	20:39:34	-0.2	-0.4	-1.2	-1.2	-0.7	-0.7	100	88.3	84.3	84.9	97.8	93.6
25-Jun-01	20:59:34	-0.2	-0.2	-0.9	-0.9	-0.4	-0.7	100	86.1	84.3	87	100	91.3
25-Jun-01	21:19:34	-0.2	0.1	-0.9	-0.7	0.1	-0.7	99.5	82.9	85.4	85.4	100	93.6
25-Jun-01	21:39:34	-0.2	-0.4	-0.7	-0.9	-0.7	-0.7	100	87.7	85.9	84.9	100	92.4
25-Jun-01	21:59:34	-0.4	-0.2	-0.7	-0.7	-0.2	-0.4	100	86.1	85.9	87.5	100	93.6
25-Jun-01	22:19:34	0.1	-0.4	-0.7	-0.7	0.1	-0.9	100	82.9	85.9	85.4	100	91.3
25-Jun-01	22:39:34	1.6	-0.7	-0.7	-1.2	-0.4	-0.7	97.8	87.2	85.9	84.9	100	92.4
25-Jun-01	22:59:34	0.1	-0.2	-0.7	-0.9	-0.2	-0.9	100	86.1	84.9	86.5	100	93.6
25-Jun-01	23:19:34	-0.2	-0.7	-0.9	-0.9	0.1	-0.9	100	85.5	84.3	85.4	100	92.4
25-Jun-01	23:39:34	-0.4	-0.4	-1.2	-0.9	-0.7	-0.4	99.5	86.6	85.4	87.5	100	91.9
25-Jun-01	23:59:34	-0.7	0.3	-0.9	-0.7	-0.2	-0.4	100	86.1	84.9	87.5	100	91.3
26-Jun-01	00:19:34	-0.4	0.1	-1.2	-0.7	0.1	0.8	100	85	85.9	84.9	100	89.7
26-Jun-01	00:39:34	-0.4	0.3	-1.2	-1.2	-0.7	-0.2	100	85	84.3	87	100	90.2
26-Jun-01	00:59:34	-0.4	0.8	-0.9	-0.4	-0.2	-0.4	100	83.9	87	87	100	93.6
26-Jun-01	01:19:34	-0.4	-0.7	-0.9	-0.7	-0.4	-0.7	100	85.5	84.3	84.9	100	91.9
26-Jun-01	01:39:34	-0.4	-0.4	-0.9	-0.9	0.1	-0.9	100	87.7	85.4	87.5	100	93.6
26-Jun-01	01:59:34	-0.2	0.1	-0.9	-0.7	1.1	-0.7	100	83.4	86.5	86.5	100	90.8
26-Jun-01	02:19:34	-0.4	-0.7	-1.2	-0.9	0.8	-0.7	100	88.3	84.3	84.9	98.9	93.6
26-Jun-01	02:39:34	-0.7	-0.2	-1.2	-0.9	-0.4	-0.7	100	85.5	84.3	87.5	97.8	92.4
26-Jun-01	02:59:34	-0.7	-0.4	-0.9	-0.4	-0.7	-0.7	100	83.4	84.3	86.5	100	92.4
26-Jun-01	03:19:34	-0.4	-0.2	-1.2	-0.9	0.1	-0.7	100	86.6	85.9	84.9	100	93.6
26-Jun-01	03:39:34	-0.2	0.1	-0.9	-0.9	-0.4	-0.4	100	86.1	85.9	87.5	100	91.3
26-Jun-01	03:59:34	-0.4	-0.2	-0.4	-0.4	-0.4	-0.7	99.5	82.9	86.5	85.9	100	93.6
26-Jun-01	04:19:34	-0.2	-0.4	-0.7	-1.2	0.1	-0.9	100	87.7	85.9	84.9	100	93.6
26-Jun-01	04:39:34	0.8	0.1	-0.7	-0.9	-0.7	-0.4	97.3	86.1	85.9	87	100	90.8
26-Jun-01	04:59:34	-0.4	-0.2	-0.7	-0.7	-0.2	-0.7	100	82.9	85.4	86.5	100	93.6
26-Jun-01	05:19:34	-0.4	-0.4	-1.2	-0.9	0.1	-0.7	99.5	87.7	84.3	85.4	100	93
26-Jun-01	05:39:34	-0.7	-0.2	-0.9	-1.2	-0.7	-0.7	100	85.5	86.5	87.5	100	91.3

26-Jun-01	05:59:34	-0.2	-0.2	-0.9	-0.4	-0.2	-0.4	100	85.5	84.3	87	100	93.6
26-Jun-01	06:19:34	-0.4	-0.4	-0.9	-0.9	-0.2	-0.7	100	86.6	85.9	84.9	100	91.9
26-Jun-01	06:39:34	-0.4	0.1	-1.2	-1.2	-0.4	-0.7	100	86.1	86.5	87.5	100	91.9
26-Jun-01	06:59:34	-0.7	-0.2	-0.9	-0.4	-0.2	-0.7	100	85	84.9	87	100	94.1
26-Jun-01	07:19:34	-0.4	0.1	-1.2	-0.9	-0.4	-0.7	98.9	86.6	86.5	84.9	100	91.3
26-Jun-01	07:39:34	-0.4	0.3	-1.2	-1.2	0.1	-0.7	100	85.5	84.3	87.5	100	93.6
26-Jun-01	07:59:34	-0.4	-0.4	-1.2	-0.4	1.1	-0.2	100	88.3	85.4	87	100	91.9
26-Jun-01	08:19:34	-0.7	0.3	-0.9	-0.9	0.8	0.8	100	86.1	84.3	85.4	98.9	90.2
26-Jun-01	08:39:34	-0.4	1.1	-1.2	-1.2	-0.2	-0.2	100	85.5	85.4	87.5	98.3	90.2
26-Jun-01	08:59:34	-0.4	1.8	-0.9	-0.7	-0.7	-0.7	99.5	83.9	84.3	87	100	91.9
26-Jun-01	09:19:34	-0.2	0.6	-1.2	-0.7	0.1	-0.7	100	81.3	85.4	85.4	100	93.6
26-Jun-01	09:39:34	-0.4	-0.4	-0.7	-1.2	-0.7	-0.4	99.5	82.9	86.5	85.4	100	91.3
26-Jun-01	09:59:34	-0.4	-0.4	-0.4	-0.7	-0.4	-0.7	100	87.7	86.5	87	100	93
26-Jun-01	10:19:34	-0.2	-0.7	-0.7	-0.4	0.1	-0.4	100	82.9	85.9	85.4	100	93
26-Jun-01	10:39:34	1.6	-0.9	-0.4	-1.2	-0.7	-0.7	96.7	85	85.9	85.4	100	93.6
26-Jun-01	10:59:34	-0.2	-0.4	-0.7	-0.9	-0.2	-0.7	100	85.5	84.9	87.5	100	93.6
26-Jun-01	11:19:34	-0.2	-0.7	-0.9	-0.7	-0.4	-0.9	98.9	86.1	84.3	85.4	100	91.3
26-Jun-01	11:39:34	0.1	-0.4	-1.2	-0.9	-0.4	-0.9	99.5	84.5	85.9	85.4	100	93.6
26-Jun-01	11:59:34	-0.2	-0.7	-0.9	-0.9	-0.2	-0.4	99.5	86.1	84.3	87.5	100	90.8
26-Jun-01	12:19:34	-0.2	-0.2	-0.9	-0.4	-0.4	-0.4	100	86.1	84.3	85.4	100	93.6
26-Jun-01	12:39:34	-0.2	-0.7	-0.9	-0.9	-0.7	-0.7	98.9	82.9	84.9	85.4	98.9	93.6
26-Jun-01	12:59:34	-0.4	-0.7	-0.9	-1.2	-0.4	-0.7	100	85.5	83.8	85.4	100	90.8
26-Jun-01	13:19:34	-0.2	-0.4	-1.2	-0.4	-0.2	-0.7	100	85.5	85.4	87	100	93.6
26-Jun-01	13:39:34	-0.2	-0.7	-1.2	-0.9	0.6	-0.7	100	82.9	85.9	85.4	100	91.3
26-Jun-01	13:59:34	-0.4	-0.9	-0.7	-1.2	1.3	-0.9	100	82.3	84.9	85.4	100	93
26-Jun-01	14:19:34	-0.2	-1.2	-0.7	-0.9	1.1	-0.9	100	83.4	84.9	85.9	100	93.6
26-Jun-01	14:39:34	-0.4	-1.2	-0.9	-0.4	-0.2	-0.9	99.5	82.3	84.3	87	97.8	91.3
26-Jun-01	14:59:34	-0.2	-1.7	-0.9	-0.4	-0.7	-0.4	100	83.4	83.8	86.5	97.8	90.8
26-Jun-01	15:19:34	-0.2	-1.7	-0.7	-0.4	-0.4	-0.9	99.5	82.9	84.9	85.9	100	92.4
26-Jun-01	15:39:34	-0.4	-1.9	-0.7	-0.7	-0.7	-0.7	98.9	82.9	85.9	85.9	100	91.3
26-Jun-01	15:59:34	-0.2	-1.9	-0.4	-0.7	-0.4	0.1	96.7	86.1	85.9	85.9	100	90.8
26-Jun-01	16:19:34	-0.4	-1.2	-0.4	-0.9	-0.4	1.3	100	85	85.9	85.4	100	89.1
26-Jun-01	16:39:34	2.1	-0.2	-0.4	-0.9	-0.7	0.1	100	84.5	85.4	85.4	98.9	89.7
26-Jun-01	16:59:34	2.3	0.6	-0.9	-1.2	-0.9	-0.4	94.6	83.9	84.3	87.5	100	90.8
26-Jun-01	17:19:34	0.1	-0.2	-0.7	-0.4	-0.2	-0.7	100	80.7	84.3	85.9	100	93.6
26-Jun-01	17:39:34	-0.4	-1.4	-0.9	-1.2	-0.2	-0.7	100	82.3	83.8	85.4	100	93.6
26-Jun-01	17:59:34	-0.4	-1.4	-1.2	-1.2	-1.2	-0.7	100	86.6	84.3	87.5	99.5	92.4
26-Jun-01	18:19:34	-0.7	-0.9	-1.2	-0.4	-0.7	-0.4	99.5	83.4	85.9	86.5	100	94.1
26-Jun-01	18:39:34	-0.7	-1.7	-0.9	-0.9	0.1	-0.7	100	86.1	85.9	85.4	100	94.1
26-Jun-01	18:59:34	-0.7	-0.9	-0.9	-0.9	-0.7	-0.7	100	86.6	84.3	87	100	93.6
26-Jun-01	19:19:34	-0.4	-0.9	-0.9	-0.7	-1.2	-0.4	100	85.5	85.4	85.4	100	93.6
26-Jun-01	19:39:34	-0.4	-0.9	-1.2	-0.9	-0.2	-0.7	100	82.9	85.9	87.5	100	92.4
26-Jun-01	19:59:34	-0.7	-0.9	-0.9	-0.4	0.6	-0.4	98.9	86.6	84.9	86.5	100	91.9
26-Jun-01	20:19:34	-0.4	-0.7	-0.9	-1.2	0.1	-0.7	100	86.6	84.3	85.4	98.3	91.3
26-Jun-01	20:39:34	-0.4	-1.2	-0.9	-1.2	-0.7	-0.4	100	83.4	84.3	87.5	97.8	92.4
26-Jun-01	20:59:34	-0.7	-0.9	-0.9	-0.7	-0.7	-0.7	99.5	87.2	85.9	87	100	93.6
26-Jun-01	21:19:34	-0.7	-0.4	-0.9	-0.9	-0.2	-0.9	100	86.1	85.4	85.4	100	93.6
26-Jun-01	21:39:34	-0.4	-0.9	-0.7	-0.9	0.1	-0.4	100	84.5	85.9	87.5	100	91.3
26-Jun-01	21:59:34	-0.4	-0.7	-0.4	-0.4	-0.7	-0.4	100	87.2	85.9	87	100	92.4

26-Jun-01	22:19:34	-0.4	-0.2	-0.4	-0.9	-0.7	-0.4	100	83.9	86.5	85.4	100	94.1
26-Jun-01	22:39:34	1.8	-0.9	-0.7	-0.9	0.1	-0.7	99.5	86.6	85.9	87.5	100	92.4
26-Jun-01	22:59:34	-0.4	-0.7	-0.7	-0.9	-0.2	-0.4	100	86.6	85.4	87	100	93
26-Jun-01	23:19:34	-0.7	-0.9	-1.2	-0.9	-0.9	-0.7	99.5	83.4	84.3	85.9	100	93.6
26-Jun-01	23:39:34	-0.7	-0.9	-1.2	-1.2	-0.2	-0.4	100	87.7	87	87.5	100	94.1
26-Jun-01	23:59:34	-0.4	-0.4	-0.9	-0.7	-0.2	-0.2	100	83.9	85.9	87.5	100	91.9
27-Jun-01	00:19:34	-0.4	-0.4	-0.9	-0.7	-0.7	1.1	100	85.5	84.3	85.4	100	90.2
27-Jun-01	00:39:34	-0.4	0.1	-0.7	-0.9	-0.2	0.1	100	85.5	84.9	87.5	100	90.2
27-Jun-01	00:59:34	-0.4	0.6	-0.7	-0.4	0.1	-0.7	100	85.5	85.9	85.9	100	93.6
27-Jun-01	01:19:34	-0.4	0.6	-0.9	-0.9	-0.4	-0.7	100	84.5	86.5	85.4	100	92.4
27-Jun-01	01:39:34	-0.7	-0.2	-1.2	-0.7	0.1	-0.7	100	81.8	86.5	87.5	100	93
27-Jun-01	01:59:34	-0.7	-0.9	-0.9	-0.4	0.8	-0.7	100	86.6	84.9	85.4	100	93.6
27-Jun-01	02:19:34	-0.9	-0.7	-0.9	-0.9	0.6	-0.7	99.5	86.1	84.3	85.4	98.9	93
27-Jun-01	02:39:34	-0.9	0.1	-0.9	-0.7	-0.9	-0.7	100	83.9	84.9	87.5	97.8	91.3
27-Jun-01	02:59:34	-0.7	-0.9	-0.9	-0.4	-0.7	-0.4	100	85.5	85.4	85.4	100	92.4
27-Jun-01	03:19:34	-0.4	-0.7	-0.9	-0.9	-0.4	-0.7	100	86.6	86.5	87.5	100	93.6
27-Jun-01	03:39:34	-0.7	-0.2	-0.7	-0.7	0.1	-0.7	99.5	85.5	86.5	87.5	100	93.6
27-Jun-01	03:59:34	-0.7	-0.2	-0.4	-0.7	-0.9	-0.4	100	82.9	86.5	85.4	100	94.1
27-Jun-01	04:19:34	-0.4	-0.7	-0.4	-1.2	-0.7	-0.4	100	86.6	85.9	87.5	100	94.1
27-Jun-01	04:39:34	0.6	-0.4	-0.4	-0.7	-0.2	-0.4	97.3	86.1	86.5	87.5	100	93.6
27-Jun-01	04:59:34	-0.4	0.1	-0.9	-0.4	-0.7	-0.4	100	83.9	85.4	86.5	100	92.4
27-Jun-01	05:19:34	-0.7	-0.9	-0.9	-0.7	-0.7	-0.4	100	86.1	84.9	85.4	100	91.9
27-Jun-01	05:39:34	-0.9	-0.7	-1.2	-0.9	-0.4	-0.4	100	87.2	85.4	86.5	100	91.9
27-Jun-01	05:59:34	-0.7	-0.2	-1.2	-0.7	-0.2	-0.4	100	86.1	86.5	87.5	100	91.9
27-Jun-01	06:19:34	-0.7	-0.4	-1.2	-0.7	-0.7	-0.7	100	82.9	86.5	85.4	100	93.6
27-Jun-01	06:39:34	-0.7	-0.7	-0.9	-0.9	-0.4	-0.4	99.5	87.7	85.9	87	100	94.1
27-Jun-01	06:59:34	-0.7	-0.4	-0.9	-0.7	-0.2	-0.7	100	85.5	84.9	87	100	93.6
27-Jun-01	07:19:34	-0.7	0.1	-0.9	-0.7	-0.7	-0.7	100	85	85.4	85.4	100	92.4
27-Jun-01	07:39:34	-0.7	-0.7	-1.2	-0.9	0.1	-0.7	100	83.4	85.9	87.5	100	93.6
27-Jun-01	07:59:34	-0.7	-0.7	-0.9	-0.4	0.8	-0.2	100	86.6	85.9	87	100	91.9
27-Jun-01	08:19:34	-0.7	0.1	-0.9	-0.7	0.6	0.8	100	86.1	86.5	85.4	98.9	90.8
27-Jun-01	08:39:34	-0.7	0.3	-0.7	-0.9	-0.7	-0.2	100	85.5	85.9	87	97.8	90.2
27-Jun-01	08:59:34	-0.4	1.1	-0.9	-0.7	-1.2	-0.4	100	85	84.9	86.5	98.3	94.1
27-Jun-01	09:19:34	-0.7	0.3	-0.9	-0.7	-0.7	-0.9	100	82.3	86.5	85.4	100	93.6
27-Jun-01	09:39:34	-0.4	-0.9	-0.7	-0.9	-0.2	-0.4	100	83.9	86.5	85.4	100	91.3
27-Jun-01	09:59:34	-0.7	-0.4	-0.4	-0.9	-1.2	-0.4	98.9	88.3	86.5	87.5	100	91.3
27-Jun-01	10:19:34	-0.4	-0.7	-0.4	-0.4	-0.4	-0.7	100	83.4	86.5	87.5	100	91.3
27-Jun-01	10:39:34	1.6	-1.2	-0.7	-0.7	-0.2	-0.7	100	83.4	85.9	85.4	100	93.6
27-Jun-01	10:59:34	-0.4	-1.4	-0.4	-1.2	-0.7	-0.9	99.5	83.4	84.9	85.4	100	90.8
27-Jun-01	11:19:34	-0.4	-1.4	-0.7	-1.2	-0.4	-0.4	100	87.2	85.4	85.9	100	93
27-Jun-01	11:39:34	-0.2	-1.2	-0.7	-1.2	0.1	-0.7	100	83.4	84.9	85.9	100	93.6
27-Jun-01	11:59:34	-0.2	-1.2	-1.2	-1.2	-0.7	-0.7	100	86.1	85.4	85.9	100	90.8
27-Jun-01	12:19:34	-0.7	-0.7	-0.9	-1.2	-1.2	-0.7	100	83.4	84.9	85.4	99.5	90.8
27-Jun-01	12:39:34	-0.4	-1.2	-0.9	-1.2	-0.4	-0.4	100	82.9	84.3	85.4	100	90.8
27-Jun-01	12:59:34	-0.2	-0.9	-0.9	-1.4	0.1	-0.4	98.9	86.1	85.4	85.9	100	93
27-Jun-01	13:19:34	-0.4	-0.7	-1.2	-1.2	-0.7	-0.7	98.9	85.5	85.4	85.9	100	93
27-Jun-01	13:39:34	-0.4	-0.7	-1.2	-1.2	0.6	-0.7	100	82.9	85.4	85.9	100	90.8
27-Jun-01	13:59:34	-0.2	-0.9	-0.9	-0.9	1.3	-0.7	100	82.9	85.4	85.4	100	90.8
27-Jun-01	14:19:34	-0.2	-0.7	-0.9	-1.2	1.3	-0.7	100	83.9	85.4	85.9	100	90.8

27-Jun-01	14:39:34	-0.2	0.3	-0.9	-1.2	-0.4	-0.7	100	83.9	85.4	85.4	97.8	93.6
27-Jun-01	14:59:34	-0.2	1.6	-0.9	-0.7	-0.9	-0.7	100	85	85.4	85.4	97.8	92.4
27-Jun-01	15:19:34	0.1	0.8	-0.7	-0.7	-0.7	-0.9	100	80.7	85.4	85.4	100	91.3
27-Jun-01	15:39:34	-0.2	-0.4	-0.4	-1.2	0.1	-0.7	100	80.7	85.9	85.4	100	93.6
27-Jun-01	15:59:34	0.1	-1.2	-0.7	-1.2	-0.9	-0.2	100	81.3	85.9	85.4	98.9	90.8
27-Jun-01	16:19:34	-0.2	-1.4	-0.4	-1.4	-1.2	1.3	100	86.1	87	85.4	99.5	90.8
27-Jun-01	16:39:34	1.8	-0.9	-0.4	-0.9	-0.4	0.3	100	82.3	85.9	87.5	100	89.1
27-Jun-01	16:59:34	-0.2	-1.2	-0.7	-0.7	0.1	-0.7	97.3	87.2	84.3	85.4	100	93
27-Jun-01	17:19:34	-0.7	-0.9	-0.9	-1.2	-0.4	-0.7	100	82.9	84.3	85.4	100	93.6
27-Jun-01	17:39:34	-0.7	-1.2	-0.9	-1.2	-0.4	-0.4	100	87.2	84.3	87.5	100	91.3
27-Jun-01	17:59:34	-0.7	-0.7	-1.2	-0.4	0.1	-0.7	100	88.3	85.9	87.5	100	92.4
27-Jun-01	18:19:34	-0.7	-1.2	-0.9	-0.9	-0.7	-0.7	100	86.1	85.4	85.4	100	93.6
27-Jun-01	18:39:34	-0.7	-0.9	-0.9	-1.2	-0.2	-0.4	100	88.3	85.4	87	100	93.6
27-Jun-01	18:59:34	-0.7	-0.4	-0.9	-0.9	0.1	-0.9	100	86.1	85.9	87	100	92.4
27-Jun-01	19:19:34	-0.7	-0.4	-0.9	-0.9	-0.7	-0.4	100	86.1	84.9	85.4	100	94.1
27-Jun-01	19:39:34	-0.9	-0.9	-0.9	-1.2	0.3	-0.7	100	85.5	85.4	85.4	100	91.3
27-Jun-01	19:59:34	-0.4	-0.7	-0.9	-0.9	0.8	-0.4	100	87.7	85.4	87.5	100	91.9
27-Jun-01	20:19:34	-0.4	-0.4	-0.7	-0.7	0.6	-0.7	100	87.2	85.9	85.4	99.5	93.6
27-Jun-01	20:39:34	-0.7	-0.4	-0.9	-1.2	-0.7	-0.7	100	83.4	86.5	85.4	98.3	93.6
27-Jun-01	20:59:34	-0.4	-0.7	-1.2	-0.9	-0.4	-0.7	100	88.3	85.4	87.5	100	93.6
27-Jun-01	21:19:34	-0.7	-0.4	-0.9	-0.7	0.1	-0.7	100	87.7	86.5	85.9	100	93.6
27-Jun-01	21:39:34	-0.7	-0.2	-0.7	-1.2	-0.7	-0.4	100	86.1	85.9	85.4	100	93.6
27-Jun-01	21:59:34	-0.4	-0.7	-0.4	-0.9	-0.4	-0.4	100	85.5	87	87.5	100	92.4
27-Jun-01	22:19:34	-0.4	-0.7	-0.2	-0.7	0.3	-0.7	100	86.1	87	85.9	100	92.4
27-Jun-01	22:39:34	0.8	-0.2	-0.4	-1.2	-0.4	-0.4	97.8	86.1	85.9	85.4	100	93
27-Jun-01	22:59:34	-0.7	0.3	-0.7	-0.9	-0.2	-0.7	100	85.5	84.9	86.5	100	93
27-Jun-01	23:19:34	-0.7	-0.4	-0.9	-0.7	0.1	-0.4	100	82.9	85.9	85.4	100	91.9
27-Jun-01	23:39:34	-0.7	-0.7	-1.2	-1.2	-0.4	-0.7	100	87.7	84.3	87.5	100	93
27-Jun-01	23:59:34	-0.7	-0.7	-0.9	-0.7	0.1	-0.2	100	88.3	85.4	87.5	100	92.4
28-Jun-01	00:19:34	-0.7	-0.4	-0.7	-0.7	-0.7	0.8	98.9	83.4	85.4	85.4	100	90.8
28-Jun-01	00:39:34	-0.7	-0.9	-0.7	-1.2	-0.2	-0.2	99.5	87.7	86.5	87	100	89.7
28-Jun-01	00:59:34	-0.9	-0.4	-0.9	-0.7	-0.2	-0.7	100	86.6	87	87	100	93.6
28-Jun-01	01:19:34	-0.4	-0.4	-0.9	-0.7	-0.4	-0.4	99.5	86.1	85.9	85.4	100	93
28-Jun-01	01:39:34	-0.7	-0.9	-0.9	-1.2	0.1	-0.4	98.9	83.4	84.3	85.9	100	94.1
28-Jun-01	01:59:34	-0.7	-0.9	-0.9	-0.7	1.1	-0.7	100	88.3	84.3	87.5	100	92.4
28-Jun-01	02:19:34	-0.7	-0.7	-0.9	-0.7	0.6	-0.4	100	83.4	85.4	85.4	98.9	91.3
28-Jun-01	02:39:34	-0.9	-0.7	-0.9	-0.9	-0.9	-0.4	100	88.3	85.9	85.4	97.8	93.6
28-Jun-01	02:59:34	-0.7	-0.7	-0.9	-0.9	-0.2	-0.4	100	83.4	85.9	87.5	100	93
28-Jun-01	03:19:34	-0.4	-0.9	-0.9	-0.7	0.1	-0.4	100	88.3	85.4	85.4	100	93.6
28-Jun-01	03:39:34	-0.4	-0.4	-0.9	-0.9	-0.4	-0.7	100	84.5	85.9	85.4	100	92.4
28-Jun-01	03:59:34	-0.4	-1.2	-0.4	-0.9	0.1	-0.7	100	88.3	86.5	87.5	100	92.4
28-Jun-01	04:19:34	-0.4	-0.4	-0.4	-0.4	-0.2	-0.4	100	87.7	86.5	85.4	100	93.6
28-Jun-01	04:39:34	0.8	-0.9	-0.7	-0.9	-0.2	-0.7	97.3	86.1	85.9	85.4	100	93.6
28-Jun-01	04:59:34	-0.7	-0.9	-0.9	-1.2	0.1	-0.7	100	88.3	85.4	87	100	94.1
28-Jun-01	05:19:34	-0.7	-1.2	-0.9	-0.7	-0.4	-0.7	99.5	83.4	87	85.9	100	90.8
28-Jun-01	05:39:34	-0.4	-0.9	-0.7	-1.2	0.1	-0.7	100	88.3	85.9	87	100	92.4
28-Jun-01	05:59:34	-0.4	-0.7	-0.7	-0.9	-0.7	-0.7	100	83.9	84.9	87.5	100	93.6
28-Jun-01	06:19:34	-0.9	-0.7	-0.9	-0.7	-0.4	-0.9	100	86.1	85.4	85.4	100	93.6
28-Jun-01	06:39:34	-0.7	0.1	-0.9	-1.2	-0.2	-0.7	100	86.1	85.9	85.9	100	90.8

28-Jun-01	06:59:34	-0.7	0.8	-0.9	-0.7	-0.7	-0.7	100	85	86.5	87.5	100	93.6
28-Jun-01	07:19:34	-0.7	1.1	-0.9	-0.7	-0.2	-0.9	100	85.5	85.9	85.4	100	93.6
28-Jun-01	07:39:34	-0.9	0.6	-0.9	-0.9	0.6	-0.7	100	81.3	85.4	85.4	100	92.4
28-Jun-01	07:59:34	-0.7	-0.4	-0.9	-0.7	1.3	-0.4	100	86.1	85.4	87.5	100	92.4
28-Jun-01	08:19:34	-0.7	-0.4	-0.9	-0.7	1.1	0.8	100	83.4	85.4	85.4	98.9	90.8
28-Jun-01	08:39:34	-0.7	-0.4	-0.9	-0.9	-0.4	0.1	100	88.3	85.9	85.4	97.8	90.2
28-Jun-01	08:59:34	-0.4	-0.7	-0.7	-1.2	-0.9	-0.7	98.4	83.4	85.4	87	98.3	90.8
28-Jun-01	09:19:34	-0.7	-0.7	-0.7	-0.9	-0.7	-0.7	100	88.3	84.9	86.5	100	93
28-Jun-01	09:39:34	-0.7	-0.7	-0.7	-0.9	-0.2	-0.9	100	83.9	85.9	86.5	100	90.8
28-Jun-01	09:59:34	-0.7	-0.2	-0.4	-0.9	-0.9	-0.7	100	85.5	86.5	85.9	99.5	93.6
28-Jun-01	10:19:34	-0.4	-0.4	-0.4	-0.7	0.1	-0.4	100	88.3	86.5	88.6	100	93.6
28-Jun-01	10:39:34	2.3	-0.4	-0.4	-0.4	-0.7	-0.4	100	86.1	85.9	85.9	100	90.8
28-Jun-01	10:59:34	-0.2	-0.7	-0.7	-0.9	-0.7	-0.7	100	83.4	85.4	85.9	100	91.9
28-Jun-01	11:19:34	-0.4	-0.4	-0.9	-1.2	-0.2	-0.7	100	88.3	85.4	85.9	100	93.6
28-Jun-01	11:39:34	-0.4	-0.7	-0.7	-0.7	-0.7	-0.9	100	86.6	85.9	88.1	100	93
28-Jun-01	11:59:34	-0.4	-0.7	-0.7	-0.7	0.1	-0.7	100	83.9	84.9	85.9	100	91.3
28-Jun-01	12:19:34	-0.7	-0.7	-0.9	-0.9	-0.9	-0.4	98.9	83.9	84.3	85.9	100	93.6
28-Jun-01	12:39:34	-0.7	-0.4	-0.9	-1.2	-0.9	-0.4	98.9	88.3	85.4	85.9	100	91.3
28-Jun-01	12:59:34	-0.7	-0.4	-0.9	-1.2	0.1	-0.4	100	86.1	85.4	88.1	100	92.4
28-Jun-01	13:19:34	-0.4	-0.4	-1.2	-0.9	-0.4	-0.9	100	86.1	85.4	85.9	100	90.8
28-Jun-01	13:39:34	-0.4	-0.4	-0.9	-0.9	0.3	-0.7	100	83.4	84.3	85.4	100	90.8
28-Jun-01	13:59:34	-0.7	-0.9	-0.9	-1.2	1.3	-0.9	100	84.5	85.4	85.4	100	91.3
28-Jun-01	14:19:34	-0.7	-0.4	-0.7	-1.2	1.1	-0.7	100	86.1	85.9	85.4	100	91.3
28-Jun-01	14:39:34	-0.7	1.1	-0.4	-1.2	-0.2	-0.7	100	85.5	85.4	85.4	100	90.8
28-Jun-01	14:59:34	-0.7	1.8	-0.4	-0.9	-0.9	-0.7	98.9	83.4	83.8	85.9	99.5	90.8
28-Jun-01	15:19:34	-0.7	0.6	-0.7	-0.9	-1.2	-0.4	100	80.7	85.4	85.4	100	92.4
28-Jun-01	15:39:34	-0.7	-0.7	-0.4	-0.9	0.1	-0.7	100	82.3	85.9	84.9	100	90.8
28-Jun-01	15:59:34	-0.4	-0.7	-0.4	-0.9	-0.7	0.1	100	85	86.5	84.9	100	90.8
28-Jun-01	16:19:34	-0.4	-0.7	-0.2	-1.2	0.1	1.3	100	86.1	87	84.9	100	88.6
28-Jun-01	16:39:34	2.3	-0.7	-0.2	-1.2	-0.4	0.1	100	85.5	85.4	84.9	100	89.1
28-Jun-01	16:59:34	1.1	-0.7	-0.4	-0.9	-0.2	-0.7	96.2	82.9	84.9	87.5	100	93
28-Jun-01	17:19:34	-0.2	-0.9	-0.9	-0.7	-0.7	-0.7	100	88.3	84.3	87.5	100	93.6
28-Jun-01	17:39:34	-0.7	-0.7	-0.9	-0.9	-0.2	-0.7	99.5	83.4	84.3	85.4	100	90.8
28-Jun-01	17:59:34	-0.7	-0.9	-1.2	-1.2	-0.4	-0.9	99.5	88.8	85.9	87.5	100	93.6
28-Jun-01	18:19:34	-0.7	-0.7	-0.9	-0.7	-0.2	-0.4	100	84.5	85.4	87.5	100	93
28-Jun-01	18:39:34	-0.7	-0.9	-1.2	-0.7	-0.4	-0.7	99.5	88.8	85.9	85.4	100	93.6
28-Jun-01	18:59:34	-0.4	-0.9	-0.9	-0.7	-0.4	-0.7	100	86.1	85.4	87	100	93.6
28-Jun-01	19:19:34	-0.4	-0.7	-0.9	-0.9	-0.2	-0.4	100	88.3	85.4	85.4	100	93.6
28-Jun-01	19:39:34	-0.2	-0.9	-0.9	-0.7	0.6	-0.7	100	85.5	85.9	87.5	100	92.4
28-Jun-01	19:59:34	-0.4	-0.7	-0.9	-0.7	1.1	-0.4	100	88.3	84.3	87.5	100	94.1
28-Jun-01	20:19:34	-0.7	-0.9	-0.9	-0.9	0.6	-0.7	100	85	85.4	85.4	100	93.6
28-Jun-01	20:39:34	-0.7	-0.7	-0.9	-0.9	-0.7	-0.7	100	88.3	84.3	87.5	100	91.9
28-Jun-01	20:59:34	-0.7	-0.7	-0.9	-0.7	0.1	-0.7	100	83.9	84.3	87.5	100	91.3
28-Jun-01	21:19:34	-0.9	-0.7	-1.2	-0.7	-0.4	-0.7	100	88.3	85.4	85.4	100	92.4
28-Jun-01	21:39:34	-0.7	-0.9	-0.7	-0.9	-0.2	-0.4	100	86.1	85.9	87.5	100	94.1
28-Jun-01	21:59:34	-0.7	-0.7	-0.4	-0.7	-0.7	-0.4	100	88.3	85.9	87.5	100	94.1
28-Jun-01	22:19:34	-0.4	-0.4	-0.4	-0.7	-0.2	-0.7	100	86.6	85.9	85.4	100	94.1
28-Jun-01	22:39:34	1.6	0.1	-0.4	-0.9	-0.4	-0.7	98.4	86.1	85.9	87.5	100	92.4
28-Jun-01	22:59:34	-0.2	0.3	-0.7	-0.7	-0.2	-0.7	100	83.4	84.9	87	100	91.3

28-Jun-01	23:19:34	-0.7	-0.7	-0.9	-0.7	-0.4	-0.7	100	86.6	84.3	85.9	100	91.9
28-Jun-01	23:39:34	-0.7	-0.4	-0.7	-1.2	-0.2	-0.4	100	88.3	84.9	87.5	100	91.9
28-Jun-01	23:59:34	-0.7	-1.2	-0.9	-0.7	-0.4	-0.4	100	88.3	85.4	87.5	100	92.4
29-Jun-01	00:19:34	-0.9	-0.7	-0.7	-0.4	-0.4	0.8	100	88.8	85.9	85.4	100	90.2
29-Jun-01	00:39:34	-0.9	-0.9	-0.9	-0.9	-0.4	0.1	100	87.2	85.4	86.5	100	89.7
29-Jun-01	00:59:34	-0.9	-0.4	-0.9	-0.7	-0.4	-0.7	100	88.8	85.9	87.5	100	91.3
29-Jun-01	01:19:34	-0.4	-0.4	-0.9	-0.4	-0.2	-0.4	100	83.9	85.9	85.4	100	94.1
29-Jun-01	01:39:34	-0.7	-0.9	-0.9	-0.9	0.6	-0.7	100	88.8	85.9	86.5	100	93.6
29-Jun-01	01:59:34	-0.7	-0.4	-0.9	-0.7	1.1	-0.4	100	86.1	85.9	87	100	93
29-Jun-01	02:19:34	-0.7	-0.7	-0.9	-0.4	0.6	-0.7	100	88.3	85.9	85.4	100	93.6
29-Jun-01	02:39:34	-0.9	-0.4	-0.7	-1.2	-0.4	-0.7	100	88.3	85.9	87.5	100	93.6
29-Jun-01	02:59:34	-0.4	-0.9	-0.9	-0.4	-0.2	-0.4	100	87.2	86.5	87.5	100	93.6
29-Jun-01	03:19:34	-0.9	-0.4	-0.7	-0.4	-0.4	-0.7	100	88.8	86.5	85.4	100	93.6
29-Jun-01	03:39:34	-0.7	-0.4	-0.4	-0.9	0.1	-0.7	100	83.9	85.9	87.5	100	93.6
29-Jun-01	03:59:34	-0.7	-0.4	-0.7	-0.7	-0.7	-0.4	100	88.3	85.9	87.5	100	92.4
29-Jun-01	04:19:34	-0.4	-0.2	-0.4	-0.4	0.1	-0.7	100	86.6	87	85.4	100	93
29-Jun-01	04:39:34	0.8	-0.7	-0.4	-1.2	-0.4	-0.7	97.3	86.6	86.5	87.5	100	93
29-Jun-01	04:59:34	-0.4	-0.7	-0.9	-0.7	0.1	-0.7	100	87.2	85.4	87	100	93
29-Jun-01	05:19:34	-0.9	-0.7	-0.9	-0.7	-0.4	-0.7	100	88.3	85.9	85.4	100	91.3
29-Jun-01	05:39:34	-0.4	-0.2	-0.9	-0.9	0.1	-0.4	100	85	87	87.5	100	91.9
29-Jun-01	05:59:34	-0.7	-0.7	-1.2	-0.4	-0.4	-0.7	100	87.7	87.5	87.5	100	93
29-Jun-01	06:19:34	-0.7	-0.2	-0.9	-0.4	-0.2	-0.7	100	86.6	87.5	85.4	100	93.6
29-Jun-01	06:39:34	-0.7	0.3	-0.9	-0.9	-0.7	-0.4	100	86.1	87	88.1	100	93.6
29-Jun-01	06:59:34	-0.9	1.1	-0.9	-0.7	-0.2	-0.4	100	83.4	87.5	87.5	100	93.6
29-Jun-01	07:19:34	-0.7	-0.4	-0.9	-0.7	-0.4	-0.4	100	83.4	87.5	85.4	100	93.6
29-Jun-01	07:39:34	-0.4	-0.2	-0.7	-0.9	0.3	-0.4	100	88.8	87	88.1	100	93.6
29-Jun-01	07:59:34	-0.7	-0.7	-0.9	-0.4	1.3	-0.2	100	86.6	86.5	86.5	100	93
29-Jun-01	08:19:34	-0.7	-0.4	-0.9	-0.9	0.8	0.8	100	88.3	85.4	85.4	100	90.8
29-Jun-01	08:39:34	-0.9	-0.7	-0.9	-0.9	-0.7	-0.2	100	86.6	85.4	88.1	100	89.7
29-Jun-01	08:59:34	-0.7	-0.2	-0.9	-0.7	-0.2	-0.4	100	88.3	85.9	87	100	91.3
29-Jun-01	09:19:34	-0.7	-0.4	-0.9	-0.9	-0.7	-0.4	98.9	83.4	85.4	85.9	100	91.3
29-Jun-01	09:39:34	-0.7	-0.4	-0.7	-0.9	-0.2	-0.4	100	88.8	86.5	85.9	100	93.6
29-Jun-01	09:59:34	-0.4	-0.4	-0.7	-0.7	-0.2	-0.7	100	85	86.5	87.5	100	90.8
29-Jun-01	10:19:34	-0.4	-0.2	-0.7	-0.7	-0.7	-0.7	100	87.7	86.5	85.9	100	93.6
29-Jun-01	10:39:34	2.1	-0.2	-0.2	-0.7	0.1	-0.7	97.3	86.6	85.9	85.4	100	91.3
29-Jun-01	10:59:34	0.1	-0.4	-0.4	-0.7	-0.7	-0.7	100	83.4	86.5	88.1	100	90.8
29-Jun-01	11:19:34	0.1	-1.2	-0.7	-0.4	-0.4	-0.9	100	83.4	85.4	86.5	100	93.6
29-Jun-01	11:39:34	-0.4	-0.7	-0.7	-0.7	0.1	-0.7	98.9	86.1	84.9	85.4	100	90.8
29-Jun-01	11:59:34	-0.4	-1.2	-0.7	-1.2	-0.4	-0.9	97.8	86.1	84.3	85.9	100	93
29-Jun-01	12:19:34	-0.4	-1.2	-0.9	-0.7	0.1	-0.7	97.8	84.5	84.3	87.5	100	90.8
29-Jun-01	12:39:34	-0.7	-0.9	-1.2	-0.4	-0.4	-0.7	97.3	85.5	86.5	85.4	100	91.3
29-Jun-01	12:59:34	-0.7	-1.2	-0.9	-0.9	0.1	-0.7	100	83.4	84.9	85.4	100	92.4
29-Jun-01	13:19:34	-0.4	-1.2	-0.9	-0.7	-0.2	-0.4	100	84.5	84.3	87.5	100	91.3
29-Jun-01	13:39:34	-0.7	-1.7	-1.2	-0.7	0.8	-0.4	100	83.4	84.3	85.9	100	93
29-Jun-01	13:59:34	0.1	-1.4	-1.2	-0.9	2.1	-0.7	100	86.1	85.4	85.4	100	93.6
29-Jun-01	14:19:34	0.3	-0.7	-0.7	-0.9	1.3	-0.7	100	85.5	85.9	85.4	100	91.3
29-Jun-01	14:39:34	0.3	0.6	-0.7	-0.4	0.3	-0.7	100	85.5	84.3	87.5	100	90.8
29-Jun-01	14:59:34	-0.2	1.6	-0.7	-0.7	-0.4	-0.4	99.5	83.4	83.8	87	99.5	91.3
29-Jun-01	15:19:34	-0.2	0.1	-0.7	-0.7	-0.7	-0.4	100	81.8	84.9	85.9	100	90.8

29-Jun-01	15:39:34	-0.2	-0.9	-0.7	-0.7	0.1	-0.7	97.3	82.9	85.9	85.4	100	91.3
29-Jun-01	15:59:34	-0.7	-1.2	-0.7	-0.9	-0.7	0.1	100	82.9	85.9	85.4	100	90.8
29-Jun-01	16:19:34	-0.4	-1.2	-0.4	-0.9	0.1	1.6	99.5	86.1	87	85.4	100	93
29-Jun-01	16:39:34	2.3	-0.7	-0.4	-0.4	-0.4	0.3	100	86.1	85.9	87.5	100	89.7
29-Jun-01	16:59:34	1.1	-0.7	-0.4	-0.7	-0.4	-0.7	97.3	83.4	84.3	85.4	100	92.4
29-Jun-01	17:19:34	0.3	-1.2	-0.7	-0.9	-0.2	-0.7	97.8	83.4	84.3	85.9	100	93.6
29-Jun-01	17:39:34	-0.2	-0.9	-0.9	-0.7	-0.4	-0.7	97.3	88.8	84.3	87.5	100	92.4
29-Jun-01	17:59:34	-0.4	-0.7	-0.9	-0.7	0.1	-0.7	100	83.4	84.3	85.4	100	92.4
29-Jun-01	18:19:34	-0.4	-0.9	-0.7	-0.9	-0.7	-0.4	100	88.3	85.9	85.4	100	93
29-Jun-01	18:39:34	-0.7	-0.7	-0.9	-0.7	-0.2	-0.7	98.9	86.6	84.3	87.5	100	93.6
29-Jun-01	18:59:34	-0.4	-1.2	-0.9	-0.4	-0.4	-0.7	100	88.8	84.9	87	100	94.1
29-Jun-01	19:19:34	-0.4	-0.9	-0.9	-0.7	-0.4	-0.7	100	89.3	84.3	85.9	100	93.6
29-Jun-01	19:39:34	-0.4	-0.4	-0.9	-0.9	0.6	-0.7	100	86.1	84.3	86.5	100	93.6
29-Jun-01	19:59:34	-0.7	-1.2	-0.7	-0.7	1.3	-0.7	100	88.8	85.9	87.5	100	93.6
29-Jun-01	20:19:34	-0.4	-0.4	-0.9	-0.7	0.8	-0.7	100	89.3	84.9	85.9	100	94.1
29-Jun-01	20:39:34	-0.7	-0.2	-0.9	-0.9	-0.4	-0.4	100	88.8	84.3	85.4	98.9	93.6
29-Jun-01	20:59:34	-0.4	-1.2	-1.2	-0.7	-0.4	-0.4	99.5	88.8	84.3	87.5	100	94.1
29-Jun-01	21:19:34	-0.4	-0.7	-0.9	-0.7	-0.4	-0.7	100	89.3	84.9	85.9	100	93.6
29-Jun-01	21:39:34	-0.7	-0.2	-0.7	-0.9	-0.4	-0.7	100	88.8	85.9	85.4	100	93.6
29-Jun-01	21:59:34	-0.4	-0.2	-0.7	-0.7	-0.4	-0.7	100	87.7	85.9	87.5	100	93.6
29-Jun-01	22:19:34	-0.4	0.3	-0.4	-0.7	-0.4	-0.4	100	87.2	86.5	85.9	100	93.6
29-Jun-01	22:39:34	1.3	0.8	-0.4	-1.2	0.1	-0.7	99.5	88.8	85.4	85.4	100	93.6
29-Jun-01	22:59:34	-0.4	-0.7	-0.7	-0.7	-0.4	-0.4	100	83.9	85.4	87	100	93.6
29-Jun-01	23:19:34	-0.4	-0.7	-0.7	-0.7	-0.2	-0.7	100	89.9	84.9	85.9	100	93.6
29-Jun-01	23:39:34	-0.7	-0.4	-0.9	-1.2	-0.7	-0.4	100	89.9	85.4	87.5	100	94.1
29-Jun-01	23:59:34	-0.4	-0.7	-0.9	-0.7	0.1	-0.4	100	87.7	85.4	87.5	100	92.4
30-Jun-01	00:19:34	-0.7	-0.9	-0.9	-0.7	-0.7	0.6	99.5	90.4	85.9	85.9	100	90.8
30-Jun-01	00:39:34	-0.7	-0.4	-0.9	-1.2	-0.2	-0.2	100	88.8	85.9	87.5	100	90.2
30-Jun-01	00:59:34	-0.4	-0.2	-1.2	-0.7	-0.7	-0.4	100	85.5	85.4	87.5	100	93.6
30-Jun-01	01:19:34	-0.4	-0.7	-0.7	-0.7	-0.2	-0.7	100	90.4	85.9	85.4	100	94.1
30-Jun-01	01:39:34	-0.7	-0.4	-0.9	-0.9	0.3	-0.7	100	88.8	86.5	87	100	94.1
30-Jun-01	01:59:34	-0.7	-0.2	-0.7	-0.7	1.6	-0.4	100	87.2	85.9	87	100	94.1
30-Jun-01	02:19:34	-0.4	-0.4	-1.2	-0.7	1.1	-0.7	100	87.7	84.3	85.4	100	93.6
30-Jun-01	02:39:34	-0.7	-0.7	-0.9	-1.2	-0.4	-0.4	100	85.5	85.4	87.5	98.9	93.6
30-Jun-01	02:59:34	-0.7	-0.7	-1.2	-0.7	-0.4	-0.4	97.8	89.3	85.4	87	100	92.4
30-Jun-01	03:19:34	-0.9	-0.2	-0.7	-0.7	-0.7	-0.7	100	88.8	85.4	85.4	100	92.4
30-Jun-01	03:39:34	-0.7	-0.4	-0.7	-1.2	-0.2	-0.4	100	84.5	85.9	87.5	100	93
30-Jun-01	03:59:34	-0.7	-0.7	-0.4	-0.7	-0.4	-0.4	99.5	89.9	85.9	87.5	100	94.1
30-Jun-01	04:19:34	-0.7	-0.2	-0.7	-0.7	-0.4	-0.7	100	88.3	87.5	85.9	100	93.6
30-Jun-01	04:39:34	0.6	-0.7	-0.7	-0.9	-0.2	-0.7	97.8	87.2	85.9	87	100	93.6
30-Jun-01	04:59:34	-0.4	-0.7	-0.7	-0.7	-0.7	-0.7	100	89.3	85.4	87.5	100	93.6
30-Jun-01	05:19:34	-0.7	-0.2	-1.2	-0.7	-0.2	-0.7	100	88.3	85.9	85.9	100	93.6
30-Jun-01	05:39:34	-0.9	-0.4	-1.2	-1.2	-0.4	-0.7	100	85	85.4	87.5	100	93.6
30-Jun-01	05:59:34	-0.7	-0.4	-0.9	-0.7	-0.2	-0.7	99.5	87.2	85.9	87.5	100	93.6
30-Jun-01	06:19:34	-0.7	-0.2	-0.9	-0.7	-0.4	-0.7	100	87.2	87.5	85.9	100	93.6
30-Jun-01	06:39:34	-0.9	0.8	-0.9	-0.9	-0.2	-0.7	100	88.3	86.5	87	100	93.6
30-Jun-01	06:59:34	-0.4	-0.2	-1.2	-0.7	-0.7	-0.4	100	83.4	85.4	87.5	100	94.1
30-Jun-01	07:19:34	-0.7	-0.4	-0.7	-0.7	-0.4	-0.7	100	88.8	85.4	85.9	100	93
30-Jun-01	07:39:34	-0.7	0.1	-0.9	-0.9	0.6	-0.4	100	88.3	85.4	85.4	100	91.9

30-Jun-01	07:59:34	-0.4	-0.2	-0.7	-0.9	1.6	-0.4	100	86.6	85.9	88.1	100	93
30-Jun-01	08:19:34	-0.7	-0.2	-0.9	-0.7	0.8	1.1	100	87.7	85.9	85.9	100	90.8
30-Jun-01	08:39:34	-0.7	-0.2	-0.7	-0.9	-0.4	0.1	99.5	85.5	85.9	85.4	98.9	89.7
30-Jun-01	08:59:34	-0.9	-0.4	-0.7	-0.7	-0.7	-0.7	99.5	88.8	86.5	86.5	100	91.3
30-Jun-01	09:19:34	-0.9	-0.2	-0.9	-0.9	-0.2	-0.4	100	85	85.9	85.9	100	92.4
30-Jun-01	09:39:34	-0.4	-0.7	-0.7	-0.9	-0.4	-0.7	100	88.8	85.9	87.5	100	93
30-Jun-01	09:59:34	-0.7	-0.4	-0.4	-0.4	-0.2	-0.7	100	85	86.5	87	100	94.1
30-Jun-01	10:19:34	-0.7	-0.4	-0.4	-0.7	-0.4	-0.4	99.5	88.8	88.1	85.4	100	93.6
30-Jun-01	10:39:34	1.1	-0.7	-0.4	-0.9	0.1	-0.7	98.9	85	85.9	85.4	100	93.6
30-Jun-01	10:59:34	-0.4	-0.7	-0.7	-0.4	-0.4	-0.7	100	88.8	85.4	87.5	100	93.6
30-Jun-01	11:19:34	-0.7	-0.4	-0.9	-0.7	0.1	-0.7	100	85	85.4	85.4	100	93.6
30-Jun-01	11:39:34	-0.9	-1.2	-1.2	-0.7	-0.7	-0.7	100	85.5	85.4	85.4	100	93.6
30-Jun-01	11:59:34	-0.7	-1.2	-0.9	-0.9	0.1	-0.7	100	88.8	85.4	87.5	100	91.3
30-Jun-01	12:19:34	-0.7	-0.9	-1.2	-0.7	-0.4	-0.4	99.5	85	87.5	87.5	100	92.4
30-Jun-01	12:39:34	-0.7	-1.4	-0.9	-0.9	0.1	-0.9	100	83.9	85.4	85.4	100	94.1
30-Jun-01	12:59:34	-0.7	-0.9	-0.9	-0.9	-0.7	-0.7	100	85.5	84.9	87.5	100	93.6
30-Jun-01	13:19:34	-0.7	-1.2	-0.9	-0.7	0.1	-0.4	100	83.9	85.4	87.5	100	91.9
30-Jun-01	13:39:34	-0.4	-1.7	-0.9	-0.7	0.8	-0.9	100	83.9	85.4	85.9	100	94.1
30-Jun-01	13:59:34	-0.4	-0.9	-0.9	-0.9	1.8	-0.7	99.5	85.5	85.4	85.9	100	91.3
30-Jun-01	14:19:34	-0.7	0.1	-0.9	-1.2	1.3	-0.9	100	85.5	85.4	88.1	100	94.1
30-Jun-01	14:39:34	-0.7	1.1	-1.2	-0.4	-0.2	-0.7	100	84.5	85.4	87.5	98.9	93.6
30-Jun-01	14:59:34	-0.4	-0.2	-0.9	-0.4	-0.2	-0.9	100	82.3	85.4	87	100	92.4
30-Jun-01	15:19:34	-0.7	-1.2	-0.7	-0.7	0.1	-0.4	100	82.9	84.9	85.9	100	92.4
30-Jun-01	15:39:34	-0.4	-1.4	-0.7	-1.2	-0.4	-0.7	100	82.9	85.9	85.9	100	93.6
30-Jun-01	15:59:34	-0.4	-1.7	-0.4	-1.2	0.1	-0.2	98.4	83.4	85.9	85.9	100	92.4
30-Jun-01	16:19:34	-0.4	-1.7	-0.4	-0.9	-0.7	1.3	100	82.9	86.5	87.5	100	89.7
30-Jun-01	16:39:34	1.6	-1.7	-0.4	-0.7	0.1	0.1	98.4	88.3	85.9	87	100	90.2
30-Jun-01	16:59:34	-0.4	-1.4	-0.9	-1.2	-0.7	-0.7	100	83.4	85.4	85.9	100	93.6
30-Jun-01	17:19:34	-0.7	-1.2	-0.7	-1.2	-0.4	-0.4	98.4	88.3	84.9	87	100	94.1
30-Jun-01	17:39:34	-0.7	-0.4	-1.2	-0.7	-0.2	-0.7	100	88.3	85.4	87.5	100	93.6
30-Jun-01	17:59:34	-0.7	-0.4	-0.9	-0.7	-0.4	-0.4	100	88.8	85.4	85.9	100	94.1
30-Jun-01	18:19:34	-0.7	-0.4	-0.7	-1.2	0.1	-0.7	100	85	85.9	85.4	100	93.6
30-Jun-01	18:39:34	-0.4	-0.4	-0.7	-0.7	-0.7	-0.4	100	88.8	86.5	88.1	100	91.9
30-Jun-01	18:59:34	-0.7	-0.2	-0.7	-0.4	-0.2	-0.4	100	88.8	86.5	87	100	92.4
30-Jun-01	19:19:34	-0.9	0.1	-1.2	-0.9	-0.2	-0.4	100	88.3	85.4	85.9	100	91.9
30-Jun-01	19:39:34	-0.7	-0.4	-0.9	-0.9	0.1	-0.7	100	86.1	85.4	88.1	100	93
30-Jun-01	19:59:34	-0.7	-0.4	-0.9	-0.7	1.1	-0.7	100	88.8	85.4	87.5	100	93.6
30-Jun-01	20:19:34	-0.7	-0.2	-0.7	-0.7	0.6	-0.4	99.5	88.8	86.5	85.9	100	94.1
30-Jun-01	20:39:34	-0.7	0.1	-0.7	-0.9	-0.4	-0.4	100	84.5	86.5	88.1	100	94.1
30-Jun-01	20:59:34	-0.9	-0.2	-0.9	-0.7	-0.2	-0.4	100	88.3	85.4	87	100	93.6
30-Jun-01	21:19:34	-0.7	-0.2	-0.9	-0.7	-0.7	-0.7	100	88.8	85.9	85.4	100	93.6
30-Jun-01	21:39:34	-0.7	0.3	-0.9	-1.2	-0.4	-0.7	100	88.3	85.9	88.1	100	93.6
30-Jun-01	21:59:34	-0.9	0.6	-0.7	-0.4	-0.2	-0.7	100	86.6	85.9	87.5	100	93.6
30-Jun-01	22:19:34	-0.9	1.1	-0.7	-0.7	-0.4	-0.4	99.5	86.1	87.5	85.4	100	93.6
30-Jun-01	22:39:34	0.8	1.8	-0.4	-1.2	0.1	-0.4	98.9	86.1	85.9	88.1	100	94.1
30-Jun-01	22:59:34	-0.4	0.1	-0.7	-0.7	-0.4	-0.7	100	82.9	84.9	87.5	100	93.6
30-Jun-01	23:19:34	-0.7	-0.2	-0.7	-0.7	-0.2	-0.7	100	88.3	85.4	85.9	100	93.6
30-Jun-01	23:39:34	-0.9	-0.2	-0.7	-1.2	-0.7	-0.4	100	88.8	85.4	88.1	100	93
30-Jun-01	23:59:34	-0.7	-0.2	-0.7	-0.7	-0.2	-0.4	100	83.9	85.9	87.5	100	93

01-Jul-01	00:19:34	-0.9	-0.4	-0.9	-0.7	0.1	0.8	99.5	88.8	85.9	85.9	100	91.3
01-Jul-01	00:39:34	-0.9	0.1	-0.9	-1.2	-0.4	-0.2	100	88.3	87.5	88.1	100	90.2
01-Jul-01	00:59:34	-0.9	0.1	-0.7	-0.4	-0.4	-0.4	100	87.7	88.1	87.5	100	94.1
01-Jul-01	01:19:34	-0.7	-0.2	-0.9	-0.7	-0.4	-0.7	100	87.7	86.5	85.9	100	93.6
01-Jul-01	01:39:34	-0.7	-0.2	-0.9	-1.2	-0.2	-0.7	99.5	88.8	85.9	88.1	100	93.6
01-Jul-01	01:59:34	-0.9	0.3	-0.7	-0.4	0.8	-0.7	100	86.6	85.9	87.5	100	93.6
01-Jul-01	02:19:34	-0.9	0.1	-0.7	-0.7	0.6	-0.7	100	86.1	85.9	85.4	100	93.6
01-Jul-01	02:39:34	-0.7	-0.2	-0.7	-0.9	-0.7	-0.4	100	85	86.5	88.1	100	93.6
01-Jul-01	02:59:34	-0.9	-0.2	-0.7	-0.4	-0.4	-0.7	99.5	88.8	88.1	87.5	100	93.6
01-Jul-01	03:19:34	-0.9	0.3	-0.7	-0.9	-0.9	-0.4	100	87.7	85.9	85.4	100	93.6
01-Jul-01	03:39:34	-0.7	0.6	-0.7	-0.9	-0.2	-0.4	100	85.5	86.5	88.1	100	93.6
01-Jul-01	03:59:34	-0.7	-0.2	-0.4	-0.7	-0.2	-0.7	100	88.3	86.5	87.5	100	93.6
01-Jul-01	04:19:34	-0.4	0.1	-0.4	-0.9	-0.4	-0.4	100	87.7	87.5	85.4	100	94.1
01-Jul-01	04:39:34	0.6	0.3	-0.7	-0.7	-0.2	-0.7	98.9	86.6	85.9	88.1	100	93.6
01-Jul-01	04:59:34	-0.4	-0.4	-0.7	-0.4	-0.9	-0.7	100	88.3	85.9	87	100	93.6
01-Jul-01	05:19:34	-0.7	-0.2	-0.7	-0.7	-0.4	-0.7	100	88.8	85.4	85.4	100	93.6
01-Jul-01	05:39:34	-0.9	0.3	-0.7	-1.2	-0.4	-0.4	100	86.1	85.9	88.1	100	93.6
01-Jul-01	05:59:34	-0.7	0.3	-0.7	-0.4	-0.4	-0.7	100	86.1	87	87.5	100	93.6
01-Jul-01	06:19:34	-0.9	1.1	-0.9	-0.7	-0.2	-0.4	100	86.1	86.5	85.4	100	93
01-Jul-01	06:39:34	-0.7	1.6	-0.9	-1.2	-0.9	-0.4	100	85	85.9	88.1	100	94.1
01-Jul-01	06:59:34	-0.9	0.3	-0.7	-0.4	-0.4	-0.4	100	83.9	85.9	87.5	100	94.1
01-Jul-01	07:19:34	-0.9	0.1	-0.9	-0.7	0.1	-0.7	100	88.8	86.5	85.4	100	93.6
01-Jul-01	07:39:34	-0.7	0.1	-0.9	-1.2	0.3	-0.7	100	87.2	87.5	88.1	100	94.1
01-Jul-01	07:59:34	-0.7	0.3	-0.9	-0.4	1.1	-0.2	100	86.1	85.9	87.5	100	93
01-Jul-01	08:19:34	-0.9	0.1	-0.9	-0.7	0.6	1.1	100	86.1	85.9	85.4	100	91.3
01-Jul-01	08:39:34	-0.7	-0.2	-0.7	-1.2	-0.7	0.1	100	85	86.5	88.1	100	89.7
01-Jul-01	08:59:34	-0.9	-0.2	-0.7	-0.7	-0.2	-0.4	100	88.3	85.9	87.5	100	93
01-Jul-01	09:19:34	-0.9	0.3	-0.7	-0.7	-0.7	-0.4	100	86.1	85.9	85.4	100	93.6
01-Jul-01	09:39:34	-0.7	-0.4	-0.7	-1.2	-0.2	-0.4	100	88.8	86.5	87.5	100	92.4
01-Jul-01	09:59:34	-0.7	-0.2	-0.4	-0.4	-0.7	-0.4	100	88.8	87	87.5	100	91.9
01-Jul-01	10:19:34	-0.4	-0.7	-0.4	-0.7	-0.4	-0.4	100	86.1	88.1	85.9	100	93
01-Jul-01	10:39:34	0.1	-0.4	-0.4	-0.9	-0.4	-0.7	97.8	89.9	86.5	87.5	100	93.6
01-Jul-01	10:59:34	-0.4	-0.9	-0.7	-0.7	-0.2	-0.7	100	85.5	85.9	87.5	100	93.6
01-Jul-01	11:19:34	-0.7	-0.7	-0.9	-0.7	-0.2	-0.7	100	88.3	85.4	85.9	100	91.3
01-Jul-01	11:39:34	-0.9	-0.9	-0.7	-1.2	-0.4	-0.4	100	85.5	84.9	87.5	100	90.8
01-Jul-01	11:59:34	-0.4	-1.7	-0.9	-0.7	-0.2	-0.7	100	86.6	85.4	87.5	100	93.6
01-Jul-01	12:19:34	-0.4	-1.2	-0.7	-0.7	-0.4	-0.4	100	85.5	84.9	85.9	100	93.6
01-Jul-01	12:39:34	-0.7	-1.7	-0.7	-0.9	0.1	-0.4	100	85	85.9	87.5	100	91.3
01-Jul-01	12:59:34	-0.4	-1.7	-0.9	-0.7	-0.4	-0.4	100	86.6	84.3	87.5	100	91.9
01-Jul-01	13:19:34	-0.4	-1.4	-0.7	-0.9	0.1	-0.7	100	85.5	85.4	85.9	100	93.6
01-Jul-01	13:39:34	-0.7	-1.7	-0.9	-1.2	0.8	-0.4	98.4	85.5	84.3	85.9	100	90.8
01-Jul-01	13:59:34	-0.9	-1.2	-0.9	-0.9	1.6	-0.7	100	86.6	84.3	88.1	100	91.9
01-Jul-01	14:19:34	-0.7	-0.4	-0.7	-0.4	1.1	-0.7	100	86.1	84.3	85.9	100	93.6
01-Jul-01	14:39:34	-0.7	0.1	-1.2	-0.9	-0.2	-0.4	100	85.5	84.3	85.9	98.3	91.3
01-Jul-01	14:59:34	-0.7	-0.7	-0.9	-0.9	-0.2	-0.4	100	82.9	84.3	87.5	100	93.6
01-Jul-01	15:19:34	-0.9	-1.4	-0.9	-0.9	-0.7	-0.7	100	83.9	84.3	85.9	100	93.6
01-Jul-01	15:39:34	-0.4	-2.2	-0.9	-1.4	-0.2	-0.7	100	84.5	85.9	87.5	100	90.8
01-Jul-01	15:59:34	-0.4	-2.2	-0.4	-0.7	-0.2	0.1	100	84.5	85.9	88.1	100	91.9
01-Jul-01	16:19:34	-0.7	-1.7	-0.4	-0.9	-0.2	1.6	100	85.5	86.5	85.9	100	90.8

01-Jul-01	16:39:34	1.1	-1.9	-0.4	-1.2	-0.2	0.3	98.4	86.1	85.4	85.9	100	90.2
01-Jul-01	16:59:34	-0.7	-1.4	-0.7	-0.9	-0.2	-0.4	100	88.8	84.3	88.1	100	90.8
01-Jul-01	17:19:34	-0.7	-1.4	-0.7	-0.7	0.1	-0.4	100	88.3	84.3	85.9	100	93.6
01-Jul-01	17:39:34	-0.7	-0.9	-0.9	-1.2	-0.4	-0.4	100	89.9	85.9	85.9	100	94.1
01-Jul-01	17:59:34	-0.7	-0.4	-0.9	-0.7	-0.2	-0.4	100	89.3	84.3	88.1	100	94.1
01-Jul-01	18:19:34	-0.9	-0.2	-0.9	-0.7	-0.7	-0.7	100	89.3	85.4	85.9	100	93.6
01-Jul-01	18:39:34	-0.7	-0.2	-0.7	-0.9	0.1	-0.7	100	89.3	86.5	85.9	100	93
01-Jul-01	18:59:34	-0.7	-0.2	-0.7	-0.9	-0.4	-0.7	100	89.3	85.9	87.5	100	92.4
01-Jul-01	19:19:34	-0.7	-0.2	-0.7	-0.7	-0.4	-0.7	100	89.3	84.9	85.9	100	94.1
01-Jul-01	19:39:34	-0.7	0.1	-0.7	-1.2	0.3	-0.4	99.5	88.8	85.4	87.5	100	94.1
01-Jul-01	19:59:34	-0.9	0.1	-0.7	-0.7	1.3	-0.7	100	89.3	85.4	87.5	100	93.6
01-Jul-01	20:19:34	-0.9	0.1	-0.9	-0.7	0.6	-0.7	100	88.8	85.9	85.9	100	92.4
01-Jul-01	20:39:34	-0.7	0.1	-0.7	-1.2	-0.4	-0.4	100	85	86.5	87.5	100	94.1
01-Jul-01	20:59:34	-0.7	-0.7	-0.9	-0.9	-0.2	-0.4	100	89.3	85.4	87.5	100	94.1
01-Jul-01	21:19:34	-0.9	-0.4	-0.7	-0.7	-0.7	-0.4	100	88.8	85.4	85.9	100	94.1
01-Jul-01	21:39:34	-0.7	0.1	-0.4	-0.9	-0.2	-0.7	100	88.3	85.9	87.5	100	92.4
01-Jul-01	21:59:34	-0.7	0.1	-0.7	-0.7	0.1	-0.4	100	87.7	85.9	87.5	100	93.6
01-Jul-01	22:19:34	-0.7	0.3	-0.2	-0.7	-0.4	-0.4	100	87.7	87	85.9	100	94.1
01-Jul-01	22:39:34	0.8	0.6	-0.4	-1.2	0.1	-0.4	99.5	87.7	85.4	88.1	100	94.1
01-Jul-01	22:59:34	-0.7	-0.4	-0.7	-0.9	-0.7	-0.4	100	88.3	84.9	87.5	100	91.9
01-Jul-01	23:19:34	-0.7	-0.4	-0.9	-0.9	-0.2	-0.7	100	89.3	85.9	85.9	100	94.1
01-Jul-01	23:39:34	-0.9	0.1	-0.9	-0.9	-0.2	-0.4	100	88.3	87	88.1	100	94.1
01-Jul-01	23:59:34	-0.7	0.1	-0.7	-0.4	-0.4	-0.2	100	86.6	87	87	100	93
02-Jul-01	00:19:34	-0.9	-0.7	-0.7	-0.7	0.1	0.8	100	89.3	87	85.9	100	91.3
02-Jul-01	00:39:34	-0.7	-0.4	-0.7	-1.2	-0.7	0.1	100	88.8	86.5	88.1	100	90.8
02-Jul-01	00:59:34	-0.7	0.1	-0.7	-0.4	-0.2	-0.2	100	88.3	85.4	87.5	100	93.6
02-Jul-01	01:19:34	-0.7	0.1	-0.4	-0.7	-0.2	-0.4	100	88.3	85.9	85.9	100	94.1
02-Jul-01	01:39:34	-0.7	0.1	-0.4	-0.9	0.1	-0.4	100	84.5	86.5	88.1	100	91.3
02-Jul-01	01:59:34	-0.7	-0.4	-0.7	-0.4	0.8	-0.7	100	89.3	86.5	87	100	94.1
02-Jul-01	02:19:34	-0.7	-0.2	-0.9	-0.7	0.6	-0.4	100	88.3	86.5	85.9	100	94.1
02-Jul-01	02:39:34	-0.7	0.3	-0.7	-0.9	-0.7	-0.4	100	86.1	86.5	88.1	100	93.6
02-Jul-01	02:59:34	-0.7	-0.7	-0.7	-0.4	-0.2	-0.4	100	88.8	85.9	87.5	100	91.9
02-Jul-01	03:19:34	-0.7	-0.4	-0.4	-0.7	-0.7	-0.4	100	88.8	85.9	85.9	100	93.6
02-Jul-01	03:39:34	-1.2	0.1	-0.7	-0.9	-0.4	-0.4	100	88.3	85.9	88.1	100	94.1
02-Jul-01	03:59:34	-1.2	-0.4	-0.4	-0.4	-0.7	-0.4	100	88.3	86.5	87.5	100	94.1
02-Jul-01	04:19:34	-0.7	-0.2	-0.4	-0.7	-0.4	-0.4	100	88.8	87.5	85.9	100	91.9
02-Jul-01	04:39:34	0.3	0.1	-0.4	-0.9	0.1	-0.7	99.5	88.3	85.9	88.1	100	93.6
02-Jul-01	04:59:34	-0.7	-0.2	-0.7	-0.7	-0.9	-0.4	100	83.9	86.5	87.5	100	94.1
02-Jul-01	05:19:34	-0.7	-0.4	-0.7	-0.7	-0.2	-0.7	100	89.3	85.9	85.9	100	93.6
02-Jul-01	05:39:34	-0.9	0.1	-0.7	-0.9	-0.7	-0.4	100	88.8	84.9	88.1	100	92.4
02-Jul-01	05:59:34	-0.7	0.1	-0.7	-0.7	-0.4	-0.4	100	88.3	85.9	87	100	94.1
02-Jul-01	06:19:34	-0.9	0.6	-0.4	-0.7	-0.2	-0.4	100	87.7	88.1	85.9	100	94.1
02-Jul-01	06:39:34	-0.9	0.8	-0.7	-0.9	-0.4	-0.7	100	86.1	87.5	88.1	100	93.6
02-Jul-01	06:59:34	-0.7	-0.2	-0.9	-0.4	-0.2	-0.4	100	85.5	87	87.5	100	91.9
02-Jul-01	07:19:34	-0.4	-0.2	-0.9	-0.7	-0.7	-0.7	100	89.3	85.4	85.9	100	93.6
02-Jul-01	07:39:34	-0.9	0.1	-0.7	-0.9	0.1	-0.4	99.5	85	85.9	88.1	100	93.6
02-Jul-01	07:59:34	-0.9	-0.4	-0.7	-0.4	0.8	-0.4	100	89.3	85.9	86.5	100	93
02-Jul-01	08:19:34	-0.7	0.1	-0.7	-0.9	0.3	0.8	100	88.8	85.9	85.9	100	90.8
02-Jul-01	08:39:34	-0.7	-0.2	-0.4	-0.9	-0.7	-0.2	100	85	87	88.1	100	90.8

02-Jul-01	08:59:34	-0.7	-0.4	-0.7	-0.4	-0.2	-0.4	100	88.8	87	87.5	100	93.6
02-Jul-01	09:19:34	-0.7	-0.2	-0.9	-0.7	-0.7	-0.7	100	85	85.4	85.9	100	94.1
02-Jul-01	09:39:34	-0.7	-0.2	-0.4	-0.9	-0.2	-0.7	100	88.8	86.5	87.5	100	94.1
02-Jul-01	09:59:34	-0.4	-0.2	-0.4	-0.4	-0.7	-0.7	100	88.3	87	87.5	100	93.6
02-Jul-01	10:19:34	-0.2	-0.2	-0.4	-0.7	-0.7	-0.7	100	86.1	87	85.9	100	91.3
02-Jul-01	10:39:34	0.8	-0.2	-0.4	-0.9	-0.7	-0.4	98.4	90.4	86.5	87	100	93
02-Jul-01	10:59:34	-0.2	-0.7	-0.9	-0.4	-0.9	-0.7	100	89.3	85.4	87.5	100	93
02-Jul-01	11:19:34	-0.7	-0.4	-0.7	-0.7	-0.2	-0.4	99.5	86.1	84.9	85.9	100	93.6
02-Jul-01	11:39:34	-0.4	-0.7	-0.7	-1.2	-0.9	-0.4	100	87.7	85.9	85.9	100	91.3
02-Jul-01	11:59:34	-0.4	-1.2	-0.9	-0.7	-0.4	-0.7	99.5	88.3	86.5	88.1	100	91.3
02-Jul-01	12:19:34	-0.7	-0.9	-0.7	-0.7	-0.4	-0.7	100	85.5	84.9	85.9	100	93.6
02-Jul-01	12:39:34	-0.2	-0.9	-0.9	-0.9	-0.2	-0.4	100	86.1	85.4	85.9	100	91.3
02-Jul-01	12:59:34	-0.4	-0.9	-0.9	-0.9	-0.4	-0.4	99.5	85.5	84.3	88.1	100	94.1
02-Jul-01	13:19:34	-0.2	-1.2	-0.9	-0.4	-0.2	-0.7	99.5	88.8	85.4	87.5	100	93.6
02-Jul-01	13:39:34	-0.4	-1.2	-0.9	-0.9	0.6	-0.4	100	86.1	85.4	85.9	100	91.9
02-Jul-01	13:59:34	-0.4	-0.4	-0.9	-1.2	1.6	-0.7	100	86.6	84.9	85.9	100	94.1
02-Jul-01	14:19:34	-0.2	0.6	-0.7	-0.9	1.3	-0.7	99.5	86.1	85.4	88.1	100	91.3
02-Jul-01	14:39:34	-0.4	1.6	-0.9	-0.4	-0.4	-0.7	100	85.5	84.3	87	98.9	94.1
02-Jul-01	14:59:34	-0.2	0.1	-1.2	-0.4	0.1	-0.4	99.5	82.9	84.3	87	100	94.1
02-Jul-01	15:19:34	-0.4	-1.2	-0.9	-0.7	-0.2	-0.4	100	83.4	84.9	85.9	100	90.8
02-Jul-01	15:39:34	-0.4	-1.2	-0.7	-0.9	-0.4	-0.4	99.5	83.9	85.9	85.9	100	91.9
02-Jul-01	15:59:34	-0.4	-1.2	-0.4	-1.2	-0.2	0.1	100	85.5	86.5	85.9	100	91.9
02-Jul-01	16:19:34	-0.2	-1.2	-0.4	-1.2	-0.4	1.1	99.5	88.8	87	85.9	100	90.2
02-Jul-01	16:39:34	2.1	-1.2	-0.4	-0.9	-0.2	-0.2	98.4	89.3	85.9	85.4	100	90.8
02-Jul-01	16:59:34	0.3	-1.2	-0.7	-0.9	-0.4	-0.4	100	88.3	84.9	88.1	100	94.1
02-Jul-01	17:19:34	-0.2	-0.9	-1.2	-0.4	0.1	-0.4	99.5	86.1	84.3	86.5	100	93.6
02-Jul-01	17:39:34	-0.2	-1.2	-0.9	-1.2	-0.4	-0.4	100	90.4	85.9	85.9	100	91.9
02-Jul-01	17:59:34	-0.4	-0.4	-0.9	-0.7	0.1	-0.7	100	89.9	87	88.1	100	93
02-Jul-01	18:19:34	-0.4	-0.2	-0.9	-0.4	-0.2	-0.4	100	89.9	86.5	87	100	94.1
02-Jul-01	18:39:34	-0.7	0.1	-0.9	-0.9	0.1	-0.4	100	89.9	85.9	85.9	100	94.1
02-Jul-01	18:59:34	-0.4	-0.4	-0.9	-0.9	-0.4	-0.7	100	89.9	85.4	87.5	100	93.6
02-Jul-01	19:19:34	-0.7	-0.4	-0.9	-0.4	0.1	-0.4	100	90.4	85.9	87	100	93.6
02-Jul-01	19:39:34	-0.4	0.1	-0.7	-1.2	0.6	-0.4	100	89.9	87	85.9	100	94.1
02-Jul-01	19:59:34	-0.7	0.1	-0.9	-0.9	1.3	-0.4	100	89.9	85.9	88.1	100	94.1
02-Jul-01	20:19:34	-0.7	0.1	-0.7	-0.4	0.6	-0.7	100	88.3	85.9	87	100	93.6
02-Jul-01	20:39:34	-0.4	-0.7	-0.7	-1.2	-0.4	-0.4	100	87.7	88.1	85.9	100	91.9
02-Jul-01	20:59:34	-0.7	-0.7	-0.7	-0.9	0.1	-0.7	99.5	90.4	87	88.1	100	93
02-Jul-01	21:19:34	-0.9	-0.2	-0.9	-0.7	-0.4	-0.7	100	89.3	86.5	87	100	94.1
02-Jul-01	21:39:34	-0.7	0.1	-0.9	-1.2	-0.2	-0.4	100	88.3	86.5	85.9	100	94.1
02-Jul-01	21:59:34	-0.4	0.1	-0.7	-0.9	-0.4	-0.7	100	88.3	86.5	88.1	100	93
02-Jul-01	22:19:34	-0.4	0.3	-0.4	-0.4	-0.2	-0.4	100	88.3	87	87	100	93
02-Jul-01	22:39:34	0.8	0.6	-0.7	-0.9	-0.7	-0.4	98.4	88.3	85.9	85.9	100	94.1
02-Jul-01	22:59:34	-0.4	-0.2	-0.7	-0.9	-0.2	-0.4	100	88.3	87	87.5	100	94.1
02-Jul-01	23:19:34	-0.7	-0.2	-0.9	-0.7	-0.7	-0.4	100	90.4	86.5	87	100	93.6
02-Jul-01	23:39:34	-0.7	0.1	-0.9	-1.2	-0.2	-0.7	100	86.6	85.9	85.9	100	93.6
02-Jul-01	23:59:34	-0.7	-0.7	-0.7	-0.9	-0.4	-0.2	100	91	85.9	88.1	100	93
03-Jul-01	00:19:34	-0.7	-0.4	-0.7	-0.4	-0.2	0.6	100	89.3	87	87	100	90.8
03-Jul-01	00:39:34	-0.4	0.1	-0.7	-0.9	-0.4	-0.2	100	86.1	88.1	85.9	100	90.8
03-Jul-01	00:59:34	-0.4	-0.4	-0.9	-0.9	-0.4	-0.4	100	90.4	88.1	88.1	100	93.6

03-Jul-01	01:19:34	-0.9	-0.2	-0.9	-0.4	0.1	-0.4	100	88.8	87	87.5	100	94.1
03-Jul-01	01:39:34	-0.7	-0.2	-0.7	-0.9	0.6	-0.4	100	85.5	85.9	85.9	100	93
03-Jul-01	01:59:34	-0.7	-0.4	-0.9	-0.9	0.8	-0.7	100	91	85.9	88.1	100	94.1
03-Jul-01	02:19:34	-0.7	-0.2	-0.9	-0.4	0.6	-0.4	100	88.8	85.9	87.5	100	94.1
03-Jul-01	02:39:34	-0.7	-0.2	-0.7	-0.9	-0.4	-0.4	100	85	85.9	85.9	100	94.1
03-Jul-01	02:59:34	-0.7	-0.2	-0.9	-0.9	-0.2	-0.4	100	89.9	87.5	88.1	100	91.9
03-Jul-01	03:19:34	-0.7	0.1	-0.7	-0.4	-0.7	-0.4	100	88.3	87	87.5	100	94.1
03-Jul-01	03:39:34	-0.7	-0.4	-0.9	-0.9	0.1	-0.4	100	88.8	87.5	85.9	100	94.1
03-Jul-01	03:59:34	-0.7	-0.2	-0.4	-0.9	-0.4	-0.7	100	89.3	87	88.1	100	94.1
03-Jul-01	04:19:34	-0.4	-0.2	-0.4	-0.4	0.1	-0.7	100	88.8	87.5	87.5	100	93.6
03-Jul-01	04:39:34	0.1	-0.4	-0.4	-0.7	-0.4	-0.4	97.3	89.3	85.9	85.9	100	93
03-Jul-01	04:59:34	-0.7	-0.2	-0.7	-0.7	-0.2	-0.4	100	88.8	87	87.5	100	94.1
03-Jul-01	05:19:34	-0.7	-0.2	-0.7	-1.2	-0.4	-0.4	100	86.1	87	87.5	100	94.1
03-Jul-01	05:39:34	-0.4	-0.2	-0.9	-0.7	-0.2	-0.7	100	90.4	85.9	87.5	100	94.1
03-Jul-01	05:59:34	-0.9	-0.2	-0.7	-0.4	-0.7	-0.4	98.9	88.8	85.9	86.5	100	94.1
03-Jul-01	06:19:34	-0.9	0.3	-0.7	-1.2	-0.2	-0.4	100	88.8	87	85.9	100	93
03-Jul-01	06:39:34	-0.7	0.6	-0.9	-0.9	-0.4	-0.4	100	87.2	88.1	88.1	100	93.6
03-Jul-01	06:59:34	-0.7	-0.2	-0.7	-0.4	0.1	-0.4	100	88.3	88.1	87	100	94.1
03-Jul-01	07:19:34	-0.7	0.1	-0.9	-1.2	-0.7	-0.7	100	89.9	87	85.9	100	94.1
03-Jul-01	07:39:34	-0.9	-0.4	-0.7	-0.9	0.1	-0.7	100	88.8	85.9	88.1	100	93.6
03-Jul-01	07:59:34	-0.7	0.1	-0.7	-0.4	1.1	-0.2	100	89.3	85.9	87	100	93
03-Jul-01	08:19:34	-0.7	-0.2	-0.7	-0.9	0.6	1.3	100	88.3	85.9	85.9	100	91.3
03-Jul-01	08:39:34	-0.9	-0.2	-0.9	-0.7	-0.7	0.3	100	85.5	85.9	88.1	100	90.2
03-Jul-01	08:59:34	-0.4	-0.4	-0.7	-0.7	-0.4	-0.2	99.5	89.3	87.5	87.5	100	93.6
03-Jul-01	09:19:34	-0.7	-0.4	-0.9	-0.7	-0.2	-0.4	100	88.8	87.5	85.9	100	93.6
03-Jul-01	09:39:34	-0.4	0.1	-0.7	-1.2	-0.4	-0.7	100	88.3	87.5	88.1	100	93.6
03-Jul-01	09:59:34	-0.7	-0.2	-0.7	-0.4	-0.2	-0.4	100	90.4	88.6	88.1	100	91.9
03-Jul-01	10:19:34	-0.2	-0.4	-0.4	-0.4	-0.4	-0.7	100	85.5	88.6	85.9	100	91.3
03-Jul-01	10:39:34	1.1	-0.2	-0.2	-0.9	0.1	-0.4	97.3	87.7	86.5	86.5	100	91.9
03-Jul-01	10:59:34	-0.4	-0.7	-0.7	-0.7	-0.2	-0.7	100	90.4	86.5	88.1	100	92.4
03-Jul-01	11:19:34	-0.4	-0.7	-0.7	-0.4	-0.2	-0.4	100	86.1	85.9	85.9	100	94.1
03-Jul-01	11:39:34	-0.7	-0.4	-0.9	-0.9	0.1	-0.7	98.4	86.6	85.4	85.9	100	93
03-Jul-01	11:59:34	-0.7	-1.2	-0.9	-0.7	-0.2	-0.7	100	88.8	85.9	88.6	100	91.3
03-Jul-01	12:19:34	-0.9	-0.9	-1.2	-0.4	-0.4	-0.4	100	86.6	85.4	87	100	91.9
03-Jul-01	12:39:34	-0.4	-1.2	-0.7	-0.7	-0.2	-0.4	100	85.5	86.5	86.5	100	93
03-Jul-01	12:59:34	-0.4	-0.9	-0.9	-0.9	-0.4	-0.7	98.4	86.1	85.4	86.5	100	94.1
03-Jul-01	13:19:34	-0.4	-1.2	-1.2	-0.7	0.1	-0.4	100	89.3	87.5	88.6	100	93.6
03-Jul-01	13:39:34	-0.2	-1.4	-1.2	-0.7	0.8	-0.7	100	87.7	85.4	87	100	91.3
03-Jul-01	13:59:34	-0.4	-0.4	-0.9	-0.7	1.6	-0.7	99.5	87.7	85.4	86.5	100	93.6
03-Jul-01	14:19:34	-0.2	0.6	-0.9	-0.9	1.1	-0.7	100	86.6	84.3	86.5	100	93.6
03-Jul-01	14:39:34	-0.2	0.6	-1.2	-1.2	-0.2	-0.7	100	83.4	85.4	85.9	98.3	92.4
03-Jul-01	14:59:34	-0.2	-0.7	-1.2	-0.9	-0.2	-0.7	100	83.9	85.4	87	100	91.3
03-Jul-01	15:19:34	-0.4	-1.2	-0.9	-0.9	-0.4	-0.4	99.5	85	85.9	85.9	100	94.1
03-Jul-01	15:39:34	-0.4	-1.2	-0.7	-1.2	0.1	-0.7	100	85.5	86.5	85.9	100	94.1
03-Jul-01	15:59:34	-0.2	-1.4	-0.7	-1.2	-0.4	0.3	100	86.1	86.5	85.9	100	91.9
03-Jul-01	16:19:34	-0.2	-1.2	-0.4	-1.2	-0.2	1.6	98.9	88.3	87.5	87.5	100	90.2
03-Jul-01	16:39:34	2.6	-0.7	-0.4	-0.7	-0.2	0.1	97.3	88.3	85.9	88.1	100	90.8
03-Jul-01	16:59:34	0.1	-0.9	-0.7	-0.9	-0.2	-0.4	100	83.9	85.4	85.9	100	94.1
03-Jul-01	17:19:34	-0.2	-0.9	-0.9	-1.2	0.1	-0.7	97.8	89.9	85.4	87	100	93.6

03-Jul-01	17:39:34	-0.4	-1.2	-0.9	-0.7	-0.4	-0.4	100	90.4	85.4	88.1	100	91.9
03-Jul-01	17:59:34	-0.4	-0.4	-1.2	-0.7	-0.4	-0.4	100	91	85.9	86.5	100	93
03-Jul-01	18:19:34	-0.4	-0.4	-1.2	-1.2	-0.2	-0.7	99.5	91	86.5	85.9	100	93
03-Jul-01	18:39:34	-0.7	0.1	-0.7	-0.9	-0.4	-0.4	100	88.8	86.5	88.6	100	94.1
03-Jul-01	18:59:34	-0.7	-0.7	-0.7	-0.4	-0.2	-0.4	100	90.4	87	87.5	100	94.1
03-Jul-01	19:19:34	-0.4	-0.2	-0.9	-1.2	-0.4	-0.7	100	91	85.9	85.9	100	94.1
03-Jul-01	19:39:34	-0.9	-0.2	-0.9	-0.9	0.3	-0.7	100	90.4	85.9	88.6	100	93.6
03-Jul-01	19:59:34	-0.7	-0.4	-0.7	-0.4	1.1	-0.7	100	88.3	85.9	87.5	100	93
03-Jul-01	20:19:34	-0.7	-0.4	-0.7	-0.9	0.6	-0.4	100	90.4	85.9	85.9	100	93.6
03-Jul-01	20:39:34	-0.4	-0.2	-0.7	-1.2	-0.4	-0.4	100	90.4	85.9	88.1	100	94.1
03-Jul-01	20:59:34	-0.7	-0.2	-0.7	-0.7	-0.2	-0.7	100	86.1	85.9	87.5	100	94.7
03-Jul-01	21:19:34	-0.9	-0.4	-0.9	-0.7	-0.2	-0.7	100	91	86.5	86.5	100	93.6
03-Jul-01	21:39:34	-0.7	-0.2	-0.9	-0.9	0.1	-0.4	100	88.8	86.5	88.6	100	93
03-Jul-01	21:59:34	-0.7	-0.2	-0.4	-0.7	-0.4	-0.4	100	88.8	87	88.1	100	94.1
03-Jul-01	22:19:34	-0.4	0.3	-0.7	-0.7	0.1	-0.7	100	88.8	87.5	85.9	100	94.7
03-Jul-01	22:39:34	1.1	0.3	-0.4	-1.2	-0.7	-0.7	97.3	88.8	85.9	87.5	100	93.6
03-Jul-01	22:59:34	-0.4	-0.2	-0.9	-0.7	-0.2	-0.4	100	84.5	85.9	88.1	100	93
03-Jul-01	23:19:34	-0.7	-0.7	-0.9	-0.7	-0.4	-0.4	100	91	85.9	86.5	100	93
03-Jul-01	23:39:34	-0.7	-0.2	-0.7	-0.9	-0.2	-0.4	100	88.8	86.5	85.9	100	94.1
03-Jul-01	23:59:34	-0.7	-0.7	-0.9	-0.7	-0.4	-0.2	100	89.3	87	88.1	100	93
04-Jul-01	00:19:34	-0.7	-0.4	-0.9	-0.4	-0.2	0.8	100	89.3	87.5	87	100	91.3
04-Jul-01	00:39:34	-0.7	-0.2	-0.7	-1.2	-0.7	0.1	100	88.3	88.1	85.9	100	90.8
04-Jul-01	00:59:34	-0.9	-0.7	-0.7	-0.7	-0.2	-0.2	100	90.4	88.1	88.6	100	94.1
04-Jul-01	01:19:34	-0.7	0.1	-0.7	-0.4	-0.7	-0.4	100	89.3	88.1	87	100	94.1
04-Jul-01	01:39:34	-0.4	-0.2	-0.7	-0.9	0.1	-0.7	100	85	88.1	85.9	100	92.4
04-Jul-01	01:59:34	-0.9	-0.4	-0.9	-0.9	1.1	-0.4	100	90.4	88.1	88.6	100	94.1
04-Jul-01	02:19:34	-0.7	0.1	-0.9	-0.7	0.6	-0.7	100	88.3	87.5	87.5	100	94.7
04-Jul-01	02:39:34	-0.7	-0.4	-0.7	-0.9	-0.2	-0.4	99.5	89.3	87	85.9	100	94.1
04-Jul-01	02:59:34	-0.9	-0.2	-0.7	-0.9	-0.4	-0.7	100	89.3	87	87.5	100	93
04-Jul-01	03:19:34	-0.9	0.1	-0.7	-1.2	-0.4	-0.4	100	85.5	87.5	86.5	100	94.1
04-Jul-01	03:39:34	-0.7	-0.4	-0.4	-0.9	-0.2	-0.7	100	91	88.1	88.1	100	94.7
04-Jul-01	03:59:34	-0.7	-0.2	-0.7	-0.4	-0.7	-0.4	100	88.8	87	87	100	93.6
04-Jul-01	04:19:34	-0.9	-0.2	-0.2	-1.2	-0.2	-0.4	99.5	87.7	88.1	85.9	100	93.6
04-Jul-01	04:39:34	0.8	-0.4	-0.7	-0.7	-0.4	-0.4	97.3	88.3	85.9	88.6	100	94.1
04-Jul-01	04:59:34	-0.7	-0.7	-0.7	-0.4	-0.2	-0.7	100	89.3	88.1	87.5	100	94.7
04-Jul-01	05:19:34	-1.2	-0.4	-0.9	-0.9	-0.7	-0.4	100	89.3	88.1	85.9	100	93.6
04-Jul-01	05:39:34	-0.7	-0.2	-0.9	-0.9	-0.2	-0.4	100	88.3	88.1	88.6	100	93
04-Jul-01	05:59:34	-0.9	0.3	-0.7	-0.7	-0.7	-0.4	100	88.8	88.6	87.5	100	94.1
04-Jul-01	06:19:34	-0.7	0.6	-0.7	-0.7	-0.2	-0.7	100	88.3	88.6	85.9	100	94.7
04-Jul-01	06:39:34	-0.7	0.3	-0.7	-0.9	-0.7	-0.4	100	83.4	88.6	88.6	100	94.1
04-Jul-01	06:59:34	-0.9	-0.2	-0.7	-0.4	-0.2	-0.4	100	89.9	88.6	87.5	100	93.6
04-Jul-01	07:19:34	-0.9	-0.2	-0.7	-0.4	-0.7	-0.4	100	85.5	88.1	85.9	100	94.1
04-Jul-01	07:39:34	-0.9	-0.4	-0.7	-0.9	-0.2	-0.7	100	90.4	88.1	87.5	100	94.7
04-Jul-01	07:59:34	-0.9	0.1	-0.9	-0.7	0.8	0.1	99.5	86.1	87.5	88.1	100	93.6
04-Jul-01	08:19:34	-0.7	-0.2	-0.7	-0.4	0.3	0.8	100	90.4	87	86.5	100	91.3
04-Jul-01	08:39:34	-0.9	0.1	-0.9	-0.9	-0.4	-0.2	100	86.1	85.9	88.6	100	90.8
04-Jul-01	08:59:34	-0.9	-0.4	-0.7	-0.7	-0.4	-0.4	99.5	90.4	85.9	87	100	91.3
04-Jul-01	09:19:34	-0.7	-0.2	-0.9	-0.7	-0.4	-0.2	100	85.5	85.9	86.5	100	91.9
04-Jul-01	09:39:34	-0.4	-0.2	-0.9	-1.2	-0.4	-0.2	100	91	87	86.5	100	91.9

04-Jul-01	09:59:34	-0.7	-0.4	-0.4	-0.7	-0.2	-0.4	97.8	89.3	88.1	88.6	100	93
04-Jul-01	10:19:34	-0.2	-0.2	-0.7	-0.7	-0.4	-0.4	100	88.3	88.1	87	100	93.6
04-Jul-01	10:39:34	1.1	-0.2	-0.2	-0.9	0.1	-0.7	96.7	88.8	86.5	87	100	94.7
04-Jul-01	10:59:34	-0.2	-0.4	-0.4	-0.7	-0.4	-0.4	99.5	86.1	85.9	88.6	100	94.1
04-Jul-01	11:19:34	-0.4	-0.7	-0.7	-0.4	-0.2	-0.4	100	91.6	85.9	87	100	93.6
04-Jul-01	11:39:34	-0.4	-0.9	-0.9	-0.9	-0.4	-0.4	100	86.1	85.4	87	100	91.9
04-Jul-01	11:59:34	-0.4	-1.2	-0.9	-0.7	-0.2	-0.7	100	89.9	85.9	89.2	100	91.3
04-Jul-01	12:19:34	-0.7	-1.2	-0.9	-0.4	0.1	-0.4	100	87.7	85.4	87	100	93.6
04-Jul-01	12:39:34	-0.4	-0.9	-0.9	-0.9	-0.4	-0.4	99.5	86.1	85.9	87	100	94.1
04-Jul-01	12:59:34	-0.4	-0.9	-0.9	-0.9	0.3	-0.7	100	85.5	85.9	89.2	100	93.6
04-Jul-01	13:19:34	-0.2	-0.7	-0.9	-0.4	-0.4	-0.4	100	87.7	85.4	87.5	100	93
04-Jul-01	13:39:34	-0.2	-0.9	-0.9	-0.4	0.6	-0.7	98.4	87.2	85.9	87	100	91.3
04-Jul-01	13:59:34	-0.4	0.1	-0.9	-0.9	1.8	-0.4	100	87.2	85.4	87	100	92.4
04-Jul-01	14:19:34	-0.2	1.1	-0.9	-0.4	1.3	-0.4	100	88.3	85.4	89.2	100	94.1
04-Jul-01	14:39:34	-0.2	1.1	-0.7	-0.4	-0.2	-0.4	98.4	83.4	85.9	87	98.9	91.9
04-Jul-01	14:59:34	-0.2	-0.4	-0.7	-0.4	-0.2	-0.7	100	83.4	84.9	87.5	100	91.3
04-Jul-01	15:19:34	-0.2	-1.2	-0.9	-0.7	-0.2	-0.7	100	85	85.4	87.5	100	91.3
04-Jul-01	15:39:34	-0.2	-1.2	-0.7	-0.7	0.1	-0.7	99.5	85	85.9	87	100	92.4
04-Jul-01	15:59:34	-0.2	-1.2	-0.7	-0.9	-0.4	-0.2	100	85.5	86.5	87	100	91.3
04-Jul-01	16:19:34	-0.2	-0.9	-0.4	-0.7	-0.2	1.3	100	87.7	87.5	88.6	100	90.2
04-Jul-01	16:39:34	2.1	-0.9	-0.2	-0.7	0.1	0.1	96.7	88.3	85.9	87.5	100	90.8
04-Jul-01	16:59:34	0.1	-0.9	-0.7	-0.9	-0.4	-0.7	100	85.5	85.4	87	100	94.1
04-Jul-01	17:19:34	-0.2	-1.4	-0.7	-0.9	0.1	-0.7	100	85.5	85.4	88.6	100	93.6
04-Jul-01	17:39:34	-0.4	-1.2	-0.9	-0.4	-0.4	-0.4	100	91.6	85.9	88.6	100	93.6
04-Jul-01	17:59:34	-0.7	-0.4	-0.9	-0.7	0.1	-0.7	99.5	91.6	85.9	87	100	92.4
04-Jul-01	18:19:34	-0.7	-0.4	-0.7	-0.9	-0.7	-0.4	98.9	91	86.5	89.2	100	93
04-Jul-01	18:39:34	-0.7	0.1	-0.7	-0.4	0.1	-0.4	100	90.4	87	87.5	100	94.1
04-Jul-01	18:59:34	-0.7	-0.4	-0.7	-0.9	-0.7	-0.7	97.8	86.1	87	87	100	94.1
04-Jul-01	19:19:34	-0.7	-0.9	-0.9	-0.7	-0.4	-0.7	97.8	91	87.5	88.6	100	94.7
04-Jul-01	19:39:34	-0.9	-0.4	-0.7	-0.4	0.3	-0.7	100	91.6	86.5	87.5	100	94.1
04-Jul-01	19:59:34	-0.9	-0.2	-0.7	-1.2	1.1	-0.4	100	91	86.5	87	100	94.1
04-Jul-01	20:19:34	-0.9	0.1	-0.7	-0.7	0.8	-0.7	100	91	86.5	88.6	100	93
04-Jul-01	20:39:34	-0.7	0.1	-0.7	-0.4	-0.2	-0.7	100	87.7	85.9	87	100	92.4
04-Jul-01	20:59:34	-0.4	-0.7	-0.4	-0.4	-0.2	-0.4	100	91	86.5	87.5	100	93.6
04-Jul-01	21:19:34	-0.7	-0.4	-0.7	-0.9	-0.4	-0.4	100	91.6	86.5	87	100	93.6
04-Jul-01	21:39:34	-0.7	-0.2	-0.7	-0.9	-0.2	-0.4	100	89.3	86.5	88.6	100	94.1
04-Jul-01	21:59:34	-0.7	0.1	-0.4	-0.7	-0.2	-0.4	100	88.3	87	87.5	100	94.1
04-Jul-01	22:19:34	-0.7	0.6	-0.2	-0.9	-0.4	-0.7	100	88.8	87	87	100	94.7
04-Jul-01	22:39:34	0.3	0.3	-0.4	-0.4	-0.2	-0.7	97.3	88.8	85.9	88.6	100	94.7
04-Jul-01	22:59:34	-0.7	-0.2	-0.9	-0.4	-0.4	-0.7	99.5	85	85.9	87	100	94.1
04-Jul-01	23:19:34	-0.9	-0.9	-0.7	-1.2	-0.2	-0.7	99.5	89.9	86.5	88.6	100	94.7
04-Jul-01	23:39:34	-0.9	-0.7	-0.7	-0.7	-0.2	-0.7	100	91.6	85.9	88.1	100	94.1
04-Jul-01	23:59:34	-0.9	-0.2	-0.7	-0.7	-0.2	-0.2	100	91.6	85.9	87	100	93.6
05-Jul-01	00:19:34	-0.7	-0.4	-0.9	-0.9	-0.4	0.8	100	86.6	85.9	89.2	100	91.3
05-Jul-01	00:39:34	-0.7	-1.2	-0.7	-0.7	-0.2	0.1	100	91	85.9	88.1	100	90.8
05-Jul-01	00:59:34	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	91.6	85.9	87	100	93.6
05-Jul-01	01:19:34	-0.7	-0.2	-0.9	-0.7	-0.2	-0.7	100	90.4	87	89.2	100	94.7
05-Jul-01	01:39:34	-0.7	-0.4	-0.7	-0.2	0.3	-0.7	100	85.5	87	88.1	100	94.7
05-Jul-01	01:59:34	-0.7	-0.9	-0.9	-0.9	1.1	-0.7	100	91.6	87.5	87	100	94.7

05-Jul-01	02:19:34	-1.2	-0.4	-0.7	-0.9	0.8	-0.7	100	91.6	88.6	89.2	100	94.1
05-Jul-01	02:39:34	-0.9	0.1	-0.7	-0.4	-0.4	-0.4	100	89.9	87	87	100	94.1
05-Jul-01	02:59:34	-0.9	-0.7	-0.7	-0.4	-0.4	-0.7	100	86.1	87	87	100	93.6
05-Jul-01	03:19:34	-0.7	-0.7	-0.9	-0.7	-0.2	-0.7	100	91.6	86.5	87	100	93
05-Jul-01	03:39:34	-0.7	-0.2	-0.4	-0.9	-0.4	-0.7	100	91.6	87	88.6	100	93.6
05-Jul-01	03:59:34	-0.7	-0.4	-0.7	-0.4	-0.2	-0.7	100	86.6	87.5	87	100	93
05-Jul-01	04:19:34	-0.4	-0.7	-0.4	-0.9	-0.4	-0.4	100	88.8	87	87	100	93
05-Jul-01	04:39:34	0.6	-0.7	-0.4	-0.7	-0.2	-0.7	97.3	89.3	85.9	88.6	100	92.4
05-Jul-01	04:59:34	-0.4	-1.2	-0.7	-0.4	-0.7	-0.4	100	86.6	85.9	87	100	93.6
05-Jul-01	05:19:34	-0.7	-0.9	-0.7	-0.9	-0.2	-0.7	100	92.1	85.9	87.5	100	93.6
05-Jul-01	05:39:34	-0.7	-0.7	-0.7	-0.4	-0.7	-0.4	100	90.4	85.9	88.6	100	94.7
05-Jul-01	05:59:34	-0.9	-0.2	-0.9	-0.4	0.1	-0.7	99.5	91	85.9	87	100	94.7
05-Jul-01	06:19:34	-0.9	0.3	-0.7	-1.2	-0.4	-0.7	100	89.3	85.9	88.6	100	94.7
05-Jul-01	06:39:34	-0.7	0.1	-0.9	-0.7	0.1	-0.4	100	86.1	85.9	88.1	100	94.7
05-Jul-01	06:59:34	-0.7	-0.9	-0.7	-0.7	-0.7	-0.4	100	86.6	87	87	100	94.7
05-Jul-01	07:19:34	-0.9	-0.7	-0.7	-0.9	0.1	-0.4	100	91.6	87.5	89.2	100	94.7
05-Jul-01	07:39:34	-0.7	-0.4	-0.9	-0.7	0.3	-0.4	100	91	87.5	88.1	100	94.7
05-Jul-01	07:59:34	-0.9	-0.7	-0.7	-0.9	1.3	-0.2	99.5	86.1	87.5	87	100	93.6
05-Jul-01	08:19:34	-0.9	-0.7	-0.7	-0.7	1.1	0.8	100	91.6	85.4	89.2	100	91.3
05-Jul-01	08:39:34	-0.9	-0.2	-0.9	-0.4	-0.4	-0.2	100	90.4	85.9	87.5	100	90.8
05-Jul-01	08:59:34	-0.7	-0.7	-0.7	-0.4	-0.2	-0.7	100	86.1	88.1	87	100	94.1
05-Jul-01	09:19:34	-0.7	-0.9	-0.7	-0.7	-0.2	-0.7	100	91	86.5	87.5	100	94.7
05-Jul-01	09:39:34	-0.4	-0.2	-0.7	-0.9	-0.7	-0.4	100	86.6	87	87.5	100	94.7
05-Jul-01	09:59:34	-0.7	-0.9	-0.2	-0.4	0.3	-0.7	99.5	88.8	88.1	89.7	100	94.7
05-Jul-01	10:19:34	-0.4	-0.4	-0.2	-0.7	-0.7	-0.4	100	88.8	88.1	87.5	100	94.7
05-Jul-01	10:39:34	1.3	-0.4	-0.4	-0.9	0.1	-0.4	96.7	88.8	86.5	87.5	100	94.7
05-Jul-01	10:59:34	-0.4	-0.7	-0.7	-0.9	-0.4	-0.7	99.5	85.5	85.9	89.7	100	94.7
05-Jul-01	11:19:34	-0.4	-0.9	-0.7	-0.4	0.1	-0.7	100	86.1	85.4	89.7	100	93.6
05-Jul-01	11:39:34	-0.4	-0.9	-0.7	-0.7	-0.4	-0.7	100	88.8	85.4	87.5	100	93.6
05-Jul-01	11:59:34	-0.7	-0.7	-0.9	-1.2	-0.2	-0.7	100	86.1	85.4	87.5	100	93.6
05-Jul-01	12:19:34	-0.4	-1.2	-0.9	-0.9	-0.4	-0.4	100	85.5	85.4	87.5	100	92.4
05-Jul-01	12:39:34	-0.4	-0.9	-0.9	-0.7	0.1	-0.4	99.5	85.5	85.4	89.7	100	93
05-Jul-01	12:59:34	-0.7	-0.9	-0.9	-0.4	-0.2	-0.7	100	85.5	85.9	87.5	100	93
05-Jul-01	13:19:34	-0.7	-0.9	-0.9	-0.9	0.1	-0.7	100	88.3	85.4	87.5	100	93.6
05-Jul-01	13:39:34	-0.4	-0.7	-0.9	-1.2	0.8	-0.7	100	86.6	85.4	87.5	100	93.6
05-Jul-01	13:59:34	-0.2	0.1	-0.9	-0.9	1.8	-0.7	98.4	87.2	85.4	89.2	100	94.7
05-Jul-01	14:19:34	-0.4	0.8	-0.9	-0.4	1.3	-0.7	97.8	88.3	85.4	90.2	100	94.1
05-Jul-01	14:39:34	-0.7	1.1	-0.7	-0.4	0.1	-0.7	100	83.4	85.4	87.5	100	94.7
05-Jul-01	14:59:34	-0.4	-0.2	-0.7	-0.4	-0.7	-0.7	98.9	82.9	84.9	87.5	100	94.1
05-Jul-01	15:19:34	-0.7	-0.9	-0.9	-0.7	0.1	-0.7	98.9	83.9	85.9	87	100	94.1
05-Jul-01	15:39:34	-0.4	-0.9	-0.7	-0.9	-0.4	-0.4	100	85.5	85.9	87.5	100	91.9
05-Jul-01	15:59:34	-0.4	-0.9	-0.4	-0.9	-0.2	-0.2	100	88.8	86.5	87.5	100	93.6
05-Jul-01	16:19:34	-0.4	-0.4	-0.2	-1.2	-0.4	1.3	100	87.7	88.1	87.5	100	91.3
05-Jul-01	16:39:34	2.1	-0.4	-0.4	-1.2	-0.2	-0.2	97.8	87.7	85.9	87.5	100	91.3
05-Jul-01	16:59:34	-0.2	-0.7	-0.7	-0.4	-0.2	-0.7	100	86.1	85.4	89.7	100	94.7
05-Jul-01	17:19:34	-0.4	-0.7	-0.9	-0.4	-0.2	-0.4	100	89.3	85.4	87	100	94.1
05-Jul-01	17:39:34	-0.7	-0.7	-0.9	-0.9	-0.4	-0.7	100	88.8	84.9	87.5	100	93.6
05-Jul-01	17:59:34	-0.7	-0.7	-0.9	-0.9	-0.2	-0.7	100	87.7	85.4	89.7	100	93
05-Jul-01	18:19:34	-0.7	-0.7	-0.7	-0.4	-0.2	-0.4	98.9	89.3	85.9	89.7	100	93

05-Jul-01	18:39:34	-0.7	-0.7	-1.2	-0.7	0.1	-0.7	97.3	85.5	85.9	87.5	100	93
05-Jul-01	18:59:34	-0.7	-0.4	-0.9	-1.2	-0.4	-0.7	100	89.9	85.9	87.5	100	94.7
05-Jul-01	19:19:34	-0.7	-0.4	-0.9	-0.9	0.1	-0.7	100	86.6	85.4	89.7	100	94.7
05-Jul-01	19:39:34	-0.7	-0.4	-0.9	-0.2	0.6	-0.4	100	89.9	85.4	87.5	100	94.7
05-Jul-01	19:59:34	-0.9	-0.7	-0.9	-0.7	1.6	-0.7	100	88.3	85.9	87.5	100	94.7
05-Jul-01	20:19:34	-0.4	-0.4	-0.7	-0.9	0.8	-0.4	100	89.9	86.5	90.2	100	94.7
05-Jul-01	20:39:34	-0.7	-0.4	-0.7	-0.4	-0.2	-0.7	100	88.3	85.9	89.2	100	94.7
05-Jul-01	20:59:34	-0.7	-0.4	-0.9	-0.4	-0.2	-0.7	100	89.9	85.4	88.1	100	94.7
05-Jul-01	21:19:34	-0.7	-0.4	-0.7	-0.7	-0.4	-0.4	100	88.8	85.9	87.5	100	94.7
05-Jul-01	21:39:34	-0.7	-0.4	-0.7	-1.2	-0.2	-0.7	99.5	88.3	86.5	88.1	100	94.7
05-Jul-01	21:59:34	-0.7	-0.2	-0.7	-0.9	-0.4	-0.7	98.4	88.8	86.5	89.7	100	94.7
05-Jul-01	22:19:34	-0.7	0.3	-0.7	-0.4	-0.4	-0.7	100	88.8	86.5	87.5	100	94.1
05-Jul-01	22:39:34	1.1	0.6	-0.4	-1.2	-0.2	-0.7	97.8	88.3	85.9	87.5	100	94.1
05-Jul-01	22:59:34	-0.7	0.1	-0.7	-0.7	-0.4	-0.7	100	85	85.4	90.2	100	93.6
05-Jul-01	23:19:34	-0.7	-0.4	-0.7	-0.4	-0.2	-0.4	100	89.3	85.9	88.6	100	93.6
05-Jul-01	23:39:34	-0.7	-0.4	-0.9	-0.7	-0.2	-0.7	99.5	88.8	85.9	87.5	100	92.4
05-Jul-01	23:59:34	-0.9	-0.4	-0.7	-0.9	0.1	-0.4	100	88.8	85.4	90.2	100	93.6
06-Jul-01	00:19:34	-0.7	-0.7	-0.7	-0.4	-0.2	0.8	100	89.3	85.9	89.2	100	91.3
06-Jul-01	00:39:34	-0.9	-0.4	-0.7	-0.7	0.1	-0.2	100	85.5	85.9	87.5	100	91.3
06-Jul-01	00:59:34	-1.2	-0.7	-0.7	-1.2	-0.4	-0.7	100	89.3	85.9	88.1	100	94.7
06-Jul-01	01:19:34	-0.7	-0.7	-0.7	-0.7	0.1	-0.4	100	88.3	85.9	89.7	100	94.7
06-Jul-01	01:39:34	-0.7	-0.4	-0.9	-0.4	0.6	-0.7	100	89.3	85.9	87	100	94.7
06-Jul-01	01:59:34	-0.7	-0.7	-0.9	-1.2	1.6	-0.7	100	89.3	86.5	87.5	100	94.1
06-Jul-01	02:19:34	-0.9	-0.4	-0.7	-0.7	1.1	-0.7	99.5	87.2	85.9	89.7	100	94.7
06-Jul-01	02:39:34	-0.7	-0.4	-1.2	-0.2	-0.4	-0.4	98.4	89.9	85.9	88.1	100	94.1
06-Jul-01	02:59:34	-0.7	-0.4	-0.9	-0.4	-0.2	-0.7	100	86.1	85.9	88.1	100	93.6
06-Jul-01	03:19:34	-1.2	-0.4	-0.9	-0.7	-0.7	-0.7	100	89.9	85.9	87	100	93.6
06-Jul-01	03:39:34	-1.2	-0.4	-0.7	-0.7	-0.2	-0.4	100	88.3	86.5	89.7	100	94.1
06-Jul-01	03:59:34	-0.9	-0.4	-0.7	-0.7	-0.7	-0.4	100	88.8	87	89.2	100	93.6
06-Jul-01	04:19:34	-0.7	-0.4	-0.4	-0.7	-0.2	-0.7	100	88.3	87	87.5	100	92.4
06-Jul-01	04:39:34	1.1	-0.4	-0.4	-0.9	-0.7	-0.7	96.7	89.3	85.9	88.1	100	93
06-Jul-01	04:59:34	-0.7	-0.4	-0.7	-0.7	-0.2	-0.7	100	88.3	85.9	89.7	100	93
06-Jul-01	05:19:34	-0.7	-0.4	-0.9	-0.4	-0.4	-0.4	100	88.8	85.9	87	100	93.6
06-Jul-01	05:39:34	-0.9	-0.4	-0.9	-1.2	-0.2	-0.4	100	87.7	86.5	87.5	100	93.6
06-Jul-01	05:59:34	-1.2	-0.2	-0.9	-0.7	-0.4	-0.7	100	88.3	85.9	89.7	100	93.6
06-Jul-01	06:19:34	-0.9	0.3	-0.7	-0.4	-0.2	-0.4	100	88.8	85.9	87.5	100	93.6
06-Jul-01	06:39:34	-1.2	0.6	-0.9	-0.9	-0.4	-0.4	100	85	86.5	87.5	100	94.1
06-Jul-01	06:59:34	-0.9	-0.2	-0.7	-0.9	-0.2	-0.4	100	89.3	85.9	90.2	100	94.7
06-Jul-01	07:19:34	-0.9	-0.4	-0.7	-0.7	0.1	-0.4	100	88.3	85.9	88.6	100	94.7
06-Jul-01	07:39:34	-0.9	-0.4	-0.9	-0.9	0.3	-0.4	100	86.6	86.5	87.5	100	94.7
06-Jul-01	07:59:34	-0.7	-0.4	-0.9	-0.9	1.1	-0.2	100	89.3	85.9	87.5	100	93.6
06-Jul-01	08:19:34	-0.9	-0.4	-0.7	-0.4	1.1	1.1	100	88.3	85.9	90.2	100	91.3
06-Jul-01	08:39:34	-0.7	-0.2	-0.9	-0.4	-0.4	-0.2	100	86.6	85.9	87	100	90.8
06-Jul-01	08:59:34	-0.4	-0.2	-0.7	-0.4	0.1	-0.4	98.4	89.9	85.9	88.6	100	94.1
06-Jul-01	09:19:34	-0.9	-0.4	-0.9	-0.4	-0.4	-0.7	100	88.8	85.9	87	100	91.9
06-Jul-01	09:39:34	-0.7	-0.2	-0.7	-0.9	0.1	-0.4	100	87.7	86.5	87.5	100	94.1
06-Jul-01	09:59:34	-0.4	-0.2	-0.4	-0.7	-0.4	-0.4	100	88.8	87.5	90.2	100	94.7
06-Jul-01	10:19:34	0.1	-0.2	-0.4	-0.4	0.1	-0.7	100	88.3	88.1	87.5	100	94.7
06-Jul-01	10:39:34	1.3	-0.2	-0.4	-0.7	-0.4	-0.4	95.1	88.3	86.5	87.5	100	94.7

06-Jul-01	10:59:34	-0.4	-0.2	-0.7	-0.7	-0.2	-0.7	100	85.5	85.9	90.2	100	92.4
06-Jul-01	11:19:34	-0.2	-0.4	-0.7	-0.4	-0.2	-0.4	98.4	88.3	85.9	88.1	100	93.6
06-Jul-01	11:39:34	-0.7	-0.2	-0.7	-0.4	-0.2	-0.7	97.3	88.3	86.5	87.5	100	95.2
06-Jul-01	11:59:34	-0.4	-0.4	-0.9	-0.7	0.1	-0.7	100	86.6	85.4	87.5	100	93.6
06-Jul-01	12:19:34	-0.4	-0.4	-0.7	-1.2	-0.4	-0.7	100	86.1	85.9	89.7	100	91.9
06-Jul-01	12:39:34	-0.7	-0.4	-0.9	-0.4	0.1	-0.7	100	86.1	85.9	88.6	100	93
06-Jul-01	12:59:34	-0.4	-0.4	-1.2	-0.4	-0.4	-0.7	98.9	87.7	85.4	87	100	94.7
06-Jul-01	13:19:34	-0.7	-0.7	-0.9	-0.7	0.1	-0.7	98.9	88.3	85.4	87	100	93.6
06-Jul-01	13:39:34	-0.4	-0.2	-0.9	-0.7	1.1	-0.4	100	86.1	85.9	87	100	91.9
06-Jul-01	13:59:34	-0.7	0.3	-0.9	-0.9	2.1	-0.4	100	87.2	84.9	87.5	100	93
06-Jul-01	14:19:34	-0.2	1.6	-0.9	-0.9	1.6	-0.4	99.5	87.7	85.4	87.5	100	94.1
06-Jul-01	14:39:34	-0.4	1.6	-0.7	-0.9	0.1	-0.7	99.5	82.9	85.9	87.5	100	94.1
06-Jul-01	14:59:34	-0.4	0.3	-0.9	-0.7	-0.2	-0.7	99.5	83.4	85.4	88.1	100	92.4
06-Jul-01	15:19:34	-0.4	-0.2	-0.9	-0.7	-0.4	-0.7	100	83.9	85.4	87	100	93.6
06-Jul-01	15:39:34	-0.2	-0.4	-0.9	-0.7	-0.2	-0.7	100	85.5	86.5	87	100	91.3
06-Jul-01	15:59:34	-0.4	-0.2	-0.4	-0.7	-0.4	-0.2	99.5	88.3	87	89.7	100	91.3
06-Jul-01	16:19:34	-0.4	-0.2	-0.4	-0.2	-0.2	1.3	99.5	86.6	87.5	88.6	100	89.7
06-Jul-01	16:39:34	2.1	-0.2	-0.4	-0.7	-0.2	0.1	98.9	87.2	85.9	87.5	100	90.2
06-Jul-01	16:59:34	-0.2	-0.4	-0.4	-0.7	0.1	-0.7	100	85.5	85.9	90.2	100	93.6
06-Jul-01	17:19:34	-0.4	-0.4	-0.9	-0.4	-0.4	-0.7	97.3	86.6	85.4	89.7	100	91.3
06-Jul-01	17:39:34	-0.7	-0.7	-1.2	-0.7	0.1	-0.7	100	88.8	86.5	87	100	93
06-Jul-01	17:59:34	-0.4	-0.4	-1.2	-0.7	-0.4	-0.7	100	87.7	85.4	90.2	100	94.7
06-Jul-01	18:19:34	-0.7	-0.2	-1.2	-0.4	0.1	-0.4	100	89.3	85.9	88.6	100	94.1
06-Jul-01	18:39:34	-0.9	-0.4	-1.2	-0.7	-0.4	-0.7	98.9	88.8	85.9	87.5	100	93.6
06-Jul-01	18:59:34	-0.9	-0.4	-0.9	-0.7	0.1	-0.7	100	88.3	87	90.2	100	93.6
06-Jul-01	19:19:34	-0.9	-0.4	-0.9	-0.4	-0.2	-0.4	100	88.8	85.4	87.5	100	93
06-Jul-01	19:39:34	-0.9	-0.2	-0.9	-0.7	0.3	-0.7	100	86.6	85.4	87.5	100	92.4
06-Jul-01	19:59:34	-0.9	-0.7	-0.9	-0.7	1.1	-0.4	100	89.3	85.9	89.7	100	93.6
06-Jul-01	20:19:34	-1.2	-0.4	-0.9	-0.7	0.8	-0.4	100	86.1	88.1	87	100	94.1
06-Jul-01	20:39:34	-0.7	-0.4	-0.9	-0.9	-0.2	-0.7	100	89.3	86.5	87.5	100	94.7
06-Jul-01	20:59:34	-0.9	-0.4	-0.7	-0.7	-0.2	-0.7	100	88.3	84.9	88.6	100	94.7
06-Jul-01	21:19:34	-0.7	-0.4	-0.9	-0.7	-0.7	-0.4	100	89.3	85.9	87.5	100	94.1
06-Jul-01	21:39:34	-0.9	-0.4	-0.7	-0.7	0.1	-0.7	100	87.7	87	90.2	100	93
06-Jul-01	21:59:34	-0.7	-0.2	-0.7	-0.4	-0.4	-0.7	100	88.3	86.5	89.2	100	93
06-Jul-01	22:19:34	-0.7	0.6	-0.4	-0.7	0.1	-0.7	100	88.3	87	87	100	94.7
06-Jul-01	22:39:34	1.1	0.6	-0.7	-0.7	-0.4	-0.7	97.3	88.8	85.9	90.2	100	94.1
06-Jul-01	22:59:34	-0.7	0.3	-0.7	-0.4	0.1	-0.7	100	85.5	85.9	88.6	100	94.1
06-Jul-01	23:19:34	-0.7	-0.4	-0.9	-0.7	-0.2	-0.4	100	89.3	86.5	87.5	100	94.1
06-Jul-01	23:39:34	-0.7	-0.4	-0.9	-0.7	-0.2	-0.7	100	88.8	88.1	90.2	100	94.7
06-Jul-01	23:59:34	-0.7	-0.2	-0.9	-0.7	-0.2	-0.2	100	88.8	87.5	87.5	100	93.6
07-Jul-01	00:19:34	-0.9	-0.4	-0.7	-0.9	-0.4	0.8	100	89.3	87	87.5	100	90.8
07-Jul-01	00:39:34	-0.9	-0.4	-0.9	-0.7	0.1	0.3	100	87.2	85.9	89.7	100	90.8
07-Jul-01	00:59:34	-0.7	-0.4	-0.7	-0.4	-0.4	-0.7	99.5	89.3	85.9	87.5	100	93.6
07-Jul-01	01:19:34	-0.9	-0.2	-0.7	-0.9	-0.2	-0.7	99.5	86.6	85.9	89.7	100	94.7
07-Jul-01	01:39:34	-0.9	-0.4	-0.9	-0.4	0.6	-0.7	100	89.9	85.9	89.2	100	94.7
07-Jul-01	01:59:34	-0.9	-0.2	-0.9	-0.7	1.3	-0.7	100	87.2	88.1	87.5	100	94.1
07-Jul-01	02:19:34	-0.7	-0.4	-0.7	-0.7	0.8	-0.7	100	89.3	87	90.2	100	93
07-Jul-01	02:39:34	-0.7	-0.4	-0.7	-0.4	-0.2	-0.7	98.9	88.3	85.9	88.6	100	92.4
07-Jul-01	02:59:34	-0.9	-0.4	-0.7	-0.4	-0.2	-0.4	97.8	89.3	85.9	88.1	100	93.6

07-Jul-01	03:19:34	-0.7	-0.2	-0.7	-0.7	-0.7	-0.4	100	88.3	85.9	87.5	100	93.6
07-Jul-01	03:39:34	-0.7	-0.2	-0.7	-0.7	-0.4	-0.4	100	89.3	87	89.7	100	94.7
07-Jul-01	03:59:34	-0.7	-0.4	-0.4	-0.4	-0.4	-0.4	100	88.8	87	88.6	100	94.7
07-Jul-01	04:19:34	-0.7	0.1	-0.4	-0.9	-0.4	-0.7	100	88.8	87	87.5	100	94.7
07-Jul-01	04:39:34	0.3	-0.2	-0.7	-0.7	0.1	-0.7	96.7	88.3	85.9	89.7	100	94.7
07-Jul-01	04:59:34	-0.9	-0.2	-0.9	-0.4	-0.4	-0.7	100	89.3	85.9	87.5	100	94.7
07-Jul-01	05:19:34	-0.9	-0.2	-0.7	-0.9	0.1	-0.4	100	87.7	85.9	88.6	100	94.1
07-Jul-01	05:39:34	-0.7	-0.2	-0.7	-0.4	-0.2	-0.7	99.5	88.8	85.9	89.2	100	93.6
07-Jul-01	05:59:34	-0.9	0.1	-0.7	-0.4	-0.2	-0.7	98.9	89.3	85.9	87.5	100	93
07-Jul-01	06:19:34	-0.9	0.3	-0.7	-0.7	-0.4	-0.4	98.9	88.3	87	90.2	100	94.1
07-Jul-01	06:39:34	-0.9	0.8	-0.7	-0.4	-0.2	-0.7	99.5	85.5	88.1	88.6	100	94.7
07-Jul-01	06:59:34	-0.9	0.1	-0.7	-0.9	-0.7	-0.4	97.8	88.8	88.1	87.5	100	94.1
07-Jul-01	07:19:34	-0.9	-0.2	-0.9	-0.7	0.1	-0.4	98.9	88.8	87.5	89.7	100	93
07-Jul-01	07:39:34	-0.9	0.3	-0.9	-0.4	0.3	-0.4	100	88.3	87	87.5	100	93
07-Jul-01	07:59:34	-0.7	-0.2	-0.9	-0.9	1.6	-0.4	100	88.8	87	87.5	100	93.6
07-Jul-01	08:19:34	-0.7	-0.2	-0.9	-0.7	0.8	0.8	100	86.1	86.5	89.7	100	91.3
07-Jul-01	08:39:34	-0.7	0.1	-0.9	-0.4	-0.2	0.3	100	88.8	85.9	87	100	90.2
07-Jul-01	08:59:34	-0.7	-0.2	-0.9	-0.7	-0.2	-0.4	99.5	88.8	85.9	88.1	100	94.1
07-Jul-01	09:19:34	-0.9	0.1	-0.9	-0.7	-0.7	-0.4	100	86.1	85.9	87	100	94.1
07-Jul-01	09:39:34	-1.2	0.1	-0.7	-0.7	-0.2	-0.4	100	89.3	87	89.7	100	91.9
07-Jul-01	09:59:34	-1.2	-0.2	-0.7	-0.4	-0.4	-0.4	100	88.8	87.5	87.5	100	94.1
07-Jul-01	10:19:34	-0.9	-0.2	-0.7	-0.9	0.1	-0.4	99.5	88.3	87.5	87.5	100	94.7
07-Jul-01	10:39:34	0.8	-0.2	-0.4	-0.7	-0.4	-0.4	98.4	88.3	85.9	89.7	100	94.1
07-Jul-01	10:59:34	-0.7	-0.2	-0.9	-0.7	0.1	-0.7	100	85.5	85.9	87	100	93.6
07-Jul-01	11:19:34	-0.7	-0.4	-0.9	-0.7	-0.2	-0.7	100	85.5	88.1	87.5	100	92.4
07-Jul-01	11:39:34	-0.7	-0.2	-0.9	-0.7	0.1	-0.7	99.5	86.6	85.9	89.7	100	93
07-Jul-01	11:59:34	-0.9	-0.2	-1.2	-0.4	-0.4	-0.9	100	88.3	85.9	87	100	94.7
07-Jul-01	12:19:34	-0.9	-0.4	-0.9	-0.9	0.3	-0.7	100	88.8	86.5	88.1	100	91.9
07-Jul-01	12:39:34	-1.2	-0.4	-0.9	-0.7	-0.4	-0.4	100	87.2	87.5	89.7	100	91.9
07-Jul-01	12:59:34	-0.9	-0.4	-1.2	-0.4	-0.2	-0.4	100	85.5	86.5	87	100	94.1
07-Jul-01	13:19:34	-1.2	-0.4	-1.2	-0.9	-0.4	-0.7	100	85.5	85.4	87.5	100	94.7
07-Jul-01	13:39:34	-0.9	-0.2	-0.9	-0.4	0.6	-0.4	100	86.6	85.9	90.2	100	93
07-Jul-01	13:59:34	-0.9	0.3	-0.9	-0.7	1.6	-0.7	100	87.2	85.9	87	100	93
07-Jul-01	14:19:34	-0.7	1.6	-1.2	-0.7	1.3	-0.7	100	86.6	85.9	87.5	100	94.7
07-Jul-01	14:39:34	-0.7	1.3	-1.2	-0.4	-0.2	-0.7	100	83.4	85.4	90.2	100	93.6
07-Jul-01	14:59:34	-0.9	0.1	-1.2	-0.4	-0.2	-0.7	100	83.4	85.9	88.6	100	92.4
07-Jul-01	15:19:34	-0.7	-0.2	-0.9	-0.7	-0.4	-0.7	100	87.7	85.9	87.5	100	94.7
07-Jul-01	15:39:34	-0.7	-0.4	-0.9	-0.7	-0.2	-0.7	99.5	87.7	87	87.5	100	94.1
07-Jul-01	15:59:34	-0.7	-0.4	-0.9	-0.7	-0.4	-0.2	98.4	85	86.5	89.7	100	93.6
07-Jul-01	16:19:34	-0.7	-0.4	-0.4	-0.4	-0.2	1.3	100	88.3	87	87	100	90.8
07-Jul-01	16:39:34	1.3	-0.4	-0.7	-1.2	-0.4	0.3	97.3	87.2	85.9	89.2	100	90.8
07-Jul-01	16:59:34	-0.7	-0.2	-0.9	-0.4	0.1	-0.7	100	86.1	85.9	89.7	100	93.6
07-Jul-01	17:19:34	-0.4	-0.4	-0.9	-0.4	-0.7	-0.4	100	85.5	87	87.5	100	91.9
07-Jul-01	17:39:34	-0.7	-0.4	-1.2	-0.9	0.1	-0.4	100	88.3	86.5	89.7	100	94.1
07-Jul-01	17:59:34	-0.7	-0.7	-0.9	-0.4	-0.4	-0.7	100	88.3	85.4	89.2	100	94.7
07-Jul-01	18:19:34	-0.7	-0.4	-0.9	-0.7	-0.2	-0.4	100	86.1	86.5	87.5	100	94.1
07-Jul-01	18:39:34	-0.7	-0.4	-0.7	-0.7	-0.4	-0.7	100	89.3	87	90.2	100	93
07-Jul-01	18:59:34	-0.9	-0.4	-0.9	-0.7	0.1	-0.7	99.5	88.3	87	88.6	100	92.4
07-Jul-01	19:19:34	-0.7	-0.4	-0.9	-0.7	-0.4	-0.7	100	86.1	85.4	87	100	93

07-Jul-01	19:39:34	-0.7	-0.4	-0.9	-0.7	0.1	-0.7	100	89.3	85.9	90.2	100	93.6
07-Jul-01	19:59:34	-0.9	-0.7	-0.9	-0.4	1.1	-0.4	98.9	88.8	86.5	87.5	100	94.7
07-Jul-01	20:19:34	-0.9	-0.4	-0.9	-0.7	1.1	-0.7	100	86.6	88.1	87.5	100	94.1
07-Jul-01	20:39:34	-0.7	-0.7	-0.9	-0.7	-0.4	-0.7	100	89.3	86.5	89.7	100	94.7
07-Jul-01	20:59:34	-0.9	-0.4	-1.2	-0.4	0.1	-0.7	100	88.3	85.4	88.6	100	93.6
07-Jul-01	21:19:34	-0.9	-0.4	-1.2	-0.9	-0.4	-0.7	100	86.6	85.9	87.5	100	93.6
07-Jul-01	21:39:34	-0.9	-0.7	-0.7	-0.9	0.1	-0.7	100	88.3	87	89.7	100	93.6
07-Jul-01	21:59:34	-0.9	0.1	-0.7	-0.4	-0.7	-0.7	100	88.8	86.5	89.2	100	93.6
07-Jul-01	22:19:34	-0.7	0.6	-0.4	-0.4	0.1	-0.7	100	88.3	87	87.5	100	92.4
07-Jul-01	22:39:34	0.6	0.8	-0.7	-0.7	-0.7	-0.4	97.3	88.3	85.9	90.2	100	93
07-Jul-01	22:59:34	-0.4	0.1	-0.7	-0.4	0.1	-0.7	100	85	85.9	88.6	100	93.6
07-Jul-01	23:19:34	-0.9	-0.2	-0.9	-0.7	-0.4	-0.7	99.5	88.8	87	87.5	100	94.1
07-Jul-01	23:39:34	-0.7	-0.4	-1.2	-0.7	-0.2	-0.7	100	88.3	88.1	90.2	100	94.7
07-Jul-01	23:59:34	-0.9	-0.4	-0.9	-0.7	-0.4	-0.2	100	87.7	87	87.5	100	93.6
08-Jul-01	00:19:34	-1.2	-0.7	-0.7	-0.9	-0.2	1.1	100	89.3	86.5	87.5	100	90.8
08-Jul-01	00:39:34	-0.9	-0.7	-0.9	-0.7	0.1	0.3	100	87.2	85.9	89.7	100	90.8
08-Jul-01	00:59:34	-1.2	-0.4	-0.9	-0.4	-0.4	-0.4	100	89.3	85.9	87.5	100	94.1
08-Jul-01	01:19:34	-1.2	-0.4	-0.9	-0.9	-0.2	-0.7	100	88.3	85.9	89.7	100	93.6
08-Jul-01	01:39:34	-1.2	-0.2	-0.9	-0.4	0.6	-0.7	100	89.3	87	89.2	100	92.4
08-Jul-01	01:59:34	-0.9	-0.7	-0.9	-0.7	1.6	-0.4	100	88.8	88.6	87.5	100	93.6
08-Jul-01	02:19:34	-1.2	-0.2	-0.9	-0.7	1.1	-0.4	100	88.8	87.5	90.2	100	94.7
08-Jul-01	02:39:34	-1.2	-0.4	-0.7	-0.4	-0.2	-0.7	100	88.3	87	88.6	100	94.7
08-Jul-01	02:59:34	-1.2	-0.2	-0.9	-0.4	-0.2	-0.7	100	88.8	85.9	88.1	100	93.6
08-Jul-01	03:19:34	-0.7	-0.4	-0.9	-0.7	-0.4	-0.7	100	88.3	85.9	87.5	100	93.6
08-Jul-01	03:39:34	-0.9	-0.2	-0.7	-0.7	-0.4	-0.7	100	88.8	87	89.7	100	92.4
08-Jul-01	03:59:34	-0.7	-0.7	-0.4	-0.4	-0.4	-0.7	100	88.8	87	87.5	100	92.4
08-Jul-01	04:19:34	-0.4	-0.2	-0.7	-0.7	-0.2	-0.7	100	88.8	87.5	87.5	100	93.6
08-Jul-01	04:39:34	0.1	-0.4	-0.4	-0.7	-0.4	-0.4	97.3	88.3	86.5	89.7	100	94.1
08-Jul-01	04:59:34	-1.2	-0.4	-0.9	-0.4	-0.4	-0.7	98.4	88.8	85.9	87	100	94.7
08-Jul-01	05:19:34	-1.2	-0.4	-0.9	-0.7	-0.2	-0.7	100	85.5	85.9	89.7	100	94.7
08-Jul-01	05:39:34	-1.2	-0.4	-0.9	-0.4	-0.2	-0.4	100	88.8	86.5	89.2	100	94.1
08-Jul-01	05:59:34	-0.9	0.1	-0.9	-0.7	0.1	-0.4	100	88.8	88.1	87.5	100	94.1
08-Jul-01	06:19:34	-0.9	0.6	-0.9	-0.7	-0.4	-0.7	100	89.3	87	90.2	100	93.6
08-Jul-01	06:39:34	-0.9	0.3	-0.9	-0.4	-0.2	-0.7	99.5	85.5	86.5	88.6	100	92.4
08-Jul-01	06:59:34	-0.9	-0.4	-0.9	-0.9	-0.2	-0.4	98.9	88.8	86.5	87.5	100	93.6
08-Jul-01	07:19:34	-0.9	-0.4	-0.7	-0.7	0.1	-0.7	100	88.8	85.9	89.7	100	93.6
08-Jul-01	07:39:34	-0.7	-0.4	-0.7	-0.4	0.6	-0.7	100	86.6	85.9	87	100	94.7
08-Jul-01	07:59:34	-0.9	-0.7	-0.9	-0.9	1.6	-0.2	100	89.3	88.1	88.6	100	93.6
08-Jul-01	08:19:34	-0.9	-0.4	-0.9	-0.4	1.1	1.1	100	88.8	87.5	89.7	100	90.8
08-Jul-01	08:39:34	-0.9	-0.4	-0.9	-0.4	-0.4	0.3	99.5	88.8	87.5	87.5	100	90.8
08-Jul-01	08:59:34	-0.9	-0.7	-0.7	-0.7	-0.2	-0.4	99.5	89.3	87	88.1	100	94.1
08-Jul-01	09:19:34	-0.9	-0.4	-1.2	-0.9	-0.4	-0.4	98.9	86.6	85.9	87.5	100	93.6
08-Jul-01	09:39:34	-1.2	-0.2	-0.7	-0.7	0.1	-0.7	99.5	89.3	87	89.7	100	92.4
08-Jul-01	09:59:34	-1.2	-0.7	-0.7	-0.7	-0.4	-0.4	100	89.3	87	87.5	100	93
08-Jul-01	10:19:34	-0.7	-0.4	-0.7	-0.9	0.1	-0.7	100	88.8	87.5	87	100	92.4
08-Jul-01	10:39:34	0.1	-0.7	-0.4	-0.7	-0.7	-0.4	97.3	88.8	86.5	89.7	100	94.1
08-Jul-01	10:59:34	-0.7	-0.7	-0.9	-0.4	-0.2	-0.7	100	88.3	85.9	87	100	94.7
08-Jul-01	11:19:34	-0.7	-0.4	-1.2	-0.9	-0.4	-0.9	100	86.1	87.5	89.2	100	94.1
08-Jul-01	11:39:34	-0.7	-0.4	-0.9	-0.4	0.1	-0.7	99.5	87.7	87	89.7	100	92.4

08-Jul-01	11:59:34	-0.9	-0.4	-0.9	-0.4	-0.4	-0.4	99.5	89.9	85.4	87.5	100	94.1
08-Jul-01	12:19:34	-0.9	-0.7	-0.9	-0.9	-0.2	-0.7	100	88.8	85.9	90.2	100	94.7
08-Jul-01	12:39:34	-0.9	-0.7	-0.9	-0.4	-0.2	-0.7	100	86.6	87	89.2	100	94.7
08-Jul-01	12:59:34	-1.2	-0.4	-1.2	-0.7	0.1	-0.4	100	86.6	87.5	87.5	100	93.6
08-Jul-01	13:19:34	-0.7	-0.7	-0.9	-0.7	-0.4	-0.7	100	89.3	87	90.2	100	92.4
08-Jul-01	13:39:34	-0.9	-0.7	-0.9	-0.4	0.6	-0.7	100	87.7	85.9	88.6	100	93.6
08-Jul-01	13:59:34	-0.7	-0.2	-0.9	-0.7	1.3	-0.4	100	88.3	85.9	87.5	100	94.1
08-Jul-01	14:19:34	-0.9	0.6	-1.2	-0.7	1.1	-0.4	97.8	88.3	85.9	90.2	100	94.7
08-Jul-01	14:39:34	-0.9	0.8	-0.9	-0.7	-0.2	-0.9	100	85.5	86.5	88.1	100	94.1
08-Jul-01	14:59:34	-0.9	-0.4	-1.2	-0.4	-0.2	-0.4	100	88.3	85.9	88.1	100	93.6
08-Jul-01	15:19:34	-0.9	-0.9	-1.2	-0.7	-0.4	-0.7	100	88.3	85.9	87.5	100	92.4
08-Jul-01	15:39:34	-0.7	-0.7	-0.7	-0.9	-0.2	-0.4	100	86.1	87	87.5	100	93.6
08-Jul-01	15:59:34	-0.9	-0.4	-0.7	-0.7	-0.2	-0.4	98.4	88.3	87	89.7	100	93
08-Jul-01	16:19:34	-0.4	-0.4	-0.7	-0.7	-0.2	1.1	100	88.3	87	87.5	100	90.8
08-Jul-01	16:39:34	0.3	-0.4	-0.7	-0.9	-0.4	0.3	96.2	88.3	85.9	87.5	100	90.2
08-Jul-01	16:59:34	-0.7	-0.7	-0.9	-0.7	-0.2	-0.4	100	87.2	85.9	89.7	100	94.1
08-Jul-01	17:19:34	-0.9	-0.4	-1.2	-0.4	-0.4	-0.7	98.4	85.5	87	87	100	93.6
08-Jul-01	17:39:34	-0.9	-0.4	-0.9	-0.9	-0.2	-0.7	98.4	89.3	85.9	89.2	100	91.9
08-Jul-01	17:59:34	-1.2	-0.4	-1.2	-0.7	-0.2	-0.4	97.8	89.3	85.9	89.7	100	94.7
08-Jul-01	18:19:34	-1.2	-0.4	-0.9	-0.4	0.1	-0.7	99.5	87.2	88.1	87.5	100	94.1
08-Jul-01	18:39:34	-0.9	-0.4	-1.2	-0.9	-0.4	-0.4	100	89.9	85.9	90.2	100	94.1
08-Jul-01	18:59:34	-1.2	-0.7	-0.9	-0.4	0.1	-0.4	100	88.8	85.9	89.7	100	92.4
08-Jul-01	19:19:34	-1.2	-0.4	-0.9	-0.4	0.1	-0.7	100	89.9	85.9	87.5	100	93.6
08-Jul-01	19:39:34	-0.9	-0.4	-0.9	-0.7	0.6	-0.4	100	88.8	85.9	90.2	100	94.7
08-Jul-01	19:59:34	-0.7	-0.4	-0.9	-0.4	1.3	-0.4	100	89.3	88.1	88.1	100	94.7
08-Jul-01	20:19:34	0.6	-0.4	-0.9	-0.7	1.1	-0.7	97.3	88.8	88.1	87.5	100	94.1
08-Jul-01	20:39:34	-0.9	-0.4	-0.9	-0.4	-0.4	-0.7	100	89.3	86.5	90.2	100	93
08-Jul-01	20:59:34	-0.9	-0.4	-0.7	-0.4	0.1	-0.4	100	88.3	85.9	88.6	100	93.6
08-Jul-01	21:19:34	-1.2	-0.4	-0.7	-0.7	-0.4	-0.4	100	89.3	86.5	87.5	100	94.1
08-Jul-01	21:39:34	-0.9	-0.2	-0.9	-0.7	0.1	-0.7	100	88.3	87.5	90.2	100	95.2
08-Jul-01	21:59:34	-0.9	0.1	-0.4	-0.4	-0.7	-0.4	100	88.3	87	88.1	100	94.1
08-Jul-01	22:19:34	-0.4	0.6	-0.7	-0.7	-0.2	-0.7	100	88.8	87	87.5	100	92.4
08-Jul-01	22:39:34	0.1	0.6	-0.7	-0.4	-0.4	-0.4	96.7	88.3	85.9	90.2	100	94.1
08-Jul-01	22:59:34	-0.7	0.1	-0.9	-0.7	-0.2	-0.7	100	85	85.4	87.5	100	94.7
08-Jul-01	23:19:34	-0.9	-0.2	-0.9	-0.9	-0.4	-0.4	100	89.3	85.9	88.6	100	94.7
08-Jul-01	23:39:34	-1.2	-0.4	-0.9	-0.7	-0.4	-0.4	100	87.2	86.5	89.7	100	94.1
08-Jul-01	23:59:34	-1.2	-0.4	-0.7	-0.4	-0.2	-0.2	100	89.3	88.1	87.5	100	93.6
09-Jul-01	00:19:34	-0.9	-0.2	-0.7	-0.7	-0.2	0.8	98.9	87.2	88.6	90.2	100	90.8
09-Jul-01	00:39:34	-0.7	-0.4	-0.9	-0.4	-0.2	0.1	100	89.3	88.1	89.2	100	90.8
09-Jul-01	00:59:34	-0.9	0.1	-0.9	-0.7	-0.4	-0.4	100	86.1	87.5	87.5	100	94.1
09-Jul-01	01:19:34	-0.7	-0.4	-0.9	-0.7	0.1	-0.4	100	89.3	87.5	90.2	100	94.7
09-Jul-01	01:39:34	-0.9	-0.2	-0.9	-0.4	0.6	-0.4	100	88.8	87	88.1	100	94.1
09-Jul-01	01:59:34	-0.9	-0.4	-0.7	-0.7	1.3	-0.7	100	88.8	85.9	87.5	100	94.1
09-Jul-01	02:19:34	-0.9	-0.2	-0.9	-0.7	0.8	-0.4	100	88.8	85.9	89.7	100	94.7
09-Jul-01	02:39:34	-0.9	-0.4	-0.9	-0.4	-0.2	-0.4	100	86.6	86.5	87	100	94.7
09-Jul-01	02:59:34	-0.7	-0.4	-0.7	-0.7	0.1	-0.4	100	89.3	88.6	88.1	100	93.6
09-Jul-01	03:19:34	-1.2	0.1	-0.9	-0.9	-0.4	-0.7	100	88.3	87	87.5	100	94.7
09-Jul-01	03:39:34	-0.9	-0.4	-0.7	-0.7	-0.2	-0.4	100	88.8	87.5	89.7	100	95.2
09-Jul-01	03:59:34	-1.2	-0.4	-0.7	-0.4	-0.7	-0.7	100	88.8	87.5	87.5	100	94.1

09-Jul-01	04:19:34	-0.7	-0.2	-0.4	-0.9	-0.2	-0.4	100	88.3	87.5	89.2	100	93.6
09-Jul-01	04:39:34	0.8	-0.4	-0.7	-0.4	-0.4	-0.7	98.4	88.3	85.9	89.2	100	94.7
09-Jul-01	04:59:34	-0.9	-0.4	-0.7	-0.4	-0.2	-0.7	100	88.8	87	87.5	100	95.2
09-Jul-01	05:19:34	-1.2	-0.2	-0.9	-0.7	0.1	-0.7	97.8	86.1	87	90.2	100	94.1
09-Jul-01	05:39:34	-0.9	-0.2	-0.7	-0.4	-0.2	-0.4	99.5	88.3	85.9	88.6	100	93.6
09-Jul-01	05:59:34	-0.7	0.1	-0.7	-0.7	0.1	-0.7	100	88.8	86.5	87	100	93.6
09-Jul-01	06:19:34	-0.9	0.6	-0.7	-0.7	-0.7	-0.7	100	88.8	88.1	89.7	100	94.7
09-Jul-01	06:39:34	-0.9	0.3	-0.7	-0.4	0.1	-0.4	100	85.5	88.6	87.5	100	94.7
09-Jul-01	06:59:34	-0.9	-0.2	-0.7	-0.7	-0.7	-0.7	100	88.8	88.1	87	100	93
09-Jul-01	07:19:34	-1.4	-0.2	-0.9	-0.7	-0.2	-0.4	100	86.6	87	89.7	100	93.6
09-Jul-01	07:39:34	-1.2	-0.2	-0.9	-0.4	0.6	-0.4	98.9	89.3	85.9	87.5	100	94.7
09-Jul-01	07:59:34	-1.2	0.1	-0.9	-0.7	1.3	-0.2	100	86.6	85.9	89.2	100	93.6
09-Jul-01	08:19:34	-1.2	-0.2	-0.7	-0.4	0.8	1.1	100	88.8	87	89.7	100	90.8
09-Jul-01	08:39:34	-0.7	0.1	-0.7	-0.7	-0.4	0.3	100	85.5	88.1	87	100	89.7
09-Jul-01	08:59:34	-0.9	-0.2	-0.7	-0.7	-0.7	-0.4	100	88.8	88.6	88.1	100	93.6
09-Jul-01	09:19:34	-0.7	-0.2	-0.7	-0.7	0.1	-0.7	99.5	87.2	87	87.5	100	93.6
09-Jul-01	09:39:34	-0.9	0.1	-0.7	-0.9	-0.4	-0.7	100	87.7	87.5	90.2	100	92.4
09-Jul-01	09:59:34	-0.9	-0.2	-0.4	-0.4	0.1	-0.4	100	88.8	88.1	89.7	100	91.9
09-Jul-01	10:19:34	-0.7	-0.2	-0.4	-0.4	-0.7	-0.7	100	88.3	88.1	87.5	100	92.4
09-Jul-01	10:39:34	0.8	-0.2	-0.4	-0.9	-0.2	-0.4	97.8	88.3	86.5	89.2	100	94.1
09-Jul-01	10:59:34	-0.4	0.1	-0.7	-0.4	-0.7	-0.4	100	85.5	86.5	89.7	100	94.1
09-Jul-01	11:19:34	-0.7	-0.4	-0.7	-0.4	0.1	-0.7	100	85.5	87	87	100	93
09-Jul-01	11:39:34	-0.9	-0.2	-0.9	-0.9	-0.7	-0.4	100	85.5	85.9	87	100	93
09-Jul-01	11:59:34	-0.7	-0.2	-0.7	-0.7	-0.2	-0.4	100	86.6	85.9	90.2	100	93.6
09-Jul-01	12:19:34	-0.7	-0.4	-1.2	-0.4	-0.4	-0.7	97.3	88.3	85.9	87.5	100	91.3
09-Jul-01	12:39:34	-0.4	-0.7	-0.9	-0.7	0.1	-0.7	97.8	85.5	87	87.5	100	92.4
09-Jul-01	12:59:34	-0.4	-0.4	-0.9	-0.9	-0.4	-0.4	97.8	86.1	85.9	87.5	100	94.1
09-Jul-01	13:19:34	-0.2	-0.7	-1.2	-0.9	0.1	-0.7	100	88.3	85.9	89.7	100	93.6
09-Jul-01	13:39:34	0.1	-0.7	-1.2	-0.4	0.8	-0.7	100	86.6	87	87.5	100	91.3
09-Jul-01	13:59:34	0.6	0.3	-1.2	-0.7	1.3	-0.4	100	87.7	85.9	87.5	100	91.9
09-Jul-01	14:19:34	0.6	1.6	-0.9	-0.9	1.3	-0.7	100	86.6	87	87	100	93.6
09-Jul-01	14:39:34	0.8	1.3	-0.9	-0.9	-0.4	-0.7	100	82.9	85.4	89.7	100	93.6
09-Jul-01	14:59:34	0.8	-0.2	-1.2	-0.4	-0.2	-0.7	98.9	83.4	86.5	88.6	100	93.6
09-Jul-01	15:19:34	0.8	-0.4	-0.9	-0.4	-0.4	-0.7	98.4	84.5	86.5	87.5	100	91.3
09-Jul-01	15:39:34	1.3	-0.7	-0.9	-0.9	0.1	-0.7	97.8	85.5	87	87.5	100	93
09-Jul-01	15:59:34	1.3	-0.7	-0.7	-0.9	-0.4	0.1	97.3	85.5	87.5	87.5	100	91.9
09-Jul-01	16:19:34	0.3	-0.7	-0.4	-0.9	0.1	1.6	98.9	87.2	88.1	87	100	89.7
09-Jul-01	16:39:34	0.6	-0.4	-0.4	-0.7	-0.4	0.3	94.6	87.7	86.5	87	100	90.2
09-Jul-01	16:59:34	0.1	-0.7	-0.9	-0.9	-0.2	-0.4	97.8	83.9	85.9	89.7	100	91.9
09-Jul-01	17:19:34	-0.2	-0.4	-0.9	-0.4	-0.4	-0.4	97.3	86.6	85.9	88.1	100	91.9
09-Jul-01	17:39:34	-0.7	-0.4	-0.9	-0.9	-0.2	-0.4	99.5	89.3	85.9	87.5	100	94.1
09-Jul-01	17:59:34	-0.4	-0.7	-0.9	-1.2	-0.7	-0.7	100	87.2	85.9	88.1	100	94.7
09-Jul-01	18:19:34	-0.7	-0.2	-0.9	-0.7	-0.2	-0.7	99.5	89.3	85.9	90.2	100	94.1
09-Jul-01	18:39:34	-0.7	-0.4	-0.9	-0.7	-0.4	-0.7	100	88.3	86.5	87	100	93
09-Jul-01	18:59:34	-0.7	-0.4	-0.9	-1.2	-0.2	-0.4	99.5	89.3	88.1	89.2	100	92.4
09-Jul-01	19:19:34	-0.7	-0.2	-0.9	-0.9	0.1	-0.7	100	88.3	88.1	90.2	100	94.7
09-Jul-01	19:39:34	-0.9	0.1	-0.9	-0.7	0.6	-0.7	99.5	88.3	87.5	87.5	100	94.1
09-Jul-01	19:59:34	-0.9	-0.4	-0.9	-1.2	1.3	-0.7	100	89.9	87	89.7	100	92.4
09-Jul-01	20:19:34	-1.2	-0.2	-0.9	-0.4	1.1	-0.4	100	90.4	85.9	90.2	100	93.6

09-Jul-01	20:39:34	-0.9	-0.4	-0.9	-0.7	-0.4	-0.7	100	88.8	85.9	87	100	94.7
09-Jul-01	20:59:34	-0.9	-0.4	-0.7	-0.9	-0.2	-0.7	100	90.4	87	88.1	100	94.7
09-Jul-01	21:19:34	-0.9	-0.2	-0.9	-0.9	-0.4	-0.7	100	86.1	88.1	87.5	100	92.4
09-Jul-01	21:39:34	-0.9	-0.4	-0.7	-0.9	-0.4	-0.4	100	88.3	88.1	90.2	100	93.6
09-Jul-01	21:59:34	-0.9	-0.4	-0.7	-0.4	-0.2	-0.7	100	88.8	87.5	87.5	100	94.7
09-Jul-01	22:19:34	-0.7	0.3	-0.7	-0.9	-0.7	-0.7	100	88.8	87.5	87.5	100	94.1
09-Jul-01	22:39:34	1.1	0.3	-0.7	-0.7	0.1	-0.7	97.8	88.8	85.9	90.2	100	93
09-Jul-01	22:59:34	-0.7	0.1	-0.7	-0.4	-0.7	-0.7	100	85.5	87	87	100	94.7
09-Jul-01	23:19:34	-0.7	-0.4	-0.9	-0.9	-0.2	-0.4	100	90.4	85.9	88.6	100	94.7
09-Jul-01	23:39:34	-0.7	-0.2	-0.7	-0.7	-0.2	-0.7	100	86.1	85.9	90.2	100	93.6
09-Jul-01	23:59:34	-0.7	-0.4	-0.7	-0.7	-0.4	-0.2	100	90.4	86.5	87.5	100	93.6
10-Jul-01	00:19:34	-0.9	0.1	-0.7	-0.9	0.1	0.8	100	89.3	88.1	90.2	100	91.9
10-Jul-01	00:39:34	-0.9	-0.4	-0.7	-0.7	-0.4	-0.2	100	89.9	88.6	89.7	100	90.8
10-Jul-01	00:59:34	-0.7	-0.2	-0.7	-0.7	-0.2	-0.4	100	89.3	88.1	87.5	100	93.6
10-Jul-01	01:19:34	-0.9	-0.4	-0.7	-1.2	0.1	-0.4	100	86.1	87	89.7	100	95.2
10-Jul-01	01:39:34	-0.7	-0.4	-0.9	-0.4	0.6	-0.4	100	90.4	85.9	89.7	100	93.6
10-Jul-01	01:59:34	-0.9	-0.2	-0.7	-0.9	1.1	-0.4	98.9	88.3	85.9	87	100	93.6
10-Jul-01	02:19:34	-0.7	-0.4	-0.7	-1.2	0.6	-0.4	100	90.4	87	89.7	100	94.7
10-Jul-01	02:39:34	-0.7	0.1	-0.7	-0.7	-0.7	-0.7	100	89.3	88.1	88.1	100	93.6
10-Jul-01	02:59:34	-0.7	-0.2	-0.9	-0.4	-0.4	-0.4	99.5	89.3	88.6	88.1	100	94.1
10-Jul-01	03:19:34	-0.9	-0.4	-0.7	-0.7	-0.2	-0.4	99.5	89.3	87.5	87	100	95.2
10-Jul-01	03:39:34	-0.9	-0.2	-0.7	-0.9	-0.7	-0.4	98.9	86.1	88.1	90.2	100	94.1
10-Jul-01	03:59:34	-0.9	-0.4	-0.7	-0.4	0.1	-0.4	97.8	90.4	88.1	89.2	100	94.1
10-Jul-01	04:19:34	-0.9	-0.2	-0.4	-0.9	-0.4	-0.4	100	88.3	88.1	87	100	94.7
10-Jul-01	04:39:34	0.3	-0.4	-0.4	-0.9	-0.2	-0.4	95.1	88.8	85.9	89.7	100	94.1
10-Jul-01	04:59:34	-0.7	-0.7	-0.7	-0.4	-0.2	-0.4	100	89.3	88.1	87.5	100	94.1
10-Jul-01	05:19:34	-0.9	-0.2	-0.7	-0.9	-0.4	-0.4	98.4	89.9	88.1	87.5	100	95.2
10-Jul-01	05:39:34	-1.2	0.1	-0.9	-0.7	0.1	-0.4	98.9	88.8	86.5	90.2	100	94.1
10-Jul-01	05:59:34	-1.2	0.3	-0.9	-0.7	-0.4	-0.4	100	88.3	85.9	87.5	100	94.1
10-Jul-01	06:19:34	-1.2	0.3	-0.7	-0.9	-0.2	-0.7	100	88.8	86.5	89.2	100	94.7
10-Jul-01	06:39:34	-1.2	0.3	-0.9	-0.7	-0.2	-0.4	100	85	87	89.7	100	93
10-Jul-01	06:59:34	-0.9	-0.4	-0.9	-0.4	-0.4	-0.7	100	90.4	88.6	87.5	100	94.7
10-Jul-01	07:19:34	-1.2	-0.2	-0.7	-0.9	0.1	-0.4	98.4	88.8	88.6	90.2	100	94.7
10-Jul-01	07:39:34	-0.9	-0.4	-0.9	-0.7	0.3	-0.4	98.4	90.4	88.1	89.7	100	93
10-Jul-01	07:59:34	-0.9	0.1	-0.7	-0.7	1.3	0.1	99.5	88.3	88.1	87	100	94.1
10-Jul-01	08:19:34	-0.9	-0.2	-0.9	-1.2	0.8	1.3	100	90.4	87.5	90.2	100	90.8
10-Jul-01	08:39:34	-1.2	0.1	-0.7	-0.4	-0.4	0.3	100	86.1	87	89.7	100	90.2
10-Jul-01	08:59:34	-0.9	-0.4	-0.7	-0.4	-0.4	-0.4	100	90.4	87	88.1	100	93.6
10-Jul-01	09:19:34	-0.9	-0.2	-0.7	-0.7	-0.4	-0.2	100	86.1	85.9	87.5	100	94.1
10-Jul-01	09:39:34	-0.9	0.1	-0.7	-0.9	-0.4	-0.4	100	89.9	87.5	87.5	100	94.1
10-Jul-01	09:59:34	-0.4	-0.2	-0.4	-0.9	-0.4	-0.7	100	89.9	88.6	89.7	100	92.4
10-Jul-01	10:19:34	0.3	-0.2	-0.7	-0.7	-0.2	-0.4	100	88.3	88.6	87.5	100	91.9
10-Jul-01	10:39:34	1.6	-0.2	-0.4	-1.2	-0.4	-0.4	95.1	88.3	87	87.5	100	92.4
10-Jul-01	10:59:34	-0.2	-0.4	-0.7	-0.7	-0.4	-0.7	99.5	85.5	85.9	90.2	100	93.6
10-Jul-01	11:19:34	-0.7	-0.4	-0.7	-0.7	0.1	-0.4	97.3	86.1	85.9	87.5	100	93.6
10-Jul-01	11:39:34	-0.4	-0.4	-0.9	-0.9	-0.7	-0.7	98.9	86.6	85.9	87.5	100	91.3
10-Jul-01	11:59:34	-0.7	-0.4	-0.7	-0.9	0.1	-0.4	100	87.7	88.1	90.2	100	93
10-Jul-01	12:19:34	-0.4	-0.7	-1.2	-0.7	-0.4	-0.4	100	89.3	85.9	89.2	100	94.1
10-Jul-01	12:39:34	-0.4	-0.7	-1.2	-0.7	-0.2	-0.4	100	88.8	85.9	87	100	93

10-Jul-01	12:59:34	-0.7	-0.9	-1.2	-0.9	-0.4	-0.7	100	88.3	86.5	87.5	100	91.3
10-Jul-01	13:19:34	-0.2	-0.9	-0.9	-0.9	-0.2	-0.7	100	88.3	85.9	89.7	100	93
10-Jul-01	13:39:34	-0.4	-0.4	-0.9	-0.7	0.6	-0.7	98.4	86.6	87	89.2	100	93.6
10-Jul-01	13:59:34	-0.2	0.3	-1.2	-0.9	1.8	-0.4	97.3	87.2	85.9	87	100	90.8
10-Jul-01	14:19:34	-0.4	1.3	-0.9	-0.9	1.6	-0.4	98.4	87.7	87	87	100	94.1
10-Jul-01	14:39:34	-0.4	1.3	-0.9	-0.9	0.1	-0.7	96.7	82.9	85.9	87	100	91.3
10-Jul-01	14:59:34	-0.7	-0.2	-1.2	-0.9	-0.7	-0.7	96.2	82.9	87	88.1	100	92.4
10-Jul-01	15:19:34	-0.4	-0.9	-0.9	-0.7	0.1	-0.7	100	85.5	85.9	87	100	94.1
10-Jul-01	15:39:34	-0.9	-1.2	-0.7	-1.2	-0.2	-0.7	100	83.9	87.5	87.5	100	93
10-Jul-01	15:59:34	-0.7	-0.9	-0.4	-1.2	-0.2	0.3	100	83.9	88.1	87.5	100	93
10-Jul-01	16:19:34	-0.4	-0.9	-0.4	-1.2	-0.4	1.3	98.4	87.2	88.6	87.5	100	89.7
10-Jul-01	16:39:34	2.3	-0.4	-0.4	-1.2	0.1	0.3	97.3	87.7	86.5	89.2	100	89.7
10-Jul-01	16:59:34	0.1	-0.7	-0.4	-0.4	-0.4	-0.4	100	83.9	86.5	90.2	100	90.8
10-Jul-01	17:19:34	-0.2	-0.7	-0.7	-0.9	0.1	-0.7	100	85.5	85.9	87.5	100	91.3
10-Jul-01	17:39:34	-0.7	-0.7	-0.9	-1.2	-0.7	-0.7	100	88.8	86.5	90.2	100	94.7
10-Jul-01	17:59:34	-0.4	-0.4	-0.9	-0.4	-0.4	-0.4	100	86.1	88.1	90.2	100	93.6
10-Jul-01	18:19:34	-0.4	-0.7	-0.9	-0.7	0.1	-0.4	100	89.3	86.5	87.5	100	94.1
10-Jul-01	18:39:34	-0.7	-0.2	-0.9	-1.2	-0.4	-0.4	100	88.8	85.9	90.2	100	94.7
10-Jul-01	18:59:34	-0.4	-0.7	-0.9	-0.4	-0.4	-0.7	100	89.3	88.1	90.2	100	93.6
10-Jul-01	19:19:34	-0.7	-0.4	-0.9	-0.7	0.1	-0.4	100	90.4	88.1	87	100	93.6
10-Jul-01	19:39:34	-0.7	-0.2	-0.9	-1.2	0.6	-0.7	98.9	86.1	87	89.7	100	94.7
10-Jul-01	19:59:34	-0.7	-0.7	-0.9	-0.7	0.8	-0.7	100	90.4	85.9	89.7	100	93.6
10-Jul-01	20:19:34	-0.9	-0.4	-0.7	-0.9	1.1	-0.4	100	90.4	87.5	87.5	100	94.1
10-Jul-01	20:39:34	-0.7	0.1	-0.7	-0.9	-0.4	-0.4	100	90.4	88.1	90.2	100	94.7
10-Jul-01	20:59:34	-0.4	-0.4	-0.9	-0.7	-0.7	-0.4	100	89.3	86.5	89.2	100	94.1
10-Jul-01	21:19:34	-0.9	-0.4	-0.7	-0.7	-0.2	-0.7	100	90.4	86.5	87.5	100	93
10-Jul-01	21:39:34	-0.9	-0.2	-0.7	-0.9	-0.7	-0.4	100	88.8	87.5	90.2	100	94.7
10-Jul-01	21:59:34	-0.9	0.1	-0.7	-0.7	-0.4	-0.4	100	88.8	88.1	89.7	100	94.1
10-Jul-01	22:19:34	-0.7	0.3	-0.4	-0.9	0.1	-0.7	100	88.8	88.1	87.5	100	93.6
10-Jul-01	22:39:34	1.1	0.6	-0.4	-0.9	-0.4	-0.4	96.2	88.8	86.5	90.2	100	94.7
10-Jul-01	22:59:34	-0.7	0.1	-0.7	-0.4	-0.4	-0.7	100	85.5	88.1	89.2	100	94.7
10-Jul-01	23:19:34	-0.9	-0.2	-0.7	-0.9	-0.2	-0.7	100	90.4	87	87	100	94.1
10-Jul-01	23:39:34	-0.9	-0.2	-0.7	-1.2	-0.4	-0.4	100	86.1	86.5	89.7	100	94.1
10-Jul-01	23:59:34	-0.7	-0.4	-0.9	-0.4	-0.7	-0.4	100	90.4	88.6	89.2	100	93.6
11-Jul-01	00:19:34	-0.7	-0.2	-0.7	-0.9	-0.2	0.6	100	88.8	88.6	87.5	100	90.8
11-Jul-01	00:39:34	-0.7	-0.4	-0.7	-0.9	-0.7	0.1	100	90.4	88.1	90.2	100	90.8
11-Jul-01	00:59:34	-0.7	-0.2	-0.7	-0.7	-0.7	-0.2	100	89.3	86.5	88.1	100	94.1
11-Jul-01	01:19:34	-0.9	-0.2	-0.7	-0.9	-0.2	-0.7	99.5	86.6	86.5	87.5	100	94.7
11-Jul-01	01:39:34	-0.7	-0.4	-0.9	-0.7	0.3	-0.4	99.5	90.4	88.6	90.2	100	93.6
11-Jul-01	01:59:34	-0.4	0.1	-0.7	-0.7	1.3	-0.4	100	88.3	88.6	87.5	100	95.2
11-Jul-01	02:19:34	-0.7	-0.2	-0.9	-1.2	0.8	-0.4	100	89.9	88.1	88.6	100	92.4
11-Jul-01	02:39:34	-0.7	-0.2	-0.7	-0.7	-0.7	-0.4	100	89.3	86.5	89.7	100	95.2
11-Jul-01	02:59:34	-0.9	-0.4	-0.9	-0.7	-0.7	-0.7	100	88.3	86.5	88.6	100	93
11-Jul-01	03:19:34	-0.9	-0.2	-0.7	-0.7	-0.2	-0.7	100	89.9	88.6	87.5	100	94.7
11-Jul-01	03:39:34	-0.7	-0.2	-0.7	-0.9	-0.9	-0.4	98.4	85.5	88.6	90.2	100	94.7
11-Jul-01	03:59:34	-0.7	-0.4	-0.7	-0.7	-0.2	-0.4	99.5	90.4	88.1	89.7	100	94.1
11-Jul-01	04:19:34	-0.4	0.1	-0.7	-0.7	0.1	-0.4	100	88.8	88.1	87.5	100	95.2
11-Jul-01	04:39:34	-0.2	-0.2	-0.4	-1.2	-0.7	-0.4	94.6	88.3	86.5	89.7	100	93.6
11-Jul-01	04:59:34	-1.2	-0.4	-0.7	-0.4	-0.4	-0.4	97.3	89.3	88.1	89.2	100	94.7

11-Jul-01	05:19:34	-0.9	-0.2	-0.7	-0.7	-0.2	-0.4	97.3	89.9	88.1	87.5	100	93.6
11-Jul-01	05:39:34	-0.9	0.1	-0.9	-0.9	-0.9	-0.4	97.8	88.3	85.9	89.7	100	95.2
11-Jul-01	05:59:34	-0.7	0.3	-0.7	-0.4	-0.4	-0.4	98.9	88.8	87	88.1	100	93
11-Jul-01	06:19:34	-0.9	0.6	-0.9	-0.9	0.1	-0.4	98.4	88.3	88.6	87.5	100	94.7
11-Jul-01	06:39:34	-0.7	0.3	-0.7	-0.7	-0.7	-0.4	98.9	84.5	88.6	90.2	100	94.1
11-Jul-01	06:59:34	-0.7	-0.2	-0.9	-0.7	-0.2	-0.7	100	89.9	88.1	87.5	100	94.1
11-Jul-01	07:19:34	-0.7	-0.2	-0.7	-1.2	-0.2	-0.4	100	85.5	85.9	89.2	100	94.7
11-Jul-01	07:39:34	-0.7	-0.2	-0.7	-0.7	0.3	-0.4	100	90.4	88.1	89.7	100	93
11-Jul-01	07:59:34	-0.7	0.1	-0.7	-0.4	1.1	-0.2	100	85.5	88.6	87	100	93.6
11-Jul-01	08:19:34	-1.2	-0.2	-0.7	-1.2	0.8	1.3	98.9	89.3	88.6	89.7	100	91.3
11-Jul-01	08:39:34	-1.2	0.1	-0.9	-0.4	-0.7	0.6	98.4	86.1	88.1	90.2	100	89.7
11-Jul-01	08:59:34	-0.9	-0.2	-0.7	-0.7	-0.4	-0.2	97.3	89.9	87	88.6	100	93.6
11-Jul-01	09:19:34	-0.7	-0.2	-0.9	-0.7	-0.4	-0.2	97.8	85.5	85.9	87.5	100	91.9
11-Jul-01	09:39:34	-0.9	0.1	-0.7	-0.9	-0.4	-0.2	99.5	89.9	88.1	89.7	100	91.9
11-Jul-01	09:59:34	-0.7	-0.2	-0.7	-0.4	-0.2	-0.4	99.5	89.3	88.6	90.2	100	93.6
11-Jul-01	10:19:34	-0.4	0.1	-0.7	-0.7	-0.4	-0.7	100	88.3	88.6	87.5	100	94.7
11-Jul-01	10:39:34	0.6	0.1	-0.2	-0.9	-0.2	-0.7	93.5	88.3	87	90.2	100	93.6
11-Jul-01	10:59:34	-0.4	-0.4	-0.7	-0.2	-0.4	-0.4	100	85.5	85.9	88.6	100	91.9
11-Jul-01	11:19:34	-0.4	-0.4	-0.9	-0.7	-0.2	-0.4	98.4	86.1	86.5	87.5	100	93.6
11-Jul-01	11:39:34	-0.4	-0.4	-0.7	-1.2	-0.4	-0.4	100	86.6	87	88.1	100	94.1
11-Jul-01	11:59:34	-0.7	-0.7	-0.7	-0.4	0.1	-0.7	100	88.8	86.5	90.2	100	93.6
11-Jul-01	12:19:34	-0.7	-0.7	-0.9	-0.9	-0.2	-0.4	100	88.3	85.9	87.5	100	91.9
11-Jul-01	12:39:34	-0.9	-0.7	-0.9	-0.9	0.1	-0.4	100	86.6	85.9	87.5	100	93.6
11-Jul-01	12:59:34	-0.4	-0.9	-0.7	-0.7	-0.2	-0.7	100	85.5	88.1	90.2	100	93.6
11-Jul-01	13:19:34	-0.7	-0.9	-0.9	-0.7	0.1	-0.7	100	85.5	85.9	87.5	100	91.3
11-Jul-01	13:39:34	-0.4	-0.9	-0.7	-0.9	0.8	-0.7	100	87.7	85.9	87.5	100	94.1
11-Jul-01	13:59:34	-0.2	0.3	-0.7	-1.2	1.8	-0.7	99.5	87.7	88.1	88.1	100	93.6
11-Jul-01	14:19:34	-0.4	1.6	-0.7	-0.7	1.6	-0.7	98.9	87.7	85.9	88.6	100	91.3
11-Jul-01	14:39:34	-0.2	1.3	-0.7	-0.9	-0.2	-0.4	97.3	82.9	85.9	87.5	100	92.4
11-Jul-01	14:59:34	-0.7	-0.2	-0.9	-0.7	0.1	-0.4	100	83.4	85.9	88.1	100	94.1
11-Jul-01	15:19:34	-0.7	-0.9	-0.9	-0.7	-0.4	-0.7	100	83.4	85.9	87.5	100	93
11-Jul-01	15:39:34	-0.7	-1.2	-0.7	-0.9	0.1	-0.7	100	83.9	87	87	100	91.3
11-Jul-01	15:59:34	-0.4	-0.9	-0.4	-0.9	-0.4	0.1	100	85	87.5	87.5	100	92.4
11-Jul-01	16:19:34	-0.2	-0.9	-0.4	-1.2	-0.2	1.3	100	86.6	88.1	87	100	90.2
11-Jul-01	16:39:34	1.3	-0.9	-0.4	-0.7	-0.2	0.3	94.6	87.2	86.5	90.2	100	90.2
11-Jul-01	16:59:34	-0.2	-0.7	-0.4	-0.7	-0.7	-0.4	100	83.9	85.9	87.5	100	93.6
11-Jul-01	17:19:34	-0.4	-0.9	-0.7	-1.2	-0.2	-0.7	100	88.8	85.9	87	100	93.6
11-Jul-01	17:39:34	-0.7	-0.9	-0.7	-1.2	-0.7	-0.7	100	88.3	85.9	89.7	100	93
11-Jul-01	17:59:34	-0.7	-0.9	-0.7	-0.4	-0.2	-0.7	100	85	86.5	88.6	100	95.2
11-Jul-01	18:19:34	-0.9	-0.7	-0.7	-0.9	-0.7	-0.7	97.3	89.3	88.6	87.5	100	94.1
11-Jul-01	18:39:34	-0.7	-0.7	-0.9	-0.9	-0.4	-0.7	97.3	86.6	88.6	89.7	100	93.6
11-Jul-01	18:59:34	-0.7	-0.4	-0.9	-0.4	-0.4	-0.4	97.8	89.9	87.5	88.6	100	94.7
11-Jul-01	19:19:34	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	97.3	88.8	86.5	87	100	93.6
11-Jul-01	19:39:34	-0.4	-0.7	-0.7	-0.9	0.1	-0.7	100	88.3	85.9	90.2	100	93
11-Jul-01	19:59:34	-0.7	-0.7	-0.7	-0.4	1.1	-0.4	100	89.9	85.9	89.2	100	94.7
11-Jul-01	20:19:34	-0.7	-0.4	-0.9	-1.2	0.6	-0.4	100	86.1	87.5	87	100	95.2
11-Jul-01	20:39:34	-0.7	-0.4	-0.9	-0.9	-0.7	-0.4	100	89.9	88.6	90.2	100	94.1
11-Jul-01	20:59:34	-0.9	-0.4	-0.7	-0.4	-0.2	-0.4	100	86.1	88.1	89.7	100	93.6
11-Jul-01	21:19:34	-1.2	-0.7	-0.7	-0.9	-0.9	-0.4	100	90.4	86.5	87.5	100	94.7

11-Jul-01	21:39:34	-0.9	-0.4	-0.9	-0.9	-0.4	-0.7	100	88.8	87.5	90.2	100	94.7
11-Jul-01	21:59:34	-1.2	-0.2	-0.7	-0.4	-0.2	-0.4	100	88.8	87.5	90.2	100	93
11-Jul-01	22:19:34	-0.9	0.3	-0.4	-0.9	-0.4	-0.7	100	88.8	88.1	87	100	94.7
11-Jul-01	22:39:34	0.6	0.6	-0.4	-0.9	-0.2	-0.4	96.2	88.3	86.5	90.2	100	95.2
11-Jul-01	22:59:34	-0.7	-0.2	-0.7	-0.7	-0.4	-0.7	100	85	88.1	89.7	100	93
11-Jul-01	23:19:34	-0.9	-0.4	-0.7	-0.7	-0.2	-0.7	100	90.4	87	87	100	94.7
11-Jul-01	23:39:34	-0.9	-0.2	-0.7	-0.9	-0.7	-0.4	100	86.1	85.9	89.7	100	94.7
11-Jul-01	23:59:34	-0.9	-0.7	-0.4	-0.7	-0.4	-0.2	100	90.4	86.5	89.7	100	94.1
12-Jul-01	00:19:34	-1.2	-0.2	-0.7	-0.7	-0.2	0.8	100	89.3	87.5	87	100	91.3
12-Jul-01	00:39:34	-1.2	-0.2	-0.4	-0.9	-0.4	0.1	100	85.5	88.6	89.7	100	90.8
12-Jul-01	00:59:34	-0.7	-0.4	-0.4	-0.7	-0.4	-0.2	100	90.4	88.6	89.7	100	94.1
12-Jul-01	01:19:34	-0.7	-0.2	-0.7	-0.7	-0.4	-0.7	96.7	88.8	88.1	87.5	100	94.1
12-Jul-01	01:39:34	-0.7	-0.2	-0.7	-0.9	-0.2	-0.2	100	86.1	87	90.2	100	94.7
12-Jul-01	01:59:34	-0.9	-0.4	-0.4	-0.7	0.6	-0.4	100	89.9	86.5	89.7	100	94.1
12-Jul-01	02:19:34	-0.9	-0.2	-0.4	-0.7	0.6	-0.4	100	88.8	87	87.5	100	94.1
12-Jul-01	02:39:34	-1.2	-0.2	-0.4	-0.9	-0.7	-0.7	100	86.6	88.6	89.7	100	95.2
12-Jul-01	02:59:34	-1.2	-0.4	-0.4	-0.7	-0.2	-0.2	100	89.9	88.6	89.7	100	93
12-Jul-01	03:19:34	-0.9	-0.2	-0.9	-0.7	-0.7	-0.4	100	88.8	87.5	87	100	94.7
12-Jul-01	03:39:34	-0.7	0.1	-0.4	-0.9	-0.4	-0.7	98.4	88.3	88.1	89.7	100	93.6
12-Jul-01	03:59:34	-0.7	-0.4	-0.4	-0.7	-0.2	-0.4	100	89.3	88.1	89.7	100	94.1
12-Jul-01	04:19:34	-0.7	-0.4	-0.4	-0.7	-0.4	-0.7	100	88.8	88.1	87.5	100	95.2
12-Jul-01	04:39:34	-0.2	0.1	-0.4	-0.9	-0.2	-0.7	95.1	88.3	85.9	90.2	100	93
12-Jul-01	04:59:34	-0.7	-0.4	-0.9	-0.7	-0.9	-0.4	98.9	88.8	88.1	89.7	100	94.7
12-Jul-01	05:19:34	-0.9	-0.2	-0.7	-0.4	-0.4	-0.7	100	89.3	88.6	87	100	93.6
12-Jul-01	05:39:34	-0.7	-0.2	-0.7	-0.9	-0.4	-0.4	100	88.8	87.5	89.7	100	94.7
12-Jul-01	05:59:34	-0.7	0.1	-0.7	-0.7	-0.4	-0.4	100	88.3	85.9	89.7	100	94.7
12-Jul-01	06:19:34	-0.7	0.3	-0.7	-0.4	-0.2	-0.4	100	88.3	85.9	87.5	100	93
12-Jul-01	06:39:34	-0.9	0.3	-0.4	-1.2	-0.7	-0.4	100	85	88.1	89.7	100	95.2
12-Jul-01	06:59:34	-0.7	-0.4	-0.7	-0.7	-0.2	-0.4	100	89.3	88.6	89.7	100	93
12-Jul-01	07:19:34	-1.2	-0.2	-0.4	-0.4	-0.4	-0.4	100	86.6	88.6	87.5	100	94.7
12-Jul-01	07:39:34	-0.9	-0.4	-0.7	-1.2	-0.2	-0.7	100	89.9	87.5	90.2	100	94.7
12-Jul-01	07:59:34	-0.9	-0.2	-0.4	-0.7	0.6	-0.2	100	89.3	85.9	89.7	100	93.6
12-Jul-01	08:19:34	-1.2	-0.4	-0.7	-0.4	0.6	1.3	100	88.8	85.9	87	100	90.8
12-Jul-01	08:39:34	-0.7	0.1	-0.7	-0.9	-0.7	0.3	97.3	89.9	85.9	90.2	100	90.2
12-Jul-01	08:59:34	-0.7	-0.2	-0.7	-0.7	-0.2	-0.2	97.8	89.3	87	89.2	100	93.6
12-Jul-01	09:19:34	-0.7	-0.2	-0.9	-0.9	-0.4	-0.7	97.3	90.4	88.6	87.5	100	93.6
12-Jul-01	09:39:34	-0.4	-0.4	-0.7	-1.2	0.1	-0.4	96.7	90.4	88.1	89.7	100	91.9
12-Jul-01	09:59:34	-0.9	-0.2	-0.4	-0.7	-0.4	-0.4	100	87.2	88.1	89.7	100	94.7
12-Jul-01	10:19:34	-0.4	-0.2	-0.4	-0.7	-0.2	-0.7	100	88.3	88.6	87	100	94.1
12-Jul-01	10:39:34	1.1	-0.4	-0.2	-0.9	-0.4	-0.4	95.1	88.8	87	90.2	100	91.9
12-Jul-01	10:59:34	-0.2	-0.4	-0.4	-0.4	0.1	-0.2	99.5	86.1	86.5	88.1	100	93
12-Jul-01	11:19:34	-0.4	-0.7	-0.9	-0.7	-0.4	-0.4	100	89.3	85.9	87	100	94.7
12-Jul-01	11:39:34	-0.4	-0.9	-0.7	-0.9	0.1	-0.7	98.9	86.1	88.1	89.7	100	94.1
12-Jul-01	11:59:34	-0.2	-0.9	-0.7	-0.7	-0.4	-0.7	100	89.9	88.1	88.1	100	93
12-Jul-01	12:19:34	-0.4	-0.9	-0.7	-0.9	-0.2	-0.7	100	86.1	85.9	87.5	100	91.3
12-Jul-01	12:39:34	0.1	-1.2	-0.7	-0.9	-0.4	-0.4	99.5	86.1	86.5	90.2	100	91.9
12-Jul-01	12:59:34	-0.2	-0.9	-0.7	-0.4	-0.2	-0.4	97.8	89.9	88.6	88.6	100	92.4
12-Jul-01	13:19:34	-0.4	-0.9	-0.7	-0.9	-0.2	-0.4	97.3	88.8	85.9	87.5	100	94.1
12-Jul-01	13:39:34	-0.7	-0.7	-0.7	-1.2	1.1	-0.7	100	88.3	85.9	89.7	100	94.7

12-Jul-01	13:59:34	-0.4	0.6	-0.9	-0.7	2.1	-0.4	100	87.7	87	88.6	100	93.6
12-Jul-01	14:19:34	-0.2	1.3	-0.9	-0.7	1.6	-0.7	98.9	88.3	85.9	87.5	100	93.6
12-Jul-01	14:39:34	-0.4	1.3	-0.9	-1.2	-0.2	-0.7	97.3	82.9	85.9	87.5	100	91.3
12-Jul-01	14:59:34	-0.4	-0.2	-0.7	-0.7	-0.4	-0.7	100	83.4	85.9	88.6	100	91.9
12-Jul-01	15:19:34	-0.4	-0.7	-0.9	-0.9	-0.4	-0.7	99.5	85	85.9	87.5	100	93
12-Jul-01	15:39:34	-0.4	-0.9	-0.7	-0.9	-0.4	-0.4	97.3	87.7	87.5	87	100	93.6
12-Jul-01	15:59:34	-0.4	-0.9	-0.4	-0.9	-0.2	0.1	100	87.7	88.1	90.2	100	91.9
12-Jul-01	16:19:34	-0.2	-0.7	-0.4	-0.4	-0.4	1.3	99.5	87.7	89.1	88.1	100	89.7
12-Jul-01	16:39:34	1.8	-0.7	-0.2	-0.9	0.1	0.3	96.2	88.3	87	87.5	100	90.2
12-Jul-01	16:59:34	-0.2	-0.7	-0.7	-0.9	-0.7	-0.4	100	84.5	85.9	90.2	100	91.3
12-Jul-01	17:19:34	-0.4	-1.2	-0.9	-0.4	0.1	-0.4	98.9	85.5	85.9	90.2	100	91.3
12-Jul-01	17:39:34	-0.7	-0.9	-0.7	-0.9	-0.7	-0.4	100	90.4	86.5	87.5	100	91.9
12-Jul-01	17:59:34	-0.4	-0.9	-0.7	-0.9	-0.2	-0.4	100	89.9	88.6	90.2	100	95.2
12-Jul-01	18:19:34	-0.7	-0.7	-0.7	-0.4	-0.2	-0.4	99.5	85.5	88.6	90.2	100	94.7
12-Jul-01	18:39:34	-0.7	-0.7	-0.7	-0.9	-0.4	-0.4	98.4	91	88.1	87.5	100	94.1
12-Jul-01	18:59:34	-0.7	-0.4	-0.7	-0.7	0.1	-0.7	97.3	91	85.9	89.7	100	93
12-Jul-01	19:19:34	-0.4	-0.7	-0.7	-0.4	-0.4	-0.4	99.5	89.9	85.9	88.1	100	94.7
12-Jul-01	19:39:34	-0.7	-0.7	-0.7	-0.9	0.1	-0.7	100	91	87.5	88.6	100	94.7
12-Jul-01	19:59:34	-0.9	-0.7	-0.7	-0.9	0.6	-0.4	100	90.4	88.6	89.7	100	93
12-Jul-01	20:19:34	-0.7	-0.4	-0.9	-0.4	0.6	-0.4	100	91.6	88.1	87.5	100	94.1
12-Jul-01	20:39:34	-0.9	-0.4	-0.7	-1.2	-0.7	-0.4	100	88.8	88.1	89.7	100	94.7
12-Jul-01	20:59:34	-0.7	-0.7	-0.7	-0.7	-0.2	-0.4	100	91.6	86.5	89.7	100	95.2
12-Jul-01	21:19:34	-0.9	-0.4	-0.7	-0.9	-0.2	-0.7	100	87.7	86.5	87.5	100	93.6
12-Jul-01	21:39:34	-0.9	-0.7	-0.4	-0.7	-0.4	-0.4	100	89.3	88.1	90.2	100	93
12-Jul-01	21:59:34	-1.2	-0.2	-0.4	-0.7	-0.2	-0.7	100	88.8	88.1	89.7	100	93.6
12-Jul-01	22:19:34	-0.7	0.3	-0.7	-1.2	-0.7	-0.4	99.5	88.3	88.1	87.5	100	95.2
12-Jul-01	22:39:34	0.3	0.6	-0.7	-0.9	-0.2	-0.7	96.2	89.3	86.5	89.7	100	94.7
12-Jul-01	22:59:34	-0.4	-0.4	-0.9	-0.4	0.1	-0.7	100	85	88.1	87.5	100	94.7
12-Jul-01	23:19:34	-0.9	-0.7	-0.7	-1.2	-0.7	-0.7	99.5	91	86.5	89.7	100	93.6
12-Jul-01	23:39:34	-0.9	-0.7	-0.7	-0.4	-0.4	-0.4	100	88.8	86.5	90.2	100	93.6
12-Jul-01	23:59:34	-0.7	-0.4	-0.7	-0.9	0.1	-0.2	100	91	87	87.5	100	94.1
13-Jul-01	00:19:34	-0.7	-0.4	-0.9	-0.9	-0.7	0.6	100	86.1	88.6	90.2	100	91.3
13-Jul-01	00:39:34	-0.7	-0.7	-0.7	-0.7	-0.2	0.1	100	91	88.6	89.7	100	91.3
13-Jul-01	00:59:34	-0.7	-0.2	-0.9	-0.9	-0.2	-0.4	100	88.3	87.5	87.5	100	93
13-Jul-01	01:19:34	-0.7	-0.7	-0.9	-0.9	-0.4	-0.7	100	91	85.9	89.7	100	95.2
13-Jul-01	01:39:34	-0.9	-0.2	-0.4	-0.7	-0.2	-0.4	100	89.9	88.1	88.1	100	94.7
13-Jul-01	01:59:34	-0.7	-0.7	-0.7	-0.9	1.1	-0.4	100	89.3	88.6	89.7	100	93.6
13-Jul-01	02:19:34	-0.9	-0.4	-0.7	-0.4	0.8	-0.4	100	90.4	88.6	90.2	100	93.6
13-Jul-01	02:39:34	-0.7	-0.2	-0.7	-0.7	-0.7	-0.4	100	86.6	86.5	87.5	100	95.8
13-Jul-01	02:59:34	-1.2	-0.7	-0.7	-0.7	-0.2	-0.4	100	91	86.5	88.6	100	94.7
13-Jul-01	03:19:34	-0.7	-0.4	-0.7	-0.9	-0.2	-0.7	100	89.3	88.6	89.7	100	93
13-Jul-01	03:39:34	-0.7	-0.4	-0.7	-0.7	-0.7	-0.4	100	91	88.6	90.2	100	95.2
13-Jul-01	03:59:34	-1.2	-0.2	-0.4	-0.4	-0.4	-0.4	100	89.9	88.1	87.5	100	94.7
13-Jul-01	04:19:34	-0.7	-0.2	-0.4	-0.9	-0.2	-0.7	100	88.8	88.6	90.2	100	93.6
13-Jul-01	04:39:34	0.3	-0.7	-0.7	-0.7	-0.7	-0.4	95.6	88.8	87	90.2	100	95.8
13-Jul-01	04:59:34	-0.7	-0.9	-0.9	-0.7	-0.2	-0.4	100	89.3	88.1	87.5	100	94.7
13-Jul-01	05:19:34	-0.9	-0.4	-0.7	-0.9	-0.2	-0.4	100	91	88.6	90.2	100	93.6
13-Jul-01	05:39:34	-0.7	-0.2	-0.7	-0.7	-0.9	-0.4	100	88.8	88.1	89.7	100	94.7
13-Jul-01	05:59:34	-0.9	0.1	-0.7	-0.7	-0.2	-0.7	100	88.8	86.5	87.5	100	94.7

13-Jul-01	06:19:34	-0.9	0.3	-0.9	-0.9	-0.2	-0.4	100	88.8	87.5	89.7	100	94.1
13-Jul-01	06:39:34	-0.7	0.1	-0.7	-0.4	-0.7	-0.7	100	85.5	88.6	89.7	100	95.2
13-Jul-01	06:59:34	-0.9	-0.4	-0.9	-0.9	-0.2	-0.4	100	90.4	88.6	87.5	100	94.7
13-Jul-01	07:19:34	-0.7	-0.2	-0.9	-0.9	-0.2	-0.4	100	86.1	88.1	90.2	100	94.1
13-Jul-01	07:39:34	-0.9	-0.2	-0.9	-0.7	0.3	-0.4	100	90.4	85.9	88.1	100	93
13-Jul-01	07:59:34	-0.9	-0.2	-0.4	-0.9	0.8	0.1	100	85.5	86.5	88.1	100	94.1
13-Jul-01	08:19:34	-1.2	-0.2	-0.9	-0.7	0.3	1.3	100	90.4	88.1	90.2	100	90.8
13-Jul-01	08:39:34	-0.9	-0.2	-0.7	-0.7	-0.9	0.6	100	87.7	89.1	87.5	100	90.2
13-Jul-01	08:59:34	-0.7	0.1	-0.7	-0.7	-0.4	-0.2	100	91	88.1	88.6	100	93.6
13-Jul-01	09:19:34	-0.7	-0.7	-0.9	-0.7	-0.9	-0.4	100	90.4	85.9	87.5	100	94.7
13-Jul-01	09:39:34	-0.9	-0.2	-0.7	-0.9	-0.2	-0.7	98.9	88.3	88.1	90.2	100	94.7
13-Jul-01	09:59:34	-0.7	-0.4	-0.4	-0.4	-0.7	-0.7	98.9	91.6	88.6	88.6	100	94.1
13-Jul-01	10:19:34	-0.2	-0.2	-0.4	-0.9	-0.4	-0.7	100	88.8	88.6	87	100	93.6
13-Jul-01	10:39:34	0.6	-0.2	-0.2	-0.7	-0.7	-0.4	96.7	89.3	87	90.2	100	93
13-Jul-01	10:59:34	-0.4	-0.4	-0.4	-0.4	-0.2	-0.7	98.9	86.6	86.5	87.5	100	92.4
13-Jul-01	11:19:34	-0.4	-0.7	-0.7	-1.2	-0.4	-0.4	100	91.6	85.9	87.5	100	93.6
13-Jul-01	11:39:34	-0.7	-0.9	-1.2	-0.4	-0.2	-0.7	100	86.6	85.9	90.2	100	94.1
13-Jul-01	11:59:34	-0.4	-1.2	-0.9	-0.7	-0.4	-0.4	96.7	86.1	86.5	87.5	100	94.1
13-Jul-01	12:19:34	-0.4	-1.2	-0.9	-1.2	0.1	-0.4	100	89.9	86.5	87.5	100	94.1
13-Jul-01	12:39:34	-0.7	-1.4	-1.2	-0.4	-0.4	-0.4	100	86.1	86.5	89.7	100	91.9
13-Jul-01	12:59:34	-0.7	-1.7	-0.9	-0.7	0.1	-0.4	100	86.1	85.9	87.5	100	93.6
13-Jul-01	13:19:34	-0.4	-2.2	-0.9	-1.2	-0.7	-0.4	100	86.1	85.9	87.5	100	94.1
13-Jul-01	13:39:34	-0.4	-1.7	-0.9	-0.7	0.3	-0.7	100	88.8	86.5	90.2	100	93.6
13-Jul-01	13:59:34	-0.4	-0.2	-0.9	-0.4	1.3	-0.4	97.8	88.3	85.9	88.1	100	91.9
13-Jul-01	14:19:34	-0.4	1.1	-1.2	-1.2	0.8	-0.4	100	88.3	85.9	87.5	100	92.4
13-Jul-01	14:39:34	-0.2	1.1	-0.9	-1.2	-0.4	-0.4	100	83.9	85.9	88.6	100	94.7
13-Jul-01	14:59:34	-0.4	-0.4	-0.9	-0.7	-0.2	-0.4	97.3	84.5	85.9	88.6	100	94.1
13-Jul-01	15:19:34	-0.4	-1.7	-0.9	-0.9	-0.4	-0.7	100	85.5	85.9	87.5	100	93.6
13-Jul-01	15:39:34	-0.2	-1.4	-0.7	-1.2	-0.4	-0.7	99.5	89.3	87	87	100	92.4
13-Jul-01	15:59:34	-0.2	-1.7	-0.4	-1.2	-0.4	0.1	97.3	85.5	87.5	89.7	100	93
13-Jul-01	16:19:34	0.1	-1.4	-0.7	-0.4	0.1	1.6	99.5	88.8	88.1	87.5	100	90.2
13-Jul-01	16:39:34	2.3	-0.9	-0.4	-0.9	-0.4	0.3	97.3	88.8	87	87.5	100	91.3
13-Jul-01	16:59:34	0.1	-1.2	-0.4	-1.2	-0.4	-0.2	100	85.5	85.9	89.7	100	91.9
13-Jul-01	17:19:34	-0.2	-1.2	-0.9	-0.4	-0.7	-0.4	100	90.4	85.9	88.6	100	93.6
13-Jul-01	17:39:34	-0.4	-0.9	-0.9	-0.9	-0.2	-0.7	100	88.3	85.9	87	100	95.8
13-Jul-01	17:59:34	-0.4	-0.9	-0.7	-0.9	-0.2	-0.4	97.8	91	88.6	89.7	100	95.2
13-Jul-01	18:19:34	-0.7	-0.7	-0.9	-0.7	-0.2	-0.4	98.9	86.6	88.6	87.5	100	93
13-Jul-01	18:39:34	-0.7	-0.9	-0.9	-1.2	0.1	-0.4	100	91	87	88.6	100	94.1
13-Jul-01	18:59:34	-0.7	-0.4	-0.7	-0.4	-0.7	-0.7	100	91.6	85.9	90.2	100	95.8
13-Jul-01	19:19:34	-0.7	-0.7	-0.4	-0.7	-0.2	-0.7	100	89.3	85.9	87	100	95.2
13-Jul-01	19:39:34	-0.7	-0.4	-0.7	-0.9	0.3	-0.4	100	91	86.5	89.7	100	93.6
13-Jul-01	19:59:34	-0.9	-0.2	-0.9	-0.4	1.3	-0.4	100	91.6	88.6	88.1	100	94.1
13-Jul-01	20:19:34	-0.7	-0.9	-0.7	-0.9	0.8	-0.7	100	91	88.6	87.5	100	95.2
13-Jul-01	20:39:34	-0.9	-0.4	-0.7	-0.7	-0.4	-0.7	100	91.6	86.5	90.2	100	95.2
13-Jul-01	20:59:34	-0.9	-0.2	-0.7	-0.7	-0.4	-0.4	100	91	85.9	88.6	100	94.1
13-Jul-01	21:19:34	-0.9	-0.7	-0.7	-0.7	-0.2	-0.4	100	91	86.5	87.5	100	93.6
13-Jul-01	21:39:34	-0.7	-0.4	-0.7	-0.9	-0.4	-0.4	100	89.9	87.5	90.2	100	95.2
13-Jul-01	21:59:34	-0.7	-0.2	-0.7	-0.7	-0.2	-0.7	100	89.3	87.5	89.7	100	95.2
13-Jul-01	22:19:34	-0.7	0.3	-0.4	-0.7	-0.7	-0.7	100	88.8	88.1	87	100	93.6

13-Jul-01	22:39:34	0.6	0.6	-0.4	-0.9	-0.2	-0.4	97.3	89.3	86.5	89.7	100	94.1
13-Jul-01	22:59:34	-0.7	-0.2	-0.7	-0.4	0.1	-0.4	100	85.5	88.6	88.1	100	95.2
13-Jul-01	23:19:34	-0.7	-0.4	-0.7	-0.9	-0.4	-0.4	100	91.6	88.6	90.2	100	95.2
13-Jul-01	23:39:34	-0.7	-0.2	-0.7	-0.7	-0.2	-0.4	100	86.1	87	90.2	100	93.6
13-Jul-01	23:59:34	-0.9	-0.4	-0.7	-0.7	-0.7	-0.2	100	91.6	85.9	87.5	100	93.6
14-Jul-01	00:19:34	-0.7	-0.4	-0.4	-0.9	-0.4	0.8	100	86.1	85.9	89.7	100	92.4
14-Jul-01	00:39:34	-0.9	-0.4	-0.7	-0.7	0.1	0.1	100	91.6	85.9	89.7	100	90.8
14-Jul-01	00:59:34	-0.7	-0.7	-0.7	-0.7	-0.4	-0.4	100	87.7	86.5	87	100	93.6
14-Jul-01	01:19:34	-0.9	-0.4	-0.7	-0.7	0.1	-0.7	100	91.6	88.1	90.2	100	95.8
14-Jul-01	01:39:34	-0.7	-0.4	-0.7	-0.4	0.3	-0.4	100	86.1	89.1	88.6	100	94.1
14-Jul-01	01:59:34	-0.7	-0.4	-0.7	-1.2	1.1	-0.4	100	91.6	89.1	89.7	100	93.6
14-Jul-01	02:19:34	-0.7	0.1	-0.7	-0.4	0.8	-0.7	100	89.9	88.1	90.2	100	95.8
14-Jul-01	02:39:34	-0.9	-0.7	-0.7	-0.7	-0.7	-0.7	100	91	88.6	87.5	100	95.8
14-Jul-01	02:59:34	-1.2	-0.2	-0.9	-0.7	-0.2	-0.4	100	90.4	87.5	88.6	100	94.1
14-Jul-01	03:19:34	-0.7	-0.7	-0.7	-0.9	-0.4	-0.4	100	91	85.9	89.2	100	93.6
14-Jul-01	03:39:34	-0.9	-0.4	-0.7	-0.7	-0.2	-0.4	100	90.4	87.5	90.2	100	95.2
14-Jul-01	03:59:34	-0.9	-0.7	-0.4	-0.7	-0.2	-0.7	100	88.8	88.1	87.5	100	95.8
14-Jul-01	04:19:34	-0.7	-0.4	-0.7	-0.9	-0.7	-0.7	100	91	88.1	90.2	100	95.2
14-Jul-01	04:39:34	0.3	-0.2	-0.4	-0.7	0.1	-0.7	96.2	88.3	86.5	89.7	100	94.1
14-Jul-01	04:59:34	-0.7	-0.7	-0.9	-0.9	-0.7	-0.4	100	88.8	86.5	87	100	93.6
14-Jul-01	05:19:34	-0.9	-0.2	-0.7	-0.7	-0.2	-0.4	100	91	85.9	90.2	100	93.6
14-Jul-01	05:39:34	-0.7	-0.2	-0.7	-0.7	-0.4	-0.4	100	88.3	85.9	88.1	100	95.2
14-Jul-01	05:59:34	-0.9	0.3	-0.7	-0.9	-0.2	-0.4	100	89.9	86.5	90.2	100	95.8
14-Jul-01	06:19:34	-0.9	0.6	-0.7	-0.7	-0.2	-0.4	100	89.3	88.6	89.7	100	94.7
14-Jul-01	06:39:34	-0.7	0.6	-0.7	-0.7	-0.4	-0.7	100	85	88.1	87.5	100	93
14-Jul-01	06:59:34	-0.9	-0.7	-0.7	-0.9	0.1	-0.4	100	90.4	88.6	90.2	100	95.2
14-Jul-01	07:19:34	-0.4	-0.4	-0.7	-0.4	-0.4	-0.7	100	86.1	87.5	89.7	100	95.8
14-Jul-01	07:39:34	-0.7	-0.4	-0.9	-0.9	0.1	-0.4	100	91.6	87	87.5	100	94.1
14-Jul-01	07:59:34	-0.9	-0.7	-0.7	-0.9	0.6	-0.2	100	86.1	85.9	90.2	100	93.6
14-Jul-01	08:19:34	-0.7	-0.4	-0.4	-0.4	0.3	0.8	100	91.6	85.9	87.5	100	91.9
14-Jul-01	08:39:34	-0.9	-0.4	-0.7	-1.2	-0.7	0.1	100	88.8	85.9	89.7	100	90.8
14-Jul-01	08:59:34	-0.9	-0.4	-0.4	-0.7	-0.4	-0.4	100	91.6	87	89.7	100	94.1
14-Jul-01	09:19:34	-0.7	-0.7	-0.7	-0.9	-0.7	-0.7	100	91.6	88.1	87.5	100	95.8
14-Jul-01	09:39:34	-1.2	-0.7	-0.7	-0.9	-0.2	-0.7	100	87.2	88.1	90.2	100	95.8
14-Jul-01	09:59:34	-0.7	-0.7	-0.4	-0.7	-0.2	-0.7	100	91.6	88.6	89.2	100	95.2
14-Jul-01	10:19:34	-0.4	-0.9	-0.2	-1.2	-0.4	-0.7	100	89.3	88.6	87.5	100	93.6
14-Jul-01	10:39:34	1.3	-0.7	-0.4	-0.7	0.1	-0.4	96.7	89.9	87.5	90.2	100	93
14-Jul-01	10:59:34	-0.2	-0.7	-0.4	-0.4	-0.4	-0.4	100	86.1	86.5	88.1	100	93.6
14-Jul-01	11:19:34	-0.7	-1.2	-0.7	-0.9	0.1	-0.7	99.5	89.3	85.9	90.2	100	93.6
14-Jul-01	11:39:34	-0.7	-1.2	-0.9	-0.4	-0.4	-0.7	97.3	91	88.6	90.2	100	95.2
14-Jul-01	11:59:34	-0.7	-1.2	-0.9	-0.7	0.1	-0.7	100	89.3	87	87.5	100	95.8
14-Jul-01	12:19:34	-0.7	-1.2	-0.7	-0.7	-0.4	-0.4	100	86.1	85.9	90.2	100	94.7
14-Jul-01	12:39:34	-0.4	-0.9	-0.7	-0.4	0.1	-0.7	100	88.8	85.9	88.6	100	93.6
14-Jul-01	12:59:34	-0.4	-1.4	-0.7	-0.9	-0.4	-0.7	99.5	91.6	88.1	87.5	100	93
14-Jul-01	13:19:34	-0.7	-1.4	-0.9	-0.7	0.1	-0.7	98.9	88.8	85.9	90.2	100	93
14-Jul-01	13:39:34	-0.9	-0.9	-0.7	-0.4	0.6	-0.4	100	89.9	85.9	88.1	100	94.1
14-Jul-01	13:59:34	-0.9	-0.4	-0.9	-1.2	1.6	-0.7	100	89.9	85.9	88.6	100	95.8
14-Jul-01	14:19:34	-0.9	0.3	-0.9	-0.7	1.3	-0.7	100	91	86.5	90.2	100	95.2
14-Jul-01	14:39:34	-0.7	0.3	-1.2	-0.7	-0.2	-0.7	100	85.5	85.9	88.1	99.5	93

14-Jul-01	14:59:34	-0.7	-0.9	-1.2	-0.9	-0.2	-0.4	100	86.6	85.9	89.2	100	93.6
14-Jul-01	15:19:34	-0.7	-1.2	-0.7	-0.9	-0.7	-0.4	100	86.1	87	88.1	100	94.7
14-Jul-01	15:39:34	-0.7	-1.2	-0.7	-0.9	-0.2	-0.7	100	91	87.5	90.2	100	95.8
14-Jul-01	15:59:34	-0.7	-1.2	-0.7	-0.7	-0.7	-0.2	100	91.6	87.5	88.6	100	93.6
14-Jul-01	16:19:34	-0.7	-0.9	-0.7	-0.9	-0.4	1.1	100	89.3	88.1	87.5	100	91.3
14-Jul-01	16:39:34	1.3	-0.7	-0.7	-0.7	-0.2	0.1	97.3	89.9	86.5	90.2	100	91.3
14-Jul-01	16:59:34	-0.4	-0.9	-0.7	-0.7	-0.4	-0.4	100	86.1	85.9	87.5	100	93.6
14-Jul-01	17:19:34	-0.7	-0.9	-0.9	-0.9	0.1	-0.4	100	91.6	87	90.2	100	95.8
14-Jul-01	17:39:34	-0.7	-0.9	-0.7	-0.4	-0.4	-0.7	100	91	88.1	90.2	100	95.8
14-Jul-01	17:59:34	-0.7	-0.7	-0.9	-0.9	-0.2	-0.7	99.5	87.7	87.5	87.5	100	94.7
14-Jul-01	18:19:34	-0.4	-0.9	-0.7	-0.7	-0.7	-0.7	99.5	91	86.5	90.2	100	93
14-Jul-01	18:39:34	-0.7	-1.2	-0.7	-0.7	0.1	-0.4	97.8	88.3	85.9	88.1	100	94.1
14-Jul-01	18:59:34	-0.9	-0.9	-0.7	-1.2	-0.7	-0.4	99.5	91.6	85.9	89.7	100	95.8
14-Jul-01	19:19:34	-0.9	-1.2	-0.7	-0.9	-0.2	-0.4	100	90.4	85.9	89.7	100	95.8
14-Jul-01	19:39:34	-0.7	-0.7	-0.9	-0.7	0.3	-0.4	100	91	85.9	87.5	100	94.7
14-Jul-01	19:59:34	-0.9	-0.9	-0.7	-0.7	1.3	-0.7	100	91.6	86.5	90.2	100	93.6
14-Jul-01	20:19:34	-0.9	-0.4	-0.7	-0.4	0.8	-0.4	100	91.6	88.6	88.6	100	93.6
14-Jul-01	20:39:34	-0.7	-0.9	-0.7	-0.9	-0.7	-0.7	100	91.6	88.1	87.5	100	94.7
14-Jul-01	20:59:34	-0.7	-0.7	-0.9	-0.9	-0.2	-0.4	100	89.3	88.1	89.7	100	95.8
14-Jul-01	21:19:34	-0.7	-1.2	-0.9	-0.7	-0.7	-0.4	100	91	87	87.5	100	95.8
14-Jul-01	21:39:34	-0.9	-0.4	-0.7	-0.9	-0.2	-0.4	100	90.4	88.1	90.2	100	93.6
14-Jul-01	21:59:34	-0.7	-0.4	-0.7	-0.7	0.1	-0.4	100	89.3	87.5	88.6	100	94.1
14-Jul-01	22:19:34	-0.7	0.3	-0.7	-1.2	-0.7	-0.4	100	89.3	88.6	88.6	100	95.8
14-Jul-01	22:39:34	0.6	0.3	-0.7	-0.9	-0.2	-0.4	96.2	89.3	86.5	90.2	100	95.2
14-Jul-01	22:59:34	-0.7	-0.4	-0.7	-0.7	-0.2	-0.4	100	85.5	87	87.5	100	93.6
14-Jul-01	23:19:34	-0.7	-0.7	-0.9	-0.7	-0.4	-0.7	100	91.6	87	90.2	100	94.7
14-Jul-01	23:39:34	-0.9	-0.4	-0.9	-0.4	-0.2	-0.4	100	89.3	85.9	89.7	100	95.8
14-Jul-01	23:59:34	-0.7	-0.9	-0.9	-1.2	-0.7	-0.4	100	91.6	85.9	88.1	100	94.7
15-Jul-01	00:19:34	-0.9	-0.4	-0.9	-0.9	-0.2	1.1	99.5	91	85.9	90.2	100	93.6
15-Jul-01	00:39:34	-0.7	-0.4	-0.7	-0.4	-0.2	-0.2	100	86.6	86.5	87.5	100	91.3
15-Jul-01	00:59:34	-0.7	-0.4	-0.7	-0.9	-0.4	-0.2	100	91.6	87	90.2	100	95.8
15-Jul-01	01:19:34	-0.7	-0.2	-0.7	-0.4	-0.2	-0.4	100	88.8	88.1	90.2	100	95.8
15-Jul-01	01:39:34	-0.4	-0.7	-0.7	-0.9	0.3	-0.4	100	91.6	88.1	87.5	100	93.6
15-Jul-01	01:59:34	-0.9	-0.2	-0.7	-0.7	1.1	-0.7	100	91	88.6	89.7	100	95.2
15-Jul-01	02:19:34	-0.7	-0.7	-0.9	-0.7	0.8	-0.4	100	91.6	88.1	88.1	100	95.8
15-Jul-01	02:39:34	-0.7	-0.4	-0.7	-0.9	-0.7	-0.7	100	91	88.1	90.2	100	95.8
15-Jul-01	02:59:34	-0.7	-0.7	-0.9	-0.9	-0.2	-0.4	100	88.8	87.5	89.7	100	93.6
15-Jul-01	03:19:34	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	91	87	87.5	100	94.7
15-Jul-01	03:39:34	-0.7	-0.2	-0.7	-0.7	-0.2	-0.4	100	86.1	88.1	90.2	100	95.8
15-Jul-01	03:59:34	-0.7	-0.7	-0.4	-0.4	-0.2	-0.7	100	91.6	88.1	88.6	100	95.8
15-Jul-01	04:19:34	-0.4	-0.4	-0.7	-0.9	-0.7	-0.4	100	90.4	88.6	89.7	100	93.6
15-Jul-01	04:39:34	0.3	-0.4	-0.7	-0.7	-0.2	-0.4	96.2	88.8	86.5	90.2	100	93.6
15-Jul-01	04:59:34	-0.7	-0.9	-0.7	-0.7	-0.7	-0.4	100	89.3	85.9	87.5	100	95.8
15-Jul-01	05:19:34	-0.7	-0.7	-0.9	-0.7	-0.4	-0.4	100	91.6	85.9	90.2	100	95.8
15-Jul-01	05:39:34	-1.2	-0.2	-0.7	-0.4	-0.4	-0.7	99.5	89.9	85.9	89.7	100	94.7
15-Jul-01	05:59:34	-0.7	-0.2	-0.7	-1.2	-0.4	-0.4	100	89.3	86.5	87.5	100	93.6
15-Jul-01	06:19:34	-0.9	0.6	-0.9	-0.7	0.1	-0.4	100	89.9	85.9	90.2	100	94.1
15-Jul-01	06:39:34	-0.9	0.3	-0.7	-0.4	-0.4	-0.7	100	85	86.5	88.1	100	95.8
15-Jul-01	06:59:34	-0.9	-0.7	-0.7	-0.9	-0.2	-0.4	100	91.6	86.5	90.2	100	95.8

15-Jul-01	07:19:34	-0.9	-0.7	-0.7	-0.4	-0.7	-0.7	100	86.6	86.5	90.2	100	95.2
15-Jul-01	07:39:34	-0.7	-0.7	-0.7	-0.9	0.1	-0.7	100	91.6	87	87.5	100	94.1
15-Jul-01	07:59:34	-0.7	-0.7	-0.7	-0.7	0.8	-0.2	100	88.8	88.1	90.2	100	94.1
15-Jul-01	08:19:34	-0.9	-0.4	-0.7	-0.4	0.8	1.1	100	91.6	88.6	88.6	100	92.4
15-Jul-01	08:39:34	-0.4	-0.9	-0.7	-0.9	-0.7	0.1	100	90.4	88.6	89.2	100	91.3
15-Jul-01	08:59:34	-0.7	-0.7	-0.7	-0.9	-0.2	-0.2	100	91	88.1	89.7	100	94.1
15-Jul-01	09:19:34	-0.4	-0.7	-0.9	-0.7	-0.7	-0.4	100	91.6	87.5	87.5	100	95.8
15-Jul-01	09:39:34	-0.7	-0.4	-0.7	-0.7	-0.2	-0.4	100	88.3	88.1	90.2	100	95.8
15-Jul-01	09:59:34	-0.7	-0.9	-0.4	-0.4	-0.4	-0.7	100	91.6	88.1	88.6	100	95.2
15-Jul-01	10:19:34	-0.2	-0.7	-0.4	-1.2	-0.2	-0.7	100	89.9	88.6	89.2	100	93
15-Jul-01	10:39:34	0.6	-0.7	-0.7	-0.7	-0.4	-0.4	95.1	89.9	86.5	90.2	100	94.1
15-Jul-01	10:59:34	-0.4	-1.2	-0.7	-0.7	-0.4	-0.4	99.5	86.6	85.9	88.1	100	95.2
15-Jul-01	11:19:34	-0.9	-0.9	-0.7	-0.9	-0.2	-0.4	100	89.3	88.1	90.2	100	95.8
15-Jul-01	11:39:34	-0.9	-0.9	-1.2	-0.4	-0.2	-0.7	100	91.6	87.5	90.2	100	95.2
15-Jul-01	11:59:34	-0.7	-1.2	-1.2	-0.9	0.1	-0.4	100	89.3	86.5	87.5	100	94.1
15-Jul-01	12:19:34	-0.7	-0.9	-0.9	-0.7	-0.4	-0.7	100	86.6	85.9	90.2	100	93
15-Jul-01	12:39:34	-0.7	-0.9	-0.7	-0.7	0.1	-0.7	100	88.8	85.9	88.1	100	93.6
15-Jul-01	12:59:34	-0.4	-1.2	-0.9	-0.9	-0.7	-0.4	100	91.6	85.9	90.2	100	95.2
15-Jul-01	13:19:34	-0.7	-1.2	-0.9	-0.7	0.1	-0.4	100	88.8	85.9	90.2	100	95.8
15-Jul-01	13:39:34	-0.7	-1.2	-0.9	-0.7	0.8	-0.7	100	90.4	88.1	88.1	100	95.8
15-Jul-01	13:59:34	-0.4	-0.4	-0.9	-0.9	1.6	-0.4	100	90.4	88.1	90.2	100	94.1
15-Jul-01	14:19:34	-0.7	0.6	-0.9	-0.7	1.1	-0.7	100	91	87.5	88.6	100	93
15-Jul-01	14:39:34	-0.4	0.3	-0.7	-0.9	-0.2	-0.7	97.8	85.5	86.5	88.1	100	93
15-Jul-01	14:59:34	-0.7	-0.7	-0.9	-0.9	-0.2	-0.4	100	88.3	85.9	89.7	100	93.6
15-Jul-01	15:19:34	-0.7	-1.2	-0.7	-0.7	-0.7	-0.4	100	86.1	85.9	88.1	100	95.8
15-Jul-01	15:39:34	-0.7	-0.9	-0.7	-0.9	-0.2	-0.7	100	87.7	87	90.2	100	94.7
15-Jul-01	15:59:34	-0.9	-0.9	-0.7	-0.7	-0.7	-0.2	100	91.6	87.5	89.7	100	93.6
15-Jul-01	16:19:34	-0.7	-0.9	-0.7	-0.9	0.1	1.3	100	89.3	88.1	87.5	100	91.3
15-Jul-01	16:39:34	0.8	-0.7	-0.4	-0.7	-0.4	0.3	96.2	89.9	86.5	90.2	100	91.3
15-Jul-01	16:59:34	-0.4	-1.2	-0.7	-0.7	0.1	-0.7	100	87.2	85.9	88.1	100	95.2
15-Jul-01	17:19:34	-0.7	-0.7	-0.9	-0.9	-0.4	-0.7	100	91.6	87	90.2	100	95.8
15-Jul-01	17:39:34	-0.7	-0.9	-0.9	-0.7	0.1	-0.4	100	91.6	88.1	89.7	100	93.6
15-Jul-01	17:59:34	-0.7	-0.9	-1.2	-0.7	-0.4	-0.4	98.9	87.2	87.5	87.5	100	94.1
15-Jul-01	18:19:34	-0.4	-0.9	-1.2	-0.7	-0.2	-0.4	100	91.6	87.5	90.2	100	95.8
15-Jul-01	18:39:34	-0.7	-0.9	-0.9	-0.4	-0.4	-0.4	100	88.8	87	88.1	100	95.8
15-Jul-01	18:59:34	-0.7	-0.7	-0.7	-1.2	-0.2	-0.7	100	91.6	86.5	89.7	100	95.2
15-Jul-01	19:19:34	-0.4	-0.9	-0.9	-0.7	-0.2	-0.7	100	91.6	85.9	90.2	100	94.1
15-Jul-01	19:39:34	-0.7	-0.7	-0.9	-0.7	0.3	-0.7	100	88.3	85.9	87.5	100	93
15-Jul-01	19:59:34	-0.7	-0.9	-0.7	-0.9	1.3	-0.4	100	91.6	85.9	90.2	100	93.6
15-Jul-01	20:19:34	-0.7	-0.7	-0.7	-0.4	1.1	-0.4	97.8	86.1	86.5	89.2	100	95.8
15-Jul-01	20:39:34	-0.9	-1.2	-0.9	-0.9	-0.7	-0.4	97.3	92.1	85.9	87.5	100	95.8
15-Jul-01	20:59:34	-0.7	-1.2	-0.7	-0.9	-0.2	-0.4	97.8	88.3	87	89.7	100	94.7
15-Jul-01	21:19:34	-0.9	-0.7	-0.7	-0.9	-0.4	-0.4	100	91.6	86.5	88.1	100	94.1
15-Jul-01	21:39:34	-0.7	-0.7	-0.7	-0.9	0.1	-0.4	100	88.8	87.5	90.2	100	93.6
15-Jul-01	21:59:34	-0.7	-0.4	-0.7	-0.4	-0.4	-0.4	100	89.3	87.5	88.6	100	95.2
15-Jul-01	22:19:34	-0.7	0.3	-0.7	-0.9	0.1	-0.7	100	89.3	88.1	89.2	100	95.8
15-Jul-01	22:39:34	1.3	0.6	-0.4	-0.7	-0.7	-0.7	96.7	89.9	86.5	90.2	100	95.8
15-Jul-01	22:59:34	-0.4	-0.2	-0.7	-0.7	-0.2	-0.4	100	85.5	85.9	88.1	100	94.1
15-Jul-01	23:19:34	-0.7	-0.9	-0.9	-1.2	-0.7	-0.7	100	91	87	90.2	100	93

15-Jul-01	23:39:34	-0.9	-1.2	-0.7	-0.4	-0.2	-0.4	100	91	88.1	89.2	100	93.6
15-Jul-01	23:59:34	-0.7	-0.7	-1.2	-1.2	-0.7	-0.2	100	88.3	88.6	88.1	100	93.6
16-Jul-01	00:19:34	-0.7	-0.9	-0.9	-0.7	-0.2	1.1	100	91.6	88.1	90.2	100	92.4
16-Jul-01	00:39:34	-0.9	-0.7	-0.7	-0.7	-0.4	0.1	100	87.7	88.1	88.1	100	91.3
16-Jul-01	00:59:34	-0.9	-0.9	-0.7	-0.7	-0.2	-0.4	100	91.6	88.1	90.2	100	93.6
16-Jul-01	01:19:34	-0.7	-0.9	-0.7	-0.4	-0.4	-0.4	100	90.4	88.1	90.2	100	94.7
16-Jul-01	01:39:34	-0.9	-0.7	-0.9	-0.9	0.3	-0.7	100	91.6	87	87.5	100	95.8
16-Jul-01	01:59:34	-0.7	-0.9	-0.7	-0.7	1.3	-0.4	100	91.6	86.5	90.2	100	95.2
16-Jul-01	02:19:34	-0.4	-0.7	-0.9	-0.7	1.1	-0.7	100	88.8	85.9	88.1	100	93
16-Jul-01	02:39:34	-0.9	-1.2	-0.7	-0.7	-0.7	-0.4	97.3	91.6	86.5	90.2	100	94.1
16-Jul-01	02:59:34	-0.9	-0.7	-0.7	-0.7	-0.2	-0.7	98.9	86.6	86.5	90.2	100	95.2
16-Jul-01	03:19:34	-0.9	-0.9	-0.7	-0.7	-0.7	-0.4	100	91.6	85.9	87.5	100	95.8
16-Jul-01	03:39:34	-0.7	-0.9	-0.7	-0.9	0.1	-0.7	100	89.3	87	90.2	100	95.2
16-Jul-01	03:59:34	-0.9	-0.7	-0.7	-0.4	-0.7	-0.7	100	91.6	87.5	90.2	100	93.6
16-Jul-01	04:19:34	-0.4	-0.9	-0.4	-0.9	-0.2	-0.7	100	89.3	88.1	87.5	100	93.6
16-Jul-01	04:39:34	0.6	-0.9	-0.4	-0.7	-0.4	-0.7	97.3	90.4	86.5	90.2	100	94.1
16-Jul-01	04:59:34	-0.7	-1.2	-0.7	-0.7	-0.2	-0.4	99.5	88.3	86.5	88.1	100	95.8
16-Jul-01	05:19:34	-0.7	-0.9	-0.7	-0.9	-0.4	-0.7	99.5	91.6	85.9	89.7	100	95.2
16-Jul-01	05:39:34	-0.7	-0.7	-0.9	-0.7	-0.2	-0.4	98.9	88.8	85.9	89.7	100	94.7
16-Jul-01	05:59:34	-0.9	-0.2	-0.7	-0.7	-0.7	-0.7	100	89.3	85.9	87.5	100	93
16-Jul-01	06:19:34	-0.9	0.3	-0.7	-0.9	-0.2	-0.7	100	90.4	86.5	90.2	100	93.6
16-Jul-01	06:39:34	-0.7	0.1	-0.7	-0.4	-0.7	-0.4	100	85.5	86.5	88.6	100	95.8
16-Jul-01	06:59:34	-0.7	-0.9	-0.7	-0.9	-0.2	-0.4	100	91	86.5	90.2	100	95.8
16-Jul-01	07:19:34	-0.7	-0.9	-0.9	-0.7	-0.4	-0.7	100	86.6	86.5	89.7	100	94.7
16-Jul-01	07:39:34	-0.7	-0.9	-0.9	-0.7	0.1	-0.4	100	92.1	86.5	87.5	100	93.6
16-Jul-01	07:59:34	-0.7	-0.9	-0.7	-0.9	0.8	-0.4	99.5	91.6	87	90.2	100	93.6
16-Jul-01	08:19:34	-0.7	-0.7	-0.7	-0.4	0.8	1.1	100	88.3	87	89.2	100	91.9
16-Jul-01	08:39:34	-0.7	-0.7	-0.9	-0.7	-0.7	0.3	100	91.6	87	87.5	100	91.3
16-Jul-01	08:59:34	-0.4	-0.7	-0.9	-0.9	-0.2	-0.4	100	87.2	87.5	89.2	100	94.1
16-Jul-01	09:19:34	-0.7	-0.4	-0.9	-0.7	-0.7	-0.4	100	91.6	86.5	88.1	100	94.1
16-Jul-01	09:39:34	-0.4	-0.7	-0.4	-0.9	0.1	-0.7	100	89.9	88.1	90.2	100	93.6
16-Jul-01	09:59:34	-0.4	-0.7	-0.4	-0.4	-0.4	-0.7	100	87.7	88.6	90.2	100	93
16-Jul-01	10:19:34	-0.2	-0.9	-0.2	-0.7	0.1	-0.4	100	89.3	88.6	87.5	100	93
16-Jul-01	10:39:34	1.1	-0.7	-0.2	-0.9	-0.2	-0.4	97.3	90.4	87.5	90.2	100	93.6
16-Jul-01	10:59:34	0.1	-0.7	-0.4	-0.4	-0.4	-0.7	100	86.6	86.5	90.2	100	94.7
16-Jul-01	11:19:34	-0.2	-1.2	-0.7	-0.7	0.1	-0.4	100	88.3	85.9	88.1	100	95.8
16-Jul-01	11:39:34	0.1	-1.2	-0.7	-0.9	-0.2	-0.7	100	86.6	85.9	88.1	100	93
16-Jul-01	11:59:34	-0.2	-1.7	-0.9	-0.9	0.3	-0.4	100	86.6	86.5	90.8	100	94.1
16-Jul-01	12:19:34	-0.2	-1.9	-1.2	-0.7	-0.4	-0.7	99.5	86.6	86.5	88.1	100	93.6
16-Jul-01	12:39:34	-0.2	-1.9	-1.2	-0.9	0.1	-0.7	100	88.3	85.9	87.5	100	93.6
16-Jul-01	12:59:34	-0.2	-1.4	-0.9	-0.9	-0.4	-0.7	98.9	86.6	85.9	90.2	100	96.4
16-Jul-01	13:19:34	0.1	-1.9	-0.9	-0.7	0.1	-0.7	100	86.6	85.4	88.1	100	93
16-Jul-01	13:39:34	-0.2	-1.4	-0.7	-0.9	0.6	-0.7	100	88.8	86.5	87.5	100	94.7
16-Jul-01	13:59:34	-0.2	-0.4	-0.9	-0.9	1.3	-0.7	100	88.3	85.4	88.1	100	93
16-Jul-01	14:19:34	0.1	0.6	-0.9	-0.7	1.3	-0.4	100	88.8	85.9	90.2	100	95.8
16-Jul-01	14:39:34	0.3	0.6	-0.7	-0.7	-0.2	-0.7	100	84.5	85.4	88.1	100	93
16-Jul-01	14:59:34	0.3	-0.7	-0.9	-0.9	-0.2	-0.4	100	84.5	85.4	88.6	100	95.8
16-Jul-01	15:19:34	0.6	-1.4	-0.7	-0.9	-0.4	-0.7	100	85	85.4	88.1	100	94.1
16-Jul-01	15:39:34	0.6	-1.4	-0.7	-0.9	0.1	-0.4	100	90.4	85.9	88.1	100	93.6

16-Jul-01	15:59:34	0.3	-1.7	-0.7	-0.9	-0.4	0.1	100	86.1	87	87.5	100	94.1
16-Jul-01	16:19:34	0.3	-0.9	-0.2	-0.9	0.3	1.8	100	88.3	87	88.1	100	94.7
16-Jul-01	16:39:34	3.6	-1.2	-0.2	-0.9	-0.2	0.3	100	88.8	86.5	90.2	100	92.4
16-Jul-01	16:59:34	0.8	-0.9	-0.4	-0.7	0.1	-0.4	98.4	85.5	85.9	88.1	100	93.6
16-Jul-01	17:19:34	-0.2	-1.2	-0.9	-1.2	-0.4	-0.4	99.5	90.4	85.9	90.2	100	96.4
16-Jul-01	17:39:34	-0.4	-1.2	-0.7	-0.7	-0.2	-0.7	100	88.3	84.3	90.2	100	93.6
16-Jul-01	17:59:34	-0.4	-0.9	-0.7	-0.9	-0.4	-0.4	100	88.3	84.9	87.5	100	93.6
16-Jul-01	18:19:34	-0.4	-1.4	-0.7	-0.9	0.1	-0.9	100	90.4	86.5	90.2	100	96.4
16-Jul-01	18:39:34	-0.4	-0.9	-0.9	-0.7	-0.2	-0.7	100	86.1	88.1	88.1	100	93.6
16-Jul-01	18:59:34	-0.4	-0.9	-0.9	-0.9	0.3	-0.7	99.5	91	87	90.2	100	96.4
16-Jul-01	19:19:34	-0.7	-0.9	-0.9	-0.4	-0.4	-0.9	100	86.1	85.9	90.2	100	95.8
16-Jul-01	19:39:34	-0.4	-1.2	-0.9	-0.9	0.3	-0.7	100	91.6	85.9	88.1	100	93.6
16-Jul-01	19:59:34	-0.4	-1.2	-0.9	-0.9	1.1	-0.7	100	86.1	87	90.2	100	96.4
16-Jul-01	20:19:34	-0.4	-1.2	-1.2	-0.7	0.8	-0.9	100	91.6	87.5	88.6	100	94.7
16-Jul-01	20:39:34	-0.7	-0.9	-1.2	-0.9	-0.7	-0.4	100	86.6	85.9	88.6	100	94.1
16-Jul-01	20:59:34	-0.4	-1.2	-0.9	-0.9	0.1	-0.9	100	91	85.9	90.2	100	96.4
16-Jul-01	21:19:34	-0.4	-1.2	-0.9	-0.9	-0.4	-0.7	100	88.8	85.9	88.1	100	93.6
16-Jul-01	21:39:34	-0.4	-0.9	-0.7	-0.9	0.1	-0.7	100	90.4	86.5	90.2	100	95.2
16-Jul-01	21:59:34	-0.4	-0.7	-0.4	-0.7	-0.4	-0.9	100	88.8	87	89.7	100	95.8
16-Jul-01	22:19:34	-0.4	0.1	-0.2	-0.9	-0.2	-0.7	100	88.8	87	88.1	100	93.6
16-Jul-01	22:39:34	1.1	0.1	-0.4	-0.7	-0.2	-0.4	99.5	89.3	85.9	90.2	100	94.7
16-Jul-01	22:59:34	-0.4	-0.4	-0.9	-0.9	-0.2	-0.7	100	85.5	85.9	88.1	100	95.8
16-Jul-01	23:19:34	-0.4	-0.9	-1.2	-0.9	-0.2	-0.9	100	91	88.6	90.2	100	93.6
16-Jul-01	23:39:34	-0.7	-0.9	-1.2	-0.7	-0.4	-0.4	99.5	87.7	89.1	90.2	100	94.1
16-Jul-01	23:59:34	-0.7	-1.2	-0.9	-0.7	0.1	-0.4	100	91.6	88.1	88.1	100	93.6
17-Jul-01	00:19:34	-0.9	-0.9	-0.9	-0.7	-0.7	1.1	100	87.7	86.5	90.2	100	93
17-Jul-01	00:39:34	-0.7	-0.9	-0.9	-0.7	0.1	0.1	99.5	91.6	85.9	88.1	100	92.4
17-Jul-01	00:59:34	-0.9	-0.7	-0.7	-0.9	-0.4	-0.4	99.5	88.3	88.1	90.2	100	95.8
17-Jul-01	01:19:34	-0.7	-1.2	-0.9	-0.4	0.1	-0.7	100	91	88.6	90.2	100	93.6
17-Jul-01	01:39:34	-0.7	-0.9	-0.9	-0.9	0.3	-0.7	100	87.2	88.6	88.1	100	95.8
17-Jul-01	01:59:34	-0.7	-1.2	-0.9	-0.7	1.3	-0.7	100	91.6	86.5	90.2	100	95.8
17-Jul-01	02:19:34	-0.7	-0.9	-0.9	-0.7	0.8	-0.4	100	87.7	85.9	88.1	100	93.6
17-Jul-01	02:39:34	-0.7	-1.2	-0.9	-0.9	-0.4	-0.4	100	91	86.5	90.2	100	95.2
17-Jul-01	02:59:34	-0.7	-0.7	-0.9	-0.4	-0.2	-0.7	100	86.6	88.6	90.2	100	95.8
17-Jul-01	03:19:34	-0.7	-1.2	-0.9	-0.9	-0.7	-0.7	100	91	88.1	88.1	100	93.6
17-Jul-01	03:39:34	-0.7	-0.7	-0.7	-1.2	0.1	-0.4	100	86.6	87.5	90.2	100	95.8
17-Jul-01	03:59:34	-0.4	-1.2	-0.2	-0.7	-0.7	-0.7	100	91	87	90.2	100	95.8
17-Jul-01	04:19:34	-0.7	-0.7	0.1	-0.7	-0.2	-0.7	100	89.3	87	88.1	100	93.6
17-Jul-01	04:39:34	0.6	-0.7	-0.4	-0.7	0.1	-0.7	97.8	89.3	86.5	90.2	100	95.8
17-Jul-01	04:59:34	-0.7	-1.2	-0.9	-0.9	-0.2	-0.7	100	88.8	85.9	88.1	100	95.8
17-Jul-01	05:19:34	-0.7	-0.7	-1.2	-0.9	0.1	-0.7	100	91.6	88.6	90.2	100	93.6
17-Jul-01	05:39:34	-0.9	-0.4	-0.9	-0.7	-0.4	-0.9	98.9	88.8	85.9	89.7	100	96.4
17-Jul-01	05:59:34	-0.7	-0.2	-0.9	-0.9	0.1	-0.9	100	89.3	86.5	88.1	100	94.7
17-Jul-01	06:19:34	-0.7	0.3	-0.9	-0.7	-0.4	-0.4	100	89.9	88.1	90.2	100	93.6
17-Jul-01	06:39:34	-0.7	0.3	-0.7	-0.7	0.1	-0.7	99.5	85.5	86.5	88.1	100	96.4
17-Jul-01	06:59:34	-0.7	-0.9	-0.9	-1.2	-0.7	-0.4	100	90.4	85.4	90.2	100	93.6
17-Jul-01	07:19:34	-0.9	-0.7	-0.9	-0.4	0.1	-0.7	100	88.3	85.9	88.6	100	95.8
17-Jul-01	07:39:34	-0.9	-0.7	-0.9	-0.9	0.8	-0.7	100	91	86.5	90.2	100	95.2
17-Jul-01	07:59:34	-0.7	-0.4	-0.7	-0.4	1.6	-0.2	100	87.7	85.9	90.2	100	94.7

17-Jul-01	08:19:34	-0.4	-0.4	-0.9	-0.9	1.3	1.3	100	91.6	85.4	88.1	100	93.6
17-Jul-01	08:39:34	-0.4	-0.7	-0.9	-0.9	-0.4	0.3	100	87.7	85.9	90.2	100	91.9
17-Jul-01	08:59:34	-0.7	-0.4	-0.7	-0.7	-0.4	-0.4	98.9	89.9	85.9	90.2	100	93.6
17-Jul-01	09:19:34	-0.7	-0.9	-1.2	-0.4	-0.4	-0.7	100	89.3	87	88.6	100	95.8
17-Jul-01	09:39:34	-0.7	-0.7	-0.7	-0.9	-0.2	-0.4	100	86.1	87	90.2	100	93.6
17-Jul-01	09:59:34	-0.4	-0.7	-0.2	-0.9	-0.2	-0.4	100	91	86.5	89.2	100	94.1
17-Jul-01	10:19:34	-0.2	-0.7	0.1	-0.9	0.1	-0.7	100	88.8	86.5	89.7	100	96.4
17-Jul-01	10:39:34	1.3	-0.4	0.1	-0.4	-0.7	-0.7	97.3	88.8	85.9	90.2	100	95.2
17-Jul-01	10:59:34	-0.2	-0.7	-0.4	-0.7	0.1	-0.4	100	85.5	85.9	88.6	100	93.6
17-Jul-01	11:19:34	-0.4	-0.7	-0.9	-0.9	-0.7	-0.7	100	89.9	85.9	88.1	100	96.4
17-Jul-01	11:39:34	-0.2	-1.2	-0.9	-0.7	0.1	-0.7	100	86.6	85.9	91.3	100	94.7
17-Jul-01	11:59:34	-0.2	-0.7	-0.9	-0.7	-0.7	-0.4	100	88.3	85.9	88.6	100	93.6
17-Jul-01	12:19:34	-0.7	-1.2	-1.2	-0.9	0.1	-0.7	100	89.3	85.4	88.6	100	96.4
17-Jul-01	12:39:34	-0.4	-0.9	-1.2	-0.7	-0.4	-0.4	100	86.1	85.9	90.8	100	93.6
17-Jul-01	12:59:34	-0.4	-1.2	-0.9	-0.7	0.1	-0.7	100	88.3	85.4	88.6	100	96.4
17-Jul-01	13:19:34	-0.4	-0.9	-0.7	-0.9	-0.4	-0.7	100	86.1	86.5	90.2	100	93
17-Jul-01	13:39:34	-0.2	-0.7	-0.9	-0.4	0.6	-0.7	100	88.3	85.4	89.7	100	96.4
17-Jul-01	13:59:34	-0.2	-0.2	-0.7	-0.7	1.3	-0.7	100	88.8	85.4	88.6	100	93
17-Jul-01	14:19:34	0.1	0.8	-0.9	-0.7	1.6	-0.4	100	88.8	84.3	90.8	100	94.1
17-Jul-01	14:39:34	-0.2	0.8	-0.9	-0.7	0.3	-0.7	100	84.5	85.4	88.6	100	95.2
17-Jul-01	14:59:34	0.1	-0.2	-1.2	-0.4	-0.4	-0.4	100	85	85.4	90.2	100	93.6
17-Jul-01	15:19:34	-0.2	-0.4	-0.9	-0.7	0.1	-0.4	100	88.8	85.4	88.6	100	94.1
17-Jul-01	15:39:34	-0.4	-0.9	-0.7	-0.7	-0.2	-0.4	100	86.1	86.5	88.6	100	94.1
17-Jul-01	15:59:34	0.1	-0.7	-0.4	-0.9	0.1	0.1	100	91	88.1	90.2	100	94.7
17-Jul-01	16:19:34	-0.2	-0.4	-0.2	-0.4	-0.2	1.6	100	88.3	88.6	89.2	100	94.7
17-Jul-01	16:39:34	2.6	-0.7	-0.2	-0.7	-0.2	0.3	100	88.8	86.5	88.6	100	92.4
17-Jul-01	16:59:34	0.1	-0.7	-0.4	-0.9	-0.2	-0.7	99.5	86.1	85.9	90.8	100	93.6
17-Jul-01	17:19:34	-0.2	-0.7	-0.7	-0.4	-0.2	-0.7	97.8	90.4	85.9	90.2	100	94.1
17-Jul-01	17:39:34	-0.7	-0.7	-1.2	-0.9	-0.2	-0.4	100	88.3	85.4	90.2	100	96.4
17-Jul-01	17:59:34	-0.4	-0.9	-1.2	-0.7	-0.2	-0.7	100	86.6	85.4	91.3	100	93.6
17-Jul-01	18:19:34	-0.4	-0.4	-0.9	-0.9	-0.2	-0.4	100	90.4	85.9	88.6	100	96.9
17-Jul-01	18:39:34	-0.7	-0.7	-0.9	-0.7	-0.2	-0.7	100	86.6	85.9	90.8	100	96.4
17-Jul-01	18:59:34	-0.7	-0.7	-1.2	-0.7	-0.2	-0.7	100	91	85.9	88.6	100	93.6
17-Jul-01	19:19:34	-0.7	-0.4	-0.9	-0.7	-0.2	-0.4	100	88.3	88.1	90.8	100	96.4
17-Jul-01	19:39:34	-0.7	-0.4	-1.2	-0.7	0.8	-0.7	97.3	91	85.4	88.6	100	93.6
17-Jul-01	19:59:34	-0.7	-0.4	-0.9	-0.7	1.3	-0.4	99.5	86.6	88.1	90.8	100	96.9
17-Jul-01	20:19:34	-0.7	-0.4	-0.9	-0.7	1.3	-0.9	97.8	91	84.9	88.6	100	95.2
17-Jul-01	20:39:34	-0.4	-0.4	-0.9	-0.7	-0.4	-0.7	99.5	86.1	85.9	90.8	100	94.7
17-Jul-01	20:59:34	-0.7	-0.7	-1.2	-0.4	-0.2	-0.4	100	91	87.5	89.7	100	96.4
17-Jul-01	21:19:34	-0.4	-0.4	-0.9	-0.9	-0.2	-0.7	100	87.7	85.9	88.6	100	94.1
17-Jul-01	21:39:34	-0.7	-0.7	-0.7	-0.9	-0.2	-0.4	100	89.3	86.5	91.3	100	96.4
17-Jul-01	21:59:34	-0.4	-0.4	-0.4	-0.7	0.1	-0.9	100	89.3	86.5	88.6	100	96.4
17-Jul-01	22:19:34	-0.7	0.3	-0.4	-0.7	-0.4	-0.7	100	89.3	87	90.8	100	94.7
17-Jul-01	22:39:34	1.1	0.3	-0.7	-0.7	0.1	-0.4	98.9	90.4	85.9	88.6	100	96.4
17-Jul-01	22:59:34	-0.7	-0.2	-1.2	-0.7	-0.7	-0.7	100	86.1	85.9	90.8	100	93.6
17-Jul-01	23:19:34	-0.7	-0.7	-0.9	-0.7	-0.2	-0.7	100	91	87.5	88.6	100	96.4
17-Jul-01	23:39:34	-0.7	-0.4	-1.2	-0.9	0.1	-0.7	100	89.3	88.6	91.3	100	95.2
17-Jul-01	23:59:34	-0.9	-0.7	-0.9	-0.7	-0.2	-0.2	100	91.6	85.9	88.6	100	95.8
18-Jul-01	00:19:34	-0.7	-0.4	-0.7	-0.9	0.1	1.1	100	91	85.9	90.8	100	93.6

18-Jul-01	00:39:34	-0.9	-0.7	-0.9	-0.4	-0.4	-0.2	100	88.8	88.6	89.2	100	92.4
18-Jul-01	00:59:34	-0.7	-0.7	-0.9	-0.9	0.1	-0.7	100	91.6	88.1	90.8	100	96.4
18-Jul-01	01:19:34	-0.7	-0.4	-0.9	-0.4	0.1	-0.7	100	87.7	85.9	89.7	100	96.4
18-Jul-01	01:39:34	-0.7	-0.7	-0.9	-0.9	0.3	-0.4	100	91.6	85.9	90.8	100	94.1
18-Jul-01	01:59:34	-0.7	-0.4	-1.2	-0.7	1.1	-0.4	100	90.4	88.1	89.7	100	96.4
18-Jul-01	02:19:34	-0.7	-0.7	-0.9	-0.7	0.8	-0.7	100	90.4	88.1	90.8	100	94.7
18-Jul-01	02:39:34	-1.2	-0.7	-0.9	-0.4	-0.4	-0.4	100	91	85.9	90.2	100	96.9
18-Jul-01	02:59:34	-0.7	-0.4	-0.9	-0.4	-0.2	-0.7	98.4	86.1	85.9	90.2	100	95.8
18-Jul-01	03:19:34	-0.7	-0.7	-0.9	-0.9	-0.4	-0.4	100	91	88.6	88.6	100	95.2
18-Jul-01	03:39:34	-0.7	-0.4	-0.4	-0.4	-0.2	-0.4	100	90.4	88.1	90.8	100	96.9
18-Jul-01	03:59:34	-0.9	-0.7	-0.2	-0.7	0.1	-0.7	100	91	87	88.6	100	93.6
18-Jul-01	04:19:34	-0.4	-0.4	-0.4	-0.7	-0.4	-0.7	100	91	87	90.2	100	96.4
18-Jul-01	04:39:34	0.6	-0.4	-0.4	-0.7	0.1	-0.9	98.9	88.8	85.9	88.6	100	96.4
18-Jul-01	04:59:34	-0.9	-0.7	-0.9	-0.9	-0.4	-0.4	100	89.3	85.9	90.2	100	94.1
18-Jul-01	05:19:34	-0.9	-0.7	-0.9	-0.7	0.1	-0.7	100	91	87.5	88.6	100	96.4
18-Jul-01	05:39:34	-1.2	-0.4	-1.2	-0.7	-0.4	-0.7	100	89.3	88.6	90.8	100	96.4
18-Jul-01	05:59:34	-1.2	0.1	-1.2	-0.7	-0.2	-0.7	100	89.9	85.9	88.6	100	93.6
18-Jul-01	06:19:34	-0.7	0.3	-0.9	-0.7	-0.4	-0.7	97.8	90.4	85.9	90.8	100	95.2
18-Jul-01	06:39:34	-0.7	0.3	-0.9	-0.7	-0.2	-0.7	100	86.1	89.1	88.6	100	95.2
18-Jul-01	06:59:34	-0.7	-0.4	-0.9	-0.7	0.1	-0.7	100	91	88.6	90.8	100	93.6
18-Jul-01	07:19:34	-0.9	-0.4	-0.9	-0.7	-0.2	-0.7	100	88.3	85.9	88.6	100	96.4
18-Jul-01	07:39:34	-0.7	-0.7	-0.9	-0.7	0.6	-0.7	100	91.6	85.9	90.8	100	94.1
18-Jul-01	07:59:34	-0.7	-0.2	-0.9	-0.7	1.3	0.1	100	88.3	88.6	88.6	100	96.4
18-Jul-01	08:19:34	-0.7	-0.4	-0.9	-0.9	1.3	1.6	100	91.6	86.5	90.8	100	97.5
18-Jul-01	08:39:34	-0.7	-0.4	-0.9	-0.7	-0.4	0.3	100	87.7	85.9	89.7	100	92.4
18-Jul-01	08:59:34	-0.4	-0.7	-0.9	-0.4	-0.2	-0.7	100	91	87.5	90.2	100	95.2
18-Jul-01	09:19:34	-0.4	-0.7	-0.9	-0.7	-0.4	-0.7	100	86.6	85.9	89.2	100	94.1
18-Jul-01	09:39:34	-0.4	-0.7	-0.7	-0.9	-0.2	-0.7	100	91.6	86.5	88.6	100	95.8
18-Jul-01	09:59:34	-0.2	-0.7	-0.4	-0.9	-0.4	-0.7	100	86.6	87	90.2	100	93.6
18-Jul-01	10:19:34	0.3	-0.7	-0.4	-0.4	0.1	-0.7	100	91	87.5	90.8	100	95.8
18-Jul-01	10:39:34	1.6	-0.4	-0.4	-0.4	-0.4	-0.7	98.4	89.3	86.5	90.2	100	94.7
18-Jul-01	10:59:34	0.3	-0.7	-0.4	-0.7	0.1	-0.7	100	86.6	86.5	88.6	100	93.6
18-Jul-01	11:19:34	0.6	-0.4	-0.7	-0.7	-0.7	-0.4	100	88.3	85.4	91.3	100	96.9
18-Jul-01	11:39:34	0.8	-0.7	-0.9	-0.7	0.1	-0.4	100	90.4	87	88.6	100	93.6
18-Jul-01	11:59:34	1.3	-0.7	-0.7	-0.9	-0.4	-0.7	99.6	86.6	85.9	90.2	100	96.9
18-Jul-01	12:19:34	1.3	-0.9	-0.7	-0.4	-0.2	-0.7	100	91.6	85.9	90.2	100	93.6
18-Jul-01	12:39:34	1.1	-0.9	-0.9	-0.7	-0.2	-0.7	98.9	87.2	88.6	88.6	100	93.6
18-Jul-01	12:59:34	-0.2	-0.7	-0.7	-0.7	0.1	-0.4	99.5	88.3	85.9	91.3	100	94.1
18-Jul-01	13:19:34	0.3	-1.2	-0.7	-0.9	-0.2	-0.7	100	91	85.9	88.6	100	93.6
18-Jul-01	13:39:34	1.1	-0.4	-0.9	-0.9	0.6	-0.4	100	89.3	87	90.2	100	94.1
18-Jul-01	13:59:34	0.6	0.1	-0.7	-0.4	1.6	-0.4	100	88.8	84.3	90.2	100	96.4
18-Jul-01	14:19:34	0.8	0.8	-0.7	-0.9	1.3	-0.7	100	88.8	85.9	88.6	100	94.1
18-Jul-01	14:39:34	0.6	0.8	-0.9	-0.4	-0.4	-0.4	100	85	87.5	91.3	100	93.6
18-Jul-01	14:59:34	0.8	-0.2	-1.2	-0.4	0.1	-0.7	100	85.5	84.3	90.2	100	94.1
18-Jul-01	15:19:34	0.8	-0.7	-0.9	-0.7	-0.7	-0.7	100	85.5	85.9	89.2	100	96.4
18-Jul-01	15:39:34	0.3	-0.7	-0.4	-0.7	-0.2	-0.7	97.3	88.3	87	88.6	100	95.8
18-Jul-01	15:59:34	0.3	-0.7	-0.4	-0.7	-0.4	0.1	100	89.3	88.1	91.3	100	94.1
18-Jul-01	16:19:34	0.8	-0.4	-0.2	-0.7	0.1	1.3	100	88.8	88.1	89.2	100	93.6
18-Jul-01	16:39:34	3.4	-0.4	0.1	-0.9	-0.4	0.1	100	88.3	86.5	90.8	100	92.4

18-Jul-01	16:59:34	0.8	-0.7	-0.4	-0.4	0.1	-0.7	95.6	85.5	85.9	90.2	100	96.4
18-Jul-01	17:19:34	0.3	-0.7	-0.7	-0.9	-0.7	-0.7	100	91	85.4	90.2	100	94.7
18-Jul-01	17:39:34	0.1	-0.9	-0.9	-0.7	0.1	-0.7	100	89.3	85.4	91.3	100	93.6
18-Jul-01	17:59:34	-0.4	-0.7	-0.9	-0.9	-0.7	-0.7	100	87.2	85.4	88.6	100	95.2
18-Jul-01	18:19:34	-0.7	-0.9	-0.7	-0.9	0.1	-0.7	100	91	85.9	91.3	100	96.4
18-Jul-01	18:39:34	-0.7	-0.9	-1.2	-0.7	-0.4	-0.7	100	87.7	86.5	88.6	100	93.6
18-Jul-01	18:59:34	-0.4	-0.9	-0.9	-0.9	-0.2	-0.9	100	91	84.9	91.3	100	95.8
18-Jul-01	19:19:34	-0.4	-0.7	-0.9	-0.9	0.3	-0.7	100	87.7	85.9	88.6	100	96.4
18-Jul-01	19:39:34	-0.4	-0.7	-0.9	-0.9	0.6	-0.9	100	91	87	91.3	100	94.7
18-Jul-01	19:59:34	-0.7	-0.7	-0.9	-0.4	1.3	-0.7	100	88.3	84.9	89.2	100	94.1
18-Jul-01	20:19:34	-0.7	-0.7	-0.7	-0.9	1.3	-0.7	100	91	85.9	91.3	100	96.9
18-Jul-01	20:39:34	-0.7	-0.4	-0.9	-0.7	-0.4	-0.7	100	90.4	86.5	89.7	100	94.1
18-Jul-01	20:59:34	-0.7	-0.7	-1.2	-0.7	-0.2	-0.7	100	91.6	85.4	90.2	100	95.8
18-Jul-01	21:19:34	-0.7	-0.4	-0.9	-0.7	-0.4	-0.9	100	91	86.5	88.6	100	96.4
18-Jul-01	21:39:34	-0.7	-0.4	-0.9	-0.9	-0.2	-0.9	100	91	86.5	91.3	100	93.6
18-Jul-01	21:59:34	-0.7	-0.2	-0.7	-0.7	-0.2	-0.7	100	89.9	86.5	88.6	100	94.7
18-Jul-01	22:19:34	-0.4	0.1	-0.4	-0.9	-0.4	-0.7	100	89.3	87.5	91.3	100	96.4
18-Jul-01	22:39:34	0.8	0.3	-0.4	-0.7	-0.2	-0.7	97.3	90.4	85.9	88.6	100	95.2
18-Jul-01	22:59:34	-0.4	-0.2	-0.7	-0.9	-0.4	-0.7	100	86.6	85.9	91.3	100	93.6
18-Jul-01	23:19:34	-0.4	-0.7	-0.9	-0.4	0.1	-0.7	100	91.6	85.9	89.2	100	96.4
18-Jul-01	23:39:34	-0.7	-0.4	-1.2	-0.9	-0.4	-0.9	100	87.7	85.9	91.3	100	96.4
18-Jul-01	23:59:34	-0.9	-0.7	-0.9	-0.4	-0.2	-0.4	100	92.1	88.1	90.2	100	95.2
19-Jul-01	00:19:34	-0.9	-0.2	-0.9	-1.2	-0.2	1.1	100	88.3	87	90.8	100	93.6
19-Jul-01	00:39:34	-0.9	-0.7	-0.9	-0.7	-0.4	-0.2	100	91.6	85.4	90.8	100	92.4
19-Jul-01	00:59:34	-0.4	-0.4	-0.7	-0.9	0.1	-0.7	97.8	90.4	85.9	89.7	100	95.2
19-Jul-01	01:19:34	-0.7	-0.7	-1.2	-0.4	-0.7	-0.7	100	91.6	88.6	90.8	100	93.6
19-Jul-01	01:39:34	-0.7	-0.4	-0.9	-0.7	0.1	-0.4	98.9	91.6	86.5	88.6	100	95.2
19-Jul-01	01:59:34	-0.4	-0.7	-0.9	-0.7	1.1	-0.7	100	91.6	85.9	90.8	100	96.4
19-Jul-01	02:19:34	-0.4	-0.4	-0.9	-0.7	1.1	-0.9	100	91.6	85.9	88.6	100	93.6
19-Jul-01	02:39:34	-0.4	-0.7	-1.2	-0.7	-0.7	-0.4	100	91.6	87.5	90.8	100	95.8
19-Jul-01	02:59:34	-0.4	-0.4	-1.2	-0.4	-0.2	-0.7	100	91	86.5	90.2	100	96.4
19-Jul-01	03:19:34	-0.9	-0.9	-0.9	-0.9	-0.4	-0.7	100	91	86.5	88.6	100	94.7
19-Jul-01	03:39:34	-0.7	-0.4	-0.7	-0.9	-0.2	-0.7	100	91.6	87	91.3	100	93.6
19-Jul-01	03:59:34	-0.9	-0.9	-0.4	-0.7	-0.4	-0.7	100	91.6	87	89.2	100	96.9
19-Jul-01	04:19:34	-0.4	-0.7	-0.4	-0.9	-0.2	-0.9	100	91.6	88.1	91.3	100	96.4
19-Jul-01	04:39:34	1.1	-0.7	-0.4	-0.4	0.1	-0.7	97.8	90.4	86.5	89.7	100	93.6
19-Jul-01	04:59:34	-0.7	-0.9	-0.9	-0.7	-0.4	-0.4	100	90.4	85.9	90.8	100	95.8
19-Jul-01	05:19:34	-0.7	-0.7	-1.2	-0.7	0.1	-0.7	100	91.6	88.1	89.7	100	96.4
19-Jul-01	05:39:34	-0.9	-0.7	-0.9	-0.7	-0.4	-0.7	100	89.3	87	90.2	100	94.7
19-Jul-01	05:59:34	-0.7	-0.4	-0.9	-0.4	0.1	-0.7	100	91	85.9	90.8	100	93.6
19-Jul-01	06:19:34	-0.9	0.3	-0.9	-0.7	-0.4	-0.7	100	89.9	86.5	89.7	100	96.4
19-Jul-01	06:39:34	-0.7	0.3	-0.9	-0.4	-0.4	-0.9	97.3	87.7	88.1	90.8	100	95.8
19-Jul-01	06:59:34	-0.4	-0.7	-1.2	-0.7	-0.2	-0.4	99.5	91	86.5	88.6	100	94.1
19-Jul-01	07:19:34	-0.7	-0.4	-0.9	-0.7	-0.4	-0.7	100	92.1	85.9	90.8	100	96.4
19-Jul-01	07:39:34	-0.4	-0.2	-0.7	-0.7	0.3	-0.7	100	88.8	86.5	88.6	100	96.4
19-Jul-01	07:59:34	-0.4	-0.7	-1.2	-0.7	1.3	0.1	100	91	85.9	91.3	100	96.4
19-Jul-01	08:19:34	-0.4	-0.2	-0.9	-0.7	1.1	1.3	100	91.6	87	88.6	100	93
19-Jul-01	08:39:34	-0.4	-0.7	-0.9	-0.9	-0.4	0.3	100	91	87	91.3	100	91.9
19-Jul-01	08:59:34	-0.7	-0.2	-0.9	-0.4	-0.2	-0.4	100	91.6	85.4	90.2	100	93.6

19-Jul-01	09:19:34	-0.4	-0.2	-0.7	-0.4	-0.7	-0.4	100	87.7	86.5	89.2	100	96.4
19-Jul-01	09:39:34	-0.4	-0.4	-0.4	-0.9	0.1	-0.4	98.4	91.6	87	88.6	100	95.8
19-Jul-01	09:59:34	-0.7	-0.2	-0.7	-0.4	-0.4	-0.4	99.5	86.6	87.5	91.3	100	93.6
19-Jul-01	10:19:34	-0.2	-0.7	-0.4	-0.9	0.1	-0.4	100	91.6	88.6	88.6	100	95.8
19-Jul-01	10:39:34	1.6	-0.4	-0.2		-0.4	-0.7	97.3	90.4	87		100	94.7
19-Jul-01	10:59:34	-0.2	-0.7	-0.7		0.1	-0.4	100	86.6	85.9		100	93.6
19-Jul-01	11:19:34	0.1	-0.7	-0.7		-0.2	-0.7	100	90.4	85.9		100	96.4
19-Jul-01	11:39:34	-0.4	-0.9	-0.9			-0.4	98.9	91.6	85.9			93.6
19-Jul-01	11:59:34	-0.2	-0.9	-0.9				97.3	87.7	87			
19-Jul-01	12:19:34	-0.2	-1.2	-0.7				100	91	86.5			
19-Jul-01	12:39:34	-0.2	-0.9	-0.9				100	87.7	85.9			
19-Jul-01	12:59:34	-0.2	-0.7	-0.9				100	91.6	85.9			
19-Jul-01	13:19:34	-0.4	-1.2	-0.9				100	90.4	87			
19-Jul-01	13:39:34	6.2	-0.4	-0.7				100	90.4	86.5			
20-Jul-01	00:00	-0.4	-0.4		-0.7	-0.2		100	91.6		88.4	100	
20-Jul-01	00:10	-0.4	-0.4		-0.7	0.1		100	91		90.6	100	
20-Jul-01	00:20	-0.7	-0.4		-0.7	-0.4		100	91		90	100	
20-Jul-01	00:30	-0.7	-0.4		-0.4	-0.4		100	87.7		89.5	100	
20-Jul-01	00:40	-0.4	-0.7		-0.7	-0.2		98.4	91		88.4	100	
20-Jul-01	00:50	-0.7	-0.4		-0.7	0.1		100	91.6		90.6	100	
20-Jul-01	01:00	-0.7	-0.2		-0.7	0.1		100	91.6		90.6	100	
20-Jul-01	01:10	-0.4	-0.4		-0.4	-0.4		100	87.2		89.5	100	
20-Jul-01	01:20	-0.4	-0.7		-0.7	-0.2		98.4	91		87.9	100	
20-Jul-01	01:30	-0.4	-0.4		-0.7	0.1		100	91.6		90.6	100	
20-Jul-01	01:40	-0.4	-0.7		-0.4	0.3		97.8	91		90.6	100	
20-Jul-01	01:50	-0.4	-0.4		-0.7	0.8		100	88.3		89.5	100	
20-Jul-01	02:00	-0.7	-0.7		-0.7	1.3		98.4	90.4		88.4	100	
20-Jul-01	02:10	-0.4	-0.4		-0.9	1.6		100	91.6		90	100	
20-Jul-01	02:20	-0.4	-0.4		-0.4	0.8		100	91		90.6	100	
20-Jul-01	02:30	-0.4	-0.7		-0.4	-0.2		100	86.6		90	100	
20-Jul-01	02:40	-0.7	-0.7		-0.4	-0.7		100	91		89.5	100	
20-Jul-01	02:50	-0.7	-0.7		-0.7	-0.2		100	91.6		89.5	100	
20-Jul-01	03:00	-0.7	-0.7		-0.4	-0.2		100	91		89	100	
20-Jul-01	03:10	-0.4	-0.4		-0.7	-0.2		100	88.3		87.9	100	
20-Jul-01	03:20	-0.7	-0.7		-0.7	-0.4		100	90.4		90.6	100	
20-Jul-01	03:30	-0.7	-0.7		-0.4	-0.4		100	91.6		90.6	100	
20-Jul-01	03:40	-0.7	-0.7		-0.7	-0.2		100	91		89.5	100	
20-Jul-01	03:50	-0.7	-0.4		-0.4	0.1		100	88.8		88.4	100	
20-Jul-01	04:00	-0.7	-0.7		-0.7	-0.2		99.5	89.3		90	100	
20-Jul-01	04:10	-0.7	-0.7		-0.4	-0.4		100	91		90.6	100	
20-Jul-01	04:20	0.3	-0.4		-0.7	-0.2		100	91.6		90	100	
20-Jul-01	04:30	0.1	-0.2		-0.7	0.1		97.3	89.9		88.4	100	
20-Jul-01	04:40	-0.7	-0.4		-0.7	-0.2		100	89.3		89.5	100	
20-Jul-01	04:50	-0.7	-0.4		-0.7	-0.4		100	87.7		90.6	100	
20-Jul-01	05:00	-0.9	-0.7		-0.7	-0.2		100	91.6		90	100	
20-Jul-01	05:10	-0.7	-0.7		-0.4	0.1		100	91.6		89	100	
20-Jul-01	05:20	-0.7	-0.7		-0.7	-0.2		100	91		87.9	100	
20-Jul-01	05:30	-0.7	-0.4		-0.7	-0.2		100	90.4		90.6	100	
20-Jul-01	05:40	-0.9	-0.2		-0.4	-0.7		100	89.9		90.6	100	

20-Jul-01	05:50	-0.7	0.1		-0.4	-0.4		100	89.9		90	100	
20-Jul-01	06:00	-0.7	0.1		-0.4	-0.2		100	89.9		88.4	100	
20-Jul-01	06:10	-0.7	0.3		-0.7	0.1		100	89.9		89.5	100	
20-Jul-01	06:20	-0.9	0.1		-0.7	-0.7		100	89.3		90.6	100	
20-Jul-01	06:30	-0.4	0.6		-0.4	-0.2		100	86.6		90	100	
20-Jul-01	06:40	-0.7	-0.2		-0.4	0.1		100	86.1		89	100	
20-Jul-01	06:50	-0.4	-0.4		-0.7	0.1		100	90.4		88.4	100	
20-Jul-01	07:00	-0.9	-0.7		-0.7	-0.2		100	91		90.6	100	
20-Jul-01	07:10	-0.7	-0.2		-0.7	-0.4		100	89.9		90	100	
20-Jul-01	07:20	-0.9	-0.4		-0.7	-0.2		100	88.8		89.5	100	
20-Jul-01	07:30	-0.4	-0.7		-0.7	0.1		100	91		88.4	100	
20-Jul-01	07:40	-0.4	-0.7		-0.7	0.3		100	91		90	100	
20-Jul-01	07:50	0.1	-0.4		-0.7	0.8		100	88.8		91.1	100	
20-Jul-01	08:00	-0.2	-0.4		-0.4	1.3		100	88.8		90	100	
20-Jul-01	08:10	-0.2	-0.7		-0.7	1.8		100	91.6		88.4	100	
20-Jul-01	08:20	0.1	-0.4		-0.7	1.3		100	91		89.5	100	
20-Jul-01	08:30	-0.4	-0.2		-0.4	0.1		100	88.3		91.1	100	
20-Jul-01	08:40	-0.2	-0.7		-0.4	-0.2		100	89.3		90	100	
20-Jul-01	08:50	-0.2	-0.7		-0.4	-0.4		100	91		90	100	
20-Jul-01	09:00	-0.2	-0.4		-0.4	0.1		100	91.6		89.5	100	
20-Jul-01	09:10	-0.4	-0.2		-0.7	-0.4		98.4	87.7		88.4	100	
20-Jul-01	09:20	-0.2	-0.7		-0.4	-0.4		100	90.4		88.4	100	
20-Jul-01	09:30	-0.2	-0.4		-0.4	-0.2		100	91		90.6	100	
20-Jul-01	09:40	-0.2	-0.2		-0.4	0.1		100	88.8		91.1	100	
20-Jul-01	09:50	-0.4	-0.7		-0.4	-0.2		100	88.3		89.5	100	
20-Jul-01	10:00	-0.2	-0.4		-0.7	-0.4		98.4	91.6		88.4	100	
20-Jul-01	10:10	-0.2	-0.4		-0.9	-0.2		99.5	91		89	100	
20-Jul-01	10:20	0.6	-0.4		-0.7	0.1		100	89.3		90.6	100	
20-Jul-01	10:30	1.1	-0.4		-0.4	-0.4		97.3	89.3		91.1	100	
20-Jul-01	10:40	-0.4	-0.2		-0.4	-0.4		97.8	89.9		89.5	100	
20-Jul-01	10:50	0.1	-0.4		-0.4	0.1		100	88.3		89	100	
20-Jul-01	11:00	-0.2	-0.9		-0.7	0.1		100	85.5		88.4	100	
20-Jul-01	11:10	0.1	-0.9		-0.7	-0.2		100	91		91.1	100	
20-Jul-01	11:20	-0.2	-0.9		-0.4	-0.4		100	89.3		91.1	100	
20-Jul-01	11:30	0.1	-1.2		-0.4	0.1		100	86.6		89.5	100	
20-Jul-01	11:40	0.1	-0.9		-0.7	-0.2		100	91.6		88.4	100	
20-Jul-01	11:50	-0.2	-0.9		-0.7	-0.4		99.5	87.7		88.4	100	
20-Jul-01	12:00	0.1	-0.9		-0.7	-0.2		100	88.3		90.6	100	
20-Jul-01	12:10	-0.4	-1.2		-0.7	0.1		98.9	91		90.6	100	
20-Jul-01	12:20	-0.2	-0.9		-0.4	-0.4		100	86.1		89	100	
20-Jul-01	12:30	0.1	-0.9		-0.7	-0.2		100	91.6		88.4	100	
20-Jul-01	12:40	0.1	-0.7		-0.7	0.1		97.3	91.6		89	100	
20-Jul-01	12:50	-0.2	-1.2		-0.7	0.1		100	86.6		90.6	100	
20-Jul-01	13:00	0.1	-1.2		-0.4	-0.4		97.3	91		90	100	
20-Jul-01	13:10	-0.4	-0.9		-0.4	0.1		100	88.8		89	100	
20-Jul-01	13:20	-0.2	-1.2		-0.7	0.1		97.3	87.2		88.4	100	
20-Jul-01	13:30	-0.2	-1.2		-0.7	0.3		100	89.3		88.4	100	
20-Jul-01	13:40	0.1	-0.7		-0.7	0.8		97.8	89.3		90.6	100	
20-Jul-01	13:50	-0.4	-0.2		-0.4	1.3		100	88.8		90	100	

20-Jul-01	14:00	0.1	0.1		-0.4	1.8		99.5	88.8		89	100	
20-Jul-01	14:10	0.1	0.3		-0.7	2.6		100	88.3		88.4	100	
20-Jul-01	14:20	0.1	0.6		-0.7	1.6		100	88.8		88.4	100	
20-Jul-01	14:30	0.3	0.6		-0.9	0.8		98.4	86.1		88.4	100	
20-Jul-01	14:40	-0.4	0.3		-0.7	0.1		100	85		89	100	
20-Jul-01	14:50	-0.4	-0.7		-0.7	-0.4		99.5	85.5		89.5	100	
20-Jul-01	15:00	-0.4	-0.9		-0.4	-0.2		100	85.5		89.5	100	
20-Jul-01	15:10	-0.4	-1.2		-0.4	0.1		99.5	89.3		88.4	100	
20-Jul-01	15:20	-0.4	-0.9		-0.7	0.1		100	87.7		88.4	100	
20-Jul-01	15:30	-0.4	-1.2		-0.4	-0.4		98.4	88.3		90.6	100	
20-Jul-01	15:40	-0.4	-0.9		-0.4	0.1		100	91.6		89.5	100	
20-Jul-01	15:50	-0.4	-0.9		-0.7	0.1		100	87.7		88.4	100	
20-Jul-01	16:00	-0.4	-1.2		-0.4	-0.4		98.4	87.7		88.4	100	
20-Jul-01	16:10	0.1	-1.2		-0.7	-0.4		100	88.8		90	100	
20-Jul-01	16:20	0.8	-1.2		-0.4	-0.2		100	89.3		90	100	
20-Jul-01	16:30	1.8	-0.9		-0.4	0.1		100	89.9		88.4	100	
20-Jul-01	16:40	0.8	-0.9		-0.4	-0.4		95.6	89.9		88.4	100	
20-Jul-01	16:50	0.1	-0.9		-0.7	-0.4		100	87.2		87.9	100	
20-Jul-01	17:00	-0.4	-1.2		-0.7	0.1		99.5	86.1		90	100	
20-Jul-01	17:10	-0.4	-1.2		-0.7	0.1		98.4	90.4		90.6	100	
20-Jul-01	17:20	-0.2	-1.2		-0.7	-0.2		100	91		88.4	100	
20-Jul-01	17:30	-0.7	-0.7		-0.7	-0.4		97.8	90.4		87.9	100	
20-Jul-01	17:40	-0.7	-0.9		-0.7	-0.2		100	87.7		90	100	
20-Jul-01	17:50	-0.7	-0.7		-0.7	0.1		100	91.6		90.6	100	
20-Jul-01	18:00	-0.7	-0.7		-0.7	0.1		99.5	91.6		91.1	100	
20-Jul-01	18:10	-0.4	-0.7		-0.4	-0.2		100	91.6		88.4	100	
20-Jul-01	18:20	-0.4	-0.2		-0.9	-0.7		100	91.6		89	100	
20-Jul-01	18:30	-0.7	-0.2		-0.7	-0.2		100	91.6		90.6	100	
20-Jul-01	18:40	-0.7	-0.4		-0.7	0.1		98.4	87.2		90.6	100	
20-Jul-01	18:50	-0.9	-0.7		-0.4	0.1		100	91		90	100	
20-Jul-01	19:00	-0.7	-0.4		-0.4	-0.4		97.3	91		88.4	100	
20-Jul-01	19:10	-0.4	-0.4		-0.7	-0.7		100	91.6		90	100	
20-Jul-01	19:20	-0.7	-0.2		-0.7	-0.4		100	91.6		90.6	100	
20-Jul-01	19:30	-0.4	-0.2		-0.4	0.1		100	91.6		90.6	100	
20-Jul-01	19:40	-0.7	-0.2		-0.7	0.3		100	88.8		88.4	100	
20-Jul-01	19:50	-0.4	-0.4		-0.7	0.8		100	89.9		88.4	100	
20-Jul-01	20:00	-0.9	-0.7		-0.7	1.1		100	91.6		90.6	100	
20-Jul-01	20:10	-0.7	-0.7		-0.4	1.6		97.8	91.6		90.6	100	
20-Jul-01	20:20	-0.7	-0.4		-0.4	0.8		100	91.6		90	100	
20-Jul-01	20:30	-0.7	-0.2		-0.7	0.1		97.8	91.6		88.4	100	
20-Jul-01	20:40	-0.9	-0.2		-0.7	-0.4		100	91.6		88.4	100	
20-Jul-01	20:50	-0.4	-0.4		-0.7	-0.2		98.4	87.7		89.5	100	
20-Jul-01	21:00	-0.7	-0.7		-0.7	-0.2		100	91.6		89	100	
20-Jul-01	21:10	-0.9	-0.4		-0.7	0.1		100	92.1		90	100	
20-Jul-01	21:20	-0.9	-0.7		-0.7	-0.7		100	91.6		90.6	100	
20-Jul-01	21:30	-0.9	-0.2		-0.4	-0.7		100	91.6		90.6	100	
20-Jul-01	21:40	-0.4	-0.2		-0.7	-0.2		100	91		89	100	
20-Jul-01	21:50	-0.7	0.1		-0.7	-0.2		100	90.4		88.4	100	
20-Jul-01	22:00	-0.7	-0.2		-0.7	0.1		100	90.4		90.6	100	

20-Jul-01	22:10	-0.4	0.1		-0.4	-0.4		100	89.9		90.6	100	
20-Jul-01	22:20	0.3	0.3		-0.4	-0.4		100	89.9		90	100	
20-Jul-01	22:30	0.6	0.3		-0.4	-0.2		98.4	91		88.4	100	
20-Jul-01	22:40	-0.4	0.3		-0.7	0.1		100	90.4		90	100	
20-Jul-01	22:50	-0.7	0.1		-0.7	-0.2		100	87.7		90.6	100	
20-Jul-01	23:00	-0.9	-0.4		-0.7	-0.4		100	89.3		90	100	
20-Jul-01	23:10	-0.4	-0.4		-0.7	-0.4		100	91.6		89	100	
20-Jul-01	23:20	-0.9	-0.4		-0.7	-0.2		100	92.1		88.4	100	
20-Jul-01	23:30	-0.9	-0.2		-0.7	0.1		100	91.6		90.6	100	
20-Jul-01	23:40	-0.7	0.1		-0.7	0.1		100	91.6		90.6	100	
20-Jul-01	23:50	-0.7	-0.4		-0.7	-0.4		100	88.8		89.5	100	
21-Jul-01	00:00	-0.9	-0.4		-0.4	-0.4		100	91.6		88.4	100	
21-Jul-01	00:10	-0.7	-0.4		-0.7	-0.2		100	92.1		90	100	
21-Jul-01	00:20	-0.7	-0.2		-0.4	0.1		100	91.6		90.6	100	
21-Jul-01	00:30	-0.7	-0.2		-0.7	0.1		100	91.6		90	100	
21-Jul-01	00:40	-0.9	-0.2		-0.4	-0.7		100	91.6		89	100	
21-Jul-01	00:50	-0.7	-0.2		-0.7	-0.4		100	88.3		87.9	100	
21-Jul-01	01:00	-0.9	-0.7		-0.7	-0.4		100	90.4		90.6	100	
21-Jul-01	01:10	-0.4	-0.7		-0.7	0.1		100	91.6		90	100	
21-Jul-01	01:20	-0.9	-0.4		-0.4	0.1		100	91.6		90	100	
21-Jul-01	01:30	-0.4	-0.4		-0.4	0.3		100	91		88.4	100	
21-Jul-01	01:40	-0.7	0.1		-0.7	0.6		100	91		90	100	
21-Jul-01	01:50	-0.7	-0.2		-0.7	1.1		100	91		90.6	100	
21-Jul-01	02:00	-0.4	0.1		-0.7	1.3		100	88.8		90	100	
21-Jul-01	02:10	-0.4	-0.4		-0.4	1.6		100	88.8		89.5	100	
21-Jul-01	02:20	-0.9	-0.7		-0.7	1.1		100	91.6		87.9	100	
21-Jul-01	02:30	-0.4	-0.4		-0.9	-0.2		100	92.1		90	100	
21-Jul-01	02:40	-0.7	-0.2		-0.7	-0.7		99.5	91		90	100	
21-Jul-01	02:50	-0.7	-0.2		-0.7	-0.4		100	91.6		90	100	
21-Jul-01	03:00	-0.7	-0.2		-0.4	-0.2		100	91		89	100	
21-Jul-01	03:10	-0.9	-0.2		-0.7	0.1		100	86.6		87.9	100	
21-Jul-01	03:20	-0.7	-0.4		-0.7	-0.7		100	91		90.6	100	
21-Jul-01	03:30	-0.7	-0.4		-0.4	-0.4		100	91.6		90.6	100	
21-Jul-01	03:40	-0.7	-0.4		-0.7	-0.4		100	91.6		90	100	
21-Jul-01	03:50	-0.7	-0.2		-0.7	-0.2		100	91		88.4	100	
21-Jul-01	04:00	-1.2	-0.2		-0.9	0.1		100	88.8		89.5	100	
21-Jul-01	04:10	-0.7	-0.4		-0.7	-0.4		100	89.3		90.6	100	
21-Jul-01	04:20	0.1	-0.7		-0.7	-0.7		100	90.4		90	100	
21-Jul-01	04:30	0.1	-0.4		-0.7	-0.2		97.8	91		89.5	100	
21-Jul-01	04:40	-0.7	-0.7		-0.4	-0.4		100	90.4		87.9	100	
21-Jul-01	04:50	-0.4	-0.9		-0.7	0.1		100	89.3		90	100	
21-Jul-01	05:00	-0.7	-0.7		-0.4	-0.4		100	92.1		90.6	100	
21-Jul-01	05:10	-0.7	-0.4		-0.4	-0.7		100	92.1		90	100	
21-Jul-01	05:20	-0.7	-0.4		-0.7	-0.2		100	92.1		88.4	100	
21-Jul-01	05:30	-0.4	-0.2		-0.7	-0.2		100	91.6		89	100	
21-Jul-01	05:40	-0.9	-0.2		-0.7	0.1		100	91		90.6	100	
21-Jul-01	05:50	-0.7	0.1		-0.7	-0.4		100	91.6		90	100	
21-Jul-01	06:00	-0.7	0.3		-0.4	-0.4		100	90.4		89.5	100	
21-Jul-01	06:10	-0.4	0.3		-0.4	-0.2		100	90.4		88.4	100	

21-Jul-01	06:20	-0.7	0.6		-0.7	-0.2		100	89.9		90	100	
21-Jul-01	06:30	-0.7	0.3		-0.4	-0.2		99.5	86.1		90.6	100	
21-Jul-01	06:40	-0.7	-0.2		-0.4	-0.4		100	86.1		90	100	
21-Jul-01	06:50	-0.7	-0.4		-0.7	-0.4		99.5	91.6		88.4	100	
21-Jul-01	07:00	-0.4	-0.7		-0.7	-0.2		100	92.1		89	100	
21-Jul-01	07:10	-0.7	-0.4		-0.7	0.1		100	91.6		90.6	100	
21-Jul-01	07:20	-0.4	-0.7		-0.7	0.1		100	88.8		90	100	
21-Jul-01	07:30	-0.7	-0.4		-0.7	0.1		100	92.1		89.5	100	
21-Jul-01	07:40	-0.4	-0.7		-0.4	0.3		100	92.1		88.4	100	
21-Jul-01	07:50	-0.9	-0.4		-0.7	0.8		100	92.1		90	100	
21-Jul-01	08:00	-0.4	-0.2		-0.4	1.3		100	88.8		90.6	100	
21-Jul-01	08:10	-0.7	-0.7		-0.4	1.6		100	91		90	100	
21-Jul-01	08:20	-0.7	-0.4		-0.7	0.8		98.4	92.1		88.4	100	
21-Jul-01	08:30	-0.7	-0.4		-0.7	-0.2		100	88.8		89	100	
21-Jul-01	08:40	-0.7	-0.7		-0.7	-0.4		100	89.9		90	100	
21-Jul-01	08:50	-0.4	-0.7		-0.4	-0.4		100	91.6		90	100	
21-Jul-01	09:00	-0.4	-0.4		-0.7	-0.2		100	92.1		89.5	100	
21-Jul-01	09:10	-0.7	-0.4		-0.7	-0.2		100	88.8		88.4	100	
21-Jul-01	09:20	-0.7	-0.4		-0.9	-0.4		100	89.3		89.5	100	
21-Jul-01	09:30	-0.7	-0.4		-0.7	-0.4		98.9	91.6		90.6	100	
21-Jul-01	09:40	-0.7	-0.4		-0.4	-0.2		100	91.6		90.6	100	
21-Jul-01	09:50	-0.7	-0.4		-0.7	0.1		97.8	88.8		89.5	100	
21-Jul-01	10:00	-0.4	-0.7		-0.7	-0.7		100	89.9		88.4	100	
21-Jul-01	10:10	-0.4	-0.4		-0.7	-0.4		100	91.6		90	100	
21-Jul-01	10:20	0.6	-0.4		-0.4	0.1		100	91.6		90.6	100	
21-Jul-01	10:30	0.6	-0.4		-0.7	0.1		97.8	90.4		90	100	
21-Jul-01	10:40	-0.4	-0.4		-0.7	-0.4		100	90.4		88.4	100	
21-Jul-01	10:50	-0.2	-0.4		-0.9	-0.4		100	88.3		88.4	100	
21-Jul-01	11:00	-0.7	-0.7		-0.7	0.1		100	88.3		90.6	100	
21-Jul-01	11:10	-0.7	-0.4		-0.7	0.3		98.9	91		90.6	100	
21-Jul-01	11:20	-0.7	-0.4		-0.7	-0.4		100	88.3		89.5	100	
21-Jul-01	11:30	-0.4	-0.9		-0.7	-0.4		98.4	88.3		88.4	100	
21-Jul-01	11:40	-0.7	-0.9		-0.9	0.1		100	91.6		89.5	100	
21-Jul-01	11:50	-0.4	-0.7		-0.7	0.1		98.4	87.2		90.6	100	
21-Jul-01	12:00	-0.4	-0.9		-0.7	-0.4		100	86.6		90	100	
21-Jul-01	12:10	-0.7	-1.2		-0.7	-0.4		100	88.8		89	100	
21-Jul-01	12:20	-0.4	-0.9		-0.7	0.1		100	91.6		88.4	100	
21-Jul-01	12:30	-0.9	-0.9		-0.9	0.3		100	87.7		90	100	
21-Jul-01	12:40	-0.4	-1.2		-0.7	-0.2	-0.7	99.5	86.1		90.6	100	96
21-Jul-01	12:50	-0.4	-1.4		-0.4	-0.2	-0.7	100	91		90	100	96
21-Jul-01	13:00	-0.7	-0.9		-0.7	0.1	-0.9	98.4	88.3		88.4	100	94.3
21-Jul-01	13:10	-0.7	-0.9		-0.9	0.1	-0.7	100	86.6		89.5	100	93.2
21-Jul-01	13:20	-0.7	-1.4		-0.7	-0.4	-0.7	100	86.6		90.6	100	93.7
21-Jul-01	13:30	-0.7	-1.4		-0.4	-0.2	-0.7	100	88.8		90.6	100	96
21-Jul-01	13:40	-0.7	-0.9		-0.4	0.3	-0.7	100	88.3		89	100	96
21-Jul-01	13:50	-0.4	-0.7		-0.7	0.6	-0.7	100	88.8		88.4	100	95.4
21-Jul-01	14:00	-0.9	-0.2		-0.7	1.1	-0.7	100	88.8		90	100	93.7
21-Jul-01	14:10	-0.7	0.6		-0.9	1.8	-0.7	99.5	88.8		90.6	100	93.2
21-Jul-01	14:20	-0.7	0.8		-0.4	1.1	-0.4	100	88.3		90.6	100	93.7

21-Jul-01	14:30	-0.7	0.8		-0.7	0.1	-0.7	99.5	86.6		89	100	94.8
21-Jul-01	14:40	-0.4	0.6		-0.7	-0.4	-0.9	100	83.9		89	100	96
21-Jul-01	14:50	-0.7	-0.2		-0.7	-0.2	-0.7	98.9	85.5		89.5	100	95.4
21-Jul-01	15:00	-0.7	-0.7		-0.4	-0.2	-0.7	100	85.5		90	100	95.4
21-Jul-01	15:10	-0.9	-1.2		-0.7	-0.2	-0.7	100	85.5		89	100	94.8
21-Jul-01	15:20	-0.7	-1.4		-0.9	-0.4	-0.7	100	85.5		89	100	93.7
21-Jul-01	15:30	-0.7	-1.4		-0.7	-0.4	-0.9	100	86.1		90.6	100	93.7
21-Jul-01	15:40	-0.7	-1.9		-0.7	0.1	-0.7	100	85.5		90.6	100	96
21-Jul-01	15:50	-0.7	-1.9		-0.7	0.1	-0.7	100	86.1		89.5	100	94.3
21-Jul-01	16:00	-0.4	-1.7		-0.9	-0.4	-0.2	100	90.4		88.4	100	93.7
21-Jul-01	16:10	-0.4	-1.4		-1.2	-0.2	0.3	100	89.3		89.5	100	93.7
21-Jul-01	16:20	0.3	-0.9		-0.7	-0.2	0.8	100	89.3		90.6	100	94.3
21-Jul-01	16:30	0.8	-0.9		-0.4	0.3	1.1	98.9	89.3		89.5	100	91.5
21-Jul-01	16:40	-0.4	-0.7		-0.9	-0.2	-0.2	98.4	89.3		88.4	100	92
21-Jul-01	16:50	-0.7	-0.9		-0.7	-0.4	-0.7	100	87.2		88.4	100	94.3
21-Jul-01	17:00	-0.9	-1.2		-0.7	0.1	-0.7	100	86.1		90.6	100	95.4
21-Jul-01	17:10	-0.4	-1.4		-0.4	0.3	-0.7	100	89.9		90.6	100	93.7
21-Jul-01	17:20	-0.7	-0.9		-0.7	-0.2	-0.4	100	89.9		89	100	93.7
21-Jul-01	17:30	-0.4	-1.2		-0.7	-0.7	-0.4	100	87.7		87.9	100	93.7
21-Jul-01	17:40	-0.9	-1.2		-0.7	-0.2	-0.4	100	91		90.6	100	96
21-Jul-01	17:50	-0.7	-0.9		-0.7	0.1	-0.4	100	91.6		90.6	100	95.4
21-Jul-01	18:00	-0.9	-0.7		-0.7	0.3	-0.7	100	91.6		89.5	100	95.4
21-Jul-01	18:10	-0.4	-0.9		-0.7	-0.4	-0.7	100	87.7		88.4	100	93.7
21-Jul-01	18:20	-0.7	-1.2		-0.9	-0.4	-0.7	100	90.4		89.5	100	93.2
21-Jul-01	18:30	-0.4	-0.9		-0.7	-0.2	-0.7	100	91		90.6	100	95.4
21-Jul-01	18:40	-0.7	-0.7		-0.7	0.1	-0.7	100	91.6		90	100	96
21-Jul-01	18:50	-0.7	-0.4		-0.7	-0.4	-0.4	99.5	91.6		88.4	100	95.4
21-Jul-01	19:00	-0.9	-0.7		-0.9	-0.4	-0.7	100	87.7		89	100	94.8
21-Jul-01	19:10	-0.7	-0.9		-0.7	-0.4	-0.7	99.5	91		90.6	100	93.2
21-Jul-01	19:20	-0.9	-0.9		-0.9	0.1	-0.7	100	91		90	100	93.2
21-Jul-01	19:30	-0.4	-0.4		-0.4	0.3	-0.7	100	91.6		89	100	94.8
21-Jul-01	19:40	-0.7	-0.7		-0.7	0.6	-0.7	100	91.6		87.9	100	95.4
21-Jul-01	19:50	-0.7	-0.4		-0.9	1.1	-0.7	98.9	90.4		90	100	95.4
21-Jul-01	20:00	-0.7	-0.7		-0.7	1.6	-0.7	100	88.8		90.6	100	94.8
21-Jul-01	20:10	-0.7	-0.9		-0.7	1.8	-0.4	100	91		89.5	100	93.7
21-Jul-01	20:20	-0.7	-0.7		-0.7	1.1	-0.7	100	91.6		88.4	100	94.3
21-Jul-01	20:30	-0.9	-0.7		-0.9	0.3	-0.4	100	91.6		90	100	95.4
21-Jul-01	20:40	-0.9	-0.4		-0.9	-0.4	-0.7	100	91.6		89.5	100	95.4
21-Jul-01	20:50	-0.9	-0.4		-0.7	-0.4	-0.7	100	91		90	100	95.4
21-Jul-01	21:00	-0.4	-0.4		-0.4	-0.2	-0.4	100	88.8		90	100	94.3
21-Jul-01	21:10	-0.9	-0.7		-0.7	0.1	-0.7	100	91.6		88.4	100	93.2
21-Jul-01	21:20	-0.7	-0.7		-0.7	-0.2	-0.4	100	91.6		90	100	93.7
21-Jul-01	21:30	-0.7	-0.7		-0.7	-0.4	-0.7	100	91.6		90.6	100	94.8
21-Jul-01	21:40	-0.4	-0.4		-0.7	-0.4	-0.7	100	91		90	100	95.4
21-Jul-01	21:50	-0.9	-0.2		-0.4	0.1	-0.4	100	91		89	100	95.4
21-Jul-01	22:00	-0.4	-0.4		-0.7	0.1	-0.7	100	90.4		88.4	100	94.8
21-Jul-01	22:10	-0.7	-0.2		-0.7	-0.4	-0.4	100	90.4		90.6	100	93.2
21-Jul-01	22:20	0.3	0.3		-0.4	-0.4	-0.7	100	89.9		90.6	100	93.7
21-Jul-01	22:30	0.6	0.1		-0.4	0.1	-0.4	97.8	91		90	100	95.4

21-Jul-01	22:40	-0.7	0.3		-0.4	0.1	-0.4	99.5	91		88.4	100	95.4
21-Jul-01	22:50	-0.4	-0.2		-0.7	-0.2	-0.4	100	88.3		90	100	95.4
21-Jul-01	23:00	-0.7	-0.7		-0.7	-0.4	-0.7	100	88.8		90.6	100	94.8
21-Jul-01	23:10	-0.4	-0.4		-0.7	-0.4	-0.7	100	91		90	100	93.2
21-Jul-01	23:20	-0.7	-0.7		-0.7	-0.2	-0.7	100	91.6		89	100	93.2
21-Jul-01	23:30	-0.4	-0.2		-0.9	0.1	-0.7	100	91		87.9	100	94.3
21-Jul-01	23:40	-0.7	-0.4		-0.7	-0.2	-0.4	100	88.3		90	100	95.4
21-Jul-01	23:50	-0.4	-0.7		-0.4	-0.7	-0.7	100	91.6		90.6	100	94.3
22-Jul-01	00:00	-0.9	-0.7		-0.4	-0.2	-0.2	100	91.6		89.5	100	93.7
22-Jul-01	00:10	-0.7	-0.4		-0.4	-0.2	0.3	99.5	91		88.4	100	93.2
22-Jul-01	00:20	-0.9	-0.4		-0.7	0.3	1.1	100	88.8		90	100	92.6
22-Jul-01	00:30	-0.9	-0.7		-0.7	-0.4	0.8	98.9	89.9		90.6	100	90.9
22-Jul-01	00:40	-0.9	-0.7		-0.4	-0.4	0.1	100	91.6		90	100	91.5
22-Jul-01	00:50	-0.9	-0.7		-0.7	-0.2	-0.4	100	91.6		88.4	100	92.6
22-Jul-01	01:00	-0.7	-0.4		-0.7	-0.2	-0.4	100	91		90	100	93.7
22-Jul-01	01:10	-0.7	-0.4		-0.7	0.1	-0.4	100	91		90.6	100	94.3
22-Jul-01	01:20	-0.4	-0.2		-0.7	-0.2	-0.7	100	88.3		90	100	96
22-Jul-01	01:30	-0.9	-0.4		-0.7	-0.2	-0.7	100	91		88.4	100	96
22-Jul-01	01:40	-0.9	-0.7		-0.7	0.1	-0.7	100	91.6		89	100	95.4
22-Jul-01	01:50	-0.9	-0.4		-0.7	0.6	-0.4	100	91.6		90.6	100	93.7
22-Jul-01	02:00	-0.7	-0.4		-0.7	1.1	-0.7	100	91		90.6	100	93.2
22-Jul-01	02:10	-0.7	-0.4		-0.7	1.3	-0.7	100	88.8		89.5	100	94.8
22-Jul-01	02:20	-0.9	-0.7		-0.7	0.8	-0.4	100	91		88.4	100	95.4
22-Jul-01	02:30	-0.9	-0.7		-0.7	0.1	-0.4	97.8	92.1		90	100	95.4
22-Jul-01	02:40	-0.9	-0.4		-0.7	-0.4	-0.4	100	91.6		90	100	95.4
22-Jul-01	02:50	-0.7	-0.4		-0.7	-0.4	-0.4	99.5	91		90	100	94.3
22-Jul-01	03:00	-0.7	-0.2		-0.4	-0.2	-0.7	100	90.4		90	100	93.7
22-Jul-01	03:10	-0.7	-0.7		-0.7	0.1	-0.7	98.9	88.3		88.4	100	93.2
22-Jul-01	03:20	-0.7	-0.7		-0.9	-0.4	-0.4	100	91		89	100	93.7
22-Jul-01	03:30	-0.9	-0.7		-0.7	-0.7	-0.4	98.9	92.1		90.6	100	95.4
22-Jul-01	03:40	-0.7	-0.4		-0.4	-0.2	-0.4	100	91.6		90.6	100	95.4
22-Jul-01	03:50	-0.7	-0.4		-0.4	-0.2	-0.4	100	86.6		90	100	95.4
22-Jul-01	04:00	-0.7	-0.7		-0.4	0.1	-0.4	100	91		88.4	100	95.4
22-Jul-01	04:10	-0.4	-0.7		-0.7	-0.7	-0.7	100	92.1		90	100	94.8
22-Jul-01	04:20	0.3	-0.7		-0.7	-0.4	-0.7	100	91.6		90.6	100	93.7
22-Jul-01	04:30	0.1	-0.4		-0.7	-0.2	-0.7	97.3	91		90	100	93.2
22-Jul-01	04:40	-0.9	-0.7		-0.4	0.1	-0.7	100	90.4		89	100	94.3
22-Jul-01	04:50	-0.4	-0.7		-0.7	0.1	-0.7	100	88.3		88.4	100	94.8
22-Jul-01	05:00	-1.2	-0.7		-0.7	-0.4	-0.4	100	91.6		90.6	100	95.4
22-Jul-01	05:10	-0.7	-0.7		-0.7	-0.4	-0.7	100	91.6		90.6	100	96
22-Jul-01	05:20	-0.9	-0.7		-0.4	-0.2	-0.4	100	89.3		89.5	100	95.4
22-Jul-01	05:30	-0.7	-0.7		-0.7	0.1	-0.7	100	88.8		88.4	100	95.4
22-Jul-01	05:40	-1.2	-0.4		-0.9	-0.2	-0.7	100	89.9		90	100	94.8
22-Jul-01	05:50	-0.7	-0.7		-0.7	-0.4	-0.4	100	90.4		90.6	100	93.2
22-Jul-01	06:00	-0.7	-0.2		-0.7	-0.2	-0.7	100	90.4		90	100	93.2
22-Jul-01	06:10	-0.7	0.1		-0.7	0.1	-0.4	100	90.4		89	100	94.3
22-Jul-01	06:20	-0.7	0.6		-0.7	0.1	-0.4	100	89.9		88.4	100	95.4
22-Jul-01	06:30	-0.7	0.6		-0.7	-0.4	-0.4	99.5	88.3		90.6	100	95.4
22-Jul-01	06:40	-0.7	-0.2		-0.7	-0.4	-0.4	100	87.2		90.6	100	95.4

22-Jul-01	06:50	-0.7	-0.7		-0.7	-0.2	-0.4	98.4	88.3		89.5	100	94.3
22-Jul-01	07:00	-0.7	-0.7		-0.7	0.1	-0.4	100	91.6		88.4	100	93.2
22-Jul-01	07:10	-0.7	-0.4		-0.9	-0.4	-0.7	100	92.1		90	100	93.7
22-Jul-01	07:20	-0.9	-0.4		-0.7	-0.4	-0.4	100	88.3		90.6	100	95.4
22-Jul-01	07:30	-0.7	-0.9		-0.4	-0.4	-0.7	100	91.6		90	100	95.4
22-Jul-01	07:40	-0.9	-0.7		-0.7	0.1	-0.4	100	91.6		88.4	100	95.4
22-Jul-01	07:50	-0.7	-0.7		-0.7	0.8	-0.4	100	91		90	100	94.3
22-Jul-01	08:00	-0.9	-0.7		-0.7	1.1	-0.4	100	88.8		90.6	100	94.3
22-Jul-01	08:10	-0.7	-0.7		-0.7	1.6	0.3	100	91.6		90	100	93.7
22-Jul-01	08:20	-0.7	-0.7		-0.4	0.8	0.8	100	92.1		89	100	92.6
22-Jul-01	08:30	-0.7	-0.4		-0.7	0.1	1.1	100	91		88.4	100	90.4
22-Jul-01	08:40	-0.4	-0.7		-0.7	-0.7	0.1	100	88.3		90	100	91.5
22-Jul-01	08:50	-0.9	-0.7		-0.7	-0.4	-0.4	99.5	91.6		90	100	93.2
22-Jul-01	09:00	-0.7	-0.9		-0.4	-0.2	-0.7	100	92.1		90	100	94.3
22-Jul-01	09:10	-0.9	-0.4		-0.7	-0.2	-0.7	100	91.6		88.4	100	96
22-Jul-01	09:20	-0.7	-0.9		-0.9	-0.4	-0.7	100	88.3		90	100	95.4
22-Jul-01	09:30	-0.9	-0.9		-0.7	-0.2	-0.4	100	91		90.6	100	94.3
22-Jul-01	09:40	-0.9	-0.7		-0.7	0.1	-0.7	100	92.1		90	100	93.2
22-Jul-01	09:50	-0.7	-0.7		-0.7	0.1	-0.4	100	88.8		88.4	100	93.7
22-Jul-01	10:00	-0.4	-0.9		-0.9	-0.4	-0.4	100	89.9		88.4	100	93.7
22-Jul-01	10:10	-0.7	-0.9		-0.7	-0.2	-0.4	100	91.6		90.6	100	95.4
22-Jul-01	10:20	0.1	-0.7		-0.4	0.1	-0.7	100	91.6		90.6	100	95.4
22-Jul-01	10:30	0.6	-0.7		-0.4	-0.2	-0.4	98.9	91		89.5	100	95.4
22-Jul-01	10:40	-0.4	-0.4		-0.7	-0.2	-0.4	100	91		88.4	100	95.4
22-Jul-01	10:50	-0.4	-0.7		-0.7	-0.7	-0.7	100	88.8		90	100	94.8
22-Jul-01	11:00	-0.9	-0.9		-0.7	-0.2	-0.7	100	90.4		90.6	100	93.7
22-Jul-01	11:10	-0.4	-0.7		-0.7	-0.2	-0.7	100	91.6		90	100	93.2
22-Jul-01	11:20	-0.7	-0.7		-0.7	-0.2	-0.7	100	88.8		89	100	94.3
22-Jul-01	11:30	-0.7	-0.9		-0.7	-0.7	-0.4	100	89.3		88.4	100	95.4
22-Jul-01	11:40	-0.7	-0.9		-0.7	-0.2	-0.4	100	91.6		90.6	100	95.4
22-Jul-01	11:50	-0.7	-0.7		-0.4	-0.2	-0.7	100	91.6		90.6	100	94.8
22-Jul-01	12:00	-0.9	-0.7		-0.7	0.1	-0.7	99.5	88.3		89.5	100	93.7
22-Jul-01	12:10	-0.7	-1.2		-0.7	-0.7	-0.7	100	91		88.4	100	93.2
22-Jul-01	12:20	-0.9	-0.7		-0.7	-0.2	-0.7	100	92.1		90	100	93.2
22-Jul-01	12:30	-0.7	-0.7		-0.7	0.1	-0.4	100	88.8		90.6	100	93.2
22-Jul-01	12:40	-0.9	-0.9		-0.7	0.1	-0.4	100	91		90	100	93.2
22-Jul-01	12:50	-0.9	-0.9		-0.7	-0.2	-0.7	100	92.1		88.4	100	94.8
22-Jul-01	13:00	-0.9	-0.7		-0.7	-0.7	-0.7	100	91		88.4	100	93.2
22-Jul-01	13:10	-0.9	-0.9		-0.7	0.1	-0.7	100	88.8		90.6	100	93.2
22-Jul-01	13:20	-0.7	-0.9		-0.4	-0.2	-0.7	100	91.6		90.6	100	94.8
22-Jul-01	13:30	-0.7	-0.7		-0.7	0.3	-0.7	100	91.6		89.5	100	94.8
22-Jul-01	13:40	-0.9	-0.4		-0.7	0.3	-0.7	100	91		88.4	100	93.2
22-Jul-01	13:50	-0.7	-0.4		-0.7	1.1	-0.7	100	91		90	100	93.2
22-Jul-01	14:00	-0.9	0.1		-0.7	1.6	-0.4	100	91		90.6	100	93.7
22-Jul-01	14:10	-0.4	0.1		-0.4	1.8	-0.4	100	90.4		90	100	94.3
22-Jul-01	14:20	-0.9	0.6		-0.7	1.1	-0.7	100	89.9		88.4	100	94.8
22-Jul-01	14:30	-0.7	0.6		-0.7	0.3	-0.7	100	88.3		88.4	100	93.7
22-Jul-01	14:40	-1.2	0.1		-0.9	-0.4	-0.7	100	86.6		89.5	100	92.6
22-Jul-01	14:50	-0.7	-0.7		-0.7	-0.4	-0.7	100	86.6		90	100	93.7

22-Jul-01	15:00	-0.9	-0.9		-0.4	-0.2	-0.4	100	91		90	100	94.3
22-Jul-01	15:10	-0.7	-0.7		-0.7	-0.2	-0.7	100	91		89	100	93.2
22-Jul-01	15:20	-0.9	-0.9		-0.9	-0.4	-0.7	100	88.3		88.4	100	92.6
22-Jul-01	15:30	-0.7	-0.9		-0.7	-0.2	-0.9	100	91.6		90.6	100	94.3
22-Jul-01	15:40	-0.9	-0.9		-0.4	0.1	-0.9	100	91.6		90.6	100	92.6
22-Jul-01	15:50	-0.7	-0.7		-0.7	-0.2	-0.7	100	88.3		89.5	100	93.2
22-Jul-01	16:00	-0.9	-1.2		-0.7	-0.4	-0.2	100	88.8		88.4	100	93.2
22-Jul-01	16:10	-0.4	-0.9		-1.2	-0.4	0.8	100	91.6		89.5	100	94.3
22-Jul-01	16:20	0.3	-0.7		-0.7	0.1	1.8	100	91		90.6	100	96
22-Jul-01	16:30	0.6	-0.7		-0.4	0.3	1.3	98.4	90.4		90	100	90.9
22-Jul-01	16:40	-0.9	-0.7		-0.7	-0.4	0.1	100	90.4		88.4	100	91.5
22-Jul-01	16:50	-0.7	-0.7		-0.7	-0.4	-0.7	100	88.3		88.4	100	94.3
22-Jul-01	17:00	-0.7	-1.2		-0.7	0.1	-0.7	100	87.2		90.6	100	93.2
22-Jul-01	17:10	-0.4	-1.2		-0.4	0.1	-0.4	100	91.6		90.6	100	93.2
22-Jul-01	17:20	-0.9	-0.9		-0.4	-0.2	-0.7	100	91.6		89.5	100	96
22-Jul-01	17:30	-0.4	-0.9		-0.7	-0.4	-0.7	100	88.8		88.4	100	95.4
22-Jul-01	17:40	-0.7	-0.9		-0.7	-0.2	-0.7	100	90.4		89.5	100	93.2
22-Jul-01	17:50	-0.7	-0.9		-0.7	0.1	-0.4	98.4	91.6		90.6	100	93.7
22-Jul-01	18:00	-0.7	-0.7		-0.7	0.1	-0.7	100	92.1		90	100	96
22-Jul-01	18:10	-0.7	-0.7		-0.7	-0.7	-0.7	98.9	91		88.4	100	96
22-Jul-01	18:20	-0.7	-0.9		-0.7	-0.4	-0.7	100	88.8		89.5	100	94.8
22-Jul-01	18:30	-0.9	-0.9		-0.7	-0.2	-0.7	99.5	92.1		90.6	100	93.2
22-Jul-01	18:40	-0.7	-0.7		-0.7	0.3	-0.7	100	92.1		90.6	100	93.7
22-Jul-01	18:50	-0.7	-0.4		-0.4	-0.2	-0.7	99.5	92.1		89.5	100	96
22-Jul-01	19:00	-0.9	-0.4		-0.7	-0.4	-0.7	100	89.3		88.4	100	95.4
22-Jul-01	19:10	-0.9	-0.7		-0.7	-0.2	-0.9	99.5	90.4		90.6	100	94.3
22-Jul-01	19:20	-0.7	-0.7		-0.7	-0.2	-0.7	100	92.1		90.6	100	93.2
22-Jul-01	19:30	-0.7	-0.4		-0.4	0.1	-0.7	100	92.1		90	100	95.4
22-Jul-01	19:40	-0.7	-0.4		-0.7	0.6	-0.7	100	92.1		88.4	100	96
22-Jul-01	19:50	-0.9	-0.7		-0.9	1.1	-0.7	99.5	88.8		90	100	96
22-Jul-01	20:00	-0.7	-0.7		-0.7	1.3	-0.7	100	91.6		90.6	100	93.7
22-Jul-01	20:10	-1.2	-0.7		-0.7	1.6	-0.4	100	92.1		90	100	93.7
22-Jul-01	20:20	-0.9	-0.4		-0.7	1.1	-0.7	100	92.1		89	100	95.4
22-Jul-01	20:30	-0.7	-0.2		-0.7	0.1	-0.7	99.5	92.1		88.4	100	96
22-Jul-01	20:40	-0.7	-0.4		-0.7	-0.4	-0.7	100	88.8		90	100	95.4
22-Jul-01	20:50	-0.9	-0.7		-0.7	-0.4	-0.7	98.9	91.6		90	100	94.3
22-Jul-01	21:00	-0.9	-0.7		-0.4	-0.2	-0.7	100	92.1		90	100	93.2
22-Jul-01	21:10	-0.9	-0.4		-0.9	0.1	-0.4	100	92.1		89	100	95.4
22-Jul-01	21:20	-0.9	-0.4		-0.7	-0.4	-0.7	100	92.1		89.5	100	96
22-Jul-01	21:30	-0.9	-0.2		-0.7	-0.7	-0.7	100	91		90.6	100	95.4
22-Jul-01	21:40	-0.7	-0.2		-0.7	-0.2	-0.7	100	91		90	100	93.7
22-Jul-01	21:50	-0.9	-0.2		-0.4	-0.2	-0.7	100	91		89	100	93.7
22-Jul-01	22:00	-0.7	0.1		-0.7	0.1	-0.7	100	91		88.4	100	96
22-Jul-01	22:10	-0.4	0.1		-0.9	-0.4	-0.7	100	90.4		90	100	96
22-Jul-01	22:20	0.3	0.3		-0.7	-0.4	-0.7	100	90.4		90.6	100	94.8
22-Jul-01	22:30	0.3	0.6		-0.4	-0.4	-0.7	97.3	91.6		90	100	93.2
22-Jul-01	22:40	-0.7	0.3		-0.7	0.1	-0.4	100	91		88.4	100	93.7
22-Jul-01	22:50	-0.7	0.1		-0.7	0.1	-0.7	100	88.8		90	100	96
22-Jul-01	23:00	-0.7	-0.4		-0.7	-0.7	-0.9	100	88.3		90.6	100	96

22-Jul-01	23:10	-0.9	-0.7		-0.7	-0.2	-0.7	100	91		90	100	95.4
22-Jul-01	23:20	-0.7	-0.4		-0.4	-0.4	-0.4	100	92.1		89.5	100	93.7
22-Jul-01	23:30	-0.9	-0.4		-0.7	-0.2	-0.4	99.5	90.4		88.4	100	93.7
22-Jul-01	23:40	-0.7	-0.7		-0.7	-0.2	-0.4	100	89.3		90.6	100	95.4
22-Jul-01	23:50	-0.7	-0.7		-0.7	-0.4	-0.4	100	91.6		90.6	100	94.3
23-Jul-01	00:00	-0.9	-0.4		-0.7	-0.2	-0.4	100	92.1		89.5	100	94.3
23-Jul-01	00:10	-0.9	-0.7		-0.7	0.1	0.3	100	91.6		88.4	100	93.7
23-Jul-01	00:20	-1.2	-0.2		-0.7	0.1	1.1	100	88.3		90	100	92
23-Jul-01	00:30	-0.9	-0.7		-0.7	-0.2	0.8	99.5	91.6		90.6	100	90.9
23-Jul-01	00:40	-1.2	-0.7		-0.4	-0.4	-0.4	100	91.6		90	100	91.5
23-Jul-01	00:50	-0.9	-0.4		-0.7	-0.2	-0.7	99.5	92.1		88.4	100	93.7
23-Jul-01	01:00	-1.2	-0.4		-0.9	0.1	-0.7	100	91.6		89.5	100	95.4
23-Jul-01	01:10	-0.9	-0.4		-0.7	0.1	-0.7	100	88.8		90.6	100	94.8
23-Jul-01	01:20	-0.9	-0.7		-0.7	-0.2	-0.7	100	91.6		90	100	93.7
23-Jul-01	01:30	-0.7	-0.4		-0.4	-0.2	-0.4	100	92.1		89.5	100	94.3
23-Jul-01	01:40	-0.9	-0.4		-0.7	0.1	-0.4	100	92.1		88.4	100	96
23-Jul-01	01:50	-0.7	-0.2		-0.7	0.6	-0.7	100	91.6		90.6	100	96
23-Jul-01	02:00	-0.9	-0.4		-0.7	1.1	-0.7	100	89.3		90.6	100	94.3
23-Jul-01	02:10	-0.9	-0.4		-0.4	1.3	-0.4	100	92.1		90	100	93.7
23-Jul-01	02:20	-0.7	-0.4		-0.7	0.6	-0.4	100	92.1		88.4	100	94.3
23-Jul-01	02:30	-0.7	-0.4		-0.7	-0.4	-0.4	100	91.6		90	100	96
23-Jul-01	02:40	-0.9	-0.4		-0.9	-0.7	-0.7	100	91		89.5	100	96
23-Jul-01	02:50	-0.7	-0.4		-0.7	-0.4	-0.7	100	88.8		90	100	94.8
23-Jul-01	03:00	-1.2	-0.4		-0.4	-0.2	-0.7	100	91.6		90	100	93.2
23-Jul-01	03:10	-0.7	-0.4		-0.7	0.1	-0.7	100	92.1		88.4	100	96
23-Jul-01	03:20	-1.2	-0.4		-0.7	-0.4	-0.4	100	91.6		90	100	96
23-Jul-01	03:30	-0.7	-0.4		-0.9	-0.4	-0.9	100	89.3		90.6	100	96
23-Jul-01	03:40	-0.9	-0.7		-0.7	-0.2	-0.4	100	91		90	100	95.4
23-Jul-01	03:50	-0.7	-0.7		-0.7	0.1	-0.7	100	92.1		89	100	93.2
23-Jul-01	04:00	-0.9	-0.4		-0.7	0.1	-0.4	100	92.1		88.4	100	93.7
23-Jul-01	04:10	-0.4	-0.4		-0.7	-0.7	-0.4	100	92.1		90.6	100	95.4
23-Jul-01	04:20	0.1	-0.2		-0.9	-0.4	-0.7	100	91		90	100	96
23-Jul-01	04:30	-0.2	-0.4		-0.4	-0.4	-0.7	97.3	90.4		90	100	96
23-Jul-01	04:40	-0.9	-0.4		-0.4	-0.2	-0.7	100	90.4		88.4	100	95.4
23-Jul-01	04:50	-0.9	-0.4		-0.7	-0.2	-0.7	100	88.8		90	100	93.2
23-Jul-01	05:00	-0.9	-0.7		-0.7	-0.4	-0.4	100	91.6		90.6	100	93.7
23-Jul-01	05:10	-0.7	-0.4		-0.4	-0.2	-0.7	100	92.1		90	100	95.4
23-Jul-01	05:20	-0.9	-0.4		-0.7	0.1	-0.4	100	92.1		89	100	96
23-Jul-01	05:30	-0.7	-0.4		-0.9	0.1	-0.7	100	91.6		88.4	100	96
23-Jul-01	05:40	-0.9	-0.2		-0.7	-0.4	-0.7	100	91.6		90.6	100	95.4
23-Jul-01	05:50	-0.9	0.1		-0.9	-0.4	-0.7	100	91.6		90	100	93.2
23-Jul-01	06:00	-0.9	0.1		-0.4	-0.2	-0.4	100	91		90	100	93.7
23-Jul-01	06:10	-0.7	0.3		-0.7	0.1	-0.7	100	91		88.4	100	96
23-Jul-01	06:20	-0.9	0.3		-0.7	-0.2	-0.7	100	90.4		90	100	96
23-Jul-01	06:30	-0.7	0.6		-0.7	-0.4	-0.9	100	86.6		90.6	100	96
23-Jul-01	06:40	-1.2	-0.2		-0.7	-0.7	-0.4	99.5	86.6		90	100	93.7
23-Jul-01	06:50	-0.9	-0.4		-0.4	-0.2	-0.4	100	91.6		89	100	93.7
23-Jul-01	07:00	-0.9	-0.4		-0.7	-0.2	-0.4	100	91.6		88.4	100	95.4
23-Jul-01	07:10	-0.7	-0.2		-0.7	0.1	-0.7	100	92.1		90.6	100	96

23-Jul-01	07:20	-1.2	-0.2		-0.7	-0.4	-0.4	100	88.3		90	100	96
23-Jul-01	07:30	-0.7	-0.4		-0.4	-0.4	-0.7	100	91.6		89	100	96
23-Jul-01	07:40	-0.7	-0.4		-0.7	-0.2	-0.7	100	92.1		88.4	100	94.8
23-Jul-01	07:50	-0.7	-0.2		-0.9	0.3	-0.4	100	92.1		90	100	94.3
23-Jul-01	08:00	-0.9	-0.2		-0.4	0.8	-0.2	98.9	90.4		90.6	100	94.3
23-Jul-01	08:10	-1.2	-0.4		-0.4	1.6	0.6	100	88.8		89.5	100	93.2
23-Jul-01	08:20	-0.9	-0.4		-0.7	0.8	1.6	98.4	91.6		88.4	100	93.2
23-Jul-01	08:30	-1.2	-0.2		-0.7	0.1	1.3	100	92.1		89.5	100	90.9
23-Jul-01	08:40	-1.2	-0.2		-0.7	-0.7	-0.2	97.8	90.4		90	100	90.9
23-Jul-01	08:50	-0.9	-0.4		-0.4	-0.4	-0.4	100	88.8		89.5	100	93.2
23-Jul-01	09:00	-1.4	-0.4		-0.4	0.1	-0.4	100	91.6		90	100	92.6
23-Jul-01	09:10	-1.2	-0.4		-0.7	-0.2	-0.7	100	92.1		89	100	93.2
23-Jul-01	09:20	-0.9	-0.2		-0.7	-0.2	-0.7	100	88.8		88.4	100	93.2
23-Jul-01	09:30	-0.9	-0.4		-0.7	0.1	-0.4	100	89.9		90.6	100	96
23-Jul-01	09:40	-1.2	-0.7		-0.7	-0.2	-0.4	100	91.6		91.1	100	94.8
23-Jul-01	09:50	-1.2	-0.4		-0.7	-0.7	-0.4	100	90.4		89.5	100	93.2
23-Jul-01	10:00	-1.2	-0.7		-0.7	-0.2	-0.4	100	88.8		88.4	100	92.6
23-Jul-01	10:10	-0.7	-0.9		-0.7	-0.2	-0.7	100	90.4		90	100	93.2
23-Jul-01	10:20	0.6	-0.4		-0.7	-0.4	-0.7	100	91		90.6	100	94.8
23-Jul-01	10:30	1.3	-0.4		-0.4	-0.2	-0.7	97.8	91		90	100	93.7
23-Jul-01	10:40	-0.2	-0.4		-0.7	0.1	-0.9	97.3	91		88.4	100	92
23-Jul-01	10:50	-0.9	-0.7		-0.7	-0.2	-0.7	100	88.3		89.5	100	93.2
23-Jul-01	11:00	-0.9	-0.7		-0.7	-0.4	-0.4	100	88.3		90.6	100	93.7
23-Jul-01	11:10	-1.4	-0.7		-0.7	-0.2	-0.9	100	91		91.1	100	96
23-Jul-01	11:20	-1.2	-0.4		-0.7	0.3	-0.9	100	88.3		89.5	100	94.8
23-Jul-01	11:30	-1.2	-0.9		-0.7	-0.2	-0.7	100	87.2		88.4	100	92.6
23-Jul-01	11:40	-1.2	-0.9		-0.7	-0.4	-0.9	98.4	91.6		89	100	93.2
23-Jul-01	11:50	-1.2	-0.7		-0.7	0.3	-0.7	100	88.3		91.1	100	95.4
23-Jul-01	12:00	-0.9	-1.2	-0.9	-0.7	-0.2	-0.7	99.5	87.7		90	100	94.3
23-Jul-01	12:10	-1.2	-1.4	-0.9	-0.4	-0.2	-0.9	100	90.4	80.2	89	100	92.6
23-Jul-01	12:20	-0.9	-0.9	-0.7	-0.7	0.1	-0.7	100	91	77.6	88.4	100	93.2
23-Jul-01	12:30	-0.7	-1.2	-1.2	-0.7	0.1	-0.7	100	88.3	78.1	89.5	100	93.7
23-Jul-01	12:40	-0.7	-1.2	-0.9	-0.7	-0.2	-0.9	99.5	86.6	80.2	91.1	100	95.4
23-Jul-01	12:50	-1.2	-1.2	-0.7	-0.4	-0.2	-0.9	100	91.6	78.1	90	100	92
23-Jul-01	13:00	-0.7	-0.9	-0.7	-0.4	0.3	-0.7	99.5	88.3	78.1	89	100	92.6
23-Jul-01	13:10	-0.9	-1.2	-0.7	-0.7	-0.2	-0.9	100	87.7	78.1	88.4	100	94.8
23-Jul-01	13:20	-0.7	-1.4	-0.9	-0.7	-0.2	-0.9	100	87.7	78.6	88.4	100	93.7
23-Jul-01	13:30	-1.2	-1.4	-0.9	-0.7	0.1	-0.9	100	88.3	78.1	90.6	100	92
23-Jul-01	13:40	-0.7	-1.2	-0.9	-0.4	0.3	-0.9	100	88.8	78.6	90	100	92.6
23-Jul-01	13:50	-1.2	-0.4	-0.7	-0.4	0.8	-0.7	100	89.3	78.6	89	100	95.4
23-Jul-01	14:00	-0.9	-0.2	-0.9	-0.7	1.3	-0.9	100	88.8	78.6	88.4	100	92
23-Jul-01	14:10	-0.7	0.3	-0.9	-0.9	1.8	-0.9	100	88.8	78.1	88.4	100	93.2
23-Jul-01	14:20	-0.7	0.8	-0.9	-0.7	1.3	-0.7	100	88.8	78.1	88.4	100	93.7
23-Jul-01	14:30	-0.7	1.3	-0.9	-0.9	0.3	-0.7	100	86.6	78.1	88.4	100	93.7
23-Jul-01	14:40	-0.9	0.3	-0.7	-1.2	0.1	-0.9	97.3	85	78.6	88.4	100	92
23-Jul-01	14:50	-1.2	-0.4	-0.7	-0.7	-0.2	-0.9	100	86.1	78.1	89.5	100	92.6
23-Jul-01	15:00	-1.2	-0.4	-0.7	-0.4	-0.4	-0.7	97.3	86.1	78.1	90	100	94.8
23-Jul-01	15:10	-1.2	-1.2	-0.7	-0.7	-0.2	-0.9	100	86.1	78.1	89	100	92
23-Jul-01	15:20	-1.4	-1.2	-0.7	-0.7	-0.2	-0.9	99.5	86.1	77.6	88.4	100	92

23-Jul-01	15:30	-0.9	-1.4	-0.7	-0.7	-0.4	-0.9	100	86.1	78.6	88.4	100	93.7
23-Jul-01	15:40	-1.2	-1.4	-0.7	-0.7	-0.4	-1.2	100	87.7	78.6	88.4	100	92.6
23-Jul-01	15:50	-1.2	-1.7	-0.4	-0.9	0.3	-0.7	99.5	88.8	78.1	88.4	100	93.7
23-Jul-01	16:00	-1.2	-1.4	-0.2	-0.9	-0.2	0.1	100	87.7	78.6	87.9	100	93.7
23-Jul-01	16:10	-0.9	-1.2	-0.2	-1.2	-0.2	0.8	100	88.3	78.6	87.9	100	93.7
23-Jul-01	16:20	0.6	-1.4	0.1	-0.9	0.1	1.8	100	88.8	79.2	87.9	100	96.5
23-Jul-01	16:30	2.1	-0.9	0.1	-1.2	0.3	1.3	100	89.3	80.7	87.9	100	90.4
23-Jul-01	16:40	2.3	-0.9	-0.2	-0.9	-0.4	-0.2	96.7	88.8	78.6	90	100	90.9
23-Jul-01	16:50	0.3	-0.7	-0.4	-0.9	-0.2	-0.7	95.6	86.6	78.6	91.1	100	90.9
23-Jul-01	17:00	-0.4	-1.2	-0.4	-0.4	0.1	-0.7	99.5	88.8	78.6	89	100	93.7
23-Jul-01	17:10	-0.2	-0.9	-0.4	-0.7	0.1	-0.7	100	91	78.6	88.4	100	93.7
23-Jul-01	17:20	-0.7	-0.9	-0.9	-0.9	-0.4	-0.7	95.6	86.6	78.6	87.9	100	91.5
23-Jul-01	17:30	-0.4	-1.2	-0.9	-1.2	-0.4	-0.7	100	90.4	78.6	87.9	100	92.6
23-Jul-01	17:40	-0.7	-0.9	-0.9	-0.9	0.1	-0.7	97.3	91.6	78.6	90	100	94.8
23-Jul-01	17:50	-0.4	-0.4	-0.9	-0.7	0.3	-0.7	100	91	80.7	90.6	100	94.8
23-Jul-01	18:00	-0.4	-0.7	-0.7	-0.4	-0.2	-0.9	98.4	91	80.2	90	100	92
23-Jul-01	18:10	-0.4	-0.2	-1.2	-0.7	-0.4	-0.7	100	91.6	78.6	88.4	100	93.7
23-Jul-01	18:20	-0.7	-0.2	-0.9	-0.9	-0.2	-0.9	100	91.6	80.7	87.9	100	95.4
23-Jul-01	18:30	-0.7	-0.4	-0.9	-1.2	0.1	-0.9	100	86.1	80.2	90	100	96
23-Jul-01	18:40	-0.9	-0.7	-0.9	-0.7	0.1	-0.9	100	90.4	80.7	90.6	100	94.3
23-Jul-01	18:50	-0.7	-0.4	-0.9	-0.7	-0.2	-0.7	98.9	91.6	80.7	90	100	92.6
23-Jul-01	19:00	-0.9	-0.4	-0.9	-0.7	-0.4	-0.4	100	91	78.6	88.4	100	92.6
23-Jul-01	19:10	-0.9	-0.2	-0.9	-0.9	-0.2	-0.4	98.9	91	80.7	88.4	100	93.7
23-Jul-01	19:20	-0.7	-0.2	-0.9	-0.7	0.1	-0.7	100	91.6	79.7	90.6	100	96
23-Jul-01	19:30	-1.2	0.1	-0.7	-0.7	0.1	-0.4	100	91.6	80.2	90.6	100	93.7
23-Jul-01	19:40	-0.7	0.1	-0.7	-0.7	0.3	-0.4	100	87.7	81.2	89.5	100	96
23-Jul-01	19:50	-0.9	-0.4	-0.7	-0.9	0.8	-0.7	100	89.9	80.2	88.4	100	96
23-Jul-01	20:00	-0.7	-0.4	-0.7	-0.7	1.3	-0.4	99.5	91.6	80.2	90	100	93.7
23-Jul-01	20:10	-0.9	-0.4	-0.9	-0.9	1.3	-0.4	100	91	80.7	90.6	100	96
23-Jul-01	20:20	-0.9	-0.4	-0.9	-0.7	0.6	-0.7	98.9	91	80.2	90.6	100	96
23-Jul-01	20:30	-0.7	-0.2	-0.9	-0.9	0.1	-0.9	100	91.6	81.7	89	100	93.2
23-Jul-01	20:40	-0.9	-0.2	-0.7	-0.7	-0.7	-0.7	99.5	91	80.7	89	100	96
23-Jul-01	20:50	-0.9	-0.2	-0.7	-0.7	-0.4	-0.7	100	91	80.7	89.5	100	96
23-Jul-01	21:00	-0.9	-0.2	-0.7	-0.7	-0.2	-0.7	100	91	82.8	89.5	100	93.2
23-Jul-01	21:10	-0.7	0.1	-0.7	-0.9	-0.2	-0.4	100	89.3	80.7	88.4	100	96
23-Jul-01	21:20	-0.9	-0.4	-0.7	-0.9	0.1	-0.7	100	89.3	80.7	90.6	100	96
23-Jul-01	21:30	-0.4	-0.4	-0.7	-0.7	-0.7	-0.7	100	91	81.2	90.6	100	93.7
23-Jul-01	21:40	-0.7	-0.2	-0.7	-0.7	-0.4	-0.7	100	91	80.7	90	100	96
23-Jul-01	21:50	-0.7	-0.2	-0.4	-0.7	-0.2	-0.7	100	90.4	80.7	88.4	100	96
23-Jul-01	22:00	-0.7	-0.2	-0.7	-1.2	-0.2	-0.7	100	90.4	80.7	89.5	100	95.4
23-Jul-01	22:10	-0.4	0.1	-0.2	-0.9	0.1	-0.7	100	90.4	80.7	90.6	100	93.7
23-Jul-01	22:20	0.3	0.3	-0.2	-0.4	-0.4	-0.7	100	90.4	80.7	90.6	100	96
23-Jul-01	22:30	0.8	0.6	-0.2	-0.4	-0.4	-0.7	98.9	91	81.7	89	100	96
23-Jul-01	22:40	-0.2	0.6	-0.7	-0.7	-0.2	-0.7	95.6	90.4	80.7	88.4	100	93.2
23-Jul-01	22:50	-0.7	0.1	-0.7	-0.7	0.1	-0.7	100	88.3	80.7	90.6	100	96.5
23-Jul-01	23:00	-0.7	-0.2	-0.9	-0.7	0.1	-0.7	97.8	89.3	82.3	90.6	100	96
23-Jul-01	23:10	-0.9	-0.4	-0.9	-0.7	-0.2	-0.9	100	91	80.7	89.5	100	93.7
23-Jul-01	23:20	-0.7	-0.2	-0.7	-0.7	-0.4	-0.4	100	91.6	82.8	88.4	100	95.4
23-Jul-01	23:30	-1.2	-0.2	-0.9	-0.7	-0.2	-0.7	100	91.6	82.3	90	100	96.5

23-Jul-01	23:40	-0.9	-0.2	-0.9	-0.9	0.1	-0.7	100	91	81.7	90.6	100	96
23-Jul-01	23:50	-1.2	-0.2	-0.7	-0.7	0.1	-0.7	99.5	91	83.3	90.6	100	94.8
24-Jul-01	00:00	-0.7	0.3	-0.7	-0.4	-0.2	-0.2	100	91	80.7	89	100	94.8
24-Jul-01	00:10	-0.9	0.1	-0.9	-0.7	-0.7	0.3	100	90.4	82.8	88.4	100	93.7
24-Jul-01	00:20	-0.7	0.1	-0.9	-0.7	-0.2	1.1	100	86.1	80.7	90.6	100	93.2
24-Jul-01	00:30	-0.9	-0.4	-0.7	-0.7	-0.2	0.8	98.4	90.4	83.3	90.6	100	92.6
24-Jul-01	00:40	-1.2	-0.4	-0.7	-0.7	-0.2	-0.4	100	91	81.2	89.5	100	92.6
24-Jul-01	00:50	-0.9	-0.4	-0.9	-0.7	0.1	-0.7	98.4	91	82.8	88.4	100	94.3
24-Jul-01	01:00	-0.9	-0.2	-0.7	-0.9	-0.7	-0.7	100	91.6	83.3	90.6	100	96
24-Jul-01	01:10	-0.7	-0.2	-0.7	-0.7	-0.4	-0.9	99.5	91	80.7	90.6	100	96.5
24-Jul-01	01:20	-0.9	0.1	-0.7	-0.4	-0.2	-0.7	100	91	82.8	89.5	100	94.8
24-Jul-01	01:30	-0.7	0.1	-0.7	-0.7	-0.2	-0.7	100	90.4	80.7	88.4	100	95.4
24-Jul-01	01:40	-1.2	0.1	-0.7	-0.7	0.3	-0.7	98.9	90.4	82.8	90	100	96
24-Jul-01	01:50	-0.9	0.1	-0.7	-0.7	0.8	-0.7	100	87.2	82.3	90.6	100	96
24-Jul-01	02:00	-1.2	-0.2	-0.7	-0.7	1.3	-0.7	100	91	82.8	90	100	94.3
24-Jul-01	02:10	-0.9	-0.2	-0.7	-0.7	1.3	-0.7	100	91.6	83.3	89	100	96.5
24-Jul-01	02:20	-0.9	-0.2	-0.9	-0.9	0.8	-0.7	98.9	91.6	80.7	88.4	100	96.5
24-Jul-01	02:30	-0.9	-0.2	-0.7	-0.9	0.1	-0.7	100	91	82.8	90.6	100	96
24-Jul-01	02:40	-1.2	0.1	-0.7	-0.7	-0.7	-0.7	100	91	81.2	89.5	100	93.2
24-Jul-01	02:50	-0.9	0.1	-0.9	-0.9	-0.7	-0.7	100	90.4	83.3	89.5	100	95.4
24-Jul-01	03:00	-0.9	0.1	-0.7	-0.7	-0.2	-0.7	98.9	90.4	82.3	89.5	100	96.5
24-Jul-01	03:10	-0.9	0.3	-0.7	-0.7	-0.2	-0.7	100	90.4	82.8	88.4	100	96
24-Jul-01	03:20	-0.9	0.3	-0.9	-0.9	-0.2	-0.7	100	89.9	83.3	90.6	100	94.8
24-Jul-01	03:30	-0.9	0.1	-0.7	-0.9	-0.4	-0.7	100	87.7	82.8	90.6	100	94.3
24-Jul-01	03:40	-0.9	-0.2	-0.7	-0.7	-0.4	-0.7	98.4	91	82.3	90.6	100	96.5
24-Jul-01	03:50	-0.9	-0.2	-0.2	-0.9	-0.2	-0.7	100	91.6	81.7	88.4	100	96
24-Jul-01	04:00	-0.9	-0.2	-0.2	-0.9	0.1	-0.7	98.4	91	81.7	90	100	96
24-Jul-01	04:10	-0.9	0.1	-0.4	-0.9	-0.2	-0.4	100	91	81.7	90.6	100	93.7
24-Jul-01	04:20	0.1	0.1	0.1	-0.9	-0.4	-0.7	100	90.4	81.7	90	100	96
24-Jul-01	04:30	0.1	0.1	-0.4	-0.4	-0.4	-0.7	97.3	90.4	82.8	89.5	100	96.5
24-Jul-01	04:40	-0.9	0.3	-0.4	-0.9	-0.4	-0.7	99.5	90.4	81.2	88.4	100	96.5
24-Jul-01	04:50	-0.7	0.3	-0.7	-0.9	-0.2	-0.9	100	89.9	80.7	90.6	100	95.4
24-Jul-01	05:00	-1.2	0.6	-0.9	-0.7	0.1	-0.4	98.9	89.9	83.3	90.6	100	93.7
24-Jul-01	05:10	-0.9	0.3	-0.7	-0.4	-0.4	-0.4	100	88.3	81.7	89.5	100	96
24-Jul-01	05:20	-1.2	0.1	-0.7	-0.7	-0.7	-0.9	100	88.3	83.3	88.4	100	96.5
24-Jul-01	05:30	-1.2	-0.2	-0.7	-1.2	-0.4	-0.7	100	89.9	83.3	90	100	96.5
24-Jul-01	05:40	-0.9	-0.2	-0.9	-0.9	-0.2	-0.7	100	89.9	82.3	90.6	100	93.7
24-Jul-01	05:50	-1.2	0.1	-0.7	-0.7	0.1	-0.7	99.5	89.9	83.3	90	100	96
24-Jul-01	06:00	-0.9	0.3	-0.7	-0.7	-0.4	-0.7	100	89.9	81.2	88.4	100	96.5
24-Jul-01	06:10	-0.9	0.3	-0.7	-0.9	-0.4	-0.4	99.5	89.9	83.3	90	100	95.4
24-Jul-01	06:20	-1.2	0.3	-0.4	-0.9	-0.2	-0.7	100	89.3	82.8	90.6	100	93.7
24-Jul-01	06:30	-0.9	0.6	-0.9	-0.9	-0.2	-0.7	99.5	87.7	83.8	90	100	96
24-Jul-01	06:40	-1.2	-0.2	-0.4	-0.4	0.1	-0.7	100	88.8	83.8	89.5	100	96.5
24-Jul-01	06:50	-0.9	-0.2	-0.7	-0.9	-0.2	-0.7	100	91.6	81.7	88.4	100	96.5
24-Jul-01	07:00	-0.9	-0.2	-0.7	-0.7	-0.7	-0.4	97.8	91	83.3	90.6	100	93.7
24-Jul-01	07:10	-0.9	-0.2	-0.7	-0.7	-0.2	-0.4	100	91.6	81.7	90.6	100	95.4
24-Jul-01	07:20	-0.9	0.1	-0.7	-0.7	-0.2	-0.7	98.4	91	83.3	90	100	96
24-Jul-01	07:30	-0.9	0.1	-0.9	-0.7	0.1	-0.4	100	90.4	83.3	88.4	100	96
24-Jul-01	07:40	-0.7	0.3	-0.7	-0.7	0.3	-0.4	99.5	90.4	82.3	90	100	96

24-Jul-01	07:50	-1.2	0.3	-0.9	-0.7	0.8	-0.4	100	89.9	83.8	90.6	100	94.8
24-Jul-01	08:00	-0.7	0.3	-0.7	-0.7	1.1	-0.2	100	88.3	81.2	90	100	94.3
24-Jul-01	08:10	-1.2	0.1	-0.7	-0.7	1.3	0.6	100	87.7	83.3	88.4	100	93.7
24-Jul-01	08:20	-1.2	-0.2	-0.4	-0.7	0.8	1.6	100	91	81.7	89.5	100	93.2
24-Jul-01	08:30	-1.2	-0.2	-0.7	-0.9	0.1	1.1	100	91	81.2	90.6	100	90.9
24-Jul-01	08:40	-0.9	0.3	-0.7	-0.7	-0.4	0.1	100	91	82.3	89.5	100	91.5
24-Jul-01	08:50	-1.2	0.1	-0.4	-0.7	-0.2	-0.4	100	87.7	81.2	89.5	100	95.4
24-Jul-01	09:00	-0.7	-0.4	-0.7	-0.4	0.1	-0.7	100	89.3	83.3	89.5	100	94.8
24-Jul-01	09:10	-0.9	-0.2	-0.7	-0.9	-0.2	-0.7	100	91.6	80.7	89	100	93.7
24-Jul-01	09:20	-0.9	0.1	-0.7	-0.9	-0.7	-0.7	100	91	82.3	90	100	93.2
24-Jul-01	09:30	-1.2	-0.2	-0.4	-0.7	-0.4	-0.7	98.9	88.8	81.7	91.1	100	93.7
24-Jul-01	09:40	-1.2	-0.2	-0.4	-0.4	-0.2	-0.7	100	88.8	82.3	90	100	96
24-Jul-01	09:50	-1.2	-0.4	-0.2	-0.7	-0.4	-0.7	100	91.6	82.3	89	100	96
24-Jul-01	10:00	-0.7	-0.2	-0.2	-0.7	-0.2	-0.7	100	91	82.3	88.4	100	94.8
24-Jul-01	10:10	-0.7	0.1	-0.2	-0.7	0.1	-0.7	100	89.9	82.3	90.6	100	93.2
24-Jul-01	10:20	0.3	-0.2	0.1	-0.7	-0.2	-0.9	100	89.3	82.3	90.6	100	94.3
24-Jul-01	10:30	0.3	-0.2	0.1	-0.7	-0.4	-0.7	98.9	89.9	82.8	89.5	100	96
24-Jul-01	10:40	-0.7	-0.2	0.1	-0.7	0.1	-0.9	100	89.9	81.2	88.4	100	92.6
24-Jul-01	10:50	-0.4	-0.2	-0.4	-0.9	0.1	-0.7	100	88.3	80.7	89.5	100	93.7
24-Jul-01	11:00	-0.7	-0.7	-0.4	-0.7	-0.2	-0.7	100	88.8	81.2	90.6	100	93.7
24-Jul-01	11:10	-0.9	-0.4	-0.7	-0.7	0.1	-0.7	99.5	91	81.2	90	100	96
24-Jul-01	11:20	-1.2	-0.2	-0.7	-0.7	-0.2	-0.7	100	88.3	81.2	89	100	93.7
24-Jul-01	11:30	-0.7	-0.7	-0.9	-0.7	-0.2	-0.7	100	88.8	83.3	88.4	100	92.6
24-Jul-01	11:40	-0.7	-0.4	-0.7	-1.2	-0.2	-0.7	100	91.6	81.2	89.5	100	94.3
24-Jul-01	11:50	-0.7	-0.7	-0.9	-0.7	0.1	-0.9	99.5	88.3	81.2	90.6	100	94.3
24-Jul-01	12:00	-1.2	-0.7	-0.9	-0.7	0.1	-0.7	100	86.6	83.3	89.5	100	92.6
24-Jul-01	12:10	-1.2	-0.9	-0.7	-0.7	-0.4	-0.7	98.9	91	81.7	88.4	100	93.2
24-Jul-01	12:20	-1.2	-0.7	-0.9	-0.7	-0.2	-1.2	100	88.3	80.7	88.4	100	95.4
24-Jul-01	12:30	-0.9	-0.9	-0.9	-0.9	-0.2	-0.9	98.9	87.7	82.8	88.4	100	92.6
24-Jul-01	12:40	-0.7	-1.2	-0.9	-0.9	-0.2	-1.2	100	89.3	83.3	90.6	100	96
24-Jul-01	12:50	-0.9	-0.9	-0.9	-0.9	-0.2	-0.9	100	91	81.2	91.1	100	93.2
24-Jul-01	13:00	-0.7	-0.9	-0.9	-0.7	0.3	-0.9	99.5	88.3	80.7	89.5	100	92.6
24-Jul-01	13:10	-1.2	-1.2	-0.9	-0.9	0.1	-0.9	98.4	87.2	83.3	88.4	100	94.8
24-Jul-01	13:20	-1.2	-1.2	-0.7	-0.9	-0.2	-1.2	100	91	81.2	88.4	100	93.2
24-Jul-01	13:30	-1.2	-0.9	-0.7	-0.7	0.1	-0.7	97.3	88.8	81.2	90	100	93.2
24-Jul-01	13:40	-1.2	-0.4	-0.9	-0.7	0.8	-0.9	100	88.8	80.7	91.1	100	96
24-Jul-01	13:50	-0.9	0.1	-0.7	-0.7	1.3	-0.9	97.8	88.8	82.8	89.5	100	92
24-Jul-01	14:00	-1.2	0.1	-0.9	-0.4	1.8	-0.9	100	88.8	81.7	89	100	93.2
24-Jul-01	14:10	-1.4	0.8	-0.9	-0.9	2.1	-0.9	100	88.8	81.2	88.4	100	94.3
24-Jul-01	14:20	-0.9	1.3	-0.9	-0.9	1.6	-0.7	100	88.8	80.7	88.4	100	92.6
24-Jul-01	14:30	-1.2	1.3	-0.7	-0.9	0.8	-0.7	100	86.1	82.8	89.5	100	93.7
24-Jul-01	14:40	-0.9	0.8	-0.7	-0.7	0.3	-0.9	100	86.1	80.7	90	100	94.8
24-Jul-01	14:50	-0.9	0.1	-0.9	-0.7	-0.2	-0.7	100	85.5	81.7	90	100	92.6
24-Jul-01	15:00	-0.9	-0.2	-0.9	-0.4	-0.2	-0.9	100	86.1	81.7	90	100	92.6
24-Jul-01	15:10	-1.2	-0.4	-0.9	-0.7	0.1	-0.9	100	86.1	80.7	89	100	94.3
24-Jul-01	15:20	-0.9	-0.9	-0.9	-0.7	0.1	-0.7	100	86.1	81.7	88.4	100	92
24-Jul-01	15:30	-0.9	-1.2	-0.7	-0.9	-0.4	-0.9	100	89.3	81.7	88.4	100	94.3
24-Jul-01	15:40	-0.9	-0.7	-0.7	-0.9	-0.4	-0.7	99.5	91	82.3	90	100	92.6
24-Jul-01	15:50	-1.2	-0.9	-0.4	-0.7	0.1	-0.2	100	87.7	81.7	91.1	100	96.5

24-Jul-01	16:00	-0.9	-1.2	-0.4	-0.7	-0.2	0.3	98.9	88.8	81.7	89.5	100	96
24-Jul-01	16:10	-0.4	-0.9	-0.2	-0.7	-0.4	1.8	100	91	81.7	88.4	100	96
24-Jul-01	16:20	0.3	-0.4	-0.2	-0.7	-0.2	2.8	100	89.9	82.3	88.4	100	96
24-Jul-01	16:30	1.8	-0.7	0.1	-0.9	0.1	1.8	100	89.3	83.3	88.4	100	89.8
24-Jul-01	16:40	1.3	-0.4	-0.2	-0.9	-0.4	0.6	97.3	88.8	82.8	90	100	90.4
24-Jul-01	16:50	-0.2	-0.4	-0.4	-0.7	-0.2	-0.4	97.3	87.7	82.8	91.1	100	91.5
24-Jul-01	17:00	-0.7	-0.7	-0.7	-0.4	-0.4	-0.7	100	88.3	82.3	89.5	100	94.8
24-Jul-01	17:10	-0.7	-0.7	-0.9	-0.7	0.1	-0.7	97.8	91	81.7	88.4	100	92.6
24-Jul-01	17:20	-0.7	-0.4	-0.9	-0.7	-0.2	-0.7	100	87.7	83.3	88.4	100	93.2
24-Jul-01	17:30	-0.7	-0.7	-0.7	-0.9	-0.4	-0.9	97.8	88.8	82.8	87.9	100	92.6
24-Jul-01	17:40	-0.9	-0.7	-0.9	-0.9	-0.2	-0.9	100	91.6	81.7	90.6	100	93.2
24-Jul-01	17:50	-0.7	-0.7	-0.9	-0.9	0.1	-0.9	97.8	91	83.8	91.1	100	94.3
24-Jul-01	18:00	-0.9	-0.4	-0.9	-0.7	-0.2	-0.7	100	87.7	81.7	90	100	95.4
24-Jul-01	18:10	-0.9	-0.7	-0.7	-0.9	-0.2	-0.7	97.8	91	83.3	88.4	100	93.2
24-Jul-01	18:20	-0.9	-0.4	-0.7	-0.7	-0.4	-0.7	100	91.6	81.7	88.4	100	93.2
24-Jul-01	18:30	-1.2	-0.4	-0.7	-0.9	-0.2	-0.7	100	91	83.8	90.6	100	93.2
24-Jul-01	18:40	-0.9	-0.4	-0.9	-0.9	-0.2	-0.7	100	87.2	82.3	90.6	100	95.4
24-Jul-01	18:50	-1.2	-0.7	-0.9	-0.7	-0.2	-0.7	100	91	83.8	90.6	100	93.7
24-Jul-01	19:00	-0.9	-0.2	-0.7	-0.9	-0.4	-0.7	100	91.6	82.8	89	100	93.2
24-Jul-01	19:10	-0.9	-0.4	-0.7	-0.7	-0.2	-0.9	99.5	91	82.8	88.4	100	96
24-Jul-01	19:20	-0.7	-0.2	-0.7	-0.9	0.1	-0.7	100	87.2	83.8	90.6	100	93.2
24-Jul-01	19:30	-0.7	-0.7	-0.7	-0.7	0.3	-0.9	97.8	90.4	81.7	90.6	100	96
24-Jul-01	19:40	-0.9	-0.7	-0.7	-0.7	0.3	-0.7	100	91	83.3	90.6	100	95.4
24-Jul-01	19:50	-0.7	-0.2	-0.7	-0.7	0.8	-0.4	97.8	91.6	81.7	89	100	93.7
24-Jul-01	20:00	-1.2	-0.4	-0.7	-0.9	1.3	-0.7	100	87.7	83.3	88.4	100	96
24-Jul-01	20:10	-0.9	-0.4	-0.7	-0.9	1.6	-0.9	100	91	83.3	90.6	100	93.2
24-Jul-01	20:20	-0.7	-0.4	-0.9	-0.7	0.8	-0.7	100	91.6	83.3	90.6	100	96.5
24-Jul-01	20:30	-1.2	-0.7	-0.4	-0.7	-0.2	-0.7	99.5	91.6	83.3	90	100	96
24-Jul-01	20:40	-0.7	-0.7	-0.7	-0.4	-0.4	-0.7	100	88.3	83.8	90	100	93.7
24-Jul-01	20:50	-0.9	-0.9	-0.9	-0.4	-0.4	-0.7	100	91	83.8	90	100	96
24-Jul-01	21:00	-0.7	-0.4	-0.9	-0.7	0.1	-0.7	100	91.6	82.3	89.5	100	96
24-Jul-01	21:10	-0.9	-0.7	-0.7	-0.9	0.1	-0.7	100	91.6	83.3	88.4	100	93.2
24-Jul-01	21:20	-0.7	-0.4	-0.9	-0.7	-0.4	-0.7	99.5	91.6	82.3	90.6	100	96
24-Jul-01	21:30	-0.9	-0.2	-0.9	-0.9	-0.4	-0.9	100	91.6	83.3	91.1	100	96
24-Jul-01	21:40	-0.9	-0.2	-0.7	-0.4	-0.2	-0.7	100	91	83.3	90.6	100	93.2
24-Jul-01	21:50	-0.9	0.1	-0.7	-0.4	0.1	-0.9	100	90.4	83.3	89	100	96
24-Jul-01	22:00	-0.9	-0.2	-0.4	-0.9	0.3	-0.9	98.4	90.4	83.3	88.4	100	94.8
24-Jul-01	22:10	-0.7	0.1	-0.2	-0.9	-0.2	-0.7	100	90.4	82.8	91.1	100	94.3
24-Jul-01	22:20	-0.2	0.3	-0.4	-0.7	-0.4	-0.7	99.5	90.4	83.3	90.6	100	96
24-Jul-01	22:30	0.6	0.6	-0.2	-0.4	-0.2	-0.9	99.5	91.6	83.8	90	100	96
24-Jul-01	22:40	-0.4	0.3	-0.4	-0.9	0.1	-0.9	96.7	91	83.3	88.4	100	93.2
24-Jul-01	22:50	-1.2	0.1	-0.7	-0.9	0.3	-0.7	100	88.3	82.8	90	100	96
24-Jul-01	23:00	-0.9	-0.4	-0.7	-0.9	0.1	-0.9	100	88.3	84.3	90.6	100	95.4
24-Jul-01	23:10	-0.4	-0.4	-0.7	-0.4	-0.4	-0.9	100	91.6	83.3	90.6	100	95.4
24-Jul-01	23:20	-0.7	-0.4	-0.9	-0.7	-0.2	-0.7	100	91.6	83.3	89.5	100	96
24-Jul-01	23:30	-0.7	-0.4	-0.7	-0.7	-0.2	-0.4	100	92.1	85.4	88.4	100	93.7
24-Jul-01	23:40	-0.2	-0.2	-0.7	-0.9	0.1	-0.7	100	88.8	82.8	90.6	100	96
24-Jul-01	23:50	-0.2	-0.4	-0.7	-0.9	-0.2	-0.7	100	88.8	84.3	90.6	100	95.4
25-Jul-01	00:00	-0.2	-0.7	-0.7	-0.4	-0.7	-0.2	100	91	82.8	90	100	95.4

25-Jul-01	00:10	-0.2	-0.4	-0.7	-0.9	-0.4	0.3	100	91.6	84.9	89	100	93.7
25-Jul-01	00:20	-0.2	-0.2	-0.9	-0.9	-0.2	1.1	100	91.6	83.3	90	100	93.2
25-Jul-01	00:30	-0.2	0.1	-0.7	-0.9	-0.2	0.8	100	91.6	84.3	91.1	100	90.9
25-Jul-01	00:40	0.1	0.1	-0.7	-0.4	-0.2	-0.2	100	88.3	84.3	90.6	100	91.5
25-Jul-01	00:50	0.1	-0.4	-0.7	-0.7	-0.4	-0.4	100	89.3	83.8	89.5	100	96
25-Jul-01	01:00	0.1	-0.7	-0.9	-0.7	-0.2	-0.7	100	91	84.3	88.4	100	96.5
25-Jul-01	01:10	0.1	-0.2	-0.7	-0.9	-0.4	-0.9	100	91.6	82.8	90.6	100	93.7
25-Jul-01	01:20	-0.2	-0.2	-0.7	-0.9	-0.2	-0.4	99.5	91.6	84.3	90.6	100	95.4
25-Jul-01	01:30	-0.2	-0.2	-0.4	-0.7	0.3	-0.7	99.5	91.6	82.8	90	100	96
25-Jul-01	01:40	0.1	-0.2	-0.7	-0.7	0.3	-0.7	99.5	86.6	84.3	89	100	95.4
25-Jul-01	01:50	0.1	-0.7	-0.7	-0.7	0.8	-0.4	99.5	91	83.8	89.5	100	94.8
25-Jul-01	02:00	0.1	-0.4	-0.7	-0.9	1.3	-0.7	99.5	91.6	83.3	90.6	100	96.5
25-Jul-01	02:10	0.1	-0.4	-0.9	-0.7	1.6	-0.7	99.5	91	84.3	90.6	100	95.4
25-Jul-01	02:20	0.1	-0.2	-0.7	-0.4	1.1	-0.7	99.5	91	82.8	89.5	100	93.2
25-Jul-01	02:30	0.3	-0.2	-0.7	-0.7	0.1	-0.7	99.5	91	84.3	88.4	99.5	96
25-Jul-01	02:40	0.3	0.1	-0.7	-0.9	-0.4	-0.7	99.5	91	83.3	89	100	96
25-Jul-01	02:50	0.3	0.1	-0.7	-0.7	-0.4	-0.7	99.5	88.3	84.3	90	100	94.8
25-Jul-01	03:00	0.3	-0.2	-0.4	-0.4	-0.4	-0.4	99.5	89.3	84.9	90.6	100	94.8
25-Jul-01	03:10	0.3	-0.4	-0.7	-0.7	0.1	-0.7	99.5	91.6	83.3	89	100	96
25-Jul-01	03:20	0.3	-0.4	-0.7	-0.9	-0.2	-0.7	99.5	91	84.3	89.5	100	96
25-Jul-01	03:30	0.3	-0.2	-0.4	-0.9	-0.7	-0.9	99.5	91	84.3	91.1	100	93.7
25-Jul-01	03:40	0.3	-0.2	-0.4	-0.7	-0.4	-0.7	98.9	91	83.3	90.6	100	96
25-Jul-01	03:50	0.3	0.1	-0.4	-0.4	-0.4	-0.7	99.5	91	83.3	90	100	96
25-Jul-01	04:00	0.3	0.3	-0.2	-0.7	0.1	-0.9	98.9	91	83.3	88.4	100	96
25-Jul-01	04:10	0.3	0.1	-0.2	-1.2	0.1	-0.7	99.5	89.3	83.3	90	100	94.8
25-Jul-01	04:20	0.6	0.1	0.1	-0.9	-0.4	-0.7	96.2	89.3	83.3	90.6	100	96
25-Jul-01	04:30	-0.4	-0.2	-0.2	-0.7	-0.4	-0.9	96.2	90.4	83.8	90	100	96
25-Jul-01	04:40	-1.2	-0.2	-0.7	-0.4	-0.2	-0.4	97.3	91	83.3	89	100	93.7
25-Jul-01	04:50	-1.2	-0.2	-0.9	-0.9	-0.2	-0.4	100	91.6	83.3	88.4	100	95.4
25-Jul-01	05:00	-0.7	-0.2	-0.7	-0.9	0.1	-0.7	100	91	85.9	90.6	100	96
25-Jul-01	05:10	-0.9	0.1	-0.7	-0.7	-0.2	-0.7	100	91	83.3	90.6	100	95.4
25-Jul-01	05:20	-0.7	0.1	-0.9	-0.7	-0.7	-0.4	100	90.4	85.4	90	100	94.3
25-Jul-01	05:30	-0.9	0.1	-0.7	-0.7	-0.4	-0.7	100	88.8	83.8	88.4	100	96
25-Jul-01	05:40	-0.9	0.1	-0.7	-0.9	-0.2	-0.9	100	89.3	84.9	90	100	96
25-Jul-01	05:50	-1.2	-0.2	-0.4	-0.9	0.1	-0.7	100	89.3	85.9	90.6	100	93.2
25-Jul-01	06:00	-0.9	0.1	-0.9	-0.9	0.1	-0.7	98.9	89.3	83.3	90	100	96.5
25-Jul-01	06:10	-1.2	0.1	-0.7	-0.7	-0.2	-0.9	100	89.3	85.4	89.5	100	96.5
25-Jul-01	06:20	-0.9	0.3	-0.4	-0.7	-0.4	-0.7	98.4	89.3	83.3	88.4	100	93.7
25-Jul-01	06:30	-1.2	0.6	-0.7	-0.9	-0.4	-0.7	100	86.6	84.9	90.6	100	96
25-Jul-01	06:40	-1.2	0.1	-0.4	-0.7	-0.2	-0.7	99.5	89.3	84.3	90.6	100	96
25-Jul-01	06:50	-1.2	-0.4	-0.7	-0.7	0.1	-0.7	100	91	83.3	90	100	93.7
25-Jul-01	07:00	-1.2	-0.4	-0.7	-0.7	-0.2	-0.7	100	91	84.9	88.4	100	96
25-Jul-01	07:10	-0.9	0.1	-0.4	-0.7	-0.4	-0.7	100	91.6	83.3	90	100	96.5
25-Jul-01	07:20	-1.2	-0.2	-0.7	-0.9	-0.4	-0.7	100	91	85.4	90.6	100	94.8
25-Jul-01	07:30	-0.9	0.1	-0.4	-0.7	-0.4	-0.4	100	90.4	84.3	90.6	100	95.4
25-Jul-01	07:40	-0.9	0.1	-0.7	-0.7	0.3	-0.7	100	90.4	83.8	89.5	100	96
25-Jul-01	07:50	-0.9	-0.2	-0.7	-0.7	0.8	-0.2	99.5	87.2	85.4	88.4	100	95.4
25-Jul-01	08:00	-1.2	-0.2	-0.7	-0.9	0.8	-0.2	100	91	83.3	90	100	94.8
25-Jul-01	08:10	-0.9	-0.2	-0.4	-0.7	1.6	0.6	97.8	91.6	85.4	91.1	100	93.7

25-Jul-01	08:20	-0.7	0.1	-0.7	-0.4	0.6	1.3	100	91	82.8	90.6	100	92.6
25-Jul-01	08:30	-1.2	0.1	-0.7	-0.4	-0.4	1.3	97.3	90.4	85.4	89	100	90.4
25-Jul-01	08:40	-1.2	0.1	-0.7	-0.7	-0.7	0.1	100	86.6	83.3	89	100	90.4
25-Jul-01	08:50	-0.9	-0.4	-0.7	-0.7	-0.4	-0.4	100	91	84.3	89.5	100	93.2
25-Jul-01	09:00	-0.7	-0.2	-0.7	-0.7	0.1	-0.4	100	91	84.3	89.5	100	92.6
25-Jul-01	09:10	-0.9	0.1	-0.7	-0.9	-0.2	-0.7	100	91.6	83.3	88.4	100	94.3
25-Jul-01	09:20	-0.9	-0.2	-0.7	-0.9	-0.7	0.1	97.8	87.2	84.9	90	100	93.7
25-Jul-01	09:30	-0.9	-0.2	-0.4	-0.7	-0.2	-0.2	100	90.4	84.3	90.6	100	90.9
25-Jul-01	09:40	-0.9	-0.2	-0.2	-0.7	0.1	-0.4	100	91.6	84.3	90	100	92.6
25-Jul-01	09:50	-0.7	0.1	-0.2	-0.7	-0.2	-0.4	99.5	91	83.8	89	100	93.7
25-Jul-01	10:00	-0.9	-0.2	-0.4	-0.7	-0.4	-0.7	100	88.8	83.8	88.4	100	93.2
25-Jul-01	10:10	-0.7	-0.2	-0.2	-1.2	-0.4	-0.4	100	89.3	83.8	90	100	92.6
25-Jul-01	10:20	0.6	-0.4	0.1	-0.9	-0.2	-0.7	100	89.3	83.8	91.1	100	93.2
25-Jul-01	10:30	0.6	-0.4	0.1	-0.7	-0.2	-0.7	97.8	89.9	84.3	89.5	100	92
25-Jul-01	10:40	-0.7	-0.4	-0.2	-0.7	-0.7	-0.7	97.3	89.9	83.3	88.4	100	93.2
25-Jul-01	10:50	-1.2	-0.2	-0.4	-0.7	-0.2	-0.7	100	87.7	83.3	88.4	100	94.8
25-Jul-01	11:00	-0.9	-0.7	-0.2	-0.9	-0.2	-0.9	97.8	89.3	82.8	90	100	92
25-Jul-01	11:10	-1.2	-0.7	-0.4	-0.7	-0.4	-1.2	100	91	81.7	90.6	100	92.6
25-Jul-01	11:20	-0.9	-0.4	-0.4	-0.4	-0.2	-0.9	97.8	88.3	81.2	90	100	93.7
25-Jul-01	11:30	-1.2	-0.9	-0.7	-0.4	0.1	-0.7	100	88.8	81.2	89	100	94.8
25-Jul-01	11:40	-1.2	-0.7	-0.7	-0.9	-0.4	-0.2	97.3	91	84.3	89	100	93.7
25-Jul-01	11:50	-1.2	-0.7	-0.4	-1.2	-0.4	0.3	100	86.6	82.8	89	100	93.7
25-Jul-01	12:00	-0.9	-0.9	-0.7	-0.9	0.1	0.8	99.5	87.7	81.7	90.6	100	92.6
25-Jul-01	12:10	-0.7	-1.2	-0.7	-0.4	-0.2	0.8	100	87.2	84.3	91.1	100	90.9
25-Jul-01	12:20	-1.4	-1.4	-0.7	-0.4	-0.2	1.3	97.8	86.1	82.8	90	100	90.4
25-Jul-01	12:30	-0.9	-1.4	-0.7	-0.4	-0.2	1.6	100	86.6	83.3	89	100	90.4
25-Jul-01	12:40	-0.9	-1.9	-0.9	-0.9	0.3	1.6	98.9	85.5	83.8	88.4	100	88.7
25-Jul-01	12:50	-0.7	-1.7	-0.7	-0.9	-0.2	2.1	100	91	82.8	88.4	100	89.3
25-Jul-01	13:00	-0.9	-1.2	-0.9	-0.9	-0.2	1.3	100	88.8	84.3	90.6	100	88.2
25-Jul-01	13:10	-0.7	-1.4	-0.7	-0.9	0.1	0.3	97.8	86.6	83.3	91.1	100	89.8
25-Jul-01	13:20	-0.7	-1.7	-0.7	-0.7	0.3	-0.2	100	86.6	82.8	90	100	90.4
25-Jul-01	13:30	-0.9	-1.4	-1.2	-0.4	0.8	-0.4	99.5	88.3	83.8	89	100	90.4
25-Jul-01	13:40	-0.7	-1.2	-0.9	-0.7	1.1	-0.9	100	88.8	83.8	88.4	100	90.9
25-Jul-01	13:50	-0.9	-0.7	-0.9	-0.9	1.3	-1.2	99.5	88.3	82.3	88.4	100	90.9
25-Jul-01	14:00	-0.7	-0.2	-0.9	-0.9	2.3	-1.2	99.5	88.8	84.3	89.5	100	90.9
25-Jul-01	14:10	-0.7	0.3	-0.7	-0.7	2.3	-0.9	100	88.3	82.8	90.6	100	94.8
25-Jul-01	14:20	-0.4	1.1	-0.7	-0.7	1.6	-0.4	100	88.8	81.7	90.6	100	95.4
25-Jul-01	14:30	-0.9	1.1	-0.9	-0.4	0.8	-0.7	99.5	86.1	83.8	89	100	92
25-Jul-01	14:40	-0.7	0.6	-0.7	-0.7	0.1	-0.7	100	84.5	82.8	89	99.5	91.5
25-Jul-01	14:50	-0.9	0.1	-0.9	-0.7	-0.2	-0.7	100	85	82.8	89.5	99.5	95.4
25-Jul-01	15:00	-0.7	-0.9	-0.7	-0.4	-0.4	-0.7	99.5	85	83.3	90	100	92
25-Jul-01	15:10	-0.9	-1.2	-0.7	-0.7	0.1	-0.7	100	85.5	81.7	89	100	94.3
25-Jul-01	15:20	-0.9	-1.4	-0.7	-0.7	0.1	-0.7	98.9	86.1	82.8	88.4	100	92
25-Jul-01	15:30	-1.2	-1.4	-0.7	-0.7	-0.2	-0.7	100	85.5	83.3	88.4	100	95.4
25-Jul-01	15:40	-0.7	-1.7	-0.7	-0.7	-0.7	-0.4	98.9	86.1	83.3	88.4	100	92.6
25-Jul-01	15:50	-1.2	-1.9	-0.4	-0.9	0.1	-0.4	100	85.5	83.3	90	100	93.2
25-Jul-01	16:00	-0.9	-1.9	-0.4	-0.7	0.1	0.1	97.8	86.6	83.3	91.1	100	93.2
25-Jul-01	16:10	-0.7	-1.9	-0.4	-0.4	-0.2	0.6	100	88.8	83.8	90	100	96
25-Jul-01	16:20	0.6	-1.7	-0.2	-0.9	-0.2	1.6	100	89.3	84.3	89	100	95.4

25-Jul-01	16:30	1.8	-1.7	-0.2	-0.7	0.1	1.6	100	89.3	85.4	88.4	100	89.8
25-Jul-01	16:40	0.8	-1.2	-0.2	-0.9	-0.4	0.6	96.2	89.3	83.3	88.4	100	90.4
25-Jul-01	16:50	-0.4	-0.9	-0.4	-0.9	-0.4	-0.4	96.7	87.2	83.3	88.4	100	90.4
25-Jul-01	17:00	-0.7	-1.2	-0.4	-1.2	-0.2	-0.4	100	86.1	82.8	90	100	93.2
25-Jul-01	17:10	-0.2	-0.9	-0.4	-0.9	-0.2	-0.4	97.8	90.4	82.8	91.1	100	94.3
25-Jul-01	17:20	-0.7	-0.7	-0.7	-0.7	-0.4	-0.4	100	91.6	82.8	90	100	92
25-Jul-01	17:30	-0.7	-0.4	-0.9	-0.9	-0.4	-0.4	97.3	91.6	83.8	89	100	94.3
25-Jul-01	17:40	-0.7	-0.2	-0.9	-0.9	0.1	-0.4	100	91.6	83.8	88.4	100	93.2
25-Jul-01	17:50	-0.7	-0.2	-0.7	-0.9	-0.2	-0.4	97.8	88.3	82.8	90	100	93.7
25-Jul-01	18:00	-0.7	-0.7	-0.7	-0.7	-0.2	-0.2	100	88.8	85.4	90.6	100	93.7
25-Jul-01	18:10	-0.9	-0.7	-0.9	-0.7	-0.4	-0.7	100	91	83.3	90.6	100	94.3
25-Jul-01	18:20	-0.7	-0.4	-0.9	-0.7	-0.2	-0.4	100	91	83.8	89	100	93.2
25-Jul-01	18:30	-0.7	-0.2	-0.7	-0.7	0.1	-0.7	100	91.6	84.3	88.4	100	94.8
25-Jul-01	18:40	-0.7	0.1	-0.9	-0.9	0.1	-0.4	97.8	91.6	82.8	90.6	100	95.4
25-Jul-01	18:50	-0.7	0.1	-0.7	-0.7	-0.4	-0.4	100	87.2	84.9	90.6	100	93.2
25-Jul-01	19:00	-0.7	-0.2	-0.7	-0.4	-0.7	-0.4	99.5	89.3	82.8	90.6	100	94.8
25-Jul-01	19:10	-0.4	-0.2	-0.7	-0.7	-0.2	-0.7	100	91	84.9	89	100	93.7
25-Jul-01	19:20	-0.9	-0.2	-0.7	-0.9	0.1	-0.2	100	91	82.8	88.4	100	95.4
25-Jul-01	19:30	-0.7	-0.2	-0.7	-0.7	0.3	-0.4	100	91	84.3	90.6	100	93.2
25-Jul-01	19:40	-0.7	0.1	-0.7	-0.7	0.3	-0.7	97.8	91	83.3	90.6	100	95.4
25-Jul-01	19:50	-0.9	0.3	-0.7	-0.4	0.8	-0.7	100	91	84.9	90.6	100	93.2
25-Jul-01	20:00	-0.7	0.3	-0.7	-0.4	1.3	-0.7	97.8	88.3	83.3	89.5	100	96
25-Jul-01	20:10	-1.2	-0.2	-0.7	-0.9	1.8	-0.4	100	88.3	85.4	88.4	100	96
25-Jul-01	20:20	-0.7	-0.2	-0.9	-0.9	0.6	-0.7	100	91	83.3	90.6	100	93.7
25-Jul-01	20:30	-0.9	-0.2	-0.7	-0.7	0.1	-0.7	100	91	84.3	90.6	100	93.7
25-Jul-01	20:40	-0.9	-0.2	-0.4	-0.4	-0.7	-0.7	99.5	91	84.3	90	100	96
25-Jul-01	20:50	-0.9	-0.2	-0.9	-0.7	-0.2	-0.7	100	91	83.8	89.5	100	93.2
25-Jul-01	21:00	-0.7	0.1	-0.7	-0.7	-0.2	-0.4	100	91	85.9	89.5	100	96
25-Jul-01	21:10	-0.9	0.3	-0.7	-0.9	0.1	-0.7	100	91	83.3	89	100	95.4
25-Jul-01	21:20	-0.7	-0.2	-0.7	-0.9	0.1	-0.7	100	86.6	84.9	90.6	100	93.2
25-Jul-01	21:30	-1.2	-0.4	-0.7	-0.9	-0.7	-0.7	100	88.8	84.3	90.6	100	96
25-Jul-01	21:40	-0.7	-0.2	-0.4	-0.4	-0.2	-0.7	100	89.3	83.8	90.6	100	96
25-Jul-01	21:50	-0.9	-0.2	-0.4	-0.4	-0.2	-0.4	100	89.3	83.8	89.5	100	96
25-Jul-01	22:00	-0.7	0.3	-0.4	-0.7	0.1	-0.7	98.9	89.3	83.8	88.4	100	96
25-Jul-01	22:10	-0.7	0.6	-0.2	-0.9	0.1	-0.7	100	88.8	84.3	90.6	100	93.2
25-Jul-01	22:20	0.1	0.6	-0.2	-0.7	-0.7	-0.4	100	88.8	84.9	90.6	100	96
25-Jul-01	22:30	0.6	0.8	-0.2	-0.7	-0.2	-0.7	98.9	90.4	85.4	90	100	93.7
25-Jul-01	22:40	-0.7	0.6	-0.7	-0.7	-0.2	-0.4	97.3	89.3	83.8	89	100	95.4
25-Jul-01	22:50	-1.2	0.3	-0.7	-0.9	-0.2	-0.4	100	86.6	83.3	88.4	100	96
25-Jul-01	23:00	-0.7	-0.2	-0.7	-0.9	0.1	-0.7	100	88.8	86.5	91.1	100	94.8
25-Jul-01	23:10	-0.4	-0.4	-0.7	-0.7	-0.4	-0.7	100	91	83.8	90.6	100	95.4
25-Jul-01	23:20	-0.4	-0.2	-0.7	-0.4	-0.2	-0.4	100	91	85.9	90	100	96
25-Jul-01	23:30	-0.4	-0.2	-0.4	-0.7	-0.2	-0.7	100	90.4	84.9	88.4	100	93.7
25-Jul-01	23:40	-0.2	0.1	-0.9	-0.9	-0.2	-0.4	100	90.4	85.4	90	100	96
25-Jul-01	23:50	-0.2	0.3	-0.7	-0.9	0.1	-0.4	100	88.8	85.9	91.1	100	95.4
26-Jul-01	00:00	0.1	-0.2	-0.7	-0.7	-0.7	-0.2	100	87.7	84.3	90.6	100	94.8
26-Jul-01	00:10	-0.2	-0.4	-0.4	-0.4	-0.4	0.3	99.5	91	85.9	90	100	93.7
26-Jul-01	00:20	0.1	-0.4	-0.9	-0.7	-0.2	1.1	100	91	83.8	88.4	100	92.6
26-Jul-01	00:30	0.1	-0.2	-0.9	-0.9	-0.2	0.8	100	90.4	85.9	90	100	90.4

26-Jul-01	00:40	0.1	0.1	-0.7	-0.9	0.3	-0.2	100	89.9	83.3	90.6	100	90.9
26-Jul-01	00:50	0.1	0.1	-0.7	-0.7	-0.7	-0.7	100	89.9	85.9	90.6	100	96
26-Jul-01	01:00	0.1	0.1	-0.7	-0.7	-0.4	-0.4	100	89.3	84.3	89.5	100	93.7
26-Jul-01	01:10	-0.2	0.1	-0.7	-0.7	-0.4	-0.4	99.5	86.1	85.9	88.4	100	95.4
26-Jul-01	01:20	0.1	-0.2	-0.7	-0.9	0.1	-0.7	99.5	91	85.4	90.6	100	96.5
26-Jul-01	01:30	0.1	-0.4	-0.7	-0.9	0.1	-0.7	99.5	91	84.9	90.6	100	93.7
26-Jul-01	01:40	0.3	-0.2	-0.7	-0.7	0.6	-0.7	99.5	90.4	86.5	90	100	96.5
26-Jul-01	01:50	0.3	0.1	-0.7	-0.4	0.8	-0.7	99.5	89.9	83.3	89.5	100	95.4
26-Jul-01	02:00	0.3	0.1	-0.4	-0.7	1.1	-0.4	99.5	89.9	86.5	88.4	100	94.3
26-Jul-01	02:10	0.3	0.1	-0.7	-1.2	1.6	-0.7	99.5	89.3	83.8	90.6	100	96
26-Jul-01	02:20	0.3	0.3	-0.7	-0.7	0.8	-0.7	99.5	86.6	85.9	90.6	100	93.2
26-Jul-01	02:30	0.3	-0.2	-0.4	-0.7	-0.4	-0.7	98.9	89.9	84.9	90	100	96.5
26-Jul-01	02:40	0.3	-0.4	-0.7	-0.7	-0.7	-0.7	98.9	91	85.9	89.5	100	96
26-Jul-01	02:50	0.3	-0.2	-0.4	-0.4	-0.4	-0.7	98.9	90.4	85.4	90	100	93.7
26-Jul-01	03:00	0.3	0.1	-0.9	-0.4	0.1	-0.7	98.9	89.9	84.3	89.5	100	96.5
26-Jul-01	03:10	0.3	0.1	-0.7	-0.9	-0.2	-0.7	98.9	89.9	85.9	88.4	100	94.3
26-Jul-01	03:20	0.3	0.1	-0.4	-0.9	0.1	-0.4	98.9	89.3	83.3	90.6	100	96
26-Jul-01	03:30	0.3	0.3	-0.7	-0.7	-0.7	-0.7	98.9	89.3	83.8	90.6	100	96
26-Jul-01	03:40	0.1	0.3	-0.7	-0.9	-0.4	-0.7	98.9	89.3	84.3	90	100	95.4
26-Jul-01	03:50	0.1	-0.2	-0.7	-0.7	-0.2	-0.7	98.9	86.1	84.3	89.5	100	93.7
26-Jul-01	04:00	0.1	-0.2	-0.4	-0.7	-0.2	-0.7	98.9	90.4	84.9	88.4	100	96.5
26-Jul-01	04:10	0.6	-0.4	-0.2	-0.7	0.1	-0.7	98.9	91	84.9	90.6	100	96
26-Jul-01	04:20	0.8	-0.2	-0.4	-0.7	-0.2	-0.7	95.6	90.4	85.4	90.6	100	93.7
26-Jul-01	04:30	-0.7	0.1	-0.2	-0.7	-0.4	-0.7	95.6	89.9	85.4	90	100	96.5
26-Jul-01	04:40	-0.9	0.1	-0.7	-0.4	-0.2	-0.7	100	89.3	83.8	89	100	96
26-Jul-01	04:50	-0.9	0.1	-0.7	-0.7	-0.2	-0.7	98.9	88.8	83.3	88.4	100	93.7
26-Jul-01	05:00	-1.2	0.1	-0.7	-0.9	0.1	-0.7	100	88.8	85.9	90.6	100	96
26-Jul-01	05:10	-0.7	-0.2	-0.7	-0.7	-0.2	-0.7	100	91	83.3	90.6	100	96
26-Jul-01	05:20	-1.2	0.1	-0.9	-0.7	-0.7	-0.4	97.3	90.4	85.9	90	100	96
26-Jul-01	05:30	-0.9	-0.2	-0.7	-0.4	-0.4	-0.4	100	89.3	83.8	89	100	96.5
26-Jul-01	05:40	-1.2	0.3	-0.7	-0.7	-0.4	-0.7	99.5	89.3	85.9	88.4	100	94.3
26-Jul-01	05:50	-0.7	0.6	-0.7	-0.9	0.1	-0.4	100	88.8	84.9	90.6	100	96.5
26-Jul-01	06:00	-0.9	0.6	-0.7	-0.7	0.1	-0.7	100	88.8	85.9	90.6	100	96
26-Jul-01	06:10	-0.7	1.1	-0.7	-0.7	-0.7	-0.7	100	88.3	85.9	90	100	93.2
26-Jul-01	06:20	-0.9	1.1	-0.7	-0.7	-0.4	-0.2	100	88.8	85.9	89	100	95.4
26-Jul-01	06:30	-0.7	1.1	-0.4	-0.9	-0.2	-0.4	100	85.5	86.5	88.4	100	96
26-Jul-01	06:40	-1.2	0.3	-0.9	-0.9	0.1	-0.7	100	85	83.8	90.6	100	94.3
26-Jul-01	06:50	-0.9	-0.4	-0.9	-0.7	-0.2	-0.7	99.5	86.1	85.9	90.6	100	93.2
26-Jul-01	07:00	-1.2	-0.4	-0.4	-0.4	-0.4	-0.7	100	90.4	83.3	90	100	93.2
26-Jul-01	07:10	-0.7	-0.2	-0.7	-0.9	-0.2	-0.4	100	91.6	85.9	88.4	100	94.8
26-Jul-01	07:20	-0.9	0.1	-0.7	-0.7	-0.2	-0.4	100	91.6	84.3	88.4	100	96
26-Jul-01	07:30	-0.7	0.1	-0.7	-0.9	0.1	-0.4	100	91	85.9	90.6	100	94.3
26-Jul-01	07:40	-0.7	-0.2	-0.7	-0.7	0.6	-0.4	100	87.7	85.4	90.6	100	93.2
26-Jul-01	07:50	-0.7	-0.2	-0.7	-0.4	0.8	-0.4	97.8	90.4	84.3	89.5	100	93.7
26-Jul-01	08:00	-0.7	-0.4	-0.4	-0.7	1.3	-0.2	100	91	85.4	88.4	100	93.7
26-Jul-01	08:10	-1.2	0.1	-0.7	-0.9	1.8	0.6	98.9	91	85.4	89	100	93.2
26-Jul-01	08:20	-0.9	-0.2	-0.7	-0.9	0.6	1.3	100	86.6	85.9	91.1	100	92
26-Jul-01	08:30	-1.2	-0.2	-0.7	-0.7	-0.2	1.3	100	89.9	83.3	90.6	100	90.4
26-Jul-01	08:40	-0.9	-0.4	-0.4	-0.4	-0.7	0.3	99.5	91	85.9	90	100	90.4

26-Jul-01	08:50	-1.2	0.1	-0.7	-0.7	-0.4	-0.4	100	91	83.3	89.5	100	90.4
26-Jul-01	09:00	-0.7	0.1	-0.4	-0.4	0.1	-0.7	100	87.7	84.9	90	100	94.8
26-Jul-01	09:10	-1.2	-0.4	-0.7	-0.4	-0.2	-0.7	100	89.9	83.3	89.5	100	93.2
26-Jul-01	09:20	-0.9	-0.2	-0.7	-0.7	-0.7	-0.7	99.5	91.6	84.9	89	100	93.2
26-Jul-01	09:30	-0.9	0.1	-0.4	-0.9	-0.2	-0.4	100	88.8	84.9	90.6	100	93.7
26-Jul-01	09:40	-0.7	-0.2	-0.4	-0.4	0.1	-0.7	99.5	86.1	84.9	91.1	100	95.4
26-Jul-01	09:50	-0.9	-0.4	-0.7	-0.4	-0.4	-0.7	100	89.9	85.4	89.5	100	93.2
26-Jul-01	10:00	-0.9	-0.4	-0.4	-0.4	-0.4	-0.7	97.8	91	85.4	89.5	100	93.2
26-Jul-01	10:10	-0.9	-0.4	-0.2	-0.9	0.1	-0.4	99.5	90.4	85.4	88.4	100	95.4
26-Jul-01	10:20	0.3	-0.4	-0.4	-0.9	0.1	-0.7	100	89.3	85.9	90	100	92
26-Jul-01	10:30	1.3	-0.2	-0.2	-0.7	0.1	-0.7	99.5	89.3	85.9	91.1	100	93.7
26-Jul-01	10:40	0.1	-0.2	-0.2	-0.4	-0.4	-0.9	96.2	89.3	84.3	90	100	94.3
26-Jul-01	10:50	-0.7	-0.4	-0.4	-0.4	0.1	-0.7	100	87.2	83.8	89	100	93.7
26-Jul-01	11:00	-0.2	-0.7	-0.4	-0.9	-0.2	-0.9	100	90.4	83.3	88.4	100	92.6
26-Jul-01	11:10	-0.9	-0.4	-0.7	-0.9	-0.2	-0.7	96.7	90.4	83.3	89	100	94.3
26-Jul-01	11:20	-0.7	-0.2	-0.7	-0.7	-0.2	-0.9	100	86.1	83.8	91.7	100	96
26-Jul-01	11:30	-0.7	-0.4	-0.9	-0.4	0.1	-0.9	97.8	91	83.8	91.1	100	92
26-Jul-01	11:40	-0.9	-0.4	-0.4	-0.4	-0.2	-0.7	100	87.2	84.9	90	100	93.7
26-Jul-01	11:50	-0.4	-0.4	-0.7	-0.7	-0.2	-0.9	99.5	89.9	83.3	89.5	100	95.4
26-Jul-01	12:00	-0.7	-0.7	-0.7	-0.9	0.1	-0.7	100	91	83.3	89	100	92.6
26-Jul-01	12:10	-0.4	-0.4	-0.7	-0.9	-0.2	-0.7	100	87.7	84.3	90	100	92.6
26-Jul-01	12:20	-0.9	-0.7	-0.7	-0.7	-0.4	-0.7	98.9	90.4	83.3	91.1	100	93.7
26-Jul-01	12:30	-0.7	-0.4	-0.7	-0.4	-0.2	-0.9	100	91	84.3	91.1	100	96
26-Jul-01	12:40	-0.7	-0.4	-0.9	-0.7	0.1	-0.9	97.3	86.6	83.8	89.5	100	92
26-Jul-01	12:50	-0.9	-0.7	-0.7	-0.7	-0.4	-0.9	100	90.4	83.3	89.5	100	93.2
26-Jul-01	13:00	-0.9	-0.7	-0.9	-0.7	-0.2	-0.7	97.3	91	84.3	89.5	100	93.2
26-Jul-01	13:10	-0.9	-0.7	-0.9	-0.7	0.1	-0.9	100	86.1	83.8	89.5	100	93.2
26-Jul-01	13:20	-0.9	-0.7	-0.7	-0.9	-0.2	-0.7	97.3	91	83.3	90	100	91.5
26-Jul-01	13:30	-0.9	-0.2	-0.9	-0.9	0.1	-0.9	100	91	85.4	91.7	100	94.8
26-Jul-01	13:40	-1.2	0.1	-0.4	-0.4	0.3	-0.9	97.8	89.9	83.3	90.6	100	94.3
26-Jul-01	13:50	-1.2	0.3	-0.9	-0.7	1.3	-0.7	100	89.3	83.8	89.5	100	91.5
26-Jul-01	14:00	-0.9	0.6	-0.7	-0.9	1.8	-0.7	97.3	89.3	83.3	89.5	100	95.4
26-Jul-01	14:10	-0.9	1.3	-0.7	-0.7	2.3	-0.7	100	90.4	82.8	89.5	100	91.5
26-Jul-01	14:20	-0.7	1.6	-0.7	-0.9	1.8	-0.7	97.8	92.1	83.8	89.5	100	94.8
26-Jul-01	14:30	-0.7	1.6	-0.7	-0.7	0.8	-1.2	100	85.5	83.8	90	100	93.7
26-Jul-01	14:40	-0.9	0.8	-0.4	-0.7	0.1	-0.9	97.3	85	83.3	90	100	91.5
26-Jul-01	14:50	-0.7	0.3	-0.7	-0.7	-0.2	-0.9	100	85	82.8	90	100	92.6
26-Jul-01	15:00	-0.9	-0.2	-0.7	-0.4	-0.2	-1.2	97.3	85.5	84.9	90	100	93.7
26-Jul-01	15:10	-0.9	-0.9	-0.7	-0.7	-0.2	-0.9	100	85.5	83.3	89	100	91.5
26-Jul-01	15:20	-0.4	-0.9	-0.7	-0.7	0.1	-1.2	100	88.8	82.8	88.4	100	95.4
26-Jul-01	15:30	-0.2	-0.7	-0.9	-0.9	-0.4	-0.7	100	91.6	83.8	88.4	100	91.5
26-Jul-01	15:40	-0.2	-0.7	-0.7	-0.9	-0.2	-1.2	100	87.2	83.8	90	100	94.8
26-Jul-01	15:50	-0.2	-0.9	-0.4	-0.7	0.1	-0.7	100	89.3	83.8	91.1	100	93.7
26-Jul-01	16:00	0.1	-0.4	-0.2	-0.7	-0.2	-0.4	100	91.6	84.3	90	100	94.3
26-Jul-01	16:10	0.6	-0.4	-0.2	-0.4	-0.4	0.6	100	88.8	84.9	89.5	100	93.7
26-Jul-01	16:20	1.6	-0.4	-0.4	-0.7	-0.2	1.3	100	88.8	85.9	89	100	93.2
26-Jul-01	16:30	1.8	-0.4	-0.2	-0.9	0.1	1.1	97.3	88.8	85.9	88.4	100	90.4
26-Jul-01	16:40	0.1	-0.4	0.1	-0.7	-0.4	-0.2	97.3	88.8	84.3	91.1	100	90.4
26-Jul-01	16:50	-0.7	-0.7	-0.2	-0.7	-0.4	-0.7	97.8	87.2	83.8	91.7	100	94.8

26-Jul-01	17:00	-0.7	-0.4	-0.4	-0.4	0.1	-0.9	100	90.4	83.3	90	100	93.7
26-Jul-01	17:10	-0.2	-0.4	-0.4	-0.7	-0.2	-0.7	98.4	87.7	82.8	89	100	94.3
26-Jul-01	17:20	-0.9	-0.7	-0.7	-0.9	-0.4	-0.7	99.5	89.3	82.8	88.4	100	96
26-Jul-01	17:30	-0.4	-0.4	-0.7	-1.2	-0.4	-0.7	100	91.6	83.3	91.1	100	93.2
26-Jul-01	17:40	-0.7	-0.7	-0.7	-0.7	0.1	-0.4	99.5	86.6	84.3	91.1	100	96
26-Jul-01	17:50	-0.4	-0.4	-0.9	-0.7	0.3	-0.7	100	89.9	83.3	90	100	95.4
26-Jul-01	18:00	-0.7	-0.7	-0.7	-0.4	-0.2	-0.9	100	91	84.3	89	100	95.4
26-Jul-01	18:10	-0.4	-0.4	-0.7	-0.9	-0.4	-0.7	100	91	84.3	88.4	100	93.7
26-Jul-01	18:20	-0.7	-0.4	-0.7	-0.9	-0.2	-0.7	100	88.3	83.3	91.1	100	96
26-Jul-01	18:30	-0.7	-0.4	-0.7	-0.7	0.1	-0.9	100	91	84.3	91.1	100	93.7
26-Jul-01	18:40	-0.9	-0.4	-0.7	-0.4	-0.2	-0.7	100	91	83.3	90	100	93.2
26-Jul-01	18:50	-0.7	-0.2	-0.7	-0.7	0.1	-0.7	97.8	87.7	84.3	89.5	100	96
26-Jul-01	19:00	-0.9	-0.4	-0.4	-1.2	-0.4	-0.7	100	90.4	83.3	88.4	100	94.3
26-Jul-01	19:10	-0.7	-0.4	-0.7	-0.9	-0.2	-0.7	97.8	91	83.8	91.1	100	93.7
26-Jul-01	19:20	-0.9	-0.2	-0.7	-0.7	-0.2	-0.7	100	91.6	85.4	91.1	100	96
26-Jul-01	19:30	-0.7	-0.2	-0.7	-0.4	0.1	-0.9	100	87.7	83.3	90.6	100	93.2
26-Jul-01	19:40	-0.4	-0.2	-0.7	-0.7	0.6	-0.7	100	91	84.9	89.5	100	96
26-Jul-01	19:50	-0.2	-0.2	-0.7	-1.2	0.8	-0.7	100	91	83.8	88.4	100	95.4
26-Jul-01	20:00	-0.2	-0.2	-0.7	-0.9	1.3	-0.4	100	91	84.3	91.1	100	93.2
26-Jul-01	20:10	-0.2	-0.2	-0.9	-0.7	1.8	-0.7	100	86.6	84.9	91.1	100	95.4
26-Jul-01	20:20	-0.2	-0.4	-0.7	-0.7	0.8	-0.7	100	91	83.3	90	100	96
26-Jul-01	20:30	0.1	-0.2	-0.7	-0.7	0.1	-0.7	100	91	85.9	89.5	100	94.3
26-Jul-01	20:40	0.1	-0.4	-0.7	-0.9	-0.4	-0.7	100	91	83.3	89.5	100	96
26-Jul-01	20:50	0.1	-0.4	-0.7	-0.9	-0.4	-0.9	100	88.3	85.4	90	100	94.8
26-Jul-01	21:00	0.1	-0.7	-0.7	-0.9	0.1	-0.7	100	91	83.8	90	100	96
26-Jul-01	21:10	-0.2	-0.2	-0.7	-0.7	0.1	-0.7	100	91.6	84.3	89.5	100	96
26-Jul-01	21:20	-0.2	-0.2	-0.9	-1.2	-0.2	-0.7	100	91.6	85.4	91.1	100	93.2
26-Jul-01	21:30	-0.2	0.1	-0.4	-0.7	-0.4	-0.4	100	91.6	84.9	91.1	100	96
26-Jul-01	21:40	0.1	-0.2	-0.7	-0.4	-0.4	-0.7	100	91	84.3	90.6	100	96
26-Jul-01	21:50	0.3	-0.2	-0.7	-0.4	-0.2	-0.7	100	90.4	84.3	89.5	100	93.2
26-Jul-01	22:00	0.3	0.1	-0.4	-1.2	0.1	-0.7	100	90.4	84.3	89	100	95.4
26-Jul-01	22:10	0.1	0.3	-0.2	-0.9	0.1	-0.9	100	90.4	84.9	91.1	100	96
26-Jul-01	22:20	1.1	0.6	-0.4	-0.9	-0.7	-0.7	100	89.9	85.4	91.1	100	93.2
26-Jul-01	22:30	0.1	0.8	-0.2	-0.4	-0.4	-0.7	97.3	91	85.9	90	100	96
26-Jul-01	22:40	-0.7	0.6	-0.4	-0.7	-0.2	-0.7	97.3	89.9	84.9	89	100	96
26-Jul-01	22:50	-0.9	0.3	-0.4	-0.9	0.1	-0.7	100	86.6	83.8	89	100	93.2
26-Jul-01	23:00	-1.2	-0.2	-0.9	-0.9	0.1	-0.7	98.4	89.9	83.8	91.1	100	96
26-Jul-01	23:10	-0.9	-0.2	-0.9	-0.9	-0.4	-0.7	100	91.6	85.9	91.1	100	93.2
26-Jul-01	23:20	-1.2	-0.2	-0.9	-0.7	-0.4	-0.7	97.8	91	85.9	90	100	96
26-Jul-01	23:30	-0.9	0.1	-0.7	-0.7	-0.2	-0.9	100	87.7	83.3	89	100	96
26-Jul-01	23:40	-0.9	-0.4	-0.9	-0.9	0.1	-0.7	98.4	91	85.9	90	100	93.2
26-Jul-01	23:50	-1.2	-0.4	-0.7	-0.9	0.1	-0.4	100	91.6	84.3	91.1	100	94.3
27-Jul-01	00:00	-0.7	-0.2	-0.9	-0.7	-0.4	-0.2	99.5	91.6	85.4	91.1	100	94.3
27-Jul-01	00:10	-1.2	0.1	-0.7	-0.7	-0.2	0.3	100	88.3	85.9	90	100	93.2
27-Jul-01	00:20	-1.2	-0.4	-0.7	-0.7	0.1	1.1	100	91	83.3	89	100	93.2
27-Jul-01	00:30	-1.2	-0.4	-0.7	-1.2	0.1	1.1	100	91.6	85.9	89.5	100	90.4
27-Jul-01	00:40	-0.9	-0.4	-0.7	-0.9	0.1	-0.2	100	91	83.8	91.1	100	90.9
27-Jul-01	00:50	-1.2	-0.2	-0.7	-0.9	-0.2	-0.4	100	87.7	85.9	91.1	100	94.3
27-Jul-01	01:00	-0.9	-0.7	-0.9	-0.4	-0.2	-0.7	100	90.4	85.4	90	100	96

27-Jul-01	01:10	-1.2	-0.7	-0.9	-0.7	-0.2	-0.7	100	91.6	83.8	89	100	92.6
27-Jul-01	01:20	-0.9	-0.2	-0.7	-0.9	-0.2	-0.7	98.9	91.6	86.5	90	100	96
27-Jul-01	01:30	-0.9	0.1	-0.9	-0.9	0.3	-0.7	100	91.6	83.8	91.1	100	94.3
27-Jul-01	01:40	-0.9	0.1	-0.7	-0.7	0.6	-0.4	99.5	87.7	85.9	91.1	100	94.3
27-Jul-01	01:50	-1.2	-0.4	-0.7	-0.4	1.1	-0.7	100	91.6	85.4	90	100	96
27-Jul-01	02:00	-0.7	-0.2	-0.9	-0.7	1.6	-0.7	99.5	91.6	84.3	89	100	93.2
27-Jul-01	02:10	-1.2	0.1	-0.7	-0.9	2.1	-0.7	100	91.6	85.9	90	100	96.5
27-Jul-01	02:20	-0.9	0.1	-0.7	-0.9	1.1	-0.7	100	89.3	83.3	91.1	100	96
27-Jul-01	02:30	-0.9	-0.4	-0.9	-0.7	0.3	-0.4	100	88.8	85.9	91.1	100	93.2
27-Jul-01	02:40	-0.9	-0.4	-0.9	-0.4	-0.2	-0.4	99.5	91.6	84.3	90	100	96
27-Jul-01	02:50	-0.9	-0.4	-0.9	-0.4	-0.2	-0.7	100	91.6	84.3	89.5	100	94.8
27-Jul-01	03:00	-1.2	-0.2	-0.7	-0.7	-0.2	-0.7	98.4	91.6	85.9	89.5	100	94.3
27-Jul-01	03:10	-0.9	0.1	-0.7	-0.7	0.1	-0.7	100	88.8	83.8	89.5	100	96
27-Jul-01	03:20	-0.9	-0.4	-0.9	-0.9	-0.2	-0.7	98.4	89.3	85.4	89.5	100	96
27-Jul-01	03:30	-0.9	-0.2	-0.9	-0.9	-0.4	-0.4	100	91.6	85.4	91.1	100	93.7
27-Jul-01	03:40	-1.2	-0.2	-0.4	-0.9	-0.2	-0.7	97.8	91.6	84.9	91.1	100	96.5
27-Jul-01	03:50	-0.9	0.1	-0.4	-0.7	0.1	-0.7	100	91.6	84.9	90	100	94.3
27-Jul-01	04:00	-0.7	0.1	-0.4	-0.9	0.1	-0.7	100	91	85.4	89.5	100	93.7
27-Jul-01	04:10	-0.7	0.1	-0.4	-0.9	-0.4	-0.7	100	89.3	85.4	90	100	95.4
27-Jul-01	04:20	0.1	-0.2	-0.2	-0.9	-0.4	-0.9	100	91	85.4	91.1	100	96
27-Jul-01	04:30	0.6	-0.2	-0.2	-0.7	0.1	-0.7	99.5	91	86.5	90.6	100	93.2
27-Jul-01	04:40	-0.4	-0.2	-0.2	-0.4	0.1	-0.4	97.3	91	84.9	90	100	96
27-Jul-01	04:50	-0.9	0.1	-0.7	-0.7	-0.2	-0.7	100	89.3	84.3	89.5	100	96
27-Jul-01	05:00	-0.9	-0.2	-0.9	-0.7	-0.4	-0.7	100	89.3	83.8	90.6	100	93.2
27-Jul-01	05:10	-1.2	-0.2	-0.7	-0.9	-0.4	-0.7	100	91.6	85.9	91.1	100	96
27-Jul-01	05:20	-0.9	-0.4	-0.9	-0.4	-0.2	-0.9	100	91	85.4	90.6	100	94.3
27-Jul-01	05:30	-0.7	-0.2	-0.7	-0.7	0.1	-0.4	99.5	91	84.3	89.5	100	94.8
27-Jul-01	05:40	-0.9	0.1	-0.9	-0.9	0.1	-0.7	100	90.4	85.9	89	100	96
27-Jul-01	05:50	-0.9	0.1	-0.7	-0.9	-0.4	-0.4	99.5	90.4	83.8	90.6	100	94.3
27-Jul-01	06:00	-0.9	0.3	-0.9	-0.7	-0.2	-0.7	100	90.4	85.9	91.1	100	96
27-Jul-01	06:10	-0.9	0.6	-0.7	-0.7	-0.2	-0.4	100	89.9	84.9	90.6	100	93.7
27-Jul-01	06:20	-1.2	0.8	-0.7	-0.7	0.1	-0.7	99.5	89.9	85.4	89.5	100	96
27-Jul-01	06:30	-0.9	0.6	-0.9	-0.9	-0.4	-0.7	100	86.6	85.9	88.4	100	96
27-Jul-01	06:40	-0.9	0.1	-0.7	-0.9	-0.4	-0.7	100	86.1	83.3	91.1	100	93.2
27-Jul-01	06:50	-0.4	-0.2	-0.7	-0.9	-0.2	-0.7	100	91	85.9	91.1	100	96
27-Jul-01	07:00	-0.4	-0.4	-0.9	-0.4	-0.2	-0.7	100	91	84.3	90.6	100	93.2
27-Jul-01	07:10	-0.4	-0.2	-0.7	-0.4	0.1	-0.4	100	91	85.9	89	100	94.3
27-Jul-01	07:20	-0.2	0.1	-0.9	-1.2	0.1	-0.4	100	87.7	85.9	88.4	100	96
27-Jul-01	07:30	-0.2	-0.2	-0.9	-1.2	0.3	-0.7	100	91.6	83.3	91.1	100	93.2
27-Jul-01	07:40	-0.2	-0.4	-0.7	-0.9	0.3	-0.4	100	91	85.9	91.1	100	96
27-Jul-01	07:50	0.1	-0.2	-0.7	-0.4	0.8	-0.7	100	91	83.3	90	100	94.3
27-Jul-01	08:00	0.3	-0.2	-0.7	-0.7	1.3	-0.4	100	88.8	85.9	89.5	100	94.8
27-Jul-01	08:10	0.3	-0.2	-0.7	-0.7	1.8	0.6	100	91	84.3	89	100	93.7
27-Jul-01	08:20	0.3	-0.2	-0.7	-0.7	1.1	1.3	100	91.6	84.3	91.1	100	92
27-Jul-01	08:30	0.3	-0.2	-0.7	-0.4	0.1	1.1	100	87.7	85.9	91.1	100	90.4
27-Jul-01	08:40	0.3	-0.2	-0.7	-0.4	-0.4	0.3	100	90.4	83.3	90	100	90.4
27-Jul-01	08:50	0.6	-0.2	-0.9	-0.4	-0.4	-0.7	100	91.6	85.9	90	100	90.4
27-Jul-01	09:00	0.6	0.1	-0.7	-0.4	-0.2	-0.4	100	88.3	84.3	89.5	100	93.2
27-Jul-01	09:10	0.6	-0.2	-0.7	-0.7	0.1	-0.7	100	90.4	83.3	89.5	100	93.7

27-Jul-01	09:20	0.6	0.1	-0.9	-0.7	-0.4	-0.4	100	91.6	83.8	89.5	100	92
27-Jul-01	09:30	0.6	0.1	-0.7	-0.7	-0.2	-0.7	100	88.8	84.3	89.5	100	93.2
27-Jul-01	09:40	0.8	-0.2	-0.7	-0.4	0.1	-0.7	100	89.9	85.4	90	100	93.2
27-Jul-01	09:50	0.6	0.1	-0.7	-0.4	-0.2	-0.4	100	91.6	85.4	89.5	100	93.2
27-Jul-01	10:00	0.6	-0.2	-0.4	-0.4	-0.4	-0.7	99.5	88.3	85.4	89.5	100	95.4
27-Jul-01	10:10	1.1	-0.4	-0.2	-0.2	-0.2	-0.7	100	89.3	85.9	89.5	100	91.5
27-Jul-01	10:20	1.1	-0.4	-0.2	-0.2	-0.2	-0.7	96.7	90.4	85.9	90	100	93.2
27-Jul-01	10:30	0.1	-0.4	-0.2	-0.4	-0.4	-0.7	96.2	90.4	86.5	90	100	94.8
27-Jul-01	10:40	-0.7	-0.2	-0.4	-0.2	-0.2	-0.7	96.7	90.4	85.4	90	100	91.5
27-Jul-01	10:50	-0.7	-0.2	-0.4	-0.2	0.3	-0.9	100	87.7	84.3	90	100	96
27-Jul-01	11:00	-0.7	-0.4	-0.7	0.1	-0.2	-0.7	97.8	90.4	83.8	90	100	91.5
27-Jul-01	11:10	-0.9	-0.2	-0.7	-0.2	-0.4	-0.7	100	88.3	83.8	89.5	100	95.4
27-Jul-01	11:20	-0.9	-0.4	-0.7	-0.2	0.1	-0.7	99.5	87.7	83.3	89	100	91.5
27-Jul-01	11:30	-1.2	-0.4	-0.9	-0.7	-0.2	-0.9	97.8	91.6	83.8	89.5	100	91.5
27-Jul-01	11:40	-1.2	-0.4	-0.7	-0.4	-0.4	-0.9	100	87.7	84.3	89	100	93.7
27-Jul-01	11:50	-1.2	-0.7	-0.9	-0.4	-0.2	-0.9	97.8	90.4	85.4	89	100	93.2
27-Jul-01	12:00	-1.4	-0.4	-0.9	-0.7	0.3	-0.9	98.9	89.9	83.8	89.5	100	92
27-Jul-01	12:10	-1.2	-0.7	-0.7	-0.9	-0.2	-1.2	100	88.3	84.3	88.4	100	94.3
27-Jul-01	12:20	-1.2	-0.7	-0.9	-0.7	-0.2	-0.7	97.8	91.6	84.3	88.4	100	91.5
27-Jul-01	12:30	-0.9	-0.4	-0.7	-0.9	0.1	-0.9	100	88.8	83.3	88.4	100	94.3
27-Jul-01	12:40	-0.9	-0.7	-0.7	-0.9	0.1	-0.7	97.3	88.8	85.4	88.4	100	91.5
27-Jul-01	12:50	-0.7	-0.4	-0.9	-0.9	-0.2	-1.2	100	91.6	83.8	88.4	100	93.2
27-Jul-01	13:00	-0.7	-0.7	-0.7	-0.9	0.1	-0.7	97.3	88.3	83.3	90	100	93.2
27-Jul-01	13:10	-0.9	-0.7	-0.7	-0.7	0.3	-0.9	100	89.9	84.9	91.1	100	93.2
27-Jul-01	13:20	-0.7	-0.4	-0.9	-0.7	0.1	-0.7	97.8	88.3	83.8	90	100	92
27-Jul-01	13:30	-0.9	-0.4	-0.9	-0.7	0.3	-1.2	100	88.8	83.8	89.5	100	93.7
27-Jul-01	13:40	-0.7	-0.2	-1.2	-0.4	0.6	-0.9	100	88.8	83.3	89	100	91.5
27-Jul-01	13:50	-0.4	0.3	-0.9	-0.7	1.3	-0.9	100	88.8	84.3	89.5	100	94.8
27-Jul-01	14:00	-0.2	0.6	-0.7	-0.7	2.1	-0.7	100	88.8	84.9	89	100	91.5
27-Jul-01	14:10	-0.2	1.1	-0.9	-0.9	2.6	-0.9	100	88.3	83.3	89	100	91.5
27-Jul-01	14:20	0.1	1.6	-0.7	-0.9	1.6	-0.7	100	88.8	83.3	89	100	93.2
27-Jul-01	14:30	0.3	1.6	-0.7	-0.9	0.8	-1.2	100	85.5	83.8	89	100	93.7
27-Jul-01	14:40	0.3	1.1	-0.7	-0.9	0.3	-0.9	100	85.5	83.3	89.5	100	90.9
27-Jul-01	14:50	0.6	0.3	-0.9	-0.9	-0.2	-1.2	100	86.1	82.8	89.5	100	94.3
27-Jul-01	15:00	0.3	-0.2	-0.7	-0.4	-0.4	-0.9	100	86.1	84.9	90	100	90.4
27-Jul-01	15:10	0.6	-0.7	-0.7	-0.7	-0.2	-0.7	100	86.1	83.3	89	100	93.7
27-Jul-01	15:20	0.6	-0.7	-0.7	-0.7	0.3	-0.9	100	86.6	83.3	88.4	100	90.9
27-Jul-01	15:30	0.3	-0.9	-0.7	-0.4	-0.4	-0.9	100	86.6	83.8	88.4	100	93.2
27-Jul-01	15:40	0.6	-0.9	-0.7	-0.9	-0.2	-1.2	98.4	86.1	84.3	87.9	100	90.9
27-Jul-01	15:50	-0.4	-1.2	-0.7	-0.9	0.1	-0.9	97.3	87.2	84.3	87.9	100	93.7
27-Jul-01	16:00	-0.7	-1.2	-0.4	-0.9	-0.2	-0.4	99.5	88.8	85.4	87.9	100	93.2
27-Jul-01	16:10	-0.7	-0.7	-0.4	-0.7	-0.4	0.6	100	89.9	85.9	90	100	93.2
27-Jul-01	16:20	1.1	-0.9	-0.2	-0.7	0.1	1.6	100	89.3	86.5	90.6	100	97.1
27-Jul-01	16:30	0.8	-0.7	-0.2	-0.4	0.1	1.3	96.2	89.3	86.5	90	100	90.4
27-Jul-01	16:40	-0.4	-0.4	0.1	-0.7	0.1	0.1	97.3	89.3	84.9	88.4	100	90.4
27-Jul-01	16:50	-1.2	-0.7	-0.2	-0.7	-0.4	-0.9	97.3	87.2	83.8	88.4	100	90.9
27-Jul-01	17:00	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	89.3	83.8	88.4	100	95.4
27-Jul-01	17:10	-0.4	-0.4	-0.4	-0.7	0.1	-0.9	97.3	87.7	83.3	89	100	93.2
27-Jul-01	17:20	-0.7	-0.9	-0.9	-0.7	0.1	-0.9	100	86.6	83.8	89.5	100	92

27-Jul-01	17:30	-0.4	-0.7	-0.9	-0.4	-0.4	-0.7	98.4	91	83.8	89.5	100	96
27-Jul-01	17:40	-0.7	-0.4	-0.9	-0.7	0.1	-0.9	100	91	85.4	89.5	100	92
27-Jul-01	17:50	-0.9	-0.7	-0.9	-0.4	0.3	-0.7	97.3	86.6	84.3	89.5	100	96
27-Jul-01	18:00	-0.7	-0.9	-0.7	-0.4	0.1	-0.7	100	91.6	83.3	89.5	100	93.2
27-Jul-01	18:10	-0.9	-0.7	-0.7	-0.4	-0.4	-0.7	97.8	91.6	85.9	89.5	100	95.4
27-Jul-01	18:20	-1.2	-0.4	-0.7	-0.2	-0.2	-0.7	100	91	83.8	89.5	100	96
27-Jul-01	18:30	-0.9	-0.7	-0.9	-0.4	0.1	-0.7	97.8	87.2	85.4	89.5	100	93.7
27-Jul-01	18:40	-1.2	-0.7	-0.9	-0.2	0.1	-0.4	100	91.6	85.9	89.5	100	95.4
27-Jul-01	18:50	-0.9	-0.4	-0.7	-0.2	-0.2	-0.9	97.3	91.6	83.3	89.5	100	93.2
27-Jul-01	19:00	-0.9	-0.4	-0.7	-0.4	-0.2	-0.7	100	92.1	85.9	89.5	100	96
27-Jul-01	19:10	-1.2	-0.2	-0.7	-0.4	0.1	-0.4	97.8	88.8	83.8	89.5	100	93.2
27-Jul-01	19:20	-1.2	-0.4	-0.7	-0.2	0.1	-0.7	100	88.3	85.9	89.5	100	96
27-Jul-01	19:30	-1.2	-0.4	-0.4	-0.4	0.3	-0.7	98.9	91.6	84.9	89.5	100	94.3
27-Jul-01	19:40	-1.2	-0.4	-0.7	-0.2	0.8	-0.7	100	92.1	84.3	89.5	100	95.4
27-Jul-01	19:50	-1.2	-0.2	-0.9	-0.4	1.1	-0.7	99.5	92.1	85.9	89.5	100	96
27-Jul-01	20:00	-0.9	0.1	-0.7	-0.2	1.6	-0.9	100	89.9	83.3	87.9	100	94.8
27-Jul-01	20:10	-0.9	-0.4	-0.9	-0.4	1.8	-0.7	100	87.7	85.9	87.9	100	96
27-Jul-01	20:20	-0.7	-0.4	-0.4	-0.7	1.3	-0.7	100	91.6	84.3	87.3	100	94.8
27-Jul-01	20:30	-1.2	-0.4	-0.9	-0.9	0.3	-0.7	100	91.6	85.4	87.3	100	95.4
27-Jul-01	20:40	-0.7	-0.2	-0.4	-0.9	-0.2	-0.7	100	92.1	85.9	90	100	93.7
27-Jul-01	20:50	-1.2	0.1	-0.7	-0.7	-0.2	-0.9	100	89.9	83.8	90.6	100	96
27-Jul-01	21:00	-0.9	-0.4	-0.7	-0.7	-0.2	-0.7	100	87.7	85.9	89.5	100	92
27-Jul-01	21:10	-0.7	-0.4	-0.7	-0.7	-0.2	-0.7	100	91.6	84.3	88.4	100	96
27-Jul-01	21:20	-0.7	-0.4	-0.7	-0.9	-0.4	-0.7	100	92.1	83.8	87.9	100	92.6
27-Jul-01	21:30	-0.4	-0.4	-0.7	-0.7	-0.4	-0.9	100	91	84.3	90.6	100	96
27-Jul-01	21:40	-0.2	0.1	-0.4	-0.7	-0.2	-0.9	100	91	84.9	90.6	100	93.2
27-Jul-01	21:50	-0.2	0.3	-0.4	-0.4	0.1	-0.7	100	90.4	84.9	90	100	95.4
27-Jul-01	22:00	-0.2	0.6	-0.7	-0.7	0.1	-0.7	100	89.9	85.4	88.4	100	93.7
27-Jul-01	22:10	-0.2	0.6	-0.4	-0.9	-0.7	-0.7	100	89.3	85.4	89	100	95.4
27-Jul-01	22:20	0.8	1.1	-0.4	-0.9	-0.2	-0.7	100	89.3	85.9	90.6	100	94.8
27-Jul-01	22:30	1.1	1.1	-0.2	-0.7	0.1	-0.4	97.8	90.4	85.9	90.6	100	95.4
27-Jul-01	22:40	-0.2	0.8	-0.7	-0.4	0.1	-0.9	96.7	89.3	84.3	89.5	100	96
27-Jul-01	22:50	-1.2	0.6	-0.4	-0.7	-0.2	-0.7	100	87.2	83.8	89.5	100	93.7
27-Jul-01	23:00	-0.7	0.1	-0.7	-0.7	-0.4	-0.7	100	88.8	85.9	89.5	100	96
27-Jul-01	23:10	-0.4	0.1	-0.4	-0.9	-0.2	-0.4	100	91	85.9	88.4	100	94.3
27-Jul-01	23:20	-0.2	0.1	-0.7	-0.9	0.1	-0.9	100	91	83.8	90	100	96
27-Jul-01	23:30	-0.2	-0.2	-0.9	-0.7	0.1	-0.7	100	88.8	87	91.1	100	94.3
27-Jul-01	23:40	0.1	-0.2	-0.7	-0.7	-0.4	-0.9	100	91	84.3	90.6	100	96
27-Jul-01	23:50	0.1	-0.2	-0.7	-0.7	-0.4	-0.7	100	91.6	85.9	89.5	100	94.8
28-Jul-01	00:00	-0.2	-0.2	-0.7	-0.7	0.1	-0.2	100	91	85.9	88.4	100	94.3
28-Jul-01	00:10	-0.2	-0.2	-0.7	-0.9	0.1	0.1	100	88.8	84.9	90.6	100	93.2
28-Jul-01	00:20	0.1	-0.4	-0.4	-0.7	-0.2	0.8	100	90.4	86.5	90.6	100	92.6
28-Jul-01	00:30	0.3	-0.4	-0.7	-0.4	-0.4	0.8	100	91.6	83.8	90.6	100	89.8
28-Jul-01	00:40	-0.2	-0.2	-0.4	-0.4	-0.4	0.1	100	91.6	85.9	89	100	89.8
28-Jul-01	00:50	0.1	0.1	-0.4	-0.9	0.1	-0.7	100	91.6	85.9	88.4	100	96
28-Jul-01	01:00	0.3	-0.2	-0.9	-0.9	0.1	-0.7	100	88.3	85.9	90.6	100	92
28-Jul-01	01:10	0.3	-0.4	-0.7	-0.7	0.1	-0.7	100	91.6	86.5	90.6	100	96
28-Jul-01	01:20	0.1	-0.2	-0.7	-0.7	-0.7	-0.7	100	91.6	83.8	90	100	93.2
28-Jul-01	01:30	0.1	-0.2	-0.4	-0.7	-0.2	-0.7	100	91	85.9	89	100	96

28-Jul-01	01:40	0.3	-0.2	-0.7	-0.9	0.1	-0.7	100	91	84.3	89	100	96
28-Jul-01	01:50	0.1	-0.2	-0.4	-0.9	0.6	-0.7	100	88.8	85.9	91.1	100	96
28-Jul-01	02:00	0.3	-0.4	-0.7	-0.7	0.8	-0.4	100	91.6	85.9	90.6	100	96.5
28-Jul-01	02:10	0.3	-0.2	-0.7	-0.7	1.3	-0.9	100	91.6	84.3	90	100	96
28-Jul-01	02:20	0.3	-0.2	-0.7	-0.4	0.8	-0.4	100	91.6	85.9	89	100	96
28-Jul-01	02:30	0.3	0.1	-0.7	-0.9	0.1	-0.4	100	89.9	85.4	88.4	100	96
28-Jul-01	02:40	0.6	-0.2	-0.7	-0.9	-0.4	-0.4	99.5	89.9	85.9	90	100	95.4
28-Jul-01	02:50	0.1	-0.4	-0.7	-0.7	-0.4	-0.9	99.5	91.6	85.9	90	100	96
28-Jul-01	03:00	0.3	-0.4	-0.7	-0.7	-0.2	-0.4	100	91	84.3	90	100	95.4
28-Jul-01	03:10	0.3	0.1	-0.7	-0.7	0.1	-0.4	100	91.6	85.9	88.4	100	96
28-Jul-01	03:20	0.3	0.1	-0.4	-0.9	-0.2	-0.4	100	87.7	84.9	90	100	93.7
28-Jul-01	03:30	0.3	-0.4	-0.7	-0.9	-0.7	-0.9	100	91	84.9	91.1	100	96
28-Jul-01	03:40	0.3	-0.2	-0.7	-0.4	-0.2	-0.4	100	91.6	85.4	90.6	100	93.7
28-Jul-01	03:50	0.3	-0.2	-0.4	-0.7	0.1	-0.4	100	91.6	85.4	90	100	96
28-Jul-01	04:00	0.6	0.1	-0.4	-0.7	-0.2	-0.7	100	91.6	85.9	88.4	100	93.2
28-Jul-01	04:10	0.6	-0.2	-0.4	-0.9	-0.2	-0.7	100	89.3	85.9	90	100	96
28-Jul-01	04:20	0.8	-0.2	-0.2	-0.7	-0.4	-0.7	96.7	89.9	85.9	90.6	100	93.2
28-Jul-01	04:30	-0.4	-0.2	-0.2	-0.4	-0.2	-0.7	96.7	91.6	85.9	90.6	100	96
28-Jul-01	04:40	-0.7	-0.2	-0.7	-0.4	0.1	-0.7	100	91.6	84.3	90	100	94.8
28-Jul-01	04:50	-0.7	0.1	-0.4	-0.7	0.1	-0.7	100	91	83.8	88.4	100	94.3
28-Jul-01	05:00	-0.7	-0.2	-0.7	-0.9	-0.4	-0.7	97.8	91	86.5	90	100	96
28-Jul-01	05:10	-1.2	-0.2	-0.4	-0.7	-0.4	-0.4	100	87.7	85.9	90.6	100	93.2
28-Jul-01	05:20	-0.9	-0.2	-0.7	-0.7	0.1	-0.4	99.5	91.6	85.9	90	100	96
28-Jul-01	05:30	-1.2	-0.2	-0.7	-0.7	-0.2	-0.4	100	91.6	87	89.5	100	94.3
28-Jul-01	05:40	-1.2	-0.2	-0.4	-0.7	0.1	-0.7	100	91	83.8	88.4	100	96
28-Jul-01	05:50	-1.2	0.1	-0.4	-0.7	-0.4	-0.7	100	91	86.5	90.6	100	95.4
28-Jul-01	06:00	-0.9	0.1	-0.4	-0.7	-0.4	-0.4	100	90.4	84.9	90.6	100	94.3
28-Jul-01	06:10	-0.9	0.1	-0.4	-0.7	0.1	-0.4	100	90.4	85.9	90	100	96
28-Jul-01	06:20	-0.9	0.3	-0.7	-0.4	-0.2	-0.4	98.9	90.4	85.9	89.5	100	93.2
28-Jul-01	06:30	-1.2	0.3	-0.7	-0.7	-0.2	-0.7	100	87.7	84.3	88.4	100	96
28-Jul-01	06:40	-0.7	-0.2	-0.7	-0.9	-0.4	-0.7	100	88.8	86.5	90.6	100	96
28-Jul-01	06:50	-1.2	-0.2	-0.7	-0.7	-0.2	-0.7	100	91.6	84.3	90.6	100	93.7
28-Jul-01	07:00	-1.2	-0.2	-0.9	-0.7	-0.2	-0.7	99.5	91	85.9	90	100	96
28-Jul-01	07:10	-0.9	0.1	-0.4	-0.4	0.1	-0.4	100	91	85.9	89	100	93.7
28-Jul-01	07:20	-1.2	-0.4	-0.7	-0.7	-0.2	-0.7	99.5	88.8	85.9	88.4	100	96
28-Jul-01	07:30	-1.2	-0.2	-0.7	-0.9	0.1	-0.7	100	91.6	86.5	90.6	100	92.6
28-Jul-01	07:40	-0.9	-0.2	-0.7	-0.7	0.3	-0.4	100	91	83.8	90.6	100	96
28-Jul-01	07:50	-1.2	0.1	-0.9	-0.4	0.8	-0.4	100	91.6	85.9	90	100	94.8
28-Jul-01	08:00	-0.7	-0.2	-0.4	-0.7	1.3	-0.2	99.5	87.2	84.9	89.5	100	94.3
28-Jul-01	08:10	-0.9	-0.2	-0.7	-0.4	1.6	0.3	100	91.6	85.9	90	100	93.2
28-Jul-01	08:20	-0.9	-0.2	-0.7	-0.4	0.8	0.8	97.3	91.6	85.9	90	100	92.6
28-Jul-01	08:30	-1.2	0.1	-0.7	-0.4	-0.2	1.1	100	91	84.3	90	100	90.4
28-Jul-01	08:40	-0.9	0.1	-0.4	-0.4	-0.4	-0.2	100	87.7	86.5	90	100	90.4
28-Jul-01	08:50	-0.9	-0.2	-0.7	-0.4	-0.4	-0.7	100	91.6	83.8	90	100	95.4
28-Jul-01	09:00	-1.2	0.1	-0.7	-0.4	-0.2	-0.7	100	91.6	85.9	90	100	93.7
28-Jul-01	09:10	-0.9	0.1	-0.4	-0.4	-0.2	-0.7	100	88.8	83.8	90	100	96
28-Jul-01	09:20	-1.2	-0.2	-0.4	-0.4	-0.4	-0.9	100	90.4	84.9	90	100	92.6
28-Jul-01	09:30	-0.7	-0.2	-0.4	-0.4	-0.4	-0.7	99.5	91.6	85.4	89.5	100	96
28-Jul-01	09:40	-1.2	0.1	-0.7	-0.4	-0.2	-0.7	100	88.3	85.9	90	100	92.6

28-Jul-01	09:50	-0.9	-0.2	-0.4	-0.4	0.1	-0.9	97.8	90.4	85.9	90	100	96
28-Jul-01	10:00	-0.9	-0.2	-0.4	-0.2	-0.4	-0.7	100	91.6	86.5	90	100	93.2
28-Jul-01	10:10	-0.7	-0.2	-0.2	-0.2	-0.4	-0.9	100	90.4	86.5	90	100	96
28-Jul-01	10:20	0.3	-0.2	-0.2	-0.2	0.1	-0.7	100	89.9	85.9	90	100	93.2
28-Jul-01	10:30	0.8	0.1	-0.4	-0.2	0.3	-0.9	98.9	89.9	87.5	90	100	95.4
28-Jul-01	10:40	0.1	-0.2	0.1	-0.2	-0.2	-0.7	97.8	90.4	85.9	90	100	93.2
28-Jul-01	10:50	-0.7	-0.4	-0.4	-0.2	-0.4	-0.9	100	88.3	84.3	90	100	95.4
28-Jul-01	11:00	-0.7	-0.2	-0.4	-0.2	0.1	-0.7	98.9	91	83.8	89.5	100	95.4
28-Jul-01	11:10	-0.9	-0.2	-0.4	-0.4	0.1	-0.9	100	89.9	83.8	88.4	100	92
28-Jul-01	11:20	-0.7	-0.4	-0.7	-0.4	-0.4	-0.9	100	88.3	83.8	88.4	100	96.5
28-Jul-01	11:30	-0.9	-0.4	-0.9	-0.7	-0.4	-0.9	100	91.6	85.9	88.4	100	92.6
28-Jul-01	11:40	-0.7	-0.2	-0.9	-0.9	0.1	-0.7	100	87.7	84.3	88.4	100	96
28-Jul-01	11:50	-0.9	-0.4	-0.9	-0.7	0.1	-0.7	100	91.6	83.8	90.6	100	92.6
28-Jul-01	12:00	-0.7	-0.4	-0.9	-0.7	-0.4	-0.9	100	88.3	85.9	91.1	100	96
28-Jul-01	12:10	-0.9	-0.7	-0.7	-0.4	-0.4	-0.7	100	90.4	84.3	90	100	93.2
28-Jul-01	12:20	-0.7	-0.7	-0.7	-0.4	0.1	-0.9	100	91	83.8	89	100	96
28-Jul-01	12:30	-0.7	-0.7	-0.7	-0.9	0.3	-0.9	100	88.8	85.9	88.4	100	92.6
28-Jul-01	12:40	-0.4	-0.4	-0.7	-0.9	-0.2	-0.9	98.9	91	83.8	88.4	100	96
28-Jul-01	12:50	-0.9	-0.7	-0.7	-0.9	-0.2	-0.9	100	87.2	85.4	90.6	100	95.4
28-Jul-01	13:00	-0.9	-0.4	-0.7	-0.9	0.1	-0.9	99.5	91.6	84.3	91.1	100	92.6
28-Jul-01	13:10	-1.2	-0.7	-0.7	-0.7	0.1	-0.9	100	87.7	83.3	90	100	96
28-Jul-01	13:20	-0.7	-0.7	-0.7	-0.7	-0.4	-0.7	100	91	85.4	89	100	92.6
28-Jul-01	13:30	-0.4	-0.4	-0.7	-0.9	-0.2	-1.2	97.8	91	83.3	88.4	100	95.4
28-Jul-01	13:40	-0.7	-0.2	-0.7	-0.9	0.3	-0.7	100	90.4	85.4	90	100	93.7
28-Jul-01	13:50	-0.4	0.3	-0.7	-0.9	0.8	-1.2	97.8	89.9	83.8	91.1	100	92
28-Jul-01	14:00	-0.4	0.8	-0.9	-0.7	1.3	-0.9	100	89.3	83.8	91.1	100	96
28-Jul-01	14:10	-0.4	1.1	-0.7	-0.7	1.8	-0.9	97.8	88.8	83.8	89.5	100	92
28-Jul-01	14:20	-0.9	1.6	-0.7	-0.9	1.3	-1.2	100	91	85.9	88.4	100	96
28-Jul-01	14:30	-0.4	1.6	-0.7	-1.2	0.3	-0.9	99.5	86.6	83.3	88.4	100	92.6
28-Jul-01	14:40	-0.7	0.8	-0.9	-0.9	-0.2	-1.2	100	85	84.3	89.5	100	94.3
28-Jul-01	14:50	-0.7	0.1	-0.7	-0.9	-0.4	-0.9	99.5	85.5	83.8	90	100	96
28-Jul-01	15:00	-0.7	-0.4	-0.9	-0.7	-0.2	-0.9	100	85.5	83.8	90	100	92.6
28-Jul-01	15:10	-0.4	-0.2	-0.7	-1.2	-0.2	-1.2	97.8	88.3	84.9	88.4	100	94.8
28-Jul-01	15:20	-0.9	-0.7	-0.7	-0.9	-0.4	-0.9	100	85.5	83.3	88.4	100	96
28-Jul-01	15:30	-0.7	-0.7	-0.7	-0.9	-0.2	-0.9	100	89.9	84.3	88.4	100	92.6
28-Jul-01	15:40	-0.4	-0.7	-0.4	-1.2	-0.2	-1.2	99.5	88.8	84.9	90.6	100	94.8
28-Jul-01	15:50	-0.4	-0.7	-0.4	-0.9	0.3	-0.7	100	89.3	84.9	91.1	100	94.8
28-Jul-01	16:00	-0.4	-0.4	-0.4	-0.7	-0.2	-0.4	99.5	91.6	85.4	89.5	100	94.3
28-Jul-01	16:10	-0.7	-0.4	-0.4	-0.9	-0.4	-0.2	99.5	89.3	85.9	88.4	100	95.4
28-Jul-01	16:20	0.1	-0.2	-0.2	-0.7	-0.2	0.8	100	89.3	85.9	88.4	100	95.4
28-Jul-01	16:30	1.3	-0.4	-0.2	-0.9	0.1	0.8	100	89.3	85.9	89.5	100	92
28-Jul-01	16:40	0.1	-0.7	-0.2	-0.9	0.1	0.1	96.7	89.3	85.4	90.6	100	91.5
28-Jul-01	16:50	-0.9	-0.4	-0.2	-0.7	-0.4	-0.7	100	88.3	84.3	91.1	100	92
28-Jul-01	17:00	-0.7	-0.7	-0.4	-0.4	-0.2	-0.7	100	91	83.8	90	100	96
28-Jul-01	17:10	-0.9	-0.4	-0.4	-0.4	0.1	-0.9	99.5	91.6	83.3	90	100	92.6
28-Jul-01	17:20	-0.9	-0.2	-0.7	-0.7	0.1	-0.7	100	87.7	83.3	89.5	100	96
28-Jul-01	17:30	-0.9	-0.4	-0.9	-0.7	-0.4	-0.4	100	90.4	83.3	90	100	93.7
28-Jul-01	17:40	-0.9	-0.4	-0.9	-0.4	-0.2	-1.2	100	91.6	85.4	90	100	94.3
28-Jul-01	17:50	-0.9	-0.4	-0.7	-0.2	-0.2	-0.7	100	91.6	83.8	90	100	96

28-Jul-01	18:00	-0.9	-0.2	-0.4	-0.2	0.1	-0.7	99.5	88.3	83.3	90	100	93.2
28-Jul-01	18:10	-1.2	-0.4	-0.4	-0.4	0.1	-0.7	100	91	85.4	90	100	94.3
28-Jul-01	18:20	-0.7	-0.7	-0.4	-0.4	-0.4	-1.2	100	91	83.3	90	100	96
28-Jul-01	18:30	-1.2	-0.4	-0.7	-0.2	-0.2	-0.7	100	91.6	84.9	90	100	95.4
28-Jul-01	18:40	-0.9	-0.4	-0.7	-0.4	0.1	-0.9	100	88.3	84.3	90	100	95.4
28-Jul-01	18:50	-0.9	-0.4	-0.4	-0.2	-0.4	-0.9	97.3	91.6	83.3	90	100	94.3
28-Jul-01	19:00	-0.9	-0.4	-0.7	-0.2	-0.4	-0.9	100	92.1	85.4	90	100	95.4
28-Jul-01	19:10	-0.4	-0.4	-0.7	-0.2	-0.2	-0.7	100	88.8	83.8	90	100	96.5
28-Jul-01	19:20	-1.2	-0.4	-0.4	-0.2	0.1	-0.9	100	91	83.3	90	100	95.4
28-Jul-01	19:30	-0.9	-0.7	-0.7	-0.2	0.3	-0.7	100	91.6	86.5	90	100	93.2
28-Jul-01	19:40	-0.7	-0.2	-0.4	-0.2	0.3	-0.7	100	91.6	83.3	90	100	96
28-Jul-01	19:50	-0.9	-0.7	-0.4	-0.2	0.8	-0.4	100	88.8	84.9	90	100	93.7
28-Jul-01	20:00	-0.9	-0.4	-0.7	-0.4	1.6	-0.9	99.5	91.6	84.3	89	100	96
28-Jul-01	20:10	-1.2	-0.7	-0.4	-0.4	2.1	-0.4	100	91.6	83.3	87.9	100	96
28-Jul-01	20:20	-0.9	-0.4	-0.7	-0.9	1.1	-0.7	97.8	90.4	85.4	87.9	100	93.7
28-Jul-01	20:30	-1.2	-0.7	-0.7	-0.9	0.3	-0.7	100	90.4	83.3	87.9	100	96
28-Jul-01	20:40	-0.7	-0.7	-0.7	-1.2	-0.4	-0.9	100	92.1	84.3	87.9	100	94.8
28-Jul-01	20:50	-0.9	-0.4	-0.4	-0.9	-0.4	-0.4	100	91.6	84.9	90.6	100	96
28-Jul-01	21:00	-0.9	-0.4	-0.7	-0.7	-0.2	-0.7	99.5	87.7	83.8	91.1	100	93.2
28-Jul-01	21:10	-1.2	-0.4	-0.7	-0.4	-0.2	-0.7	100	91	85.4	90	100	96
28-Jul-01	21:20	-0.7	-0.7	-0.7	-0.7	-0.2	-0.7	100	92.1	83.8	88.4	100	92.6
28-Jul-01	21:30	-0.9	-0.2	-0.4	-0.9	-0.7	-0.7	100	91	84.3	87.9	100	96.5
28-Jul-01	21:40	-1.2	-0.2	-0.7	-0.9	-0.2	-0.7	100	91	84.3	90.6	100	93.2
28-Jul-01	21:50	-0.4	0.1	-0.4	-0.9	0.1	-0.9	100	91	84.9	90.6	100	96
28-Jul-01	22:00	-1.2	0.3	-0.4	-0.4	-0.2	-0.4	97.8	90.4	85.4	90	100	96
28-Jul-01	22:10	-0.9	0.3	-0.4	-0.7	0.1	-0.9	100	90.4	85.4	88.4	100	96
28-Jul-01	22:20	0.1	0.8	-0.2	-0.9	-0.4	-0.4	100	89.9	85.4	90	100	96
28-Jul-01	22:30	0.3	0.6	-0.2	-1.2	-0.2	-0.9	97.8	91	85.9	91.1	100	95.4
28-Jul-01	22:40	-0.9	0.6	-0.2	-0.7	-0.2	-0.4	97.3	90.4	83.8	90	100	96
28-Jul-01	22:50	-0.9	0.3	-0.7	-0.7	-0.2	-0.9	100	87.2	83.8	90	100	92.6
28-Jul-01	23:00	-0.9	-0.2	-0.4	-0.4	0.1	-0.7	100	89.3	83.3	90	100	96
28-Jul-01	23:10	-0.9	-0.2	-0.4	-0.9	-0.4	-0.7	98.4	91.6	85.9	89	100	93.2
28-Jul-01	23:20	-1.2	0.1	-0.7	-0.9	-0.2	-0.7	100	91.6	83.8	90.6	100	96
28-Jul-01	23:30	-0.9	-0.2	-0.4	-0.9	0.1	-0.7	98.4	88.8	84.9	91.1	100	93.2
28-Jul-01	23:40	-1.2	-0.4	-0.7	-0.4	-0.2	-0.7	100	91.6	85.9	90.6	100	96
28-Jul-01	23:50	-0.9	-0.2	-0.4	-0.4	0.3	-0.4	100	91.6	83.3	89	100	95.4
29-Jul-01	00:00	-1.2	-0.2	-0.7	-0.9	-0.4	-0.4	100	89.9	85.9	88.4	100	95.4
29-Jul-01	00:10	-0.9	-0.4	-0.4	-0.9	-0.4	0.3	98.4	90.4	83.8	90.6	100	93.7
29-Jul-01	00:20	-0.9	-0.2	-0.7	-0.9	-0.2	0.8	100	91.6	84.3	91.1	100	92.6
29-Jul-01	00:30	-1.2	-0.2	-0.4	-0.7	-0.2	1.1	99.5	91.6	85.9	90	100	90.4
29-Jul-01	00:40	-1.2	-0.2	-0.4	-0.9	0.3	-0.4	100	89.3	83.3	88.4	100	90.4
29-Jul-01	00:50	-0.9	-0.4	-0.4	-0.7	-0.7	-0.9	100	88.8	85.9	88.4	100	95.4
29-Jul-01	01:00	-1.2	-0.4	-0.4	-1.2	-0.4	-0.7	98.9	91.6	84.9	91.1	100	92.6
29-Jul-01	01:10	-0.9	-0.4	-0.4	-0.7	-0.2	-0.7	100	92.1	83.3	90.6	100	96
29-Jul-01	01:20	-0.9	-0.2	-0.7	-0.7	0.1	-0.7	97.8	91.6	85.9	90	100	93.7
29-Jul-01	01:30	-1.2	0.1	-0.4	-0.7	0.1	-0.7	100	88.3	83.8	88.4	100	96.5
29-Jul-01	01:40	-0.9	-0.2	-0.7	-1.2	0.6	-0.7	100	91.6	85.4	89.5	100	94.8
29-Jul-01	01:50	-1.2	-0.4	-0.7	-0.9	0.8	-0.7	100	91.6	85.9	91.1	100	96
29-Jul-01	02:00	-0.7	-0.4	-0.7	-0.7	1.3	-0.7	100	91	83.8	90.6	100	93.7

29-Jul-01	02:10	-0.9	-0.2	-0.7	-0.4	1.8	-0.7	100	88.3	85.9	90	100	96
29-Jul-01	02:20	-0.9	-0.4	-0.4	-0.7	1.1	-0.7	100	91	83.8	88.4	100	94.8
29-Jul-01	02:30	-0.9	-0.4	-0.7	-0.9	0.3	-0.7	99.5	91.6	84.3	90	100	96
29-Jul-01	02:40	-1.4	-0.2	-0.7	-0.9	-0.4	-0.7	100	91.6	85.9	90	100	95.4
29-Jul-01	02:50	-0.7	-0.2	-0.4	-0.9	-0.4	-0.7	100	88.3	83.3	89.5	100	96
29-Jul-01	03:00	-0.9	-0.4	-0.4	-0.7	-0.2	-0.4	99.5	91.6	85.4	90	100	93.7
29-Jul-01	03:10	-1.2	-0.4	-0.4	-0.9	-0.2	-0.7	100	91.6	83.8	88.4	100	96
29-Jul-01	03:20	-0.9	-0.4	-0.7	-0.9	-0.2	-0.4	100	91	84.3	89.5	100	93.7
29-Jul-01	03:30	-0.9	-0.4	-0.7	-0.9	-0.4	-0.9	99.5	88.3	84.3	91.1	100	96.5
29-Jul-01	03:40	-0.9	-0.4	-0.4	-0.7	-0.2	-0.7	100	91	84.9	90.6	100	93.2
29-Jul-01	03:50	-0.9	-0.2	-0.4	-0.4	0.1	-0.7	100	91.6	84.9	90	100	96
29-Jul-01	04:00	-0.9	-0.2	-0.7	-0.7	0.1	-0.7	100	90.4	85.4	88.4	100	93.7
29-Jul-01	04:10	-0.7	-0.2	-0.4	-0.9	-0.4	-0.7	100	89.9	85.4	90	100	96.5
29-Jul-01	04:20	-0.2	-0.4	-0.2	-1.2	-0.7	-0.9	100	91	85.4	91.1	100	93.7
29-Jul-01	04:30	0.1	-0.2	-0.2	-0.7	-0.2	-0.7	97.8	91.6	85.9	90.6	100	96
29-Jul-01	04:40	-1.2	0.1	-0.2	-0.4	0.1	-0.7	100	91	84.3	90	100	93.2
29-Jul-01	04:50	-0.9	-0.2	-0.4	-0.7	0.1	-0.7	100	88.8	83.3	88.4	100	96
29-Jul-01	05:00	-0.7	-0.7	-0.4	-0.9	-0.4	-0.7	100	91	83.3	90	100	92.6
29-Jul-01	05:10	-0.9	-0.4	-0.7	-0.9	-0.4	-0.7	97.8	91.6	85.9	91.1	100	96
29-Jul-01	05:20	-0.9	0.1	-0.7	-0.9	-0.2	-0.4	100	88.3	84.3	90.6	100	93.7
29-Jul-01	05:30	-0.7	-0.4	-0.7	-0.4	0.1	-0.7	99.5	89.3	83.3	90	100	96
29-Jul-01	05:40	-1.4	-0.2	-0.4	-0.9	-0.2	-0.7	100	89.9	86.5	88.4	100	93.2
29-Jul-01	05:50	-0.9	-0.2	-0.4	-0.9	-0.4	-0.7	100	90.4	83.3	90	100	96.5
29-Jul-01	06:00	-0.9	-0.2	-0.7	-0.9	-0.2	-0.7	99.5	90.4	85.4	91.1	100	94.8
29-Jul-01	06:10	-0.9	0.3	-0.4	-0.7	0.1	-0.4	100	90.4	85.4	90.6	100	94.8
29-Jul-01	06:20	-0.9	0.6	-0.7	-0.4	-0.2	-0.7	98.9	90.4	83.3	90	100	96
29-Jul-01	06:30	-1.2	0.6	-0.7	-0.7	-0.2	-0.7	100	88.8	85.9	88.4	100	93.7
29-Jul-01	06:40	-0.9	-0.2	-0.4	-1.2	-0.4	-0.7	100	88.3	83.8	90	100	96
29-Jul-01	06:50	-0.9	-0.2	-0.4	-0.7	-0.4	-0.7	100	91.6	84.9	91.1	100	96
29-Jul-01	07:00	-0.7	-0.2	-0.7	-0.4	-0.2	-0.7	97.8	91.6	85.9	90.6	100	96
29-Jul-01	07:10	-1.2	-0.2	-0.7	-0.7	-0.2	-0.4	100	87.7	83.3	89.5	100	94.3
29-Jul-01	07:20	-0.9	-0.4	-0.7	-0.7	0.1	-0.7	100	91.6	85.9	88.4	100	96
29-Jul-01	07:30	-0.9	-0.4	-0.4	-1.2	0.1	-0.4	99.5	92.1	83.8	90	100	95.4
29-Jul-01	07:40	-1.2	-0.2	-0.7	-0.9	0.6	-0.7	100	91.6	84.3	91.1	100	96
29-Jul-01	07:50	-0.7	-0.4	-0.4	-0.4	0.8	-0.4	100	87.7	85.9	90.6	100	95.4
29-Jul-01	08:00	-0.9	-0.7	-0.4	-0.4	1.1	-0.4	98.9	91	83.3	90	100	95.4
29-Jul-01	08:10	-1.2	-0.7	-0.4	-0.4	1.6	0.3	100	92.1	85.9	90	100	93.7
29-Jul-01	08:20	-1.2	-0.2	-0.7	-0.7	1.1	1.1	100	92.1	84.3	89.5	100	93.2
29-Jul-01	08:30	-1.2	-0.4	-0.4	-0.7	-0.2	0.8	100	88.8	83.8	89.5	100	90.9
29-Jul-01	08:40	-0.9	-0.7	-0.4	-0.7	-0.4	-0.2	100	91.6	86.5	90	100	90.4
29-Jul-01	08:50	-1.2	-0.4	-0.7	-0.4	-0.4	-0.9	100	92.1	83.8	90	100	93.7
29-Jul-01	09:00	-0.9	-0.2	-0.7	-0.4	-0.4	-0.7	100	88.8	85.4	90	100	96
29-Jul-01	09:10	-1.2	-0.4	-0.7	-0.2	0.1	-0.7	100	91.6	85.4	90	100	92.6
29-Jul-01	09:20	-0.7	-0.4	-0.7	-0.2	-0.7	-0.4	100	92.1	83.3	90	100	96
29-Jul-01	09:30	-0.9	-0.2	-0.7	-0.2	-0.4	-0.9	100	91	83.8	90	100	93.2
29-Jul-01	09:40	-0.9	-0.7	-0.7	-0.2	-0.2	-0.4	100	90.4	84.3	90	100	96
29-Jul-01	09:50	-0.9	-0.4	-0.4	-0.2	0.1	-0.7	99.5	92.1	84.3	90	100	94.8
29-Jul-01	10:00	-0.7	-0.2	-0.4	-0.2	-0.2	-0.7	100	91.6	85.4	90	100	93.2
29-Jul-01	10:10	-0.7	-0.2	-0.4	-0.2	-0.4	-0.7	100	90.4	85.4	90	100	96

29-Jul-01	10:20	0.3	-0.4	-0.4	-0.2	-0.2	-0.7	100	90.4	85.4	90	100	92
29-Jul-01	10:30	0.6	-0.4	-0.2	-0.2	0.1	-0.7	98.9	91	85.9	90	100	94.8
29-Jul-01	10:40	-0.4	-0.4	-0.2	-0.2	0.3	-0.9	97.3	91	84.3	90	100	93.2
29-Jul-01	10:50	-0.9	-0.4	-0.4	-0.2	-0.4	-0.7	100	88.3	83.8	90	100	92.6
29-Jul-01	11:00	-0.7	-0.7	-0.4	-0.2	-0.4	-0.9	98.4	91.6	83.3	89	100	92.6
29-Jul-01	11:10	-0.9	-0.4	-0.4	-0.4	0.1	-0.9	100	92.1	84.9	88.4	100	96
29-Jul-01	11:20	-0.7	-0.4	-0.4	-0.7	0.1	-0.9	100	90.4	84.9	88.4	100	92
29-Jul-01	11:30	-0.7	-0.7	-0.9	-0.9	0.1	-0.4	100	90.4	84.3	88.4	100	93.7
29-Jul-01	11:40	-0.7	-0.7	-0.7	-1.2	-0.4	-0.9	100	92.1	85.4	89	100	94.8
29-Jul-01	11:50	-0.9	-0.4	-0.7	-0.9	-0.4	-0.7	100	91	83.3	91.1	100	92.6
29-Jul-01	12:00	-0.4	-0.7	-0.4	-0.4	0.1	-0.9	100	91	85.9	91.1	100	96
29-Jul-01	12:10	-0.7	-0.4	-0.4	-0.7	0.1	-0.9	100	92.1	83.3	89.5	100	92
29-Jul-01	12:20	-0.7	-0.4	-0.7	-0.9	-0.7	-1.2	100	88.8	82.3	88.4	100	96
29-Jul-01	12:30	-0.9	-0.7	-0.4	-0.9	-0.2	-0.7	100	91	84.9	88.4	100	92.6
29-Jul-01	12:40	-0.7	-0.7	-0.4	-1.2	0.1	-0.7	100	92.7	83.3	90.6	100	95.4
29-Jul-01	12:50	-1.2	-0.4	-0.4	-0.7	0.1	-0.7	100	88.3	83.8	91.1	100	91.5
29-Jul-01	13:00	-0.9	-0.4	-0.7	-0.4	-0.4	-0.7	100	91.6	84.3	90	100	94.8
29-Jul-01	13:10	-0.9	-0.4	-0.4	-0.7	-0.2	-0.9	100	91.6	83.3	89	100	90.9
29-Jul-01	13:20	-0.7	-0.7	-0.7	-0.9	-0.2	-0.7	100	89.9	82.8	88.4	100	93.2
29-Jul-01	13:30	-0.7	-0.4	-0.7	-0.9	0.3	-0.7	100	91.6	84.3	90.6	100	95.4
29-Jul-01	13:40	-0.4	-0.4	-0.4	-0.7	0.6	-0.7	100	91	83.3	91.1	100	91.5
29-Jul-01	13:50	-0.7	-0.2	-0.9	-0.7	0.8	-0.9	97.3	91	83.3	90	100	94.3
29-Jul-01	14:00	-0.7	0.3	-0.7	-0.7	1.3	-0.9	100	91	84.9	89	100	91.5
29-Jul-01	14:10	-0.7	0.6	-0.7	-0.9	2.1	-0.9	97.8	90.4	83.3	88.4	100	93.2
29-Jul-01	14:20	-0.7	1.1	-0.9	-0.9	1.3	-1.2	100	91	83.8	90	100	90.9
29-Jul-01	14:30	-0.7	1.3	-0.7	-0.7	0.3	-0.7	99.5	88.8	85.4	91.1	100	93.7
29-Jul-01	14:40	-0.9	0.6	-0.7	-0.7	0.1	-1.2	100	86.1	83.3	90	100	90.9
29-Jul-01	14:50	-0.4	-0.2	-0.7	-0.4	-0.4	-0.7	100	88.3	83.3	90	100	93.2
29-Jul-01	15:00	-1.2	-0.2	-0.7	-0.4	-0.2	-1.2	100	88.8	84.9	89.5	100	94.3
29-Jul-01	15:10	-0.9	-0.4	-0.9	-0.9	-0.2	-0.7	100	88.3	83.8	89.5	100	92.6
29-Jul-01	15:20	-0.7	-0.7	-0.9	-0.7	-0.4	-0.7	98.4	91.6	83.8	89.5	100	95.4
29-Jul-01	15:30	-0.9	-0.4	-0.7	-0.9	-0.7	-0.9	100	89.9	83.3	90.6	100	92
29-Jul-01	15:40	-0.7	-0.7	-0.7	-0.7	-0.2	-0.9	100	90.4	83.8	91.1	100	92
29-Jul-01	15:50	-0.9	-0.7	-0.7	-0.7	0.1	-0.7	100	92.1	83.8	90.6	100	92.6
29-Jul-01	16:00	-0.7	-0.4	-0.7	-0.4	-0.2	0.1	100	90.4	83.8	89.5	100	93.7
29-Jul-01	16:10	-0.4	-0.4	-0.4	-0.9	-0.4	0.6	100	89.9	83.8	88.4	100	94.3
29-Jul-01	16:20	0.1	-0.4	-0.2	-0.9	-0.2	1.3	100	90.4	83.8	89.5	100	92
29-Jul-01	16:30	0.8	-0.4	-0.2	-1.2	0.1	0.8	100	90.4	85.9	91.1	100	90.4
29-Jul-01	16:40	-0.4	-0.4	-0.2	-0.9	0.1	-0.2	97.3	90.4	83.8	91.1	100	90.4
29-Jul-01	16:50	-1.2	-0.7	-0.4	-0.4	-0.4	-0.7	100	89.3	83.3	90	100	93.7
29-Jul-01	17:00	-0.4	-0.7	-0.7	-0.7	-0.4	-0.7	100	91.6	83.8	89.5	100	93.2
29-Jul-01	17:10	-0.9	-0.2	-0.7	-0.7	-0.2	-0.9	99.5	91.6	83.8	90	100	95.4
29-Jul-01	17:20	-0.9	-0.7	-0.9	-0.4	0.3	-0.4	100	88.8	85.9	90	100	96
29-Jul-01	17:30	-0.7	-0.4	-0.7	-0.4	-0.4	-0.7	97.8	91.6	83.3	90	100	94.3
29-Jul-01	17:40	-0.7	-0.4	-0.9	-0.4	-0.2	-0.7	100	92.1	85.4	90	100	93.2
29-Jul-01	17:50	-0.7	-0.4	-0.4	-0.4	-0.2	-0.7	100	88.3	84.9	90	100	96.5
29-Jul-01	18:00	-0.7	-0.4	-0.9	-0.4	0.1	-0.7	100	91.6	83.8	90	100	93.2
29-Jul-01	18:10	-0.9	-0.2	-0.7	-0.4	0.1	-0.9	99.5	92.1	85.4	90	100	96
29-Jul-01	18:20	-1.2	-0.4	-0.7	-0.2	-0.7	-0.7	100	88.3	83.8	90	100	93.2

29-Jul-01	18:30	-0.9	-0.7	-0.9	-0.2	-0.2	-0.7	100	92.1	84.3	90	100	96
29-Jul-01	18:40	-1.2	-0.2	-0.7	-0.4	0.1	-0.7	100	92.1	85.4	90	100	93.2
29-Jul-01	18:50	-0.9	-0.4	-0.9	-0.2	0.3	-0.7	100	88.3	83.3	90	100	96
29-Jul-01	19:00	-0.7	-0.7	-0.7	-0.2	-0.2	-0.7	99.5	91.6	85.4	90	100	93.2
29-Jul-01	19:10	-0.7	-0.4	-0.4	-0.2	-0.4	-0.7	100	92.1	83.8	90	100	96
29-Jul-01	19:20	-0.9	-0.4	-0.7	-0.2	0.1	-0.7	100	87.7	84.3	90	100	92.6
29-Jul-01	19:30	-0.9	-0.4	-0.7	-0.2	-0.2	-0.9	99.5	91.6	85.9	90	100	96.5
29-Jul-01	19:40	-0.9	-0.7	-0.7	-0.2	0.6	-0.7	100	92.1	83.3	90	100	93.2
29-Jul-01	19:50	-0.4	-0.4	-0.7	-0.2	1.1	-0.4	100	88.8	85.4	90	100	96
29-Jul-01	20:00	-0.9	-0.7	-0.7	-0.2	1.6	-0.7	100	91	84.9	89.5	100	92.6
29-Jul-01	20:10	-0.7	-0.4	-0.7	-0.4	1.8	-0.9	100	92.1	83.3	88.4	100	96.5
29-Jul-01	20:20	-1.2	-0.4	-0.7	-0.4	1.1	-0.4	98.9	91.6	85.4	88.4	100	93.2
29-Jul-01	20:30	-0.9	-0.4	-0.7	-0.7	0.3	-0.7	100	89.9	83.3	88.4	100	96
29-Jul-01	20:40	-0.7	-0.4	-0.9	-0.9	-0.4	-0.7	100	92.1	84.3	87.9	100	93.2
29-Jul-01	20:50	-0.9	-0.4	-0.4	-0.9	-0.2	-0.7	100	91.6	84.9	90	100	96
29-Jul-01	21:00	-0.7	-0.4	-0.7	-0.9	0.1	-0.9	100	89.9	83.3	91.1	100	95.4
29-Jul-01	21:10	-0.9	-0.4	-0.7	-0.4	-0.2	-0.4	100	92.1	85.4	91.1	100	93.7
29-Jul-01	21:20	-0.7	-0.2	-0.7	-0.7	-0.2	-0.9	100	91.6	83.8	89	100	96.5
29-Jul-01	21:30	-0.9	-0.4	-0.7	-0.9	-0.4	-0.7	100	90.4	84.3	88.4	100	93.7
29-Jul-01	21:40	-0.7	-0.4	-0.4	-1.2	-0.2	-0.7	100	90.4	84.3	89	100	96
29-Jul-01	21:50	-0.9	0.1	-0.7	-0.9	0.1	-0.7	100	91	84.3	90.6	100	93.2
29-Jul-01	22:00	-0.7	0.3	-0.4	-0.9	0.1	-0.9	100	90.4	84.3	91.1	100	96
29-Jul-01	22:10	-0.4	0.3	-0.4	-0.7	-0.2	-0.7	100	90.4	84.3	89.5	100	94.8
29-Jul-01	22:20	0.1	0.8	-0.4	-0.7	-0.2	-0.7	100	90.4	84.3	88.4	100	95.4
29-Jul-01	22:30	0.8	0.8	-0.2	-0.7	0.1	-0.7	100	91	86.5	88.4	100	95.4
29-Jul-01	22:40	-0.4	0.8	-0.4	-0.9	0.3	-0.9	97.3	90.4	84.3	89.5	100	93.7
29-Jul-01	22:50	-1.2	0.6	-0.7	-0.9	-0.4	-0.9	100	86.6	83.8	90	100	96
29-Jul-01	23:00	-0.7	0.1	-0.4	-0.4	-0.4	-0.9	100	87.7	83.3	90	100	92.6
29-Jul-01	23:10	-0.7	-0.2	-0.7	-0.7	-0.2	-0.9	99.5	91.6	84.9	89.5	100	96
29-Jul-01	23:20	-0.9	-0.4	-0.7	-0.9	0.1	-0.9	100	87.7	85.9	89	100	92.6
29-Jul-01	23:30	-0.9	-0.7	-0.7	-0.9	0.1	-0.9	98.9	91	83.3	89	100	96
29-Jul-01	23:40	-0.9	-0.4	-0.9	-0.9	-0.7	-0.7	100	92.1	84.9	90.6	100	93.2
29-Jul-01	23:50	-0.7	-0.4	-0.9	-0.9	-0.2	-0.9	100	88.3	84.3	91.1	100	93.2
30-Jul-01	00:00	-0.7	-0.4	-0.7	-0.7	0.1	-0.4	100	91	83.8	90	100	93.7
30-Jul-01	00:10	-0.9	-0.4	-0.7	-0.7	0.1	0.1	100	91	85.9	89	100	93.2
30-Jul-01	00:20	-0.9	-0.7	-0.7	-1.2	-0.4	0.8	100	88.3	83.8	89	100	91.5
30-Jul-01	00:30	-0.4	-0.7	-0.7	-0.9	-0.2	1.1	100	91.6	84.3	90.6	100	91.5
30-Jul-01	00:40	-0.9	-0.7	-0.7	-0.9	0.1	0.1	100	92.1	85.9	90.6	100	91.5
30-Jul-01	00:50	-0.7	-0.7	-0.7	-0.7	0.3	-0.9	100	88.8	83.3	90	100	90.9
30-Jul-01	01:00	-1.2	-0.7	-0.9	-0.4	-0.4	-0.7	100	91.6	85.4	89.5	100	96.5
30-Jul-01	01:10	-0.9	-0.4	-0.7	-0.9	-0.4	-0.9	100	91	83.8	89	100	93.2
30-Jul-01	01:20	-0.9	-0.4	-0.9	-0.9	0.1	-0.7	99.5	88.8	84.3	90.6	100	96
30-Jul-01	01:30	-0.9	-0.7	-0.7	-0.9	-0.2	-0.9	100	92.1	86.5	90.6	100	96
30-Jul-01	01:40	-0.9	-0.4	-0.4	-0.4	0.6	-0.7	100	90.4	83.3	90.6	100	93.2
30-Jul-01	01:50	-1.2	-0.4	-0.7	-0.4	1.1	-0.9	100	90.4	84.9	89	100	96
30-Jul-01	02:00	-0.7	-0.7	-0.4	-0.9	1.6	-0.7	100	92.1	84.9	88.4	100	93.7
30-Jul-01	02:10	-0.9	-0.4	-0.9	-0.9	2.1	-0.9	100	88.8	83.8	89.5	100	96
30-Jul-01	02:20	-0.7	-0.7	-0.7	-0.9	1.3	-0.7	100	91.6	85.4	91.1	100	93.7
30-Jul-01	02:30	-1.2	-0.4	-0.9	-0.7	0.6	-0.9	99.5	92.1	83.3	90.6	100	95.4

30-Jul-01	02:40	-0.9	-0.7	-0.7	-0.4	-0.2	-0.7	100	88.8	84.3	89.5	100	96
30-Jul-01	02:50	-0.9	-0.7	-0.9	-0.4	-0.2	-0.7	100	91.6	85.4	89.5	100	92.6
30-Jul-01	03:00	-0.9	-0.4	-0.7	-0.4	-0.4	-0.7	100	92.1	83.3	90	100	96.5
30-Jul-01	03:10	-0.9	-0.4	-0.9	-0.7	0.1	-0.9	100	88.3	85.4	89	100	93.2
30-Jul-01	03:20	-0.9	-0.9	-0.7	-0.9	-0.2	-0.7	99.5	91	84.3	88.4	100	96
30-Jul-01	03:30	-0.9	-0.4	-0.7	-0.9	-0.2	-0.7	100	92.1	84.3	90	100	92.6
30-Jul-01	03:40	-0.4	-0.4	-0.4	-0.9	-0.2	-0.7	100	88.8	84.9	91.1	100	96
30-Jul-01	03:50	-1.2	-0.7	-0.4	-0.9	0.1	-0.7	100	89.3	84.3	91.1	100	92.6
30-Jul-01	04:00	-0.9	-0.7	-0.4	-0.4	-0.2	-0.7	100	91.6	84.3	90	100	96
30-Jul-01	04:10	-0.4	-0.7	-0.2	-0.9	-0.4	-0.7	100	91.6	84.9	89	100	92.6
30-Jul-01	04:20	0.1	-0.4	-0.2	-0.9	-0.2	-1.2	100	91	84.9	88.4	100	96
30-Jul-01	04:30	0.3	-0.4	-0.2	-0.9	0.1	-0.7	97.8	90.4	85.9	91.1	100	93.7
30-Jul-01	04:40	-0.7	-0.4	-0.4	-0.9	0.1	-0.9	97.8	90.4	84.3	91.1	100	96
30-Jul-01	04:50	-0.7	-0.7	-0.7	-0.7	-0.4	-0.4	100	88.8	83.8	89.5	100	93.7
30-Jul-01	05:00	-0.9	-0.7	-0.7	-0.7	-0.2	-0.9	99.5	89.9	83.3	89	100	96
30-Jul-01	05:10	-0.9	-0.7	-0.7	-0.9	0.1	-0.7	100	91.6	84.3	88.4	100	93.2
30-Jul-01	05:20	-0.7	-0.4	-0.7	-0.9	0.1	-0.7	100	91.6	86.5	90.6	100	96
30-Jul-01	05:30	-0.9	-0.4	-0.7	-0.9	-0.2	-0.7	100	89.9	83.8	91.1	100	92.6
30-Jul-01	05:40	-0.7	-0.4	-0.9	-0.4	-0.4	-0.7	100	89.9	85.4	89.5	100	96
30-Jul-01	05:50	-0.9	-0.4	-0.7	-0.4	-0.2	-0.7	100	90.4	84.9	89	100	92.6
30-Jul-01	06:00	-0.7	0.1	-0.7	-1.2	0.3	-0.7	100	90.4	83.3	88.4	100	96
30-Jul-01	06:10	-0.7	0.3	-0.7	-1.2	-0.2	-0.7	99.5	90.4	85.4	90	100	92.6
30-Jul-01	06:20	-0.9	0.6	-0.7	-0.9	-0.2	-0.9	100	90.4	83.8	91.1	100	96.5
30-Jul-01	06:30	-0.7	1.1	-0.9	-0.7	-0.2	-0.7	100	88.8	84.3	90.6	100	93.2
30-Jul-01	06:40	-0.7	0.3	-0.7	-0.7	0.3	-0.7	100	86.1	85.9	89.5	100	96
30-Jul-01	06:50	-0.7	-0.2	-0.7	-0.9	-0.2	-0.4	100	90.4	83.3	88.4	100	94.3
30-Jul-01	07:00	-0.7	-0.2	-0.9	-1.2	-0.4	-0.7	99.5	91	85.4	89.5	100	96
30-Jul-01	07:10	-0.9	-0.4	-0.9	-0.9	-0.2	-0.7	100	88.3	85.4	91.1	100	93.7
30-Jul-01	07:20	-0.7	-0.4	-0.7	-0.7	0.1	-0.9	100	91.6	83.3	90.6	100	95.4
30-Jul-01	07:30	-0.7	-0.4	-0.7	-0.7	0.3	-0.7	100	91	85.9	89.5	100	96
30-Jul-01	07:40	-0.4	-0.4	-0.9	-0.7	0.6	-0.7	100	89.9	83.8	89	100	92.6
30-Jul-01	07:50	-0.7	-0.7	-0.7	-0.7	1.3	-0.7	100	91.6	84.3	89.5	100	94.3
30-Jul-01	08:00	-0.4	-0.4	-0.4	-0.9	2.1	0.1	100	88.8	83.8	89.5	100	94.3
30-Jul-01	08:10	-0.7	-0.4	-0.4	-0.7	2.6	0.8	100	91	83.8	90	100	93.2
30-Jul-01	08:20	-0.7	-0.4	-0.4	-0.7	1.8	1.6	100	91.6	84.9	90	100	93.2
30-Jul-01	08:30	-0.9	-0.2	-0.7	-0.4	1.1	1.6	100	88.8	84.3	90	100	90.4
30-Jul-01	08:40	-0.4	-0.4	-0.7	-0.4	0.3	0.3	100	91.6	84.3	90	100	90.4
30-Jul-01	08:50	-0.7	-0.2	-0.7	-0.4	-0.2	-0.4	100	90.4	84.3	89.5	100	90.4
30-Jul-01	09:00	-0.4	-0.4	-0.4	-0.4	-0.4	-0.7	100	89.3	83.8	89.5	100	90.9
30-Jul-01	09:10	-1.2	-0.4	-0.7	-0.2	-0.2	-0.7	100	91.6	83.8	90	100	93.2
30-Jul-01	09:20	-0.4	-0.4	-0.7	-0.2	0.1	-1.2	100	87.7	85.4	89.5	100	90.9
30-Jul-01	09:30	-0.9	-0.7	-0.4	-0.2	-0.4	-0.9	100	91	84.9	90	100	94.8
30-Jul-01	09:40	-0.2	-0.4	-0.4	0.1	-0.2	-0.7	100	92.1	84.9	90	100	93.7
30-Jul-01	09:50	-0.9	-0.4	-0.4	-0.2	0.3	-0.7	98.4	88.8	85.4	90	100	92.6
30-Jul-01	10:00	-0.9	-0.7	-0.2	-0.4	0.1	-0.7	100	90.4	85.4	89.5	100	94.3
30-Jul-01	10:10	-0.4	-0.2	-0.2	-0.4	-0.4	-0.9	100	91.6	85.4	89	100	92
30-Jul-01	10:20	0.6	-0.4	0.1	-0.4	-0.2	-0.9	100	91	85.9	89	100	94.8
30-Jul-01	10:30	1.8	-0.2	-0.2	-0.7	0.1	-0.4	100	90.4	86.5	89.5	100	93.2
30-Jul-01	10:40	0.6	-0.2	-0.2	-0.7	0.1	-0.7	97.8	89.9	85.4	89.5	100	93.7

30-Jul-01	10:50	-0.4	-0.4	-0.4	-0.4	-0.2	-0.7	99.5	87.7	84.3	89.5	100	94.8
30-Jul-01	11:00	-0.9	-0.4	-0.7	-0.4	-0.2	-0.9	100	91	83.8	89	100	94.3
30-Jul-01	11:10	-0.9	-0.2	-0.7	-0.9	0.1	-0.7	99.5	88.3	83.8	89	100	91.5
30-Jul-01	11:20	-0.9	-0.7	-0.9	-0.7	-0.2	-0.7	100	90.4	83.3	89	100	93.2
30-Jul-01	11:30	-0.7	-0.2	-0.9	-0.7	-0.2	-0.7	100	91.6	85.4	89	100	93.7
30-Jul-01	11:40	-1.2	-0.4	-0.7	-0.7	0.1	-0.9	100	88.3	84.9	89.5	100	95.4
30-Jul-01	11:50	-0.7	-0.4	-0.7	-0.7	-0.2	-0.7	100	91.6	83.3	89	100	93.2
30-Jul-01	12:00	-1.2	-0.4	-0.9	-0.7	-0.4	-0.4	100	88.3	85.9	89	100	93.2
30-Jul-01	12:10	-0.7	-0.4	-0.9	-0.7	-0.4	-0.9	100	87.7	83.8	90	100	94.3
30-Jul-01	12:20	-0.9	-0.4	-0.9	-0.7	0.3	-0.7	100	91	83.8	92.2	100	95.4
30-Jul-01	12:30	-0.2	-0.7	-0.7	-0.7	-0.2	-0.7	99.5	88.8	85.4	89.5	100	92.6
30-Jul-01	12:40	-0.2	-0.7	-0.9	-0.7	-0.7	-0.7	100	88.3	83.8	89.5	100	93.7
30-Jul-01	12:50	-0.2	-0.7	-0.9	-0.4	-0.2	-0.9	97.8	90.4	85.4	89.5	100	94.3
30-Jul-01	13:00	-0.2	-0.7	-0.7	-0.7	0.1	-0.7	100	90.4	83.8	89	100	92
30-Jul-01	13:10	-0.9	-0.4	-0.7	-0.7	-0.4	-0.7	98.9	87.7	83.3	89	100	93.2
30-Jul-01	13:20	-0.4	-0.9	-0.7	-0.7	-0.4	-0.9	100	91	85.4	91.1	100	91.5
30-Jul-01	13:30	-0.7	-0.7	-0.7	-0.4	-0.4	-0.9	100	91	83.3	90.6	100	94.3
30-Jul-01	13:40	-0.7	-0.2	-0.9	-0.4	0.6	-1.2	100	90.4	85.9	89.5	100	93.2
30-Jul-01	13:50	-0.7	0.1	-0.9	-0.7	1.1	-0.7	100	89.3	83.8	89.5	100	93.2
30-Jul-01	14:00	-0.7	0.6	-0.7	-0.7	1.6	-0.9	100	89.3	83.3	90	100	94.8
30-Jul-01	14:10	-0.7	0.8	-0.4	-0.7	1.8	-0.9	100	88.8	84.9	90	100	94.3
30-Jul-01	14:20	-0.7	1.3	-0.9	-0.9	1.3	-0.9	98.9	88.8	83.8	89.5	100	91.5
30-Jul-01	14:30	-0.4	1.6	-0.9	-0.4	0.6	-0.9	100	86.6	83.3	92.2	100	95.4
30-Jul-01	14:40	-0.7	0.8	-0.4	-0.4	-0.2	-1.2	100	85	84.9	90	100	92
30-Jul-01	14:50	-0.7	0.1	-0.7	-0.2	-0.2	-0.9	98.9	86.1	83.3	90	100	92.6
30-Jul-01	15:00	-0.9	-0.4	-0.7	-0.4	-0.4	-0.9	100	86.6	84.3	89.5	100	94.8
30-Jul-01	15:10	-0.9	-0.2	-0.4	-0.7	-0.4	-0.9	99.5	91.6	83.3	89.5	100	93.7
30-Jul-01	15:20	-1.2	-0.4	-0.7	-0.4	0.1	-0.9	100	87.2	83.3	89.5	100	92
30-Jul-01	15:30	-0.9	-0.7	-0.4	-0.4	-0.4	-0.7	97.3	86.6	83.8	89	100	96
30-Jul-01	15:40	-1.2	-0.7	-0.4	-0.7	-0.4	-0.9	100	91	84.3	89.5	100	94.8
30-Jul-01	15:50	-0.7	-0.7	-0.4	-0.4	-0.2	-0.7	99.5	88.8	84.9	89	100	94.8
30-Jul-01	16:00	-1.2	-0.7	-0.2	-0.9	0.1	-0.4	97.3	88.8	85.9	88.4	100	94.8
30-Jul-01	16:10	-0.7	-0.7	-0.2	-0.7	-0.4	0.1	100	91	85.9	90	100	93.7
30-Jul-01	16:20	0.3	-0.2	-0.2	-0.7	-0.4	0.8	100	91.6	85.9	91.7	100	94.3
30-Jul-01	16:30	1.6	-0.4	0.1	-0.4	0.1	0.8	100	89.3	85.9	89.5	100	92
30-Jul-01	16:40	2.6	-0.2	0.1	-0.4	-0.2	-0.2	98.4	89.9	85.9	89.5	100	91.5
30-Jul-01	16:50	0.8	-0.2	-0.2	-0.7	-0.4	-0.7	97.8	87.7	84.3	89	100	96
30-Jul-01	17:00	-0.4	-0.7	-0.2	-0.7	0.1	-0.7	97.3	89.3	83.8	88.4	100	93.2
30-Jul-01	17:10	-0.9	-0.4	-0.4	-0.7	0.1	-0.7	100	91.6	83.3	89.5	100	96
30-Jul-01	17:20	-0.7	-0.4	-0.7	-0.4	-0.2	-0.9	100	87.2	83.8	89	100	93.2
30-Jul-01	17:30	-0.9	-0.7	-0.7	-0.7	-0.4	-0.4	100	91	83.3	89	100	94.3
30-Jul-01	17:40	-0.7	-0.2	-0.7	-0.9	-0.2	-0.9	100	91	85.9	88.4	100	96
30-Jul-01	17:50	-0.7	-0.2	-0.7	-0.9	0.3	-0.7	100	87.7	84.3	88.4	100	93.2
30-Jul-01	18:00	-0.4	-0.7	-0.7	-0.9	-0.2	-0.7	100	88.3	83.3	91.1	100	95.4
30-Jul-01	18:10	-0.9	-0.4	-0.9	-0.7	-0.4	-0.9	99.5	91	84.9	91.1	100	96.5
30-Jul-01	18:20	-0.7	-0.4	-0.7	-0.4	-0.2	-0.7	100	91.6	85.4	89.5	100	95.4
30-Jul-01	18:30	-0.4	-0.2	-0.7	-0.7	-0.2	-0.4	100	88.8	83.3	88.4	100	93.2
30-Jul-01	18:40	-0.7	-0.4	-0.7	-0.9	-0.2	-0.7	100	90.4	85.9	90	100	96
30-Jul-01	18:50	-0.9	-0.4	-0.7	-0.7	-0.4	-0.9	99.5	91	83.3	91.1	100	94.3

30-Jul-01	19:00	-0.7	-0.2	-0.9	-0.7	-0.2	-0.7	100	89.9	85.4	91.7	100	93.7
30-Jul-01	19:10	-0.9	-0.4	-0.7	-0.7	-0.2	-0.7	100	89.3	85.4	89.5	100	96.5
30-Jul-01	19:20	-0.7	-0.4	-0.9	-0.9	0.3	-0.7	100	91	83.8	88.4	100	95.4
30-Jul-01	19:30	-0.9	-0.4	-0.9	-0.9	0.3	-0.7	100	89.3	85.4	90	100	93.2
30-Jul-01	19:40	-0.4	-0.4	-0.7	-0.7	0.8	-0.7	100	87.7	83.8	91.1	100	94.8
30-Jul-01	19:50	-0.7	-0.4	-0.9	-0.7	0.8	-0.7	100	91	83.8	91.7	100	96
30-Jul-01	20:00	-0.9	-0.7	-0.7	-0.7	1.3	-0.7	100	91.6	86.5	89.5	100	93.2
30-Jul-01	20:10	-0.7	-0.2	-0.9	-0.9	1.8	-0.7	100	92.1	83.8	89	100	96
30-Jul-01	20:20	-0.7	-0.4	-0.9	-0.9	0.8	-0.7	100	88.3	85.4	90	100	96
30-Jul-01	20:30	-0.7	-0.4	-0.9	-0.9	0.1	-0.4	100	91	83.3	91.7	100	93.2
30-Jul-01	20:40	-0.7	-0.7	-0.9	-0.7	-0.7	-0.4	99.5	92.1	84.3	91.7	100	96
30-Jul-01	20:50	-0.7	-0.2	-0.7	-0.4	-0.7	-0.7	100	89.9	85.9	90	100	96
30-Jul-01	21:00	-0.7	-0.4	-0.7	-0.7	-0.2	-0.9	100	91	83.3	89	100	94.3
30-Jul-01	21:10	-0.7	-0.7	-0.9	-0.9	-0.2	-0.7	100	91.6	85.9	89.5	100	94.8
30-Jul-01	21:20	-0.7	-0.4	-0.7	-0.9	-0.2	-0.7	100	91	83.8	91.1	100	96.5
30-Jul-01	21:30	-0.7	-0.7	-0.9	-0.9	-0.7	-0.4	100	89.3	84.3	91.7	100	93.7
30-Jul-01	21:40	-0.7	-0.2	-0.4	-0.4	-0.4	-0.7	100	89.9	84.9	90	100	96
30-Jul-01	21:50	-0.7	0.1	-0.4	-0.7	-0.2	-0.9	100	89.9	84.9	89	100	96
30-Jul-01	22:00	-0.7	0.1	-0.4	-1.2	0.3	-0.7	100	90.4	84.3	89	100	93.7
30-Jul-01	22:10	-0.4	0.6	-0.2	-1.2	-0.4	-0.7	100	89.9	84.9	91.1	100	96
30-Jul-01	22:20	0.3	0.6	-0.2	-0.7	-0.4	-0.7	100	89.3	84.9	91.7	100	93.7
30-Jul-01	22:30	0.8	1.1	-0.2	-0.4	-0.2	-0.7	100	91	85.9	90.6	100	96
30-Jul-01	22:40	-0.2	0.8	-0.2	-0.7	0.3	-0.9	98.4	91	84.9	89.5	100	96
30-Jul-01	22:50	-1.2	0.6	-0.4	-0.4	-0.2	-0.4	100	87.7	84.3	90	100	93.7
30-Jul-01	23:00	-0.7	-0.2	-0.7	-0.4	-0.7	-0.9	100	88.3	83.8	90	100	96
30-Jul-01	23:10	-0.7	-0.4	-0.9	-0.7	-0.4	-0.7	100	91	85.9	89	100	93.7
30-Jul-01	23:20	-1.2	-0.2	-0.7	-1.2	0.1	-0.7	100	89.3	84.9	89	100	93.7
30-Jul-01	23:30	-0.9	-0.4	-1.2	-0.9	0.3	-0.7	100	90.4	85.9	91.1	100	96
30-Jul-01	23:40	-0.7	-0.7	-0.9	-0.9	-0.4	-0.7	100	92.1	85.9	91.7	100	94.3
30-Jul-01	23:50	-1.2	-0.2	-0.9	-0.4	-0.4	-0.9	100	92.1	84.3	91.1	100	94.8
31-Jul-01	00:00	-0.7	-0.7	-0.9	-0.7	-0.2	-0.4	100	88.8	86.5	89.5	100	94.8
31-Jul-01	00:10	-1.2	-0.7	-0.7	-0.9	0.1	0.3	100	91.6	83.8	89	100	93.7
31-Jul-01	00:20	-0.7	-0.4	-0.7	-0.9	0.1	1.1	100	92.1	86.5	90.6	100	92
31-Jul-01	00:30	-0.4	-0.4	-0.7	-0.9	-0.4	1.1	100	88.8	83.8	91.7	100	91.5
31-Jul-01	00:40	-1.2	-0.7	-0.7	-0.4	-0.2	-0.2	100	91	86.5	91.1	100	90.4
31-Jul-01	00:50	-0.7	-0.4	-0.7	-0.7	-0.2	-0.7	100	92.1	84.3	89.5	100	96
31-Jul-01	01:00	-0.4	-0.2	-0.9	-0.9	0.3	-0.7	100	92.1	85.9	89	100	92.6
31-Jul-01	01:10	-0.9	-0.4	-0.7	-0.9	-0.2	-0.9	100	88.3	84.9	90.6	100	96.5
31-Jul-01	01:20	-0.7	-0.4	-0.7	-0.9	-0.2	-0.7	100	91	85.9	91.7	100	94.8
31-Jul-01	01:30	-0.4	-0.4	-0.9	-0.4	-0.2	-0.7	100	92.1	85.9	91.1	100	96.5
31-Jul-01	01:40	-0.9	-0.2	-0.7	-0.7	-0.2	-0.7	100	90.4	84.9	89.5	100	96
31-Jul-01	01:50	-0.9	-0.7	-0.9	-0.7	0.6	-0.7	100	91	86.5	89	100	93.2
31-Jul-01	02:00	-0.7	-0.7	-0.9	-0.9	1.1	-0.9	100	92.1	83.3	90.6	100	96
31-Jul-01	02:10	-0.9	-0.4	-0.9	-0.7	1.6	-0.9	100	91.6	86.5	91.1	100	96
31-Jul-01	02:20	-0.7	-0.4	-0.9	-0.7	0.8	-0.4	100	89.3	84.3	91.1	100	95.4
31-Jul-01	02:30	-1.2	-0.7	-0.9	-0.7	0.1	-0.7	100	91.6	85.9	89.5	100	96
31-Jul-01	02:40	-0.7	-0.4	-0.7	-0.7	-0.7	-0.7	100	91.6	84.9	90	100	93.2
31-Jul-01	02:50	-0.9	-0.4	-0.9	-0.7	-0.7	-0.9	99.5	88.8	85.9	90	100	96
31-Jul-01	03:00	-0.9	-0.7	-0.7	-0.9	-0.2	-0.7	100	91	85.9	89.5	100	95.4

31-Jul-01	03:10	-0.9	-0.4	-0.7	-0.9	-0.2	-0.4	100	92.1	84.9	89.5	100	95.4
31-Jul-01	03:20	-0.9	-0.2	-0.7	-1.2	-0.2	-0.7	100	91	85.9	90	100	96
31-Jul-01	03:30	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	90.4	85.9	91.7	100	93.2
31-Jul-01	03:40	-0.9	-0.7	-0.7	-0.4	-0.2	-0.7	100	92.1	85.9	91.1	100	96
31-Jul-01	03:50	-0.7	-0.4	-0.7	-0.7	-0.2	-0.7	100	91.6	85.9	89.5	100	96.5
31-Jul-01	04:00	-0.7	-0.4	-0.4	-0.7	0.1	-0.4	100	89.3	85.9	89.5	100	94.3
31-Jul-01	04:10	-0.4	-0.4	-0.4	-1.2	0.1	-0.7	100	90.4	85.9	89.5	100	96
31-Jul-01	04:20	0.1	-0.4	-0.4	-0.7	-0.7	-0.4	100	91.6	85.9	91.1	100	93.7
31-Jul-01	04:30	0.3	-0.7	-0.2	-0.7	-0.2	-0.7	100	92.1	86.5	91.1	100	95.4
31-Jul-01	04:40	-0.4	-0.2	-0.4	-0.7	-0.2	-0.7	100	91.6	85.4	89.5	100	96.5
31-Jul-01	04:50	-0.7	-0.4	-0.7	-0.7	0.1	-0.7	100	88.3	84.3	89.5	100	93.2
31-Jul-01	05:00	-0.7	-0.4	-0.9	-0.9	0.1	-0.7	100	91.6	84.3	90	100	94.8
31-Jul-01	05:10	-1.2	-0.4	-0.7	-0.7	-0.4	-0.7	100	92.1	87	91.1	100	96
31-Jul-01	05:20	-0.7	-0.2	-0.7	-0.7	-0.2	-0.7	100	91.6	84.9	91.1	100	93.2
31-Jul-01	05:30	-0.7	-0.2	-0.9	-0.7	0.1	-0.7	100	89.9	86.5	89.5	100	93.7
31-Jul-01	05:40	-0.9	-0.2	-0.7	-0.9	0.3	-0.9	100	90.4	84.9	89.5	100	96
31-Jul-01	05:50	-0.7	-0.2	-0.9	-1.2	-0.4	-0.9	100	90.4	86.5	89.5	100	94.8
31-Jul-01	06:00	-0.9	0.3	-0.9	-0.7	-0.7	-0.4	100	90.4	85.4	91.1	100	96.5
31-Jul-01	06:10	-0.9	0.3	-0.7	-0.9	-0.4	-0.7	100	90.4	85.9	91.1	100	96
31-Jul-01	06:20	-0.4	0.6	-0.7	-0.7	0.1	-0.4	100	90.4	85.9	89.5	100	93.7
31-Jul-01	06:30	-0.9	0.8	-0.7	-0.7	0.1	-0.7	100	88.3	85.4	89	100	96
31-Jul-01	06:40	-0.9	0.3	-0.7	-0.9	-0.4	-0.7	100	87.7	87	89.5	100	94.8
31-Jul-01	06:50	-0.7	-0.2	-0.7	-0.7	-0.2	-0.7	100	91.6	83.8	91.1	100	93.2
31-Jul-01	07:00	-1.2	-0.2	-0.7	-0.7	-0.2	-0.9	100	91.6	87	91.1	100	96.5
31-Jul-01	07:10	-0.7	-0.4	-0.7	-0.7	0.1	-0.9	100	88.3	83.8	89.5	100	96
31-Jul-01	07:20	-0.4	-0.7	-0.7	-0.7	0.1	-0.4	100	91	87	89	100	93.7
31-Jul-01	07:30	-1.2	-0.4	-0.9	-0.9	0.3	-0.4	100	92.1	84.3	89	100	96
31-Jul-01	07:40	-0.9	-0.4	-0.7	-1.2	0.8	-0.7	100	89.3	86.5	91.1	100	95.4
31-Jul-01	07:50	-0.9	-0.2	-0.9	-0.7	1.3	-0.4	100	91	85.4	92.2	100	95.4
31-Jul-01	08:00	-0.7	-0.4	-0.9	-0.4	1.8	0.1	100	91.6	85.9	90	100	95.4
31-Jul-01	08:10	-0.9	0.1	-0.7	-0.7	2.1	0.8	99.5	89.9	85.4	89.5	100	93.7
31-Jul-01	08:20	-0.9	-0.2	-0.7	-0.7	1.6	1.3	100	90.4	85.9	89	100	92.6
31-Jul-01	08:30	-0.9	-0.2	-0.7	-0.9	0.6	1.6	100	91.6	85.4	88.4	100	90.4
31-Jul-01	08:40	-0.9	-0.2	-0.9	-0.7	-0.2	0.1	100	88.8	85.9	90	100	90.4
31-Jul-01	08:50	-0.9	-0.4	-0.7	-0.4	-0.7	-0.7	100	91	86.5	90	100	93.2
31-Jul-01	09:00	-0.7	-0.4	-0.7	-0.4	-0.4	-0.4	100	92.1	85.4	90	100	91.5
31-Jul-01	09:10	-0.9	0.1	-0.9	-0.7	-0.4	-0.7	100	88.3	85.9	89.5	100	93.7
31-Jul-01	09:20	-1.2	-0.2	-0.7	-0.4	-0.2	-0.9	99.5	91	84.3	89.5	100	93.7
31-Jul-01	09:30	-0.7	-0.4	-0.9	-0.4	-0.4	-0.7	100	91.6	85.4	89.5	100	93.2
31-Jul-01	09:40	-0.9	-0.2	-0.7	-0.2	-0.4	-0.7	100	88.3	85.4	90	100	96
31-Jul-01	09:50	-0.7	-0.4	-0.4	0.1	0.1	-0.9	100	91	85.4	90	100	92.6
31-Jul-01	10:00	-0.9	-0.4	-0.4	0.1	-0.4	-0.7	100	91.6	85.9	89.5	100	93.7
31-Jul-01	10:10	-0.4	-0.2	-0.4	-0.2	-0.7	-0.7	100	90.4	85.9	89.5	100	95.4
31-Jul-01	10:20	0.8	-0.2	-0.4	-0.2	-0.2	-0.7	100	90.4	85.9	89.5	100	92.6
31-Jul-01	10:30	0.8	-0.4	-0.4	-0.2	0.1	-0.9	100	90.4	87	89.5	100	93.7
31-Jul-01	10:40	-0.4	-0.2	-0.2	0.1	-0.2	-0.9	97.8	90.4	85.4	90	100	96
31-Jul-01	10:50	-0.9	-0.2	-0.4	-0.2	-0.7	-0.9	100	87.7	84.3	89.5	100	92
31-Jul-01	11:00	-0.4	-0.2	-0.7	-0.2	0.1	-0.7	100	91.6	83.8	89.5	100	94.3
31-Jul-01	11:10	-0.9	-0.2	-0.9	-0.2	0.1	-0.7	99.5	88.3	83.8	89.5	100	96

31-Jul-01	11:20	-0.4	-0.4	-0.9	-0.4	-0.4	-0.7	100	86.6	85.9	89	100	92.6
31-Jul-01	11:30	-0.7	-0.4	-0.9	-0.7	-0.4	-0.4	98.9	91.6	83.8	88.4	100	91.5
31-Jul-01	11:40	-0.7	-0.2	-0.7	-0.7	0.1	-0.4	100	87.7	85.9	88.4	100	92.6
31-Jul-01	11:50	-0.7	-0.4	-0.7	-0.7	-0.2	-0.4	99.5	90.4	84.3	88.4	100	93.2
31-Jul-01	12:00	-0.9	-0.4	-0.9	-0.7	-0.4	-0.7	100	90.4	84.3	88.4	100	93.7
31-Jul-01	12:10	-0.4	-0.4	-0.9	-0.7	-0.4	-0.7	100	87.7	85.9	88.4	100	92.6
31-Jul-01	12:20	-0.7	-0.4	-0.9	-0.7	-0.4	-0.7	100	91	83.3	88.4	100	92
31-Jul-01	12:30	-0.2	-0.4	-0.9	-0.9	0.1	-0.7	100	88.3	86.5	87.9	100	94.3
31-Jul-01	12:40	-0.7	-0.7	-0.7	-0.7	-0.4	-0.7	100	88.3	84.3	88.4	100	93.2
31-Jul-01	12:50	-0.2	-0.7	-0.9	-0.9	-0.2	-0.9	98.4	91	83.3	87.9	100	90.9
31-Jul-01	13:00	-0.2	-0.7	-0.9	-0.7	0.1	-0.7	100	87.2	85.9	88.4	100	92
31-Jul-01	13:10	-0.4	-0.9	-0.9	-0.7	0.1	-0.7	100	91	83.8	87.9	100	90.9
31-Jul-01	13:20	-0.2	-0.7	-0.9	-0.7	0.1	-0.7	99.5	87.2	84.9	88.4	100	92.6
31-Jul-01	13:30	-0.4	-0.7	-0.7	-0.9	0.3	-0.7	100	88.8	84.3	88.4	100	94.8
31-Jul-01	13:40	-0.4	-0.7	-0.9	-0.9	0.8	-0.9	99.5	88.8	83.3	88.4	100	90.9
31-Jul-01	13:50	-0.2	0.1	-0.9	-0.9	1.3	-0.9	100	88.8	85.4	91.1	100	91.5
31-Jul-01	14:00	-0.2	0.3	-0.7	-0.4	1.8	-0.9	100	88.8	84.3	90.6	100	92.6
31-Jul-01	14:10	-0.4	0.8	-0.9	-0.4	2.3	-0.7	100	88.8	83.3	89.5	100	93.2
31-Jul-01	14:20	-0.2	1.3	-1.2	-0.7	1.6	-0.9	97.3	88.8	85.4	89	100	90.9
31-Jul-01	14:30	-0.4	1.3	-0.9	-0.7	0.6	-0.7	100	85.5	83.8	88.4	100	91.5
31-Jul-01	14:40	-0.2	0.8	-0.9	-0.7	0.1	-0.7	100	85	83.3	89	100	93.2
31-Jul-01	14:50	-0.7	0.1	-1.2	-0.7	-0.4	-0.9	100	86.1	85.4	89	100	93.2
31-Jul-01	15:00	-0.2	-0.4	-0.9	-0.7	-0.7	-0.7	100	88.3	83.8	89.5	100	90.9
31-Jul-01	15:10	-0.7	-0.4	-0.9	-0.7	-0.4	-0.7	100	87.7	83.3	88.4	100	94.8
31-Jul-01	15:20	-0.7	-0.7	-1.2	-0.7	-0.2	-0.7	98.9	88.8	83.3	88.4	100	93.2
31-Jul-01	15:30	-0.4	-0.7	-0.7	-0.7	-0.2	-0.7	100	89.3	84.3	88.4	100	93.2
31-Jul-01	15:40	-0.4	-0.7	-0.7	-0.7	-0.7	-0.7	100	88.3	84.3	88.4	100	92
31-Jul-01	15:50	-0.4	-0.4	-0.7	-0.9	-0.2	-0.7	99.5	91	84.3	88.4	100	93.2
31-Jul-01	16:00	-0.7	-0.4	-0.7	-0.7	0.1	0.1	100	88.8	85.4	91.1	100	93.2
31-Jul-01	16:10	-0.2	-0.4	-0.2	-0.4	-0.2	0.6	100	88.8	85.9	90	100	96.5
31-Jul-01	16:20	1.1	-0.4	-0.2	-0.7	-0.2	1.8	100	89.3	86.5	88.4	100	97.7
31-Jul-01	16:30	1.8	-0.4	-0.2	-0.7	0.1	1.6	99.5	89.3	87	88.4	100	90.4
31-Jul-01	16:40	0.6	-0.4	-0.2	-0.7	0.1	0.3	96.2	89.3	85.4	88.4	100	90.4
31-Jul-01	16:50	-0.4	-0.4	-0.4	-0.9	-0.2	-0.4	97.8	87.2	84.3	88.4	100	93.7
31-Jul-01	17:00	-0.7	-0.7	-0.2	-0.9	-0.2	-0.4	100	90.4	83.8	89.5	100	91.5
31-Jul-01	17:10	-0.4	-0.4	-0.7	-0.7	0.1	-0.7	98.4	91	83.3	90	100	92.6
31-Jul-01	17:20	-0.9	-0.2	-0.7	-0.7	0.1	-0.7	100	86.6	83.3	89.5	100	96
31-Jul-01	17:30	-0.7	-0.4	-0.9	-0.4	0.1	-0.7	100	91	83.8	89.5	100	93.7
31-Jul-01	17:40	-0.7	-0.4	-0.9	-0.7	-0.4	-0.4	98.4	91	86.5	89.5	100	95.4
31-Jul-01	17:50	-0.7	-0.2	-0.7	-0.4	0.1	-0.7	100	88.3	83.8	89.5	100	95.4
31-Jul-01	18:00	-0.7	-0.4	-0.9	-0.4	-0.2	-0.7	98.4	90.4	85.9	89.5	100	93.2
31-Jul-01	18:10	-0.7	-0.4	-0.7	-0.4	0.1	-0.7	100	91.6	86.5	89.5	100	93.7
31-Jul-01	18:20	-0.4	-0.2	-0.9	-0.4	-0.4	-0.7	100	88.3	83.3	89.5	100	95.4
31-Jul-01	18:30	-0.9	-0.2	-0.7	-0.4	-0.2	-0.7	100	89.9	85.9	89.5	100	92.6
31-Jul-01	18:40	-0.7	-0.2	-0.9	-0.4	-0.2	-0.7	100	91.6	83.8	89.5	100	96
31-Jul-01	18:50	-0.7	-0.2	-0.7	-0.2	0.1	-0.4	100	89.9	86.5	89.5	100	95.4
31-Jul-01	19:00	-0.9	-0.2	-0.7	-0.2	-0.4	-0.7	100	89.3	84.3	89.5	100	94.8
31-Jul-01	19:10	-0.9	-0.2	-0.9	-0.2	-0.4	-0.4	100	91.6	85.9	89.5	100	93.7
31-Jul-01	19:20	-0.7	-0.2	-0.7	-0.2	-0.2	-0.4	100	90.4	84.3	89.5	100	95.4

31-Jul-01	19:30	-0.7	-0.2	-0.7	-0.2	-0.2	-0.7	100	88.8	84.3	89.5	100	94.8
31-Jul-01	19:40	-0.7	-0.4	-0.9	-0.2	0.3	-0.7	99.5	91.6	85.9	89.5	100	93.2
31-Jul-01	19:50	-0.7	-0.2	-0.7	-0.2	0.6	-0.7	100	91.6	83.8	89.5	100	93.2
31-Jul-01	20:00	-0.7	-0.2	-0.7	-0.2	1.1	-0.7	100	88.3	85.9	88.4	100	95.4
31-Jul-01	20:10	-0.7	-0.7	-0.4	-0.7	1.3	-0.7	100	91	84.9	87.9	100	93.2
31-Jul-01	20:20	-0.7	-0.4	-0.9	-0.7	1.1	-0.7	100	91.6	85.4	87.9	100	93.2
31-Jul-01	20:30	-1.2	-0.2	-0.7	-0.7	0.1	-0.7	100	91.6	85.9	87.9	100	96
31-Jul-01	20:40	-0.7	-0.2	-0.7	-0.9	-0.4	-0.7	100	88.8	83.3	89.5	100	95.4
31-Jul-01	20:50	-1.2	-0.7	-0.7	-0.7	-0.4	-0.7	100	91	86.5	90.6	100	93.7
31-Jul-01	21:00	-0.7	-0.4	-0.7	-0.4	-0.4	-0.7	100	91.6	83.8	90	100	93.7
31-Jul-01	21:10	-1.2	-0.2	-0.7	-0.7	0.1	-0.9	100	91.6	86.5	88.4	100	96
31-Jul-01	21:20	-0.7	-0.4	-0.7	-0.9	-0.2	-0.7	100	88.8	85.4	87.9	100	94.8
31-Jul-01	21:30	-0.9	-0.4	-0.7	-0.9	-0.4	-0.7	100	88.8	85.4	90.6	100	93.2
31-Jul-01	21:40	-0.9	-0.4	-0.7	-0.7	-0.2	-0.7	100	89.3	85.4	90.6	100	96
31-Jul-01	21:50	-0.9	-0.2	-0.4	-0.7	-0.2	-0.7	100	89.9	84.9	89.5	100	95.4
31-Jul-01	22:00	-0.4	0.1	-0.2	-0.7	0.1	-0.9	100	89.9	84.9	88.4	100	93.7
31-Jul-01	22:10	-0.9	0.3	-0.2	-1.2	-0.2	-0.4	100	89.9	85.4	89.5	100	94.3
31-Jul-01	22:20	0.1	0.6	-0.2	-0.7	-0.4	-0.7	100	89.3	85.4	90.6	100	95.4
31-Jul-01	22:30	0.8	0.8	-0.2	-0.7	-0.4	-0.9	100	91.6	85.9	90.6	100	94.3
31-Jul-01	22:40	-0.4	0.6	-0.2	-0.4	-0.2	-0.7	97.3	90.4	84.3	90	100	93.2
31-Jul-01	22:50	-0.7	0.6	-0.2	-0.4	0.1	-0.7	100	87.7	84.3	90	100	96
31-Jul-01	23:00	-0.7	-0.2	-0.7	-0.4	-0.2	-0.7	100	89.3	83.8	89.5	100	95.4
31-Jul-01	23:10	-0.9	-0.4	-0.7	-0.7	-0.4	-0.7	100	91	85.9	88.4	100	93.2
31-Jul-01	23:20	-0.7	-0.4	-0.7	-1.2	-0.2	-0.7	100	91.6	85.9	89.5	100	96
31-Jul-01	23:30	-0.7	-0.2	-0.9	-0.9	0.1	-0.7	100	88.3	84.3	91.1	100	94.3
31-Jul-01	23:40	-1.2	-0.4	-0.9	-0.9	0.1	-0.7	100	91	86.5	91.1	100	93.2
31-Jul-01	23:50	-0.7	-0.4	-0.7	-0.7	-0.2	-0.7	100	91.6	84.3	89.5	100	93.2
01-Aug-01	00:00	-0.7	-0.4	-0.7	-0.7	-0.4	-0.4	100	89.3	85.9	88.4	100	93.7
01-Aug-01	00:10	-1.2	-0.4	-0.7	-0.7	-0.2	0.3	100	90.4	85.4	90	100	93.7
01-Aug-01	00:20	-0.7	-0.7	-0.7	-0.9	0.1	0.8	100	91.6	85.9	91.1	100	92.6
01-Aug-01	00:30	-0.7	-0.2	-0.7	-0.7	0.1	1.1	100	91.6	85.9	90.6	100	90.4
01-Aug-01	00:40	-1.2	-0.4	-0.9	-0.4	-0.4	-0.2	100	87.2	84.3	89	100	90.4
01-Aug-01	00:50	-0.9	-0.7	-0.9	-0.7	-0.2	-0.4	100	91.6	86.5	88.4	100	94.8
01-Aug-01	01:00	-0.4	-0.4	-0.7	-0.7	-0.2	-0.7	100	92.1	84.3	90.6	100	93.7
01-Aug-01	01:10	-1.2	-0.2	-0.7	-0.9	0.1	-0.7	100	91.6	85.9	91.1	100	94.8
01-Aug-01	01:20	-0.9	-0.4	-0.4	-0.4	-0.2	-0.7	100	88.8	85.9	90	100	96
01-Aug-01	01:30	-0.7	-0.7	-0.7	-0.7	0.1	-0.7	100	91.6	85.4	89	100	92.6
01-Aug-01	01:40	-1.2	-0.2	-0.7	-0.9	0.3	-0.4	100	91.6	86.5	89	100	96
01-Aug-01	01:50	-0.7	-0.2	-0.7	-0.9	0.6	-0.7	100	88.3	84.3	90.6	100	96
01-Aug-01	02:00	-0.7	-0.7	-0.7	-0.7	1.3	-0.7	100	91	86.5	90.6	100	94.3
01-Aug-01	02:10	-0.9	-0.4	-0.4	-0.7	1.8	-0.7	100	92.1	84.9	89.5	100	93.2
01-Aug-01	02:20	-0.7	-0.2	-0.7	-0.7	0.8	-0.4	100	89.3	86.5	88.4	100	96
01-Aug-01	02:30	-0.9	-0.7	-0.7	-1.2	0.3	-0.7	98.4	91	85.9	89.5	100	93.7
01-Aug-01	02:40	-1.2	-0.7	-0.7	-0.9	-0.2	-0.4	100	92.1	84.9	90	100	93.7
01-Aug-01	02:50	-0.7	-0.4	-0.7	-0.9	-0.4	-0.7	100	91	86.5	89.5	100	96
01-Aug-01	03:00	-0.9	-0.4	-0.7	-0.7	-0.2	-0.7	100	89.3	83.8	89.5	100	93.2
01-Aug-01	03:10	-1.2	-0.4	-0.9	-0.9	-0.2	-0.7	100	91.6	85.9	89	100	95.4
01-Aug-01	03:20	-0.7	-0.4	-0.7	-0.9	-0.4	-0.7	100	91.6	85.9	89.5	100	96
01-Aug-01	03:30	-0.9	-0.4	-0.7	-0.9	-0.4	-0.7	100	88.3	85.9	91.1	100	94.3

01-Aug-01	03:40	-0.9	-0.7	-0.7	-0.9	-0.2	-0.7	100	91	85.9	91.1	100	93.2
01-Aug-01	03:50	-0.7	-0.4	-0.4	-0.7	0.1	-0.4	100	92.1	85.4	89.5	100	96
01-Aug-01	04:00	-0.9	-0.2	-0.4	-0.7	0.1	-0.9	100	91	85.4	89	100	93.7
01-Aug-01	04:10	-0.7	-0.2	-0.4	-0.7	-0.4	-0.7	100	89.9	85.4	90	100	93.7
01-Aug-01	04:20	0.3	-0.7	0.1	-0.9	-0.4	-0.9	100	91	85.4	91.1	100	96
01-Aug-01	04:30	-0.2	-0.4	-0.2	-0.7	-0.2	-0.4	98.9	91	85.9	90.6	100	93.2
01-Aug-01	04:40	-0.9	-0.2	-0.2	-0.4	-0.2	-0.4	100	91	84.9	89.5	100	94.3
01-Aug-01	04:50	-0.7	-0.2	-0.7	-0.9	-0.2	-0.7	100	88.3	84.3	88.4	100	96
01-Aug-01	05:00	-0.7	-0.4	-0.9	-1.2	-0.2	-0.7	100	91	83.8	89.5	100	95.4
01-Aug-01	05:10	-0.9	-0.4	-0.7	-0.9	-0.2	-0.4	100	91.6	86.5	91.1	100	93.2
01-Aug-01	05:20	-0.7	-0.2	-0.7	-0.7	0.1	-0.4	100	88.3	85.9	90.6	100	94.3
01-Aug-01	05:30	-0.7	-0.4	-0.9	-0.7	0.1	-0.7	100	89.3	85.4	89.5	100	96
01-Aug-01	05:40	-1.2	-0.2	-0.7	-0.9	-0.2	-0.7	100	89.9	87	88.4	100	96
01-Aug-01	05:50	-0.7	-0.2	-0.9	-0.9	-0.4	-0.4	100	90.4	84.3	90	100	93.7
01-Aug-01	06:00	-0.7	0.1	-0.7	-0.9	-0.2	-0.7	100	90.4	86.5	91.1	100	96
01-Aug-01	06:10	-0.9	0.3	-0.7	-0.4	-0.2	-0.7	100	90.4	85.4	90.6	100	95.4
01-Aug-01	06:20	-0.7	0.8	-0.7	-0.7	-0.2	-0.7	100	89.9	86.5	89.5	100	93.2
01-Aug-01	06:30	-0.9	0.8	-0.7	-0.9	-0.2	-0.4	100	88.3	86.5	88.4	100	94.3
01-Aug-01	06:40	-0.7	-0.2	-0.7	-1.2	-0.4	-0.7	100	88.8	84.3	90	100	96
01-Aug-01	06:50	-0.9	-0.2	-0.7	-0.9	-0.2	-0.7	100	91.6	86.5	91.1	100	93.2
01-Aug-01	07:00	-0.9	-0.2	-0.4	-0.4	0.1	-0.7	100	91.6	85.9	90.6	100	96
01-Aug-01	07:10	-0.9	-0.2	-0.7	-0.7	-0.2	-0.7	100	88.8	85.9	89.5	100	95.4
01-Aug-01	07:20	-1.2	-0.2	-0.7	-0.7	-0.2	-0.7	100	91	86.5	88.4	100	93.2
01-Aug-01	07:30	-0.7	-0.2	-0.7	-1.2	0.1	-0.4	100	91.6	84.3	91.1	100	95.4
01-Aug-01	07:40	-0.9	0.1	-0.7	-0.7	0.1	-0.7	98.9	91.6	87	90.6	100	95.4
01-Aug-01	07:50	-0.7	-0.2	-0.7	-0.4	0.8	-0.4	100	88.8	84.3	90	100	94.3
01-Aug-01	08:00	-0.4	-0.2	-0.4	-0.7	1.1	0.1	100	91	85.9	89	100	94.3
01-Aug-01	08:10	-0.7	-0.2	-0.4	-0.4	1.6	0.6	100	91.6	85.9	90	100	94.8
01-Aug-01	08:20	-0.7	0.1	-0.7	-0.4	0.8	1.3	100	91.6	85.4	90	100	93.2
01-Aug-01	08:30	-0.9	-0.2	-0.4	-0.4	0.1	1.6	100	88.8	86.5	89.5	100	89.8
01-Aug-01	08:40	-0.7	-0.4	-0.4	-0.4	-0.9	0.6	100	91	84.3	89.5	100	89.3
01-Aug-01	08:50	-1.2	0.1	-0.9	-0.4	-0.4	-0.2	100	91.6	85.9	89.5	100	89.8
01-Aug-01	09:00	-0.9	0.1	-0.7	-0.2	-0.2	-0.4	100	88.3	83.8	90	100	93.7
01-Aug-01	09:10	-0.9	-0.2	-0.7	-0.2	-0.2	-0.7	100	91.6	85.9	90	100	93.2
01-Aug-01	09:20	-0.7	-0.2	-0.7	-0.2	-0.7	-0.7	100	91.6	85.9	90	100	91.5
01-Aug-01	09:30	-0.9	-0.2	-0.7	-0.2	-0.2	-0.7	100	88.3	85.9	90	100	92.6
01-Aug-01	09:40	-0.4	-0.2	-0.2	-0.2	0.1	-0.7	100	91.6	85.9	90	100	93.7
01-Aug-01	09:50	-0.9	-0.2	0.1	-0.2	-0.7	-0.7	100	91.6	85.4	90	100	94.3
01-Aug-01	10:00	-0.7	-0.2	-0.2	0.1	-0.4	-0.7	100	88.8	85.9	90	100	91.5
01-Aug-01	10:10	-0.2	-0.4	0.1	0.1	-0.2	-0.4	100	89.3	85.9	90	100	93.2
01-Aug-01	10:20	0.8	-0.2	0.1	0.1	0.1	-0.7	100	90.4	85.9	90	100	94.3
01-Aug-01	10:30	1.6	-0.4	0.1	-0.2	-0.7	-0.7	100	90.4	86.5	89	100	93.7
01-Aug-01	10:40	0.1	-0.2	-0.2	-0.4	-0.4	-0.2	97.3	90.4	85.4	88.4	100	93.2
01-Aug-01	10:50	-0.7	-0.2	-0.2	-0.7	0.3	-0.4	100	88.3	84.3	88.4	100	93.7
01-Aug-01	11:00	-0.7	-0.4	-0.4	-0.7	-0.2	-0.4	98.9	91	83.8	88.4	100	93.2
01-Aug-01	11:10	-0.7	-0.2	-0.7	-0.7	-0.4	-0.7	100	91	83.8	88.4	100	90.9
01-Aug-01	11:20	-0.4	-0.4	-0.9	-0.7	0.1	-0.4	100	87.7	83.3	88.4	100	93.2
01-Aug-01	11:30	-1.2	-0.4	-0.7	-0.7	0.1	-0.4	100	91.6	87	88.4	100	93.7
01-Aug-01	11:40	-0.7	-0.4	-0.7	-0.9	-0.4	-0.7	100	87.7	84.3	88.4	100	90.9

01-Aug-01	11:50	-1.2	-0.7	-0.7	-0.9	-0.4	-0.4	100	91	83.3	89.5	100	92
01-Aug-01	12:00	-0.7	-0.7	-0.9	-0.9	-0.2	-0.7	100	87.2	86.5	91.1	100	95.4
01-Aug-01	12:10	-0.7	-0.7	-0.7	-0.7	-0.2	-0.4	100	91	84.3	89.5	100	91.5
01-Aug-01	12:20	-0.4	-0.4	-0.7	-0.7	-0.4	-0.2	100	88.3	84.9	88.4	100	91.5
01-Aug-01	12:30	-0.4	-0.7	-0.9	-0.7	-0.2	-0.7	98.9	90.4	85.4	88.4	100	93.7
01-Aug-01	12:40	-0.2	-0.4	-0.9	-0.9	-0.2	-0.7	100	91	83.8	88.4	100	93.2
01-Aug-01	12:50	-0.4	-0.7	-0.9	-0.9	-0.4	-0.4	97.8	88.3	85.9	90	100	91.5
01-Aug-01	13:00	-0.7	-0.4	-0.7	-0.4	-0.2	-0.7	100	91	83.8	91.1	100	94.3
01-Aug-01	13:10	-0.2	-0.7	-0.7	-0.4	0.1	-0.7	100	88.8	85.9	90	100	92.6
01-Aug-01	13:20	-0.2	-0.7	-0.9	-0.4	-0.2	-0.7	100	90.4	83.8	89	100	90.9
01-Aug-01	13:30	-0.4	-0.2	-0.9	-0.9	0.1	-0.4	100	91	83.3	89	100	91.5
01-Aug-01	13:40	-0.4	-0.2	-0.7	-0.9	0.6	-0.7	99.5	90.4	85.9	88.4	100	93.2
01-Aug-01	13:50	-0.4	0.6	-0.9	-0.7	1.1	-0.4	100	89.9	83.3	89.5	100	93.2
01-Aug-01	14:00	-0.2	0.8	-0.9	-0.7	1.6	-0.4	99.5	89.3	84.3	91.1	100	90.9
01-Aug-01	14:10	-0.7	1.3	-0.7	-0.4	2.3	-0.9	100	88.8	84.9	90	100	93.2
01-Aug-01	14:20	-0.2	1.8	-0.9	-0.7	1.6	-0.4	98.9	90.4	83.8	89.5	100	93.2
01-Aug-01	14:30	-0.4	1.8	-0.9	-0.9	0.6	-0.9	100	86.1	85.4	89	100	92.6
01-Aug-01	14:40	-0.2	0.8	-0.7	-0.7	0.1	-0.7	98.9	85	83.8	89	100	92
01-Aug-01	14:50	-0.4	0.3	-0.9	-0.7	-0.2	-0.7	100	85.5	83.3	89.5	100	90.9
01-Aug-01	15:00	-0.4	-0.2	-1.2	-0.4	-0.4	-0.9	99.5	85.5	85.4	90	100	92.6
01-Aug-01	15:10	-0.2	-0.4	-0.9	-0.7	-0.7	-0.7	100	88.8	83.8	88.4	100	90.9
01-Aug-01	15:20	-0.7	-0.7	-0.9	-0.7	0.1	-0.7	100	86.6	83.3	88.4	100	92.6
01-Aug-01	15:30	-0.4	-0.7	-0.7	-0.7	-0.2	-0.7	100	87.2	83.8	88.4	100	93.7
01-Aug-01	15:40	-0.4	-0.7	-0.4	-0.7	-0.7	-0.4	100	91	83.8	88.4	100	96
01-Aug-01	15:50	-0.4	-0.9	-0.4	-0.7	-0.2	0.3	100	87.2	84.3	88.4	100	96
01-Aug-01	16:00	-0.4	-0.9	-0.4	-0.4	0.1	1.1	100	88.8	84.3	88.4	100	94.3
01-Aug-01	16:10	-0.2	-0.7	-0.4	-0.7	-0.2	1.8	100	91	84.3	87.9	100	94.3
01-Aug-01	16:20	0.6	-0.7	0.1	-0.9	-0.4	2.6	100	89.3	84.9	87.9	100	93.7
01-Aug-01	16:30	2.1	-0.7	-0.2	-0.9	0.1	2.6	100	89.3	87.5	87.9	100	89.3
01-Aug-01	16:40	0.8	-0.7	0.1	-0.9	-0.2	0.8	97.3	89.3	85.9	87.9	100	89.3
01-Aug-01	16:50	-0.2	-0.4	-0.2	-0.9	-0.7	0.3	97.3	86.6	84.3	87.9	100	90.4
01-Aug-01	17:00	-0.7	-0.7	-0.4	-0.9	-0.2	-0.2	100	90.4	83.3	87.9	100	93.7
01-Aug-01	17:10	-0.2	-0.2	-0.4	-0.9	0.1	-0.4	98.9	88.3	83.3	88.4	100	92.6
01-Aug-01	17:20	-0.4	-0.4	-0.9	-0.9	-0.4	-0.4	100	88.8	83.3	88.4	100	92.6
01-Aug-01	17:30	-0.4	-0.4	-1.2	-0.7	-0.4	-0.2	98.9	91.6	83.3	89	100	93.2
01-Aug-01	17:40	-0.7	-0.2	-1.2	-0.4	-0.2	-0.7	100	87.7	85.9	89	100	94.3
01-Aug-01	17:50	-0.7	-0.4	-0.7	-0.4	-0.2	-0.7	100	91	84.9	89	100	94.3
01-Aug-01	18:00	-0.7	-0.4	-0.9	-0.4	-0.4	-0.4	99.5	91	83.3	89	100	93.2
01-Aug-01	18:10	-0.7	-0.2	-1.2	-0.4	-0.7	-0.4	100	89.3	86.5	89	100	93.7
01-Aug-01	18:20	-0.7	-0.4	-0.9	-0.4	-0.4	-0.4	98.4	88.3	84.3	89	100	94.8
01-Aug-01	18:30	-0.9	-0.2	-1.2	-0.4	0.1	-0.4	100	91	84.3	89	100	93.7
01-Aug-01	18:40	-0.4	-0.2	-0.9	-0.2	0.1	-0.4	100	91	86.5	89	100	93.2
01-Aug-01	18:50	-0.9	-0.2	-0.7	-0.2	-0.4	-0.4	100	88.3	83.8	89	100	94.8
01-Aug-01	19:00	-0.7	-0.4	-0.7	-0.2	-0.4	-0.4	100	91	86.5	89	100	92.6
01-Aug-01	19:10	-0.9	-0.4	-0.9	-0.2	-0.4	-0.4	97.8	91	84.3	89	100	93.7
01-Aug-01	19:20	-0.7	-0.4	-0.9	-0.2	0.1	-0.7	100	91	85.4	89	100	94.8
01-Aug-01	19:30	-0.4	0.1	-0.7	-0.2	0.3	-0.4	100	88.3	86.5	89	100	93.7
01-Aug-01	19:40	-0.9	-0.4	-0.7	-0.2	0.6	-0.4	100	89.3	83.3	89	100	94.3
01-Aug-01	19:50	-0.9	-0.4	-0.9	-0.2	0.8	-0.7	100	91.6	86.5	89	100	94.8

01-Aug-01	20:00	-0.7	-0.2	-0.7	-0.4	1.3	-0.4	98.9	91.6	83.8	87.9	100	93.7
01-Aug-01	20:10	-0.9	-0.2	-0.9	-0.4	1.6	-0.4	100	91.6	85.9	87.3	100	93.2
01-Aug-01	20:20	-0.4	-0.2	-0.7	-0.4	0.8	-0.4	100	89.3	85.4	87.3	100	94.8
01-Aug-01	20:30	-0.7	-0.4	-0.7	-0.7	-0.2	-0.4	99.5	89.9	84.3	87.3	100	93.7
01-Aug-01	20:40	-0.9	-0.4	-0.7	-0.9	-0.7	-0.4	100	91.6	85.9	87.3	100	93.2
01-Aug-01	20:50	-0.9	-0.4	-0.9	-0.9	-0.7	-0.4	99.5	91.6	85.4	88.4	100	94.8
01-Aug-01	21:00	-1.2	-0.4	-0.7	-0.9	-0.2	-0.4	100	91.6	86.5	90.6	100	94.8
01-Aug-01	21:10	-0.7	0.1	-0.7	-0.7	0.1	-0.4	100	88.8	83.8	90.6	100	93.2
01-Aug-01	21:20	-0.7	-0.4	-0.7	-0.7	-0.4	-0.4	99.5	91	85.4	89.5	100	93.2
01-Aug-01	21:30	-0.9	-0.2	-0.7	-0.4	-0.7	-0.7	100	91	85.9	88.4	100	94.8
01-Aug-01	21:40	-0.4	-0.4	-0.4	-1.2	-0.4	-0.4	100	91	85.4	87.9	100	94.3
01-Aug-01	21:50	-0.7	-0.2	-0.7	-1.2	-0.4	-0.4	100	90.4	85.4	89.5	100	93.2
01-Aug-01	22:00	-0.9	0.1	-0.4	-0.9	0.1	-0.4	100	90.4	85.4	90.6	100	93.7
01-Aug-01	22:10	-0.4	0.1	-0.2	-0.7	-0.7	-0.7	100	90.4	85.4	90.6	100	94.8
01-Aug-01	22:20	0.1	0.3	-0.2	-0.4	-0.4	-0.4	100	90.4	85.4	89.5	100	93.2
01-Aug-01	22:30	0.6	0.6	-0.2	-0.7	-0.4	-0.2	97.3	91.6	85.9	88.4	100	94.3
01-Aug-01	22:40	-0.7	0.3	-0.2	-0.7	-0.2	-0.7	97.3	91	84.9	88.4	100	94.8
01-Aug-01	22:50	-0.9	0.3	-0.7	-0.7	-0.2	-0.4	100	88.3	84.3	89.5	100	94.8
01-Aug-01	23:00	-0.7	-0.2	-0.9	-0.7	-0.9	-0.4	100	91	83.8	89	100	93.7
01-Aug-01	23:10	-1.2	-0.2	-0.9	-0.9	-0.7	-0.4	100	91.6	87	87.9	100	93.7
01-Aug-01	23:20	-0.7	-0.2	-0.7	-1.2	-0.4	-0.4	100	91.6	85.9	90	100	94.8
01-Aug-01	23:30	-0.7	-0.2	-0.9	-0.7	-0.2	-0.4	100	88.8	85.4	90.6	100	94.3
01-Aug-01	23:40	-1.2	-0.2	-0.7	-0.4	-0.2	-0.7	100	91.6	87	90	100	93.2
01-Aug-01	23:50	-0.7	-0.2	-0.9	-0.9	-0.7	-0.7	100	92.1	84.3	88.4	100	94.3
02-Aug-01	00:00	-0.7	-0.2	-0.9	-1.2	-0.4	-0.4	100	91	86.5	87.9	100	94.3
02-Aug-01	00:10	-0.7	0.1	-0.9	-0.9	-0.2	0.6	100	91.6	85.9	90	100	93.2
02-Aug-01	00:20	-0.4	-0.2	-0.9	-0.9	-0.2	0.8	100	88.3	86.5	90.6	100	92
02-Aug-01	00:30	-0.7	-0.4	-0.7	-0.7	-0.4	1.6	98.4	91	87.5	90.6	100	90.4
02-Aug-01	00:40	-1.2	-0.2	-0.7	-0.4	-0.9	0.6	100	91.6	84.3	89.5	100	89.8
02-Aug-01	00:50	-0.7	-0.2	-0.7	-0.7	-0.4	-0.2	100	91.6	87	87.9	100	93.2
02-Aug-01	01:00	-0.9	-0.2	-0.7	-0.9	-0.2	-0.4	98.4	91.6	85.4	90	100	93.2
02-Aug-01	01:10	-1.2	0.1	-0.7	-0.9	-0.2	-0.2	100	91.6	85.9	90.6	100	93.2
02-Aug-01	01:20	-0.9	-0.2	-0.7	-0.7	-0.4	-0.7	100	88.8	87	90.6	100	95.4
02-Aug-01	01:30	-0.7	-0.4	-0.7	-0.7	-0.2	-0.7	98.4	91	84.3	89.5	100	93.2
02-Aug-01	01:40	-0.9	-0.2	-0.9	-0.7	0.1	-0.4	100	92.1	87	88.4	100	93.7
02-Aug-01	01:50	-0.7	-0.2	-0.7	-0.9	0.3	-0.4	100	91.6	86.5	90	100	95.4
02-Aug-01	02:00	-0.9	-0.2	-0.7	-0.9	0.8	-0.7	98.4	91.6	86.5	90.6	100	93.2
02-Aug-01	02:10	-0.9	0.1	-0.7	-0.7	1.3	-0.7	100	88.8	87	90.6	100	93.2
02-Aug-01	02:20	-0.7	-0.4	-0.7	-0.7	0.6	-0.4	100	91	84.3	89.5	100	95.4
02-Aug-01	02:30	-0.7	-0.4	-0.9	-0.7	-0.2	-0.4	100	91.6	87	88.4	100	93.7
02-Aug-01	02:40	-0.9	-0.2	-0.9	-0.9	-0.7	-0.2	100	92.1	85.9	88.4	100	93.7
02-Aug-01	02:50	-0.9	-0.2	-0.7	-0.9	-0.7	-0.4	100	91	85.4	89.5	100	95.4
02-Aug-01	03:00	-0.9	0.1	-0.7	-0.9	-0.4	-0.7	98.4	91.6	87	89.5	100	94.8
02-Aug-01	03:10	-0.9	-0.2	-0.9	-1.2	-0.2	-0.7	100	89.3	84.3	88.4	100	93.2
02-Aug-01	03:20	-0.7	-0.2	-0.9	-0.9	-0.4	-0.4	100	91	85.9	90.6	100	94.3
02-Aug-01	03:30	-0.9	-0.2	-0.7	-0.7	-0.7	-0.4	100	91.6	86.5	90.6	100	95.4
02-Aug-01	03:40	-1.2	-0.2	-0.4	-0.4	-0.4	-0.4	100	91.6	85.9	90	100	93.7
02-Aug-01	03:50	-0.7	-0.2	-0.4	-0.7	-0.2	-0.2	100	91	85.9	88.4	100	93.7
02-Aug-01	04:00	-0.9	0.1	-0.2	-0.9	-0.2	-0.4	100	91.6	85.9	87.9	100	95.4

02-Aug-01	04:10	-0.7	0.1	-0.2	-0.7	-0.7	-0.4	100	89.9	85.9	90.6	100	93.7
02-Aug-01	04:20	0.1	-0.4	-0.2	-0.7	-0.9	-0.4	100	90.4	85.9	90.6	100	93.7
02-Aug-01	04:30	-0.2	-0.2	0.1	-0.7	-0.7	-0.7	97.8	91.6	86.5	90	100	95.4
02-Aug-01	04:40	-1.2	-0.2	-0.4	-0.7	-0.2	-0.7	100	91.6	85.4	88.4	100	95.4
02-Aug-01	04:50	-0.9	-0.2	-0.7	-0.9	-0.2	-0.4	100	91.6	84.3	88.4	100	93.2
02-Aug-01	05:00	-0.7	0.1	-0.7	-0.7	-0.4	-0.7	100	88.3	83.8	90.6	100	93.2
02-Aug-01	05:10	-1.2	-0.4	-0.9	-0.7	-0.7	-0.7	100	91.6	87.5	90.6	100	95.4
02-Aug-01	05:20	-0.9	-0.4	-0.9	-0.7	-0.4	-0.7	100	92.1	85.9	90	100	95.4
02-Aug-01	05:30	-0.9	-0.2	-0.9	-0.7	-0.2	-0.4	99.5	91	85.9	88.4	100	93.7
02-Aug-01	05:40	-0.9	0.1	-0.7	-0.9	-0.2	-0.4	100	91.6	87.5	88.4	100	94.3
02-Aug-01	05:50	-0.7	0.3	-0.9	-0.9	-0.7	-0.4	100	91	84.3	90.6	100	95.4
02-Aug-01	06:00	-0.9	0.3	-0.9	-0.7	-0.7	-0.4	98.4	91	87.5	90.6	100	93.7
02-Aug-01	06:10	-0.9	0.6	-0.7	-0.7	-0.7	-0.4	100	90.4	85.9	90	100	94.3
02-Aug-01	06:20	-0.9	0.6	-0.7	-0.7	-0.2	-0.4	100	90.4	86.5	89	100	95.4
02-Aug-01	06:30	-0.9	0.8	-0.7	-0.7	0.1	-0.7	100	88.3	88.1	88.4	100	93.2
02-Aug-01	06:40	-0.7	-0.2	-0.7	-0.9	-0.7	-0.4	100	88.8	84.3	90.6	100	95.4
02-Aug-01	06:50	-0.7	0.1	-0.9	-0.9	-0.7	-0.7	100	91.6	87.5	90.6	100	94.8
02-Aug-01	07:00	-0.9	0.1	-0.4	-0.7	-0.4	-0.4	100	91.6	85.9	90	100	93.2
02-Aug-01	07:10	-0.9	0.1	-0.9	-0.4	-0.2	-0.4	100	91	85.9	89	100	95.4
02-Aug-01	07:20	-0.7	0.1	-0.7	-0.7	-0.2	-0.4	100	88.8	88.1	88.4	100	93.7
02-Aug-01	07:30	-0.9	-0.2	-0.7	-0.7	0.1	-0.4	100	91.6	84.9	90.6	100	93.7
02-Aug-01	07:40	-0.7	0.1	-0.7	-0.4	0.3	-0.4	100	91.6	87	90.6	100	95.4
02-Aug-01	07:50	-0.7	-0.2	-0.9	-0.4	0.8	-0.2	99.5	91	85.9	89	100	93.7
02-Aug-01	08:00	-0.7	0.1	-0.7	-0.4	1.6	0.1	100	90.4	85.9	88.4	100	93.7
02-Aug-01	08:10	-0.4	0.1	-0.9	-0.7	1.6	0.6	100	88.3	85.9	90.6	100	93.2
02-Aug-01	08:20	-0.7	-0.2	-0.7	-0.7	1.1	1.6	100	91	85.9	90.6	100	92.6
02-Aug-01	08:30	-0.7	0.1	-0.9	-0.7	-0.2	1.6	100	91.6	87.5	89.5	100	88.7
02-Aug-01	08:40	-0.9	0.3	-0.4	-0.4	-0.7	0.6	100	91	84.9	89	100	89.3
02-Aug-01	08:50	-0.7	0.1	-0.7	-0.4	-0.9	0.1	100	88.8	86.5	89.5	100	91.5
02-Aug-01	09:00	-0.7	-0.2	-0.7	-0.4	-0.4	-0.2	98.4	91.6	85.9	90	100	90.9
02-Aug-01	09:10	-0.7	0.1	-0.9	-0.4	0.1	-0.4	100	92.1	85.4	89	100	93.2
02-Aug-01	09:20	-0.9	0.1	-0.7	-0.4	-0.4	-0.4	99.5	89.3	86.5	90	100	93.7
02-Aug-01	09:30	-0.9	-0.2	-0.7	-0.4	-0.7	-0.4	100	90.4	85.9	90	100	93.2
02-Aug-01	09:40	-0.7	-0.2	-0.7	-0.4	-0.4	-0.7	100	92.1	85.9	90	100	93.7
02-Aug-01	09:50	-0.7	-0.2	-0.4	-0.4	-0.2	-0.7	100	88.8	86.5	90	100	93.2
02-Aug-01	10:00	-0.7	-0.2	-0.2	-0.2	-0.4	-0.4	100	91	85.9	90	100	92.6
02-Aug-01	10:10	-0.4	-0.2	-0.2	-0.4	-0.7	-0.4	100	92.1	85.9	89.5	100	92.6
02-Aug-01	10:20	0.3	-0.2	0.1	-0.2	-0.2	-0.7	100	91	86.5	89.5	100	93.2
02-Aug-01	10:30	0.3	-0.2	0.1	0.1	-0.2	-0.4	97.8	90.4	86.5	90	100	94.8
02-Aug-01	10:40	-0.7	-0.2	-0.2	-0.2	0.1	-0.7	100	90.4	85.4	90	100	93.2
02-Aug-01	10:50	-0.7	-0.2	-0.4	-0.2	-0.7	-0.7	100	88.3	84.3	90	100	92
02-Aug-01	11:00	-0.7	-0.2	-0.4	-0.2	-0.2	-0.4	98.9	91.6	84.3	90	100	93.2
02-Aug-01	11:10	-0.7	-0.2	-0.9	-0.4	0.1	-0.4	100	89.9	83.8	89	100	93.2
02-Aug-01	11:20	-0.7	-0.4	-0.9	-0.2	-0.2	-0.4	100	88.3	85.9	88.4	100	93.2
02-Aug-01	11:30	-0.9	-0.4	-0.7	-0.4	-0.7	-0.2	100	91.6	86.5	88.4	100	92
02-Aug-01	11:40	-0.7	-0.4	-0.9	-0.4	-0.2	-0.4	100	88.3	83.8	88.4	100	93.2
02-Aug-01	11:50	-0.9	-0.4	-0.9	-0.7	0.1	-0.4	98.9	91.6	85.9	87.9	100	90.9
02-Aug-01	12:00	-0.7	-0.2	-0.7	-0.7	-0.4	-0.4	100	88.3	84.3	88.4	100	93.7
02-Aug-01	12:10	-0.7	-0.4	-0.9	-0.7	-0.7	-0.4	99.5	89.9	83.3	88.4	100	90.9

02-Aug-01	12:20	-0.7	-0.4	-0.9	-0.9	0.1	-0.4	100	91	85.9	87.9	100	93.7
02-Aug-01	12:30	-0.4	-0.7	-0.7	-0.9	-0.2	-0.4	100	88.3	84.3	87.9	100	90.9
02-Aug-01	12:40	-0.9	-0.7	-0.9	-1.2	-0.4	-0.7	100	91.6	83.3	87.9	100	92
02-Aug-01	12:50	-0.4	-0.7	-0.9	-0.9	-0.4	-0.4	100	87.7	85.9	88.4	100	90.9
02-Aug-01	13:00	-0.4	-0.7	-0.7	-0.7	-0.2	-0.7	100	91.6	84.3	88.4	100	90.9
02-Aug-01	13:10	-0.4	-0.7	-0.7	-0.7	-0.2	-0.4	100	88.3	83.3	87.9	100	92.6
02-Aug-01	13:20	-0.9	-0.7	-0.9	-0.9	-0.2	-0.7	100	91	85.4	87.9	100	92.6
02-Aug-01	13:30	-0.4	-0.7	-0.7	-0.9	0.3	-0.7	100	91	83.8	87.9	100	93.2
02-Aug-01	13:40	-0.4	-0.2	-0.9	-0.7	0.8	-0.7	99.5	90.4	83.3	90	100	93.2
02-Aug-01	13:50	-0.7	0.3	-0.7	-0.4	1.3	-0.7	100	89.9	85.4	90	100	92
02-Aug-01	14:00	-0.2	0.6	-0.7	-0.4	1.6	-0.7	97.3	89.3	83.3	88.4	100	90.9
02-Aug-01	14:10	-0.2	1.1	-0.9	-0.4	2.3	-0.7	100	88.8	83.3	87.9	100	93.2
02-Aug-01	14:20	-0.4	1.6	-0.9	-0.7	1.6	-0.4	99.5	90.4	85.4	87.9	100	90.9
02-Aug-01	14:30	-0.4	1.6	-0.9	-0.7	0.3	-0.7	100	86.6	83.8	87.9	100	92
02-Aug-01	14:40	-0.2	1.1	-0.9	-0.7	0.3	-0.7	100	85.5	83.3	87.9	100	92
02-Aug-01	14:50	-0.2	0.1	-0.7	-0.7	-0.2	-0.7	100	85.5	84.9	89	100	90.9
02-Aug-01	15:00	-0.2	-0.2	-0.7	-0.7	-0.7	-0.4	98.4	90.4	83.3	89.5	100	93.2
02-Aug-01	15:10	-0.4	-0.4	-0.9	-0.7	-0.4	-0.4	100	87.2	83.3	88.4	100	90.9
02-Aug-01	15:20	-0.4	-0.7	-0.7	-0.4	0.3	-0.7	98.9	87.2	85.4	88.4	100	93.2
02-Aug-01	15:30	-0.7	-0.9	-0.7	-0.4	-0.4	-0.7	100	86.6	84.9	88.4	100	93.2
02-Aug-01	15:40	-0.4	-0.9	-0.4	-0.4	-0.4	-0.7	100	91	84.9	88.4	100	90.9
02-Aug-01	15:50	-0.7	-0.4	-0.4	-0.9	0.1	-0.4	100	91.6	85.4	89.5	100	92.6
02-Aug-01	16:00	-0.4	-0.7	-0.4	-0.4	0.3	-0.2	98.9	89.3	85.9	91.1	100	92.6
02-Aug-01	16:10	-0.4	-0.7	-0.2	-0.4	-0.4	0.6	100	91	85.9	89.5	100	93.7
02-Aug-01	16:20	0.6	-0.4	0.1	-0.4	-0.4	1.6	100	90.4	85.9	89	100	98.8
02-Aug-01	16:30	2.1	-0.4	0.3	-0.7	0.1	1.6	100	89.3	86.5	88.4	100	90.4
02-Aug-01	16:40	0.8	-0.4	0.1	-0.7	0.1	0.8	97.3	89.3	85.4	88.4	100	89.8
02-Aug-01	16:50	-0.7	-0.4	-0.2	-0.7	-0.4	0.1	97.3	88.3	84.3	88.4	100	89.8
02-Aug-01	17:00	-0.2	-0.4	-0.4	-0.7	-0.4	-0.2	100	91.6	83.8	87.9	100	91.5
02-Aug-01	17:10	-0.7	-0.4	-0.4	-0.9	0.1	-0.2	100	88.8	83.3	89	100	92.6
02-Aug-01	17:20	-0.4	-0.4	-0.7	-0.7	0.3	-0.7	100	90.4	83.3	89	100	93.7
02-Aug-01	17:30	-0.7	-0.2	-0.7	-0.4	-0.7	-0.4	97.3	91.6	83.3	89	100	93.2
02-Aug-01	17:40	-0.9	-0.2	-0.9	-0.4	-0.4	-0.4	100	88.3	83.3	89	100	93.2
02-Aug-01	17:50	-0.4	-0.2	-0.9	-0.4	-0.2	-0.7	99.5	91	82.8	89	100	94.3
02-Aug-01	18:00	-0.9	-0.2	-0.7	-0.4	0.3	-0.4	100	91.6	84.9	89	100	93.7
02-Aug-01	18:10	-0.7	0.1	-0.7	-0.4	-0.7	-0.4	100	89.9	83.8	89	100	91.5
02-Aug-01	18:20	-1.2	-0.2	-0.7	-0.4	-0.4	-0.4	98.4	89.9	83.3	89	100	94.8
02-Aug-01	18:30	-0.9	-0.2	-0.7	-0.4	-0.4	-0.7	100	91.6	84.3	89	100	92
02-Aug-01	18:40	-0.7	-0.2	-0.7	-0.2	0.1	-0.7	100	91.6	84.3	89	100	94.3
02-Aug-01	18:50	-1.2	-0.4	-0.7	-0.2	-0.4	-0.4	100	88.8	83.3	89	100	93.7
02-Aug-01	19:00	-0.9	-0.4	-0.7	-0.2	-0.4	-0.7	100	91.6	84.3	89	100	92
02-Aug-01	19:10	-0.7	-0.2	-0.7	-0.2	-0.2	-0.4	99.5	92.1	84.9	89	100	94.3
02-Aug-01	19:20	-0.9	-0.2	-0.9	-0.2	-0.2	-0.7	100	88.3	83.3	89	100	93.2
02-Aug-01	19:30	-0.7	-0.4	-0.9	-0.2	0.1	-0.4	100	91	83.8	89	100	93.7
02-Aug-01	19:40	-0.9	-0.2	-0.7	-0.2	0.6	-0.4	99.5	92.1	85.4	89	100	94.3
02-Aug-01	19:50	-0.9	-0.2	-0.7	-0.2	0.8	-0.4	100	88.3	83.3	89	100	93.7
02-Aug-01	20:00	-0.7	-0.7	-0.9	-0.2	1.1	-0.7	98.9	91	83.3	88.4	100	93.2
02-Aug-01	20:10	-1.2	-0.2	-0.9	-0.2	1.6	-0.4	100	92.1	84.3	87.3	100	94.3
02-Aug-01	20:20	-0.7	-0.4	-0.7	-0.4	1.1	-0.7	100	91	83.3	87.3	100	93.2

02-Aug-01	20:30	-1.2	-0.4	-0.7	-0.7	0.1	-0.7	100	90.4	84.3	87.3	100	93.2
02-Aug-01	20:40	-0.7	-0.4	-0.7	-0.9	-0.7	-0.4	100	92.1	83.8	87.3	100	94.8
02-Aug-01	20:50	-0.9	-0.2	-0.7	-0.9	-0.4	-0.7	100	92.1	83.3	90	100	94.3
02-Aug-01	21:00	-0.7	-0.4	-0.9	-0.7	-0.2	-0.4	98.4	88.8	84.3	90.6	100	92.6
02-Aug-01	21:10	-0.9	-0.4	-0.7	-0.4	0.1	-0.4	100	91.6	83.3	89	100	94.3
02-Aug-01	21:20	-0.7	-0.4	-0.7	-0.9	-0.7	-0.4	99.5	92.1	83.3	87.9	100	93.7
02-Aug-01	21:30	-1.2	-0.2	-0.7	-0.9	-0.7	-0.7	100	91.6	83.3	87.9	100	92.6
02-Aug-01	21:40	-0.7	0.1	-0.4	-0.9	-0.2	-0.7	100	91.6	83.8	90	100	94.3
02-Aug-01	21:50	-0.9	-0.2	-0.4	-0.7	0.1	-0.7	100	91	83.8	90.6	100	94.3
02-Aug-01	22:00	-0.9	0.3	-0.4	-0.4	-0.2	-0.4	98.4	91	84.3	89.5	100	92.6
02-Aug-01	22:10	-0.9	0.8	-0.2	-0.4	-0.4	-0.4	100	91	84.3	88.4	100	94.8
02-Aug-01	22:20	0.1	0.8	0.1	-0.9	-0.4	-0.4	100	90.4	84.9	87.9	100	93.2
02-Aug-01	22:30	0.8	1.1	0.1	-1.2	-0.2	-0.4	100	91.6	85.9	90	100	93.2
02-Aug-01	22:40	-0.4	0.8	-0.2	-0.9	0.1	-0.4	97.3	91	84.3	89.5	100	94.8
02-Aug-01	22:50	-1.2	0.3	-0.2	-0.7	-0.4	-0.4	100	87.7	83.3	90	100	92
02-Aug-01	23:00	-0.7	0.1	-0.7	-0.7	-0.4	-0.4	100	88.3	83.3	90	100	94.8
02-Aug-01	23:10	-1.2	-0.2	-0.7	-0.7	-0.2	-0.4	100	91	83.3	89	100	93.7
02-Aug-01	23:20	-0.9	-0.2	-0.7	-0.7	0.1	-0.4	100	91.6	85.4	90	100	93.7
02-Aug-01	23:30	-1.2	-0.4	-0.9	-0.7	0.1	-0.4	97.3	89.9	83.8	90.6	100	94.3
02-Aug-01	23:40	-0.9	-0.4	-0.7	-0.4	-0.7	-0.7	100	92.1	84.3	90.6	100	93.7
02-Aug-01	23:50	-0.7	-0.4	-0.7	-0.4	-0.4	-0.4	100	92.7	85.9	89	100	93.7
03-Aug-01	00:00	-0.9	-0.2	-0.7	-0.7	-0.4	-0.2	100	88.3	83.3	88.4	100	93.2
03-Aug-01	00:10	-0.7	-0.7	-0.7	-0.7	-0.2	0.3	100	92.1	84.9	90	100	93.2
03-Aug-01	00:20	-1.2	-0.4	-0.7	-0.7	-0.7	1.1	100	92.1	86.5	90.6	100	90.9
03-Aug-01	00:30	-0.7	-0.2	-0.7	-0.4	-0.7	1.3	100	88.3	83.3	89.5	100	90.4
03-Aug-01	00:40	-0.7	-0.7	-0.9	-0.7	-0.2	0.3	100	91.6	85.4	88.4	100	89.8
03-Aug-01	00:50	-0.9	-0.4	-0.9	-0.7	0.1	-0.4	100	92.1	85.4	89	100	93.2
03-Aug-01	01:00	-0.7	-0.2	-0.9	-0.7	0.1	-0.4	100	88.8	83.3	90.6	100	93.2
03-Aug-01	01:10	-0.9	-0.7	-0.7	-0.7	-0.7	-0.4	97.8	91	85.9	90	100	92.6
03-Aug-01	01:20	-0.9	-0.4	-0.4	-0.4	-0.7	-0.4	100	92.1	83.8	89.5	100	94.3
03-Aug-01	01:30	-0.7	-0.4	-0.9	-0.7	-0.2	-0.4	100	92.1	84.3	88.4	100	93.2
03-Aug-01	01:40	-1.4	-0.4	-0.9	-0.7	0.1	-0.7	100	89.9	85.9	90.6	100	93.2
03-Aug-01	01:50	-1.2	-0.4	-0.7	-0.7	0.6	-0.4	100	92.1	83.3	90	100	94.3
03-Aug-01	02:00	-0.7	-0.2	-0.7	-0.4	1.1	-0.7	100	92.1	84.9	89	100	92.6
03-Aug-01	02:10	-1.2	-0.4	-0.9	-0.7	1.6	-0.4	100	88.8	85.9	88.4	100	94.8
03-Aug-01	02:20	-0.9	-0.7	-0.7	-0.7	0.8	-0.4	100	91.6	83.3	90.6	100	94.3
03-Aug-01	02:30	-0.7	-0.4	-0.7	-0.9	-0.2	-0.7	99.5	92.7	85.4	90	100	92.6
03-Aug-01	02:40	-1.2	-0.4	-0.7	-0.7	-0.7	-0.7	100	88.8	85.4	89.5	100	94.8
03-Aug-01	02:50	-0.9	-0.4	-0.7	-0.4	-0.7	-0.4	100	91.6	83.3	90	100	93.7
03-Aug-01	03:00	-0.9	-0.4	-0.7	-0.4	-0.2	-0.4	99.5	93.2	85.4	90	100	93.2
03-Aug-01	03:10	-0.9	-0.2	-0.7	-0.4	-0.2	-0.7	100	91.6	84.3	89.5	100	94.8
03-Aug-01	03:20	-0.9	-0.7	-0.7	-0.9	-0.4	-0.4	100	90.4	84.3	89	100	93.7
03-Aug-01	03:30	-1.2	-0.4	-0.7	-0.7	-0.4	-0.4	98.9	92.1	84.9	90.6	100	93.2
03-Aug-01	03:40	-0.9	-0.2	-0.4	-0.7	-0.2	-0.4	100	92.1	84.9	90	100	94.8
03-Aug-01	03:50	-0.7	-0.4	-0.4	-0.4	-0.2	-0.4	100	88.8	84.9	89.5	100	93.2
03-Aug-01	04:00	-1.2	-0.4	-0.2	-0.7	0.1	-0.4	99.5	91.6	84.9	88.4	100	93.7
03-Aug-01	04:10	-1.2	-0.4	-0.2	-0.7	-0.4	-0.4	100	92.7	84.9	90	100	94.3
03-Aug-01	04:20	0.1	-0.2	-0.2	-0.7	-0.4	-0.4	100	91.6	84.9	90.6	100	93.7
03-Aug-01	04:30	-0.2	-0.2	0.1	-0.7	-0.4	-0.7	97.3	90.4	85.9	90	100	93.2

03-Aug-01	04:40	-1.2	-0.4	-0.2	-0.4	0.1	-0.7	100	91	84.3	89	100	94.8
03-Aug-01	04:50	-0.9	-0.4	-0.4	-0.7	-0.4	-0.4	100	91.6	83.3	90	100	93.2
03-Aug-01	05:00	-1.2	-0.4	-0.7	-0.7	-0.4	-0.4	99.5	91.6	83.3	90.6	100	94.3
03-Aug-01	05:10	-1.4	-0.4	-0.7	-0.7	-0.2	-0.7	100	89.3	84.3	90	100	94.8
03-Aug-01	05:20	-0.7	-0.4	-0.7	-0.7	0.1	-0.4	100	92.1	85.9	89	100	93.2
03-Aug-01	05:30	-1.2	-0.2	-0.7	-0.7	-0.2	-0.4	97.8	91.6	83.8	88.4	100	94.3
03-Aug-01	05:40	-1.2	-0.2	-0.9	-0.9	-0.4	-0.4	100	91.6	85.4	90.6	100	94.3
03-Aug-01	05:50	-0.7	0.1	-0.7	-0.7	-0.4	-0.7	100	91.6	85.9	90.6	100	93.7
03-Aug-01	06:00	-0.9	0.3	-0.7	-0.4	-0.4	-0.7	100	91.6	83.3	90	100	93.2
03-Aug-01	06:10	-0.9	0.3	-0.9	-0.7	0.1	-0.4	100	91	85.4	89	100	93.7
03-Aug-01	06:20	-0.9	0.8	-0.7	-0.7	-0.2	-0.4	98.9	91	85.4	88.4	100	94.8
03-Aug-01	06:30	-0.9	0.6	-0.7	-0.7	-0.7	-0.7	100	88.3	83.8	90.6	100	93.2
03-Aug-01	06:40	-0.7	0.1	-0.7	-0.7	-0.2	-0.4	100	87.2	85.9	90.6	100	94.8
03-Aug-01	06:50	-1.2	0.1	-0.9	-0.4	-0.2	-0.7	100	91.6	84.3	90	100	93.2
03-Aug-01	07:00	-0.9	0.1	-0.7	-0.7	-0.2	-0.7	100	91.6	85.4	88.4	100	94.3
03-Aug-01	07:10	-0.9	-0.4	-0.4	-0.7	-0.4	-0.4	99.5	89.3	86.5	88.4	100	94.3
03-Aug-01	07:20	-1.2	-0.4	-0.9	-0.7	-0.4	-0.4	100	92.1	83.8	90.6	100	92.6
03-Aug-01	07:30	-0.7	-0.2	-0.7	-0.4	-0.2	-0.7	100	92.1	84.9	90.6	100	94.3
03-Aug-01	07:40	-0.9	-0.4	-0.7	-0.7	0.3	-0.4	98.9	88.8	86.5	89.5	100	93.7
03-Aug-01	07:50	-0.9	-0.2	-0.7	-0.9	0.6	-0.4	100	91.6	83.3	89	100	93.7
03-Aug-01	08:00	-0.4	-0.2	-0.7	-0.9	1.3	0.1	100	92.1	85.4	88.4	100	94.3
03-Aug-01	08:10	-0.9	-0.2	-0.9	-1.2	1.8	1.1	100	88.3	84.3	88.4	100	96
03-Aug-01	08:20	-0.9	-0.2	-0.9	-0.9	0.8	2.1	100	91.6	83.8	90.6	100	93.7
03-Aug-01	08:30	-1.2	-0.2	-0.9	-0.7	0.1	2.1	100	92.1	85.4	91.7	100	88.2
03-Aug-01	08:40	-0.7	-0.4	-0.7	-0.4	-0.2	0.8	100	88.3	84.3	90	100	88.2
03-Aug-01	08:50	-1.2	-0.2	-0.9	-0.4	-0.7	0.1	100	91.6	83.8	89.5	100	89.3
03-Aug-01	09:00	-0.4	0.1	-0.9	-0.4	-0.4	-0.2	100	92.1	85.4	89.5	100	90.4
03-Aug-01	09:10	-1.2	-0.2	-0.9	-0.4	-0.2	-0.4	100	88.3	83.8	89	100	90.9
03-Aug-01	09:20	-0.7	-0.2	-0.7	-0.7	-0.2	-0.4	100	91.6	83.3	88.4	100	92
03-Aug-01	09:30	-0.9	0.1	-0.9	-0.7	-0.4	-0.7	100	92.1	83.8	88.4	100	93.2
03-Aug-01	09:40	-0.7	-0.2	-0.7	-0.7	-0.4	-0.7	100	88.8	84.3	88.4	100	92
03-Aug-01	09:50	-0.7	-0.2	-0.4	-0.9	0.1	-0.2	99.5	91.6	84.9	91.1	100	91.5
03-Aug-01	10:00	-0.7	-0.4	-0.2	-0.7	-0.2	-0.4	100	89.3	84.9	89.5	100	93.7
03-Aug-01	10:10	-0.2	-0.2	-0.2	-0.7	-0.7	-0.4	100	90.4	84.9	89.5	100	93.2
03-Aug-01	10:20	0.8	-0.2	-0.2	-1.2	-0.4	-0.4	100	90.4	85.4	89	100	91.5
03-Aug-01	10:30	0.6	-0.2	-0.2	-0.9	-0.2	-0.7	99.5	91	85.9	90.6	100	92
03-Aug-01	10:40	-0.7	-0.4	-0.2	-0.7	0.1	-0.7	98.9	91	85.4	90	100	92.6
03-Aug-01	10:50	-0.7	-0.2	-0.4	-0.7	-0.2	-0.4	100	88.3	83.8	89.5	100	93.2
03-Aug-01	11:00	-0.7	-0.4	-0.4	-1.2	-0.7	-0.4	99.5	91	83.3	89	100	91.5
03-Aug-01	11:10	-0.9	-0.4	-0.7	-0.7	-0.4	-0.4	100	91.6	83.3	91.1	100	93.2
03-Aug-01	11:20	-0.7	-0.4	-0.7	-0.7	0.3	-0.7	100	88.8	83.3	90	100	93.2
03-Aug-01	11:30	-0.9	-0.4	-0.9	-0.9	-0.2	-0.7	100	91	83.3	89.5	100	92.6
03-Aug-01	11:40	-0.4	-0.2	-0.7	-0.7	-0.4	-0.7	100	88.8	85.4	89	100	92
03-Aug-01	11:50	-0.7	-0.4	-0.7	-0.9	-0.4	-0.7	100	90.4	83.3	89	100	90.9
03-Aug-01	12:00	-0.7	-0.4	-0.9	-1.2	0.1	-0.4	100	92.1	83.3	88.4	100	91.5
03-Aug-01	12:10	-0.9	-0.4	-0.7	-0.9	0.1	-0.4	100	88.3	83.8	90	100	93.2
03-Aug-01	12:20	-0.4	-0.7	-0.7	-0.9	-0.4	-0.4	100	91	83.3	92.2	100	93.7
03-Aug-01	12:30	-0.9	-0.2	-0.7	-0.7	-0.4	-0.7	99.5	88.8	83.3	89.5	100	92.6
03-Aug-01	12:40	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	90.4	85.4	89	100	90.9

03-Aug-01	12:50	-0.7	-0.4	-0.7	-1.2	-0.4	-0.4	100	91.6	83.3	88.4	100	91.5
03-Aug-01	13:00	-0.7	-0.4	-0.9	-0.9	0.1	-0.7	100	88.3	83.8	90.6	100	92
03-Aug-01	13:10	-0.7	-0.7	-0.7	-0.9	-0.2	-0.4	100	91	84.9	91.7	100	93.7
03-Aug-01	13:20	-0.4	-0.2	-0.9	-0.7	-0.2	-0.4	100	88.3	83.3	89.5	100	93.7
03-Aug-01	13:30	-0.4	-0.4	-0.7	-0.7	0.3	-0.4	100	89.3	83.3	89	100	92.6
03-Aug-01	13:40	-0.7	-0.4	-0.9	-0.9	0.8	-0.4	100	89.3	83.8	89	100	90.9
03-Aug-01	13:50	-0.7	0.1	-0.9	-1.2	1.3	-0.4	100	89.3	83.3	89	100	91.5
03-Aug-01	14:00	-0.4	0.6	-0.9	-1.2	1.8	-0.4	98.4	89.3	83.3	88.4	100	92.6
03-Aug-01	14:10	-0.4	0.8	-0.7	-1.2	2.6	-0.4	100	88.8	84.3	88.4	100	93.2
03-Aug-01	14:20	-0.7	1.6	-0.9	-1.2	1.8	-0.4	100	89.9	83.3	88.4	100	90.9
03-Aug-01	14:30	-0.2	1.8	-0.9	-1.2	0.8	-0.2	100	86.1	84.3	88.4	100	91.5
03-Aug-01	14:40	-0.7	1.1	-0.7	-1.2	0.3	-0.4	99.5	85.5	83.3	89.5	100	92
03-Aug-01	14:50	-0.2	0.3	-0.9	-0.9	0.1	-0.4	100	86.1	83.3	89.5	100	93.2
03-Aug-01	15:00	-0.4	-0.2	-0.7	-0.9	-0.2	-0.4	100	86.1	83.3	89	100	92.6
03-Aug-01	15:10	-0.4	-0.4	-0.7	-0.9	-0.4	-0.7	98.9	88.3	82.8	87.9	100	90.9
03-Aug-01	15:20	-0.4	-0.7	-0.7	-1.2	-0.4	-0.4	100	87.7	83.8	87.9	100	91.5
03-Aug-01	15:30	-0.7	-0.7	-0.7	-1.2	-0.4	-0.4	98.4	87.2	84.3	87.9	100	91.5
03-Aug-01	15:40	-0.7	-0.9	-0.7	-1.2	0.1	-0.7	100	91	84.3	87.9	100	90.9
03-Aug-01	15:50	-0.4	-0.7	-0.4	-1.2	-0.2	-0.4	100	87.7	84.9	87.9	100	92
03-Aug-01	16:00	-0.2	-0.9	-0.2	-1.4	-0.7	0.1	100	90.4	85.4	87.9	100	93.2
03-Aug-01	16:10	-0.2	-0.4	-0.2	-1.2	-0.2	0.8	100	89.9	85.4	87.9	100	94.3
03-Aug-01	16:20	1.1	-0.7	0.1	-1.2	-0.2	1.6	100	89.3	85.9	90	100	94.3
03-Aug-01	16:30	1.8	-0.4	0.3	-1.2	-0.2	1.6	100	89.9	86.5	89.5	100	89.3
03-Aug-01	16:40	0.6	-0.4	0.1	-0.9	-0.2	0.3	97.3	89.3	85.4	87.9	100	89.3
03-Aug-01	16:50	-0.7	-0.2	0.1	-1.2	-0.2	-0.2	97.8	87.7	83.8	87.9	100	92
03-Aug-01	17:00	-0.7	-0.7	-0.2	-1.2	0.3	-0.4	100	88.8	83.3	88.4	100	90.9
03-Aug-01	17:10	-0.4	-0.7	-0.4	-0.9	-0.4	-0.7	97.3	89.3	83.3	89	100	94.3
03-Aug-01	17:20	-0.4	-0.4	-0.7	-1.2	-0.4	-0.7	100	88.3	82.8	89.5	100	92.6
03-Aug-01	17:30	-0.4	-0.4	-0.7	-0.7	-0.2	-0.4	97.3	91	82.8	89.5	100	93.2
03-Aug-01	17:40	-0.9	-0.7	-0.9	-0.7	0.1	-0.7	100	87.2	83.3	89.5	100	94.3
03-Aug-01	17:50	-0.7	-0.7	-0.9	-0.4	-0.2	-0.4	100	91	84.9	89.5	100	92.6
03-Aug-01	18:00	-0.9	-0.4	-0.9	-0.4	-0.4	-0.4	100	91.6	83.8	89.5	100	93.7
03-Aug-01	18:10	-0.7	-0.4	-0.9	-0.4	-0.2	-0.4	100	90.4	83.8	89.5	100	94.8
03-Aug-01	18:20	-0.7	-0.4	-0.7	-0.4	-0.2	-0.7	97.8	89.9	85.4	89.5	100	93.7
03-Aug-01	18:30	-0.9	-0.4	-0.7	-0.4	-0.2	-0.7	100	91.6	83.3	89	100	93.2
03-Aug-01	18:40	-0.7	-0.4	-0.7	-0.2	-0.7	-0.4	100	92.1	83.8	89.5	100	94.3
03-Aug-01	18:50	-0.9	-0.7	-0.9	-0.4	-0.2	-0.4	100	88.8	85.4	89	100	94.3
03-Aug-01	19:00	-0.7	-0.7	-0.7	-0.4	0.1	-0.7	100	91.6	83.3	89	100	93.2
03-Aug-01	19:10	-0.4	-0.4	-0.7	-0.2	0.1	-0.4	99.5	92.1	83.8	89	100	93.7
03-Aug-01	19:20	-1.2	-0.2	-0.7	-0.2	-0.2	-0.4	100	92.1	83.8	89	100	94.8
03-Aug-01	19:30	-0.4	-0.4	-0.9	-0.2	0.1	-0.4	100	88.8	83.8	89	100	93.7
03-Aug-01	19:40	-0.7	-0.7	-0.7	-0.2	0.3	-0.7	98.4	91	85.4	89	100	93.2
03-Aug-01	19:50	-0.9	-0.4	-0.9	-0.2	0.3	-0.4	100	92.1	83.8	89	100	94.8
03-Aug-01	20:00	-0.4	-0.4	-0.7	-0.4	0.6	-0.4	100	92.7	83.3	87.9	100	93.7
03-Aug-01	20:10	-0.9	-0.2	-0.7	-0.7	1.1	-0.4	100	88.3	85.4	87.3	100	93.7
03-Aug-01	20:20	-0.7	-0.4	-0.4	-0.7	0.8	-0.4	100	91.6	83.3	87.3	100	94.8
03-Aug-01	20:30	-0.9	-0.4	-0.9	-0.9	-0.4	-0.4	100	92.1	84.3	87.3	100	93.2
03-Aug-01	20:40	-0.4	-0.4	-0.7	-1.2	-0.7	-0.4	100	92.7	83.3	87.3	100	94.3
03-Aug-01	20:50	-0.9	-0.4	-0.9	-1.2	-0.4	-0.4	100	88.8	83.8	87.3	100	94.3

03-Aug-01	21:00	-0.7	-0.4	-0.9	-1.2	0.1	-0.4	100	91	85.4	90	100	93.2
03-Aug-01	21:10	-0.9	-0.4	-0.7	-0.9	0.1	-0.4	100	92.1	83.3	90.6	100	94.3
03-Aug-01	21:20	-0.7	-0.4	-0.9	-0.7	-0.7	-0.7	100	92.7	83.8	90	100	94.8
03-Aug-01	21:30	-0.7	-0.2	-0.7	-0.9	-0.2	-0.4	100	91	84.3	87.9	100	94.3
03-Aug-01	21:40	-0.9	0.1	-0.7	-1.2	-0.2	-0.7	100	91	84.3	87.9	100	92.6
03-Aug-01	21:50	-0.4	0.1	-0.7	-1.4	-0.2	-0.7	100	91	84.3	89.5	100	94.8
03-Aug-01	22:00	-0.9	0.3	-0.4	-1.2	-0.4	-0.4	100	91	84.3	91.1	100	94.8
03-Aug-01	22:10	-0.4	0.3	-0.2	-0.9	-0.7	-0.7	100	90.4	84.9	91.1	100	93.2
03-Aug-01	22:20	0.6	0.3	-0.2	-0.9	-0.2	-0.7	100	90.4	84.3	89	100	93.7
03-Aug-01	22:30	0.6	0.8	0.1	-1.2	-0.2	-0.7	98.4	91.6	85.9	87.9	100	94.8
03-Aug-01	22:40	-0.7	0.3	0.1	-1.2	0.1	-0.4	97.8	91	84.3	89	100	93.2
03-Aug-01	22:50	-1.2	0.6	-0.2	-0.9	-0.7	-0.4	100	88.3	83.3	89.5	100	93.7
03-Aug-01	23:00	-0.7	-0.2	-0.4	-0.9	-0.4	-0.4	100	89.9	83.3	89	100	94.8
03-Aug-01	23:10	-0.9	-0.2	-0.7	-1.2	-0.2	-0.7	100	91.6	83.3	87.9	100	93.2
03-Aug-01	23:20	-0.9	-0.2	-0.7	-1.2	0.1	-0.7	100	92.1	84.3	90	100	93.7
03-Aug-01	23:30	-0.7	-0.2	-0.7	-1.2	-0.2	-0.7	99.5	88.3	84.9	91.1	100	94.8
03-Aug-01	23:40	-0.9	-0.4	-0.7	-0.7	-0.7	-0.4	100	91.6	83.3	90.6	100	93.7
03-Aug-01	23:50	-0.7	-0.2	-0.7	-0.7	-0.4	-0.4	100	92.1	84.9	89	100	93.7
04-Aug-01	00:00	-0.9	-0.2	-0.9	-0.9	-0.2	-0.4	100	92.1	84.3	87.9	100	93.7
04-Aug-01	00:10	-0.7	-0.2	-0.7	-0.9	0.1	0.3	100	88.3	83.3	90	100	93.2
04-Aug-01	00:20	-0.7	-0.7	-0.7	-1.2	-0.4	1.1	100	91.6	85.9	90.6	100	91.5
04-Aug-01	00:30	-1.2	-0.2	-0.7	-0.7	-0.7	1.1	100	92.1	83.8	90.6	100	90.4
04-Aug-01	00:40	-0.9	-0.4	-0.9	-0.7	-0.2	0.1	100	91.6	84.3	89	100	89.8
04-Aug-01	00:50	-0.9	-0.4	-0.7	-1.2	-0.2	-0.2	99.5	88.8	85.9	87.9	100	93.7
04-Aug-01	01:00	-1.2	-0.7	-0.7	-0.9	-0.2	-0.7	100	91.6	83.3	90	100	93.2
04-Aug-01	01:10	-0.9	-0.2	-0.7	-1.2	-0.4	-0.4	100	92.1	85.4	90.6	100	94.8
04-Aug-01	01:20	-0.9	-0.4	-0.4	-0.7	-0.4	-0.4	99.5	91.6	84.9	90.6	100	94.3
04-Aug-01	01:30	-0.9	-0.4	-0.9	-0.4	-0.2	-0.7	100	88.8	84.3	89	100	92.6
04-Aug-01	01:40	-0.7	-0.4	-0.7	-0.9	0.3	-0.7	100	91.6	86.5	87.9	100	95.4
04-Aug-01	01:50	-1.2	-0.4	-0.7	-1.2	0.8	-0.4	99.5	92.1	83.8	90	100	93.7
04-Aug-01	02:00	-1.2	-0.2	-0.7	-1.2	1.1	-0.4	100	91.6	84.9	91.1	100	93.7
04-Aug-01	02:10	-0.4	-0.2	-0.7	-0.7	1.3	-0.4	100	88.3	85.9	90.6	100	94.8
04-Aug-01	02:20	-1.2	-0.4	-0.7	-0.4	0.8	-0.4	100	91	83.3	89	100	93.2
04-Aug-01	02:30	-0.9	-0.2	-0.7	-0.9	-0.2	-0.4	100	92.1	85.4	87.9	100	94.8
04-Aug-01	02:40	-0.9	-0.2	-0.4	-0.9	-0.7	-0.7	99.5	91.6	85.9	89	100	94.8
04-Aug-01	02:50	-0.9	-0.2	-0.7	-1.2	-0.4	-0.4	100	91	83.3	89.5	100	93.2
04-Aug-01	03:00	-0.9	-0.2	-0.9	-0.7	-0.4	-0.4	100	88.8	85.9	91.1	100	94.8
04-Aug-01	03:10	-0.7	-0.4	-0.7	-0.7	0.1	-0.4	98.4	91.6	86.5	88.4	100	94.3
04-Aug-01	03:20	-1.2	-0.4	-0.7	-0.9	-0.4	-0.2	100	92.1	83.8	88.4	100	93.2
04-Aug-01	03:30	-0.7	0.1	-0.7	-1.2	-0.7	-0.7	100	91.6	84.9	91.1	100	94.8
04-Aug-01	03:40	-1.2	-0.2	-0.7	-0.7	-0.4	-0.4	100	88.8	85.4	90.6	100	94.8
04-Aug-01	03:50	-0.7	-0.2	-0.7	-0.7	-0.2	-0.4	100	91	85.4	90	100	93.2
04-Aug-01	04:00	-0.9	-0.4	-0.7	-0.7	-0.2	-0.4	99.5	92.1	85.4	88.4	100	94.8
04-Aug-01	04:10	-1.2	-0.4	-0.4	-1.2	-0.7	-0.4	100	91.6	85.4	87.9	100	94.8
04-Aug-01	04:20	-0.2	-0.2	-0.4	-1.2	-0.4	-0.4	100	90.4	85.4	91.1	100	93.2
04-Aug-01	04:30	0.1	-0.4	0.1	-0.9	-0.2	-0.2	98.4	90.4	85.9	90.6	100	93.7
04-Aug-01	04:40	-0.9	-0.2	-0.2	-0.7	-0.2	-0.7	100	91.6	83.8	90	100	95.4
04-Aug-01	04:50	-0.7	-0.2	-0.4	-0.7	-0.7	-0.4	100	91.6	83.3	89	100	93.7
04-Aug-01	05:00	-0.7	0.1	-0.7	-1.2	-0.7	-0.4	100	91.6	85.4	87.9	100	93.2

04-Aug-01	05:10	-1.2	-0.2	-0.7	-1.2	-0.2	-0.7	100	91.6	85.9	91.1	100	94.8
04-Aug-01	05:20	-0.9	0.1	-0.7	-0.7	-0.2	-0.7	100	88.8	84.3	90.6	100	94.3
04-Aug-01	05:30	-0.9	-0.4	-0.9	-0.4	-0.2	-0.4	99.5	90.4	85.9	90	100	93.2
04-Aug-01	05:40	-1.2	-0.2	-0.7	-0.7	-0.7	-0.7	100	91	85.4	88.4	100	94.8
04-Aug-01	05:50	-0.9	-0.2	-0.7	-1.2	-0.4	-0.7	100	91	84.9	87.9	100	94.8
04-Aug-01	06:00	-1.2	0.1	-0.9	-0.9	-0.2	-0.4	100	91	85.9	91.1	100	93.2
04-Aug-01	06:10	-0.9	0.3	-0.7	-0.9	-0.2	-0.4	100	91	84.3	90.6	100	94.8
04-Aug-01	06:20	-0.9	0.3	-0.7	-0.7	-0.2	-0.7	99.5	90.4	85.4	90	100	94.3
04-Aug-01	06:30	-1.2	0.3	-0.4	-0.9	-0.9	-0.4	100	87.7	86.5	88.4	100	93.2
04-Aug-01	06:40	-0.7	-0.2	-0.7	-1.2	-0.4	-0.7	100	90.4	83.8	87.9	100	94.8
04-Aug-01	06:50	-1.2	-0.2	-0.7	-0.9	-0.4	-0.4	100	91.6	85.9	91.1	100	94.3
04-Aug-01	07:00	-1.2	-0.2	-0.4	-0.7	-0.2	-0.4	100	92.1	86.5	90.6	100	93.2
04-Aug-01	07:10	-0.7	-0.2	-0.7	-0.4	-0.4	-0.7	100	90.4	83.8	90	100	95.4
04-Aug-01	07:20	-1.2	-0.2	-0.7	-0.7	-0.7	-0.7	100	90.4	85.9	88.4	100	94.3
04-Aug-01	07:30	-0.9	-0.4	-0.7	-0.9	-0.4	-0.4	100	92.1	85.9	88.4	100	93.7
04-Aug-01	07:40	-0.7	-0.4	-0.4	-0.9	0.1	-0.7	100	91.6	84.3	91.1	100	95.4
04-Aug-01	07:50	-1.2	-0.2	-0.4	-0.7	0.3	-0.4	100	91	85.9	90.6	100	94.3
04-Aug-01	08:00	-0.9	0.1	-0.7	-0.7	1.1	-0.2	100	88.3	85.4	90	100	93.7
04-Aug-01	08:10	-0.9	-0.2	-0.9	-0.7	1.3	0.3	100	91.6	84.3	89.5	100	93.2
04-Aug-01	08:20	-0.7	-0.2	-0.7	-0.4	0.6	1.1	100	92.1	85.9	90	100	91.5
04-Aug-01	08:30	-0.9	-0.2	-0.4	-0.4	-0.2	1.3	100	91.6	83.8	90	100	89.3
04-Aug-01	08:40	-0.7	0.1	-0.7	-0.4	-0.7	0.3	100	89.3	85.4	90	100	89.8
04-Aug-01	08:50	-0.9	-0.4	-0.7	-0.4	-0.4	-0.2	99.5	91	85.9	90	100	93.2
04-Aug-01	09:00	-0.9	-0.2	-0.7	-0.4	-0.2	-0.4	100	92.1	83.8	90	100	93.7
04-Aug-01	09:10	-0.7	-0.2	-0.7	-0.4	-0.2	-0.4	99.5	92.1	85.9	89.5	100	93.2
04-Aug-01	09:20	-0.9	-0.2	-0.4	-0.4	-0.4	-0.4	100	88.3	85.4	89.5	100	93.2
04-Aug-01	09:30	-0.7	-0.7	-0.4	-0.4	-0.7	-0.7	100	92.1	85.4	89.5	100	95.4
04-Aug-01	09:40	-0.9	-0.4	-0.4	-0.4	-0.2	-0.4	100	92.7	85.9	89.5	100	94.3
04-Aug-01	09:50	-0.7	-0.4	-0.4	-0.4	-0.2	-0.7	100	88.8	85.9	89.5	100	92.6
04-Aug-01	10:00	-0.9	-0.7	-0.2	-0.4	-0.2	-0.7	99.5	91.6	85.4	89.5	100	93.2
04-Aug-01	10:10	-0.7	-0.4	-0.2	-0.4	-0.4	-0.7	100	93.2	85.4	89.5	100	94.8
04-Aug-01	10:20	0.3	-0.4	0.1	-0.4	-0.4	-0.4	100	91.6	85.4	89.5	100	93.2
04-Aug-01	10:30	0.3	-0.4	0.1	-0.4	0.1	-0.7	97.8	91	85.9	89.5	100	93.2
04-Aug-01	10:40	-0.7	-0.4	-0.2	-0.4	-0.2	-0.7	100	91	84.3	89.5	100	94.3
04-Aug-01	10:50	-0.4	-0.7	-0.4	-0.4	-0.7	-0.7	100	88.8	83.3	90	100	92.6
04-Aug-01	11:00	-0.7	-0.7	-0.7	-0.4	-0.4	-0.7	100	92.1	83.3	89	100	93.2
04-Aug-01	11:10	-0.4	-0.4	-0.7	-0.4	0.1	-0.7	100	91	83.3	88.4	100	95.4
04-Aug-01	11:20	-0.7	-0.4	-0.7	-0.7	-0.2	-0.7	100	89.9	83.8	88.4	100	93.2
04-Aug-01	11:30	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	92.7	85.4	87.9	100	92.6
04-Aug-01	11:40	-0.9	-0.4	-0.7	-1.2	-0.2	-0.7	100	88.8	83.3	87.9	100	94.8
04-Aug-01	11:50	-0.4	-0.9	-0.9	-1.2	0.1	-0.7	100	91	83.8	87.9	100	93.2
04-Aug-01	12:00	-0.7	-0.9	-0.7	-1.2	-0.2	-0.7	100	90.4	84.3	87.9	100	92.6
04-Aug-01	12:10	-0.4	-0.9	-0.7	-1.2	-0.4	-0.7	100	88.8	83.3	88.4	100	94.8
04-Aug-01	12:20	-0.7	-0.9	-0.7	-1.2	-0.2	-0.7	99.5	92.7	85.4	88.4	100	93.2
04-Aug-01	12:30	-0.7	-0.9	-0.7	-1.2	0.3	-0.4	100	88.3	83.3	91.1	100	93.2
04-Aug-01	12:40	-0.4	-1.2	-0.9	-0.7	-0.2	-0.4	100	91	84.3	91.1	100	94.3
04-Aug-01	12:50	-0.9	-0.7	-0.9	-0.4	-0.4	-0.7	100	89.3	83.8	89	100	93.2
04-Aug-01	13:00	-0.7	-0.9	-0.7	-0.9	0.1	-0.7	100	89.9	83.3	88.4	100	92.6
04-Aug-01	13:10	-0.7	-0.9	-0.7	-0.9	0.1	-0.7	100	91.6	84.3	88.4	100	94.3

04-Aug-01	13:20	-0.4	-1.2	-0.7	-0.9	-0.2	-0.7	100	88.3	83.8	90.6	100	94.3
04-Aug-01	13:30	-0.7	-0.9	-0.7	-0.9	-0.2	-0.7	100	90.4	83.3	91.1	100	92.6
04-Aug-01	13:40	-0.4	-0.7	-0.7	-0.9	0.3	-0.7	100	91	84.9	89.5	100	93.2
04-Aug-01	13:50	-0.7	-0.2	-0.7	-0.9	0.8	-0.4	98.9	91	83.3	88.4	100	94.3
04-Aug-01	14:00	-0.4	-0.2	-0.9	-0.9	1.3	-0.7	100	90.4	83.8	88.4	100	93.2
04-Aug-01	14:10	-0.7	0.6	-0.7	-1.2	1.6	-0.7	97.8	89.9	84.3	90	100	92.6
04-Aug-01	14:20	-0.4	0.8	-0.9	-0.9	1.1	-0.4	100	89.3	83.3	91.1	100	94.3
04-Aug-01	14:30	-0.7	0.8	-0.9	-0.9	0.1	-0.7	99.5	88.3	83.3	89.5	100	94.3
04-Aug-01	14:40	-0.7	0.3	-0.9	-0.9	-0.4	-0.7	100	86.1	84.9	89.5	100	92
04-Aug-01	14:50	-0.4	-0.2	-0.7	-0.7	-0.7	-0.7	99.5	86.6	83.3	90	100	93.2
04-Aug-01	15:00	-0.7	-0.7	-0.9	-0.7	-0.2	-0.7	100	88.3	83.3	90	100	94.3
04-Aug-01	15:10	-0.4	-0.7	-0.9	-0.9	0.1	-0.7	100	89.3	84.3	89	100	93.2
04-Aug-01	15:20	-0.7	-0.9	-0.7	-1.2	-0.7	-0.7	100	87.2	83.3	88.4	100	92.6
04-Aug-01	15:30	-0.4	-1.2	-0.7	-1.2	-0.4	-0.7	100	91	83.3	88.4	100	94.8
04-Aug-01	15:40	-0.7	-0.9	-0.9	-0.9	0.1	-0.4	97.3	88.3	83.8	90.6	100	93.2
04-Aug-01	15:50	-0.4	-1.2	-0.4	-0.9	-0.2	-0.7	100	91	83.8	91.1	100	93.2
04-Aug-01	16:00	-0.4	-0.9	-0.4	-0.7	-0.7	-0.2	100	90.4	83.8	89	100	93.7
04-Aug-01	16:10	-0.4	-0.9	-0.2	-0.9	-0.2	0.3	100	90.4	84.3	88.4	100	93.2
04-Aug-01	16:20	0.3	-0.9	-0.2	-1.2	0.1	1.1	100	90.4	84.3	88.4	100	91.5
04-Aug-01	16:30	1.1	-0.7	0.1	-1.2	0.1	1.1	99.5	91	85.9	90.6	100	90.4
04-Aug-01	16:40	-0.2	-0.7	-0.2	-0.9	-0.4	0.3	96.7	91	84.3	90.6	100	90.4
04-Aug-01	16:50	-0.7	-0.7	-0.2	-1.2	-0.4	-0.4	100	88.8	83.3	89	100	93.2
04-Aug-01	17:00	-0.7	-0.9	-0.4	-0.9	-0.2	-0.4	98.4	86.6	83.3	89.5	100	92
04-Aug-01	17:10	-0.7	-1.2	-0.9	-1.2	-0.2	-0.7	100	90.4	83.3	89.5	100	94.3
04-Aug-01	17:20	-0.7	-1.2	-0.9	-0.9	-0.4	-0.7	100	91.6	83.3	89.5	100	94.8
04-Aug-01	17:30	-0.9	-0.9	-0.7	-0.7	-0.4	-0.4	100	92.7	84.9	89.5	100	93.7
04-Aug-01	17:40	-1.2	-0.4	-0.9	-0.7	-0.2	-0.4	100	88.3	83.8	89.5	100	93.7
04-Aug-01	17:50	-0.7	-0.7	-0.9	-0.7	0.1	-0.4	100	91.6	83.8	89.5	100	93.7
04-Aug-01	18:00	-0.9	-0.7	-0.9	-0.4	-0.4	-0.7	99.5	92.1	85.9	89.5	100	94.8
04-Aug-01	18:10	-0.7	-0.7	-0.9	-0.4	-0.7	-0.4	100	92.7	83.3	90	100	93.2
04-Aug-01	18:20	-0.4	-0.4	-0.7	-0.4	-0.4	-0.7	100	88.8	83.8	89.5	100	95.4
04-Aug-01	18:30	-0.9	-0.4	-0.7	-0.4	0.1	-0.7	100	91.6	85.9	89.5	100	94.3
04-Aug-01	18:40	-0.7	-0.7	-0.9	-0.4	-0.2	-0.7	100	92.7	83.3	89.5	100	93.2
04-Aug-01	18:50	-0.7	-0.7	-0.9	-0.7	-0.7	-0.4	98.9	89.3	85.4	89.5	100	94.8
04-Aug-01	19:00	-1.2	-0.7	-0.7	-0.7	-0.4	-0.4	100	91.6	84.9	89.5	100	94.8
04-Aug-01	19:10	-0.7	-0.4	-0.7	-0.7	0.1	-0.4	100	92.1	83.3	89.5	100	93.7
04-Aug-01	19:20	-0.9	-0.4	-0.7	-0.7	0.1	-0.7	99.5	91.6	85.9	89.5	100	92.6
04-Aug-01	19:30	-0.9	-0.4	-0.7	-0.7	0.3	-0.4	100	89.9	83.8	89.5	100	93.7
04-Aug-01	19:40	-0.9	-0.4	-0.9	-0.4	0.6	-0.7	100	92.1	83.8	89.5	100	94.8
04-Aug-01	19:50	-0.7	-0.7	-0.7	-0.4	1.1	-0.4	100	92.7	86.5	89.5	100	93.7
04-Aug-01	20:00	-0.9	-0.7	-0.7	-0.4	1.6	-0.4	100	88.8	83.3	88.4	100	93.2
04-Aug-01	20:10	-0.9	-0.7	-0.7	-0.7	1.8	-0.4	100	91.6	85.4	87.9	100	93.7
04-Aug-01	20:20	-0.7	-0.7	-0.7	-0.7	0.8	-0.7	100	92.7	84.3	87.9	100	94.8
04-Aug-01	20:30	-0.9	-0.4	-0.7	-0.7	0.1	-0.4	100	89.3	84.3	87.3	100	93.2
04-Aug-01	20:40	-0.4	-0.7	-0.7	-0.9	-0.7	-0.4	100	91	85.4	87.3	100	93.2
04-Aug-01	20:50	-0.9	-0.4	-0.7	-0.9	-0.7	-0.7	97.8	92.1	83.3	90.6	100	94.8
04-Aug-01	21:00	-0.9	-0.4	-0.9	-0.7	0.1	-0.7	100	89.9	84.3	90.6	100	93.7
04-Aug-01	21:10	-0.7	-0.7	-0.7	-0.9	-0.2	-0.4	100	91	85.4	88.4	100	93.7
04-Aug-01	21:20	-0.9	-0.4	-0.7	-1.2	-0.7	-0.7	100	92.1	83.3	87.9	100	94.8

04-Aug-01	21:30	-0.9	-0.4	-0.7	-1.2	-0.2	-0.4	100	91.6	83.8	89.5	100	94.3
04-Aug-01	21:40	-0.7	-0.2	-0.9	-1.2	-0.2	-0.4	100	91.6	84.3	90.6	100	93.2
04-Aug-01	21:50	-0.7	-0.2	-0.7	-0.9	0.1	-0.4	100	91.6	84.3	90.6	100	93.7
04-Aug-01	22:00	-0.4	0.1	-0.4	-0.7	-0.4	-0.4	100	91	84.3	88.4	100	94.8
04-Aug-01	22:10	-0.7	0.6	-0.2	-0.9	-0.7	-0.4	100	91	84.9	87.9	100	93.7
04-Aug-01	22:20	0.3	0.6	-0.2	-1.2	-0.2	-0.4	100	90.4	84.9	90	100	93.2
04-Aug-01	22:30	0.3	1.1	0.1	-0.9	0.1	-0.7	97.3	91.6	86.5	90.6	100	94.8
04-Aug-01	22:40	-0.9	0.8	-0.2	-0.7	-0.4	-0.7	100	91	84.3	90	100	94.3
04-Aug-01	22:50	-0.9	0.3	-0.4	-0.4	-0.4	-0.4	100	88.3	83.3	89.5	100	93.2
04-Aug-01	23:00	-0.7	-0.2	-0.7	-0.7	-0.2	-0.7	99.5	87.7	83.3	89.5	100	94.8
04-Aug-01	23:10	-1.2	-0.4	-0.7	-0.7	0.1	-0.4	100	91	85.9	88.4	100	94.3
04-Aug-01	23:20	-0.7	-0.2	-0.9	-0.9	0.1	-0.7	100	92.1	84.3	88.4	100	92.6
04-Aug-01	23:30	-1.2	-0.7	-0.9	-1.2	-0.4	-0.4	100	88.8	84.3	90.6	100	93.7
04-Aug-01	23:40	-0.9	-0.7	-0.9	-0.9	-0.2	-0.7	100	91.6	85.9	91.1	100	94.8
04-Aug-01	23:50	-0.9	-0.4	-0.7	-0.7	-0.2	-0.4	99.5	92.7	83.8	89.5	100	94.3
05-Aug-01	00:00	-0.9	-0.4	-0.7	-0.9	-0.2	-0.4	100	88.8	85.9	88.4	100	93.7
05-Aug-01	00:10	-0.4	-0.7	-0.7	-1.2	-0.2	0.6	100	91	85.9	89.5	100	93.2
05-Aug-01	00:20	-0.9	-0.4	-0.7	-0.9	-0.7	1.1	100	92.1	83.8	91.1	100	91.5
05-Aug-01	00:30	-0.7	-0.4	-0.7	-0.9	-0.4	1.3	100	91	86.5	90.6	100	90.4
05-Aug-01	00:40	-1.2	-0.7	-0.7	-0.9	-0.2	0.1	100	90.4	84.3	89	100	90.4
05-Aug-01	00:50	-0.9	-0.4	-0.7	-0.9	-0.2	-0.2	100	92.1	84.9	88.4	100	93.7
05-Aug-01	01:00	-0.7	-0.4	-0.9	-0.9	-0.4	-0.4	100	92.1	85.9	90.6	100	93.2
05-Aug-01	01:10	-1.2	-0.7	-0.7	-0.9	-0.4	-0.4	100	88.8	83.8	91.1	100	93.2
05-Aug-01	01:20	-0.7	-0.4	-0.7	-0.7	-0.4	-0.7	100	92.1	85.4	89.5	100	94.8
05-Aug-01	01:30	-0.7	-0.4	-0.7	-0.7	0.1	-0.7	100	92.1	85.9	88.4	100	94.3
05-Aug-01	01:40	-1.2	-0.4	-0.7	-0.9	0.3	-0.4	100	88.3	83.8	89.5	100	93.2
05-Aug-01	01:50	-0.4	-0.4	-0.9	-1.2	0.6	-0.4	100	91.6	85.9	91.1	100	95.4
05-Aug-01	02:00	-0.9	-0.7	-0.7	-0.7	1.3	-0.4	99.5	92.7	84.9	90.6	100	94.3
05-Aug-01	02:10	-0.9	-0.2	-0.7	-0.7	1.6	-0.7	100	89.9	84.3	89.5	100	93.2
05-Aug-01	02:20	-0.7	-0.7	-0.7	-0.9	0.8	-0.4	100	91	85.9	88.4	100	95.4
05-Aug-01	02:30	-0.7	-0.7	-0.7	-0.9	0.3	-0.4	100	92.1	83.8	90.6	100	94.8
05-Aug-01	02:40	-0.7	-0.4	-0.9	-0.7	-0.7	-0.4	100	92.1	85.4	90	100	93.2
05-Aug-01	02:50	-0.7	-0.4	-0.7	-0.7	-0.4	-0.4	99.5	88.8	85.9	90	100	95.4
05-Aug-01	03:00	-0.9	-0.4	-0.9	-0.4	0.1	-0.7	100	92.1	83.8	90	100	94.3
05-Aug-01	03:10	-0.9	-0.4	-0.7	-0.7	0.1	-0.4	99.5	92.1	86.5	88.4	100	93.2
05-Aug-01	03:20	-1.2	-0.4	-0.9	-0.9	-0.4	-0.4	100	88.8	85.9	90	100	95.4
05-Aug-01	03:30	-0.7	-0.4	-0.7	-0.9	-0.4	-0.4	100	91.6	85.9	91.1	100	94.8
05-Aug-01	03:40	-0.9	-0.7	-0.7	-0.7	-0.2	-0.7	100	92.7	85.9	91.1	100	93.2
05-Aug-01	03:50	-0.9	-0.4	-0.4	-0.7	-0.2	-0.4	100	92.1	85.9	89.5	100	95.4
05-Aug-01	04:00	-0.9	-0.4	-0.2	-1.2	-0.2	-0.7	100	89.3	85.9	88.4	100	94.3
05-Aug-01	04:10	-0.9	-0.4	-0.2	-0.9	-0.4	-0.7	100	91.6	85.4	90.6	100	93.2
05-Aug-01	04:20	0.1	-0.4	0.1	-0.9	-0.4	-0.7	100	91.6	85.9	91.1	100	95.4
05-Aug-01	04:30	0.3	-0.2	-0.2	-0.7	-0.2	-0.4	98.9	91	85.9	90.6	100	94.8
05-Aug-01	04:40	-0.9	-0.2	-0.4	-0.7	-0.2	-0.4	97.8	91	84.3	89	100	93.2
05-Aug-01	04:50	-0.9	-0.2	-0.7	-1.2	-0.4	-0.7	100	88.3	83.3	88.4	100	95.4
05-Aug-01	05:00	-0.7	-0.7	-0.7	-1.2	-0.4	-0.4	100	91.6	83.3	91.1	100	94.3
05-Aug-01	05:10	-1.2	-0.4	-0.7	-0.7	-0.2	-0.4	100	92.1	85.4	91.1	100	93.2
05-Aug-01	05:20	-0.9	-0.4	-0.7	-0.7	0.1	-0.7	100	91.6	85.4	89.5	100	94.3
05-Aug-01	05:30	-0.9	-0.4	-0.9	-0.9	0.1	-0.7	98.9	91	84.3	89	100	94.8

05-Aug-01	05:40	-1.2	0.1	-0.7	-0.9	-0.7	-0.4	100	91	85.9	89.5	100	93.2
05-Aug-01	05:50	-0.7	-0.2	-0.9	-1.2	-0.7	-0.7	100	91	84.3	91.1	100	94.8
05-Aug-01	06:00	-1.2	0.1	-0.7	-0.7	-0.2	-0.7	100	91	85.4	90.6	100	94.8
05-Aug-01	06:10	-0.9	0.6	-0.7	-0.7	0.1	-0.4	100	90.4	85.9	89	100	93.2
05-Aug-01	06:20	-1.2	0.6	-0.7	-0.9	-0.4	-0.4	100	90.4	83.8	88.4	100	94.3
05-Aug-01	06:30	-0.7	0.3	-0.7	-0.9	-0.7	-0.7	100	88.3	85.9	90.6	100	94.8
05-Aug-01	06:40	-0.9	0.1	-0.7	-0.9	-0.2	-0.4	100	88.3	85.9	91.1	100	93.2
05-Aug-01	06:50	-1.2	-0.4	-0.7	-0.7	-0.2	-0.7	100	91	83.8	90.6	100	94.8
05-Aug-01	07:00	-0.7	-0.2	-0.7	-0.7	-0.2	-0.4	100	92.1	86.5	89	100	94.8
05-Aug-01	07:10	-1.2	-0.2	-0.7	-0.9	-0.4	-0.7	98.9	91	85.9	88.4	100	93.2
05-Aug-01	07:20	-0.9	-0.4	-0.9	-1.2	-0.4	-0.7	100	90.4	84.3	91.1	100	94.3
05-Aug-01	07:30	-0.7	-0.4	-0.9	-0.9	-0.4	-0.7	100	92.1	85.9	90.6	100	94.8
05-Aug-01	07:40	-1.2	-0.2	-0.4	-0.9	0.1	-0.7	100	92.1	84.9	90	100	93.2
05-Aug-01	07:50	-0.9	-0.2	-0.7	-0.9	0.6	-0.4	100	91	85.4	88.4	100	93.7
05-Aug-01	08:00	-0.9	-0.2	-0.7	-0.9	1.1	-0.2	100	88.3	85.9	89.5	100	93.2
05-Aug-01	08:10	-1.2	-0.4	-0.7	-0.9	1.6	0.1	100	91.6	83.8	90	100	93.2
05-Aug-01	08:20	-0.9	-0.2	-0.7	-0.7	0.6	0.8	100	92.1	85.9	90	100	91.5
05-Aug-01	08:30	-0.9	-0.2	-0.4	-0.7	-0.2	1.1	99.5	91.6	85.9	90	100	90.4
05-Aug-01	08:40	-1.2	-0.4	-0.7	-0.7	-0.4	0.1	100	88.8	84.3	90	100	90.4
05-Aug-01	08:50	-0.9	-0.7	-0.7	-0.4	-0.4	-0.2	100	91.6	85.9	90	100	93.7
05-Aug-01	09:00	-1.2	-0.4	-0.7	-0.4	-0.2	-0.7	100	92.7	85.4	90	100	93.2
05-Aug-01	09:10	-0.9	-0.2	-0.7	-0.4	0.1	-0.7	100	90.4	84.9	90	100	92.6
05-Aug-01	09:20	-0.9	-0.7	-0.9	-0.4	-0.4	-0.4	99.5	90.4	85.9	90	100	95.4
05-Aug-01	09:30	-0.9	-0.4	-0.7	-0.4	-0.4	-0.7	100	92.1	85.9	90	100	93.7
05-Aug-01	09:40	-0.7	-0.4	-0.7	-0.4	-0.2	-0.7	100	91.6	85.9	90	100	92.6
05-Aug-01	09:50	-0.7	-0.4	-0.4	-0.4	-0.2	-0.7	100	88.8	85.9	90	100	93.2
05-Aug-01	10:00	-1.2	-0.7	-0.4	-0.4	-0.4	-0.7	100	92.1	85.9	90	100	94.8
05-Aug-01	10:10	-0.7	-0.4	-0.2	-0.4	-0.7	-0.7	100	91.6	85.9	90	100	94.3
05-Aug-01	10:20	0.3	-0.4	-0.2	-0.2	0.1	-0.4	100	91	85.9	90	100	93.7
05-Aug-01	10:30	-0.2	-0.4	0.1	-0.2	0.1	-0.4	97.8	91	85.9	90	100	93.2
05-Aug-01	10:40	-0.9	-0.7	-0.4	-0.2	-0.4	-0.7	100	91	84.3	90	100	94.3
05-Aug-01	10:50	-0.7	-0.4	-0.4	-0.2	-0.4	-0.4	100	88.3	83.8	90	100	94.8
05-Aug-01	11:00	-1.2	-0.9	-0.7	-0.4	0.1	-0.4	99.5	92.1	83.8	89	100	93.2
05-Aug-01	11:10	-0.9	-0.7	-0.7	-0.4	0.1	-0.7	100	91.6	83.3	88.4	100	92.6
05-Aug-01	11:20	-0.9	-0.7	-0.9	-0.7	-0.2	-0.7	100	89.3	85.4	87.9	100	94.3
05-Aug-01	11:30	-0.7	-0.7	-0.7	-0.9	-0.4	-0.4	100	92.7	85.4	87.9	100	93.7
05-Aug-01	11:40	-0.7	-0.4	-0.7	-1.2	-0.2	-0.7	100	89.3	83.3	87.9	100	92.6
05-Aug-01	11:50	-0.7	-0.9	-0.7	-1.4	0.3	-0.7	100	91	85.4	89.5	100	92.6
05-Aug-01	12:00	-0.7	-0.4	-0.9	-1.2	-0.4	-0.4	100	93.2	84.3	91.1	100	94.8
05-Aug-01	12:10	-0.4	-0.7	-0.7	-0.7	-0.2	-0.4	100	88.8	83.3	90	100	92.6
05-Aug-01	12:20	-1.2	-0.7	-0.7	-0.9	0.1	-0.7	99.5	92.1	85.9	88.4	100	93.2
05-Aug-01	12:30	-1.2	-0.4	-0.7	-0.9	0.3	-0.4	100	88.8	83.8	88.4	100	93.7
05-Aug-01	12:40	-0.7	-0.7	-0.9	-1.2	-0.4	-0.4	100	91.6	83.3	89.5	100	93.7
05-Aug-01	12:50	-0.9	-0.7	-0.9	-0.9	-0.2	-0.7	99.5	92.7	85.9	91.1	100	93.2
05-Aug-01	13:00	-1.2	-0.9	-0.7	-0.7	0.1	-0.7	100	88.8	83.8	91.1	100	93.2
05-Aug-01	13:10	-0.7	-0.7	-0.7	-0.7	-0.2	-0.7	100	92.1	84.3	89	100	94.3
05-Aug-01	13:20	-1.2	-0.7	-0.7	-0.9	-0.2	-0.4	100	88.3	85.9	88.4	100	94.8
05-Aug-01	13:30	-0.9	-0.9	-0.7	-0.9	-0.2	-0.7	100	89.3	83.8	88.4	100	93.2
05-Aug-01	13:40	-0.9	-0.7	-0.9	-1.2	0.1	-0.7	100	90.4	84.3	91.1	100	92.6

05-Aug-01	13:50	-0.9	-0.2	-0.9	-0.9	0.8	-0.7	100	91	85.4	91.1	100	93.2
05-Aug-01	14:00	-0.7	0.1	-0.7	-0.9	1.3	-0.4	100	91	83.3	89.5	100	94.3
05-Aug-01	14:10	-0.9	0.6	-0.7	-1.2	1.6	-0.9	100	90.4	85.4	88.4	100	92
05-Aug-01	14:20	-0.7	0.8	-0.7	-1.2	1.1	-0.7	100	89.9	83.8	88.4	100	93.2
05-Aug-01	14:30	-0.9	1.1	-0.9	-1.2	0.3	-0.7	98.9	88.3	83.8	91.1	100	94.3
05-Aug-01	14:40	-0.9	0.3	-0.7	-0.7	-0.4	-0.4	100	86.1	85.9	90	100	92
05-Aug-01	14:50	-0.7	-0.4	-0.7	-0.7	-0.4	-0.4	100	86.1	83.3	90	100	93.2
05-Aug-01	15:00	-0.9	-0.9	-0.9	-0.9	0.1	-0.7	100	90.4	83.8	89.5	100	93.7
05-Aug-01	15:10	-0.9	-0.9	-0.9	-0.9	0.1	-0.4	100	88.8	85.9	89.5	100	94.3
05-Aug-01	15:20	-0.9	-0.9	-0.7	-0.9	-0.4	-0.4	100	90.4	83.8	89	100	93.2
05-Aug-01	15:30	-0.9	-0.7	-0.7	-0.9	-0.2	-0.7	100	92.1	84.3	90.6	100	93.2
05-Aug-01	15:40	-0.7	-0.7	-0.9	-0.7	-0.2	-0.4	99.5	88.8	84.3	91.1	100	93.2
05-Aug-01	15:50	-0.9	-0.9	-0.4	-0.7	0.1	-0.4	100	91	84.3	89.5	100	93.2
05-Aug-01	16:00	-0.7	-0.7	-0.4	-1.2	-0.4	-0.4	100	91.6	84.3	88.4	100	93.2
05-Aug-01	16:10	-0.4	-0.4	-0.4	-1.2	-0.2	0.3	100	90.4	84.3	90	100	96.5
05-Aug-01	16:20	0.3	-0.7	-0.2	-0.9	0.1	1.1	100	91	84.3	91.1	100	91.5
05-Aug-01	16:30	0.8	-0.7	-0.2	-0.7	0.1	1.1	99.5	91	86.5	90	100	90.4
05-Aug-01	16:40	-0.7	-0.7	-0.4	-1.2	-0.4	0.3	97.8	91	84.3	89	100	90.4
05-Aug-01	16:50	-1.2	-0.7	-0.4	-0.9	-0.4	-0.4	100	88.8	83.3	90	100	93.2
05-Aug-01	17:00	-0.7	-0.7	-0.7	-0.9	0.1	-0.7	100	91.6	83.3	90	100	93.2
05-Aug-01	17:10	-1.2	-0.4	-0.7	-0.9	0.3	-0.7	100	89.9	83.3	89.5	100	92
05-Aug-01	17:20	-0.7	-0.9	-0.7	-0.7	-0.4	-0.7	100	89.3	85.9	90	100	93.7
05-Aug-01	17:30	-1.2	-0.9	-0.7	-0.7	-0.4	-0.4	100	92.1	84.3	90	100	94.3
05-Aug-01	17:40	-0.9	-0.4	-0.9	-0.9	-0.2	-0.4	100	88.3	83.8	89.5	100	93.2
05-Aug-01	17:50	-0.7	-0.7	-0.9	-0.7	-0.2	-0.4	99.5	91.6	85.9	89.5	100	93.2
05-Aug-01	18:00	-0.7	-0.7	-0.7	-0.7	-0.2	-0.7	100	92.7	84.3	90	100	95.4
05-Aug-01	18:10	-0.7	-0.7	-0.9	-0.7	-0.7	-0.4	100	91	84.3	90	100	92.6
05-Aug-01	18:20	-1.4	-0.4	-0.7	-0.7	-0.4	-0.4	100	91	85.9	90	100	95.4
05-Aug-01	18:30	-0.9	-0.4	-0.7	-0.4	-0.2	-0.4	100	92.1	83.8	90	100	94.8
05-Aug-01	18:40	-0.7	-0.7	-0.9	-0.4	0.1	-0.4	100	92.7	85.4	90	100	92.6
05-Aug-01	18:50	-1.2	-0.7	-0.7	-0.4	-0.4	-0.4	100	88.8	85.4	90	100	95.4
05-Aug-01	19:00	-0.9	-0.4	-0.7	-0.4	-0.4	-0.7	100	91.6	83.8	90	100	94.3
05-Aug-01	19:10	-0.7	-0.7	-0.9	-0.2	-0.4	-0.4	100	92.1	85.9	90	100	93.2
05-Aug-01	19:20	-1.2	-0.4	-0.7	-0.2	-0.2	-0.4	100	92.7	84.3	90	100	94.3
05-Aug-01	19:30	-0.7	-0.4	-0.9	-0.2	0.1	-0.7	100	88.8	84.3	90	100	94.8
05-Aug-01	19:40	-0.9	-0.7	-0.7	-0.2	0.6	-0.4	98.9	91.6	85.9	90	100	93.7
05-Aug-01	19:50	-0.9	-0.7	-0.7	-0.2	0.8	-0.7	100	92.7	83.8	90	100	93.7
05-Aug-01	20:00	-0.9	-0.4	-0.7	-0.4	1.3	-0.7	100	90.4	85.4	88.4	100	95.4
05-Aug-01	20:10	-1.2	-0.7	-0.7	-0.7	1.8	-0.7	100	91	84.9	87.9	100	94.3
05-Aug-01	20:20	-0.9	-0.7	-0.7	-0.7	0.8	-0.4	100	92.1	84.3	87.9	100	93.7
05-Aug-01	20:30	-1.2	-0.7	-0.7	-0.9	0.1	-0.7	99.5	92.7	85.9	87.9	100	95.4
05-Aug-01	20:40	-0.9	-0.2	-0.7	-0.9	-0.4	-0.7	100	91.6	83.3	90.6	100	94.3
05-Aug-01	20:50	-0.7	-0.4	-0.9	-0.9	-0.7	-0.4	100	90.4	85.4	90.6	100	93.7
05-Aug-01	21:00	-0.9	-0.7	-0.9	-0.7	-0.2	-0.7	100	92.1	85.4	89.5	100	95.4
05-Aug-01	21:10	-0.9	-0.4	-0.9	-0.9	0.1	-0.4	100	92.7	83.8	88.4	100	93.2
05-Aug-01	21:20	-0.9	-0.4	-0.9	-0.9	-0.7	-0.7	100	91	85.9	90.6	100	94.8
05-Aug-01	21:30	-0.9	-0.4	-0.7	-0.9	-0.4	-0.7	100	90.4	86.5	90.6	100	94.8
05-Aug-01	21:40	-0.7	-0.4	-0.7	-0.7	-0.2	-0.7	100	90.4	85.9	90	100	93.2
05-Aug-01	21:50	-1.2	-0.2	-0.4	-0.7	-0.2	-0.7	100	91	85.9	88.4	100	93.7

05-Aug-01	22:00	-0.7	0.1	-0.2	-0.9	-0.2	-0.7	100	91	85.9	90	100	95.4
05-Aug-01	22:10	-0.4	0.3	-0.2	-1.2	-0.7	-0.4	100	91	85.4	91.1	100	93.7
05-Aug-01	22:20	0.3	0.6	0.1	-0.9	-0.4	-0.4	100	90.4	85.9	90	100	93.2
05-Aug-01	22:30	0.1	0.6	-0.2	-0.9	-0.2	-0.7	97.8	91	85.9	88.4	100	95.4
05-Aug-01	22:40	-1.2	0.6	-0.4	-1.2	0.1	-0.4	100	91	84.3	89.5	100	94.3
05-Aug-01	22:50	-0.9	0.1	-0.4	-0.7	-0.2	-0.7	100	88.3	83.8	90	100	93.2
05-Aug-01	23:00	-0.7	-0.4	-0.9	-0.9	-0.4	-0.7	100	90.4	83.8	89.5	100	95.4
05-Aug-01	23:10	-1.4	-0.4	-0.7	-0.9	-0.2	-0.4	100	92.1	85.4	88.4	100	94.3
05-Aug-01	23:20	-0.7	-0.4	-0.9	-0.9	-0.2	-0.4	100	91	85.9	91.1	100	93.2
05-Aug-01	23:30	-0.9	-0.4	-0.7	-0.7	0.1	-0.7	99.5	89.9	83.3	90.6	100	94.8
05-Aug-01	23:40	-1.2	-0.7	-0.7	-0.7	-0.7	-0.7	100	92.1	85.9	89.5	100	94.8
05-Aug-01	23:50	-0.9	-0.4	-0.7	-0.7	-0.4	-0.4	100	92.7	84.9	88.4	100	94.3
06-Aug-01	00:00	-0.9	-0.4	-0.7	-1.2	-0.4	-0.2	100	88.8	84.3	90.6	100	93.7
06-Aug-01	00:10	-0.9	-0.7	-0.9	-1.2	0.1	0.3	100	91.6	85.9	91.1	100	93.2
06-Aug-01	00:20	-0.7	-0.4	-0.9	-0.7	-0.4	1.1	100	93.2	83.8	90.6	100	91.5
06-Aug-01	00:30	-0.9	-0.4	-0.7	-0.9	-0.4	1.1	100	90.4	85.4	89	100	90.4
06-Aug-01	00:40	-0.7	-0.4	-0.9	-0.9	-0.4	0.3	100	91.6	85.4	88.4	100	90.4
06-Aug-01	00:50	-0.7	-0.7	-0.7	-1.2	0.1	-0.4	99.5	92.7	84.3	91.1	100	93.2
06-Aug-01	01:00	-0.9	-0.4	-0.7	-0.9	-0.2	-0.7	100	92.1	85.9	91.1	100	92
06-Aug-01	01:10	-0.7	-0.4	-0.7	-0.7	-0.7	-0.4	100	88.8	84.3	90	100	93.2
06-Aug-01	01:20	-1.2	-0.7	-0.9	-0.9	-0.4	-0.4	98.9	91.6	85.4	88.4	100	94.3
06-Aug-01	01:30	-1.2	-0.4	-0.9	-0.9	0.1	-0.7	100	92.7	85.9	89	100	93.2
06-Aug-01	01:40	-0.7	-0.2	-0.9	-0.9	0.3	-0.4	100	88.3	83.8	91.1	100	93.7
06-Aug-01	01:50	-1.2	-0.7	-0.9	-0.9	0.6	-0.7	100	91.6	85.9	91.1	100	94.8
06-Aug-01	02:00	-0.9	-0.7	-0.7	-0.4	1.3	-0.7	100	92.7	84.9	90	100	92.6
06-Aug-01	02:10	-0.9	-0.4	-0.7	-0.9	1.6	-0.4	99.5	91	84.9	88.4	100	95.4
06-Aug-01	02:20	-0.9	-0.7	-0.9	-1.2	1.1	-0.7	100	90.4	85.9	90	100	94.3
06-Aug-01	02:30	-0.7	-0.7	-0.7	-1.2	-0.2	-0.4	100	92.1	83.8	91.1	100	93.2
06-Aug-01	02:40	-0.9	-0.4	-0.7	-0.9	-0.4	-0.4	100	92.1	85.4	90	100	95.4
06-Aug-01	02:50	-0.7	-0.4	-0.9	-0.4	-0.7	-0.7	100	88.8	85.9	90	100	94.8
06-Aug-01	03:00	-0.7	-0.7	-0.7	-0.7	-0.4	-0.7	100	91.6	84.3	90	100	92.6
06-Aug-01	03:10	-1.2	-0.7	-0.9	-1.2	-0.2	-0.4	100	92.7	85.9	89	100	95.4
06-Aug-01	03:20	-0.9	-0.4	-0.7	-1.2	-0.7	-0.7	100	91	84.9	91.1	100	94.8
06-Aug-01	03:30	-0.9	-0.7	-0.9	-0.9	-0.4	-0.4	99.5	91	85.4	91.1	100	93.2
06-Aug-01	03:40	-0.9	-0.4	-0.4	-0.7	-0.2	-0.7	100	92.1	85.4	90.6	100	95.4
06-Aug-01	03:50	-0.7	-0.4	-0.4	-0.7	-0.2	-0.7	100	92.1	85.4	89	100	94.8
06-Aug-01	04:00	-0.7	-0.4	-0.4	-0.9	0.1	-0.4	100	89.3	85.4	88.4	100	93.2
06-Aug-01	04:10	-0.7	-0.4	-0.2	-1.2	-0.4	-0.7	100	92.1	85.4	91.1	100	94.8
06-Aug-01	04:20	0.1	-0.4	-0.2	-0.9	-0.2	-0.4	100	92.1	85.4	91.1	100	94.3
06-Aug-01	04:30	0.1	-0.2	0.1	-0.7	-0.4	-0.7	97.8	91.6	85.9	90	100	93.2
06-Aug-01	04:40	-1.2	-0.2	-0.2	-0.9	0.1	-0.7	100	91	84.3	89	100	95.4
06-Aug-01	04:50	-0.7	-0.7	-0.4	-1.2	-0.2	-0.4	100	90.4	83.3	89.5	100	93.7
06-Aug-01	05:00	-0.9	-0.7	-0.7	-0.9	-0.7	-0.4	100	92.7	84.9	91.1	100	93.2
06-Aug-01	05:10	-0.9	-0.2	-0.7	-0.7	-0.4	-0.7	100	92.1	86.5	90.6	100	95.4
06-Aug-01	05:20	-0.7	-0.4	-0.7	-0.9	-0.2	-0.7	100	89.3	83.8	89.5	100	94.3
06-Aug-01	05:30	-1.2	-0.7	-0.9	-0.9	0.1	-0.4	100	89.3	85.9	88.4	100	93.7
06-Aug-01	05:40	-0.9	-0.4	-0.7	-1.2	-0.7	-0.7	100	90.4	86.5	90.6	100	94.8
06-Aug-01	05:50	-0.7	-0.2	-0.9	-0.9	-0.4	-0.7	100	90.4	84.3	91.1	100	94.3
06-Aug-01	06:00	-1.4	0.1	-0.7	-0.7	-0.4	-0.4	100	91	85.9	90	100	93.7

06-Aug-01	06:10	-0.9	0.3	-0.7	-0.9	0.1	-0.7	100	91	85.4	88.4	100	94.8
06-Aug-01	06:20	-0.7	0.6	-0.7	-0.9	0.1	-0.7	100	90.4	85.4	90	100	94.8
06-Aug-01	06:30	-1.2	0.3	-0.7	-0.9	-0.7	-0.4	100	88.8	85.9	91.1	100	93.2
06-Aug-01	06:40	-1.2	-0.2	-0.7	-0.7	-0.7	-0.4	100	88.3	84.9	90.6	100	95.4
06-Aug-01	06:50	-0.7	-0.2	-0.9	-0.9	-0.4	-0.7	100	91.6	85.9	89.5	100	92.6
06-Aug-01	07:00	-0.9	-0.4	-0.7	-0.9	-0.2	-0.4	100	92.7	86.5	88.4	100	95.4
06-Aug-01	07:10	-0.9	-0.2	-0.7	-1.2	-0.2	-0.7	100	92.1	84.3	91.1	100	94.8
06-Aug-01	07:20	-1.2	-0.2	-0.7	-0.9	-0.2	-0.4	100	91.6	85.9	91.1	100	93.2
06-Aug-01	07:30	-0.7	-0.4	-0.7	-0.7	-0.2	-0.2	100	90.4	86.5	90.6	100	93.7
06-Aug-01	07:40	-0.9	-0.4	-0.7	-0.7	0.1	-0.4	98.9	92.1	83.8	89	100	94.8
06-Aug-01	07:50	-1.2	-0.2	-0.9	-1.2	0.6	-0.4	100	92.1	85.9	89.5	100	93.7
06-Aug-01	08:00	-0.9	0.1	-0.4	-0.9	1.1	0.1	100	91.6	85.9	91.7	100	93.7
06-Aug-01	08:10	-0.9	-0.2	-0.7	-0.7	1.3	0.6	100	88.3	84.9	90.6	100	93.2
06-Aug-01	08:20	-0.4	-0.4	-0.7	-0.9	0.8	1.6	100	91.6	85.9	89.5	100	92.6
06-Aug-01	08:30	-0.9	-0.2	-0.7	-0.7	0.1	1.8	100	92.1	84.3	89.5	100	88.2
06-Aug-01	08:40	-0.4	0.1	-0.9	-0.9	-0.7	0.8	100	89.9	85.9	90	100	87.6
06-Aug-01	08:50	-0.7	-0.2	-0.7	-0.7	-0.4	0.1	100	90.4	85.9	90	100	90.9
06-Aug-01	09:00	-0.7	-0.2	-0.7	-0.9	0.1	-0.2	100	92.1	84.9	89.5	100	90.9
06-Aug-01	09:10	-0.9	0.1	-0.9	-0.7	-0.2	-0.4	100	92.1	85.9	89	100	90.9
06-Aug-01	09:20	-0.7	-0.2	-0.7	-0.9	-0.7	-0.2	100	88.8	84.9	90	100	92.6
06-Aug-01	09:30	-0.9	-0.4	-0.7	-0.7	-0.2	-0.4	100	92.1	85.4	92.2	100	93.7
06-Aug-01	09:40	-0.7	-0.2	-0.4	-0.7	0.1	-0.4	99.5	91	85.4	90	100	91.5
06-Aug-01	09:50	-0.7	-0.2	-0.4	-0.7	-0.2	-0.4	100	89.3	85.9	90	100	91.5
06-Aug-01	10:00	-0.4	-0.2	-0.4	-0.7	-0.7	-0.4	100	92.1	85.9	90	100	93.7
06-Aug-01	10:10	-0.4	-0.2	-0.2	-0.7	0.1	-0.7	100	91.6	85.9	90	100	93.2
06-Aug-01	10:20	0.8	-0.2	-0.2	-0.7	0.1	-0.4	100	91	85.9	90	100	91.5
06-Aug-01	10:30	1.1	-0.2	0.1	-0.4	-0.2	-0.7	99.5	91	86.5	90.6	100	92
06-Aug-01	10:40	-0.4	-0.2	-0.2	-0.2	-0.4	-0.4	98.9	91	84.9	90.6	100	93.7
06-Aug-01	10:50	-0.7	-0.2	-0.2	-0.4	-0.2	-0.7	100	88.8	83.8	90	100	92
06-Aug-01	11:00	-0.7	-0.4	-0.4	-0.2	0.3	-0.4	100	91	83.3	90	100	91.5
06-Aug-01	11:10	-0.9	-0.2	-0.7	-0.4	-0.2	-0.7	100	89.9	83.3	89.5	100	93.2
06-Aug-01	11:20	-0.7	-0.7	-0.9	-0.7	-0.2	-0.7	100	88.8	83.8	89.5	100	93.7
06-Aug-01	11:30	-0.9	-0.7	-0.7	-0.4	0.1	-0.4	100	91.6	83.3	89.5	100	90.9
06-Aug-01	11:40	-0.9	-0.4	-0.9	-0.7	0.1	-0.7	100	88.3	83.8	89	100	93.2
06-Aug-01	11:50	-0.7	-0.4	-0.7	-0.9	-0.4	-0.4	100	91.6	85.4	89	100	90.9
06-Aug-01	12:00	-0.9	-0.7	-0.7	-0.9	0.1	-0.7	100	88.8	83.3	88.4	100	92
06-Aug-01	12:10	-0.7	-0.7	-0.7	-0.9	0.1	-0.7	100	88.3	84.9	88.4	100	93.7
06-Aug-01	12:20	-0.4	-0.7	-0.9	-0.9	-0.2	-0.4	99.5	88.3	84.3	88.4	100	91.5
06-Aug-01	12:30	-0.7	-1.2	-0.9	-1.2	-0.4	-0.7	100	91	83.3	87.9	100	92
06-Aug-01	12:40	-0.4	-0.9	-0.7	-0.9	0.1	-0.4	97.8	88.8	85.4	91.1	100	93.7
06-Aug-01	12:50	-0.7	-0.9	-0.9	-0.7	0.1	-0.9	100	88.3	83.8	90	100	90.9
06-Aug-01	13:00	-0.4	-0.9	-0.7	-0.7	-0.2	-0.7	99.5	88.8	83.8	89.5	100	92.6
06-Aug-01	13:10	-0.4	-0.9	-0.7	-0.7	-0.4	-0.4	100	91.6	85.4	89	100	93.2
06-Aug-01	13:20	-0.4	-0.9	-0.9	-0.9	0.1	-0.7	100	91	83.8	89	100	90.9
06-Aug-01	13:30	-0.4	-0.7	-0.7	-0.9	0.6	-0.4	100	89.9	83.3	90	100	91.5
06-Aug-01	13:40	-0.7	-0.2	-0.7	-0.9	1.1	-0.4	99.5	89.9	83.8	92.2	100	91.5
06-Aug-01	13:50	-0.4	0.1	-0.7	-0.7	1.8	-0.7	100	89.9	83.3	90	100	92
06-Aug-01	14:00	-0.7	0.3	-0.7	-0.7	2.3	-0.9	99.5	89.3	84.3	89.5	100	93.7
06-Aug-01	14:10	-0.2	0.8	-0.7	-0.9	2.6	-0.9	100	89.3	83.8	89	100	92

06-Aug-01	14:20	-0.7	1.1	-0.7	-0.9	1.8	-0.7	99.5	88.8	83.3	89	100	92
06-Aug-01	14:30	-0.4	1.6	-0.7	-1.2	1.1	-0.9	100	87.7	83.8	90	100	92
06-Aug-01	14:40	-0.7	0.6	-0.9	-0.7	0.6	-0.4	99.5	86.1	83.8	90	100	93.2
06-Aug-01	14:50	-0.4	0.1	-0.7	-0.7	-0.2	-0.7	100	86.1	83.3	90	100	93.7
06-Aug-01	15:00	-0.4	-0.2	-0.7	-0.7	-0.4	-0.7	98.9	86.1	84.9	90	100	93.7
06-Aug-01	15:10	-0.4	-0.7	-0.7	-0.9	-0.4	-0.7	100	87.2	83.3	89.5	100	91.5
06-Aug-01	15:20	-0.4	-0.7	-0.7	-0.9	0.1	-0.9	100	87.7	82.8	89.5	100	92
06-Aug-01	15:30	-0.2	-1.2	-0.9	-0.9	-0.2	-0.7	100	86.6	83.8	89	100	93.2
06-Aug-01	15:40	-0.7	-1.2	-0.9	-0.9	-0.4	-0.7	100	87.2	83.8	89	100	93.7
06-Aug-01	15:50	-0.4	-1.2	-0.4	-0.9	0.1	-0.4	100	87.7	84.3	89	100	93.2
06-Aug-01	16:00	-0.7	-1.4	-0.4	-1.2	0.1	-0.2	100	88.3	84.3	89	100	93.2
06-Aug-01	16:10	0.1	-1.2	-0.2	-1.4	-0.2	0.6	100	91.6	84.3	88.4	100	94.3
06-Aug-01	16:20	1.1	-0.9	-0.2	-1.4	-0.4	1.6	100	91	85.4	90	100	93.7
06-Aug-01	16:30	1.8	-0.7	0.1	-0.9	0.1	1.3	100	90.4	88.1	92.2	100	90.4
06-Aug-01	16:40	0.1	-0.4	-0.2	-0.4	0.1	0.1	97.8	89.9	85.9	90.6	100	90.9
06-Aug-01	16:50	-0.4	-0.7	-0.2	-0.7	-0.4	-0.4	100	88.3	84.3	89.5	100	92.6
06-Aug-01	17:00	-0.4	-0.7	-0.2	-0.9	-0.2	-0.7	100	91	83.3	89.5	100	92.6
06-Aug-01	17:10	-0.7	-0.4	-0.4	-0.7	0.3	-0.9	100	91.6	83.8	89.5	100	93.7
06-Aug-01	17:20	-0.4	-0.4	-0.7	-0.4	-0.2	-0.7	99.5	88.3	83.3	89.5	100	95.4
06-Aug-01	17:30	-0.4	-0.7	-0.4	-0.4	-0.4	-0.7	100	91.6	85.4	89.5	100	93.7
06-Aug-01	17:40	-0.4	-0.4	-0.9	-0.4	-0.4	-0.7	100	91.6	83.3	90	100	94.8
06-Aug-01	17:50	-0.7	-0.4	-0.4	-0.4	-0.2	-0.7	98.4	88.3	84.9	90	100	95.4
06-Aug-01	18:00	-0.9	-0.7	-0.4	-0.7	0.3	-0.7	100	91	84.3	89.5	100	94.8
06-Aug-01	18:10	-0.4	-0.4	-0.4	-0.7	-0.4	-0.9	100	91.6	84.9	89.5	100	93.2
06-Aug-01	18:20	-0.7	-0.4	-0.7	-0.7	-0.4	-0.4	100	92.1	85.4	89.5	100	93.2
06-Aug-01	18:30	-0.7	-0.4	-0.7	-0.7	-0.2	-0.7	100	88.8	84.3	89.5	100	94.8
06-Aug-01	18:40	-0.4	-0.4	-0.9	-0.4	0.1	-0.7	100	91.6	85.9	89.5	100	95.4
06-Aug-01	18:50	-0.7	-0.2	-0.9	-0.4	-0.4	-0.7	100	92.1	83.8	89.5	100	94.8
06-Aug-01	19:00	-0.4	-0.2	-0.7	-0.4	-0.4	-0.9	100	88.3	85.9	89.5	100	94.3
06-Aug-01	19:10	-0.4	-0.2	-0.7	-0.4	-0.2	-0.7	99.5	91	84.3	89.5	100	93.7
06-Aug-01	19:20	-0.7	-0.4	-0.7	-0.4	-0.2	-0.4	100	92.1	85.9	89.5	100	93.7
06-Aug-01	19:30	-0.7	-0.4	-0.7	-0.4	0.1	-0.7	100	91	84.3	89.5	100	94.3
06-Aug-01	19:40	-0.7	-0.4	-0.7	-0.4	0.6	-0.7	100	89.3	83.8	89.5	100	95.4
06-Aug-01	19:50	-0.4	-0.4	-0.7	-0.2	0.8	-0.7	100	91.6	85.9	90	100	93.2
06-Aug-01	20:00	-0.9	-0.2	-0.7	-0.2	1.3	-0.7	97.8	92.1	84.3	89	100	95.4
06-Aug-01	20:10	-0.7	-0.2	-0.4	-0.4	1.3	-0.4	100	91	86.5	87.9	100	95.4
06-Aug-01	20:20	-0.4	-0.4	-0.7	-0.9	0.8	-0.4	100	91	83.8	87.9	100	93.2
06-Aug-01	20:30	-1.2	-0.7	-0.4	-1.2	0.1	-0.7	100	91.6	85.9	87.9	100	95.4
06-Aug-01	20:40	-0.7	-0.7	-0.7	-1.2	-0.4	-0.7	100	92.7	83.8	91.1	100	94.8
06-Aug-01	20:50	-0.7	-0.2	-0.7	-0.7	-0.4	-0.7	98.9	93.2	85.4	91.7	100	94.8
06-Aug-01	21:00	-0.9	-0.4	-0.4	-0.7	0.1	-0.4	100	89.3	83.8	89.5	100	95.4
06-Aug-01	21:10	-0.9	-0.7	-0.7	-0.9	0.1	-0.7	100	92.1	85.4	88.4	100	93.2
06-Aug-01	21:20	-1.2	-0.4	-0.7	-0.9	-0.4	-0.7	100	92.7	85.4	90	100	95.4
06-Aug-01	21:30	-0.4	-0.4	-0.7	-0.9	-0.4	-0.4	100	91.6	85.4	91.7	100	95.4
06-Aug-01	21:40	-0.9	-0.4	-0.7	-0.7	0.1	-0.4	98.9	91	85.4	91.1	100	93.7
06-Aug-01	21:50	-0.7	0.1	-0.4	-0.7	-0.2	-0.7	100	91	85.4	89.5	100	93.7
06-Aug-01	22:00	-0.7	0.1	-0.4	-0.9	-0.2	-0.7	100	91	85.4	88.4	100	95.4
06-Aug-01	22:10	-0.4	0.3	-0.4	-0.9	-0.4	-0.7	100	91	85.4	91.1	100	95.4
06-Aug-01	22:20	0.3	0.6	0.1	-0.7	-0.4	-0.4	100	90.4	85.9	91.7	100	94.3

06-Aug-01	22:30	0.8	0.6	-0.2	-0.4	-0.2	-0.7	98.4	91.6	85.9	90	100	93.2
06-Aug-01	22:40	-0.7	0.8	0.1	-0.9	0.1	-0.7	97.8	91	84.9	89.5	100	95.4
06-Aug-01	22:50	-0.9	0.3	-0.4	-0.4	-0.7	-0.4	100	88.8	83.8	89.5	100	95.4
06-Aug-01	23:00	-0.7	-0.2	-0.4	-0.7	-0.4	-0.7	100	90.4	84.3	89.5	100	93.7
06-Aug-01	23:10	-1.2	-0.2	-0.4	-1.2	-0.2	-0.4	98.4	92.1	85.9	89	100	93.2
06-Aug-01	23:20	-0.9	-0.4	-0.7	-0.9	-0.2	-0.4	100	92.7	83.8	91.7	100	95.4
06-Aug-01	23:30	-0.7	-0.2	-0.9	-0.7	0.1	-0.4	100	89.9	85.9	91.1	100	93.7
06-Aug-01	23:40	-1.2	-0.4	-0.7	-0.7	-0.4	-0.4	100	91.6	84.3	90	100	93.7
06-Aug-01	23:50	-0.9	-0.7	-0.7	-0.9	-0.4	-0.7	100	92.7	85.9	89	100	93.2
07-Aug-01	00:00	-0.7	-0.4	-0.7	-1.2	-0.2	-0.4	100	92.1	85.9	91.1	100	93.7
07-Aug-01	00:10	-0.9	-0.2	-0.9	-0.7	0.1	0.1	100	88.8	85.4	91.1	100	93.2
07-Aug-01	00:20	-0.9	-0.7	-0.7	-0.7	-0.2	0.8	100	91	85.9	90	100	91.5
07-Aug-01	00:30	-0.7	-0.4	-0.4	-0.7	-0.7	0.8	99.5	93.2	84.9	89	100	90.9
07-Aug-01	00:40	-0.9	-0.2	-0.7	-1.2	-0.2	-0.2	100	92.1	85.9	90.6	100	91.5
07-Aug-01	00:50	-0.7	-0.2	-0.7	-0.9	-0.2	-0.4	100	89.3	84.3	91.7	100	95.4
07-Aug-01	01:00	-1.2	-0.4	-0.7	-0.7	0.1	-0.4	100	91.6	85.9	91.1	100	95.4
07-Aug-01	01:10	-0.9	-0.4	-0.7	-0.7	-0.4	-0.7	100	92.7	85.9	89.5	100	93.2
07-Aug-01	01:20	-0.7	-0.2	-0.7	-1.2	-0.4	-0.7	100	92.1	85.4	89	100	95.4
07-Aug-01	01:30	-0.9	-0.2	-0.7	-1.2	-0.2	-0.7	100	90.4	85.9	91.7	100	96
07-Aug-01	01:40	-0.7	-0.4	-0.4	-0.7	0.1	-0.7	100	91	84.9	91.1	100	93.2
07-Aug-01	01:50	-0.9	-0.4	-0.7	-0.7	0.6	-0.7	98.9	92.7	85.9	90	100	95.4
07-Aug-01	02:00	-0.9	-0.2	-0.7	-0.9	1.1	-0.7	100	92.1	85.4	89	100	93.7
07-Aug-01	02:10	-0.7	0.1	-0.7	-1.2	1.6	-0.4	100	91.6	85.9	91.1	100	94.3
07-Aug-01	02:20	-1.2	-0.4	-0.4	-0.7	0.8	-0.4	100	90.4	85.9	91.1	100	95.4
07-Aug-01	02:30	-0.7	-0.4	-0.9	-0.7	0.1	-0.7	100	92.1	85.4	90.6	100	95.4
07-Aug-01	02:40	-1.2	-0.4	-0.4	-0.7	-0.7	-0.4	100	92.7	86.5	90	100	95.4
07-Aug-01	02:50	-1.2	-0.4	-0.7	-0.4	-0.4	-0.7	100	92.1	84.3	90	100	93.7
07-Aug-01	03:00	-0.7	-0.2	-0.4	-0.4	-0.2	-0.7	100	88.3	85.9	90	100	95.4
07-Aug-01	03:10	-0.9	-0.2	-0.7	-0.9	-0.2	-0.7	100	91.6	85.4	89.5	100	96
07-Aug-01	03:20	-0.7	-0.4	-0.7	-0.9	-0.7	-0.7	100	92.7	85.9	91.1	100	94.8
07-Aug-01	03:30	-0.9	-0.4	-0.7	-0.9	-0.4	-0.7	100	91.6	86.5	91.7	100	93.2
07-Aug-01	03:40	-0.7	-0.4	-0.4	-0.7	-0.2	-0.4	100	88.8	86.5	90	100	95.4
07-Aug-01	03:50	-0.7	-0.4	-0.7	-0.7	0.1	-0.4	100	91.6	85.9	89	100	95.4
07-Aug-01	04:00	-0.9	-0.4	-0.4	-0.9	-0.2	-0.7	100	92.1	85.9	90.6	100	93.2
07-Aug-01	04:10	-0.4	-0.4	-0.4	-1.2	-0.4	-0.4	100	91.6	85.9	91.7	100	94.3
07-Aug-01	04:20	0.3	0.1	-0.2	-0.9	-0.2	-0.7	100	91	85.9	91.1	100	95.4
07-Aug-01	04:30	0.1	-0.2	-0.2	-0.7	-0.4	-0.4	98.9	91	85.9	89.5	100	93.7
07-Aug-01	04:40	-1.2	-0.2	-0.2	-1.2	0.1	-0.7	100	91	84.3	89	100	94.3
07-Aug-01	04:50	-0.9	-0.4	-0.7	-0.9	-0.7	-0.7	100	91.6	83.8	91.7	100	96
07-Aug-01	05:00	-0.9	-0.2	-0.4	-0.7	-0.4	-0.4	100	92.1	86.5	91.1	100	93.2
07-Aug-01	05:10	-1.2	-0.2	-0.7	-0.4	-0.2	-0.4	100	90.4	85.4	90	100	95.4
07-Aug-01	05:20	-0.7	-0.7	-0.7	-0.7	-0.2	-0.4	100	91	85.9	89	100	95.4
07-Aug-01	05:30	-1.2	-0.7	-0.4	-0.9	0.1	-0.4	98.9	91	86.5	90.6	100	94.3
07-Aug-01	05:40	-1.2	-0.2	-0.7	-0.7	-0.4	-0.4	100	91.6	85.9	91.7	100	93.7
07-Aug-01	05:50	-0.7	0.1	-0.4	-0.9	-0.4	-0.4	100	91.6	86.5	91.1	100	95.4
07-Aug-01	06:00	-0.9	0.1	-0.7	-0.7	-0.4	-0.7	100	91.6	84.3	89.5	100	96
07-Aug-01	06:10	-0.7	0.1	-0.7	-0.9	0.1	-0.7	100	91	85.9	89.5	100	93.2
07-Aug-01	06:20	-0.9	0.6	-0.7	-1.2	0.1	-0.4	99.5	91	85.9	91.7	100	95.4
07-Aug-01	06:30	-1.2	0.6	-0.7	-0.7	-0.4	-0.7	100	87.7	85.9	91.1	100	96

07-Aug-01	06:40	-0.7	-0.2	-0.7	-0.4	-0.4	-0.4	100	89.3	86.5	90	100	93.7
07-Aug-01	06:50	-0.9	-0.2	-0.7	-0.7	-0.4	-0.7	99.5	91.6	85.4	89	100	94.8
07-Aug-01	07:00	-0.9	-0.2	-0.7	-1.2	-0.2	-0.7	100	92.1	85.9	91.1	100	95.4
07-Aug-01	07:10	-0.7	0.1	-0.7	-0.9	-0.4	-0.7	100	89.9	85.4	91.7	100	94.3
07-Aug-01	07:20	-0.9	-0.2	-0.7	-0.7	-0.4	-0.4	100	91	86.5	90.6	100	93.7
07-Aug-01	07:30	-0.7	-0.2	-0.7	-0.7	-0.2	-0.4	100	92.1	85.9	89.5	100	94.3
07-Aug-01	07:40	-0.4	-0.2	-0.7	-0.9	0.3	-0.4	100	91.6	85.4	89	100	95.4
07-Aug-01	07:50	-0.9	-0.2	-0.4	-0.9	0.8	-0.4	100	88.8	86.5	91.7	100	93.7
07-Aug-01	08:00	-0.7	-0.2	-0.7	-0.7	1.3	0.1	100	91	84.3	92.2	100	93.7
07-Aug-01	08:10	-0.9	-0.2	-0.4	-0.7	1.8	0.8	100	92.1	85.9	89.5	100	93.7
07-Aug-01	08:20	-0.7	0.1	-0.7	-0.9	0.8	1.6	100	90.4	85.4	89	100	91.5
07-Aug-01	08:30	-0.9	-0.2	-0.7	-1.2	0.3	1.3	100	89.9	85.9	89.5	100	90.4
07-Aug-01	08:40	-0.7	-0.2	-0.7	-0.9	-0.7	0.1	100	92.1	85.9	90	100	90.4
07-Aug-01	08:50	-0.9	-0.2	-0.7	-0.9	-0.4	-0.7	100	92.1	85.4	90	100	93.2
07-Aug-01	09:00	-0.4	0.1	-0.7	-0.7	-0.2	-0.7	100	88.3	85.9	90	100	93.2
07-Aug-01	09:10	-1.2	-0.4	-0.7	-0.9	-0.2	-0.7	100	91	85.4	89.5	100	93.2
07-Aug-01	09:20	-0.4	-0.2	-0.4	-0.9	-0.7	-0.7	100	92.1	85.9	89	100	92.6
07-Aug-01	09:30	-0.7	-0.2	-0.7	-0.9	-0.2	-0.4	100	88.8	85.9	92.2	100	93.2
07-Aug-01	09:40	-0.4	-0.2	-0.2	-0.9	-0.2	-0.7	100	91.6	85.9	92.8	100	93.2
07-Aug-01	09:50	-0.7	-0.2	-0.2	-0.4	-0.4	-0.4	100	92.1	85.9	90	100	94.3
07-Aug-01	10:00	-0.4	-0.2	-0.2	-0.7	-0.7	-0.7	100	90.4	85.9	90	100	95.4
07-Aug-01	10:10	-0.2	-0.2	0.1	-0.7	-0.2	-0.7	100	90.4	86.5	90	100	94.8
07-Aug-01	10:20	0.8	-0.2	0.1	-0.4	-0.2	-0.7	100	91	85.9	90	100	93.7
07-Aug-01	10:30	0.8	-0.2	0.1	-0.4	-0.7	-0.7	99.5	91	87	90	100	93.2
07-Aug-01	10:40	-0.2	-0.2	-0.2	-0.4	0.1	-0.4	98.9	91	85.9	89.5	100	93.2
07-Aug-01	10:50	-0.9	-0.2	-0.2	-0.4	0.1	-0.4	100	88.8	84.3	90	100	93.2
07-Aug-01	11:00	-0.7	-0.4	-0.2	-0.4	-0.4	-0.7	100	91.6	84.3	90	100	93.2
07-Aug-01	11:10	-0.7	-0.2	-0.2	-0.7	-0.2	-0.7	99.5	91.6	83.3	89.5	100	95.4
07-Aug-01	11:20	-0.4	-0.2	-0.7	-0.4	0.1	-0.7	100	88.3	83.8	89.5	100	92.6
07-Aug-01	11:30	-0.4	-0.7	-0.9	-0.9	-0.2	-0.4	100	91.6	83.8	89.5	100	93.2
07-Aug-01	11:40	-0.9	-0.2	-0.7	-0.7	-0.2	-0.4	100	91	83.3	89.5	100	93.2
07-Aug-01	11:50	-0.4	-0.4	-0.9	-0.9	0.1	-0.7	100	88.3	83.8	89.5	100	94.8
07-Aug-01	12:00	-0.4	-0.7	-0.7	-0.7	-0.2	-0.7	99.5	91	85.9	89.5	100	93.2
07-Aug-01	12:10	-0.7	-0.4	-0.7	-1.2	-0.2	-0.7	100	90.4	83.3	89	100	92.6
07-Aug-01	12:20	-0.4	-0.4	-0.9	-0.9	0.1	-0.4	100	88.8	83.8	89	100	93.7
07-Aug-01	12:30	-0.7	-0.7	-0.7	-1.2	-0.2	-0.7	100	91.6	84.9	89.5	100	94.3
07-Aug-01	12:40	-0.2	-0.2	-0.9	-1.2	-0.2	-0.7	100	88.3	85.4	89.5	100	92.6
07-Aug-01	12:50	-0.4	-0.4	-0.7	-1.2	0.1	-0.7	100	88.8	83.3	89.5	100	95.4
07-Aug-01	13:00	-0.4	-0.7	-0.9	-0.9	-0.4	-0.7	100	91.6	83.8	89.5	100	92
07-Aug-01	13:10	-0.4	-0.7	-0.7	-0.9	0.1	-0.4	100	88.3	84.9	89	100	93.7
07-Aug-01	13:20	-0.2	-0.7	-0.7	-1.2	0.3	-0.7	99.5	90.4	83.3	89.5	100	93.7
07-Aug-01	13:30	-0.2	-0.4	-0.9	-0.9	0.8	-0.4	100	91.6	84.3	89	100	91.5
07-Aug-01	13:40	-0.2	0.1	-0.9	-0.9	1.1	-0.7	99.5	91	83.8	89	100	92.6
07-Aug-01	13:50	-0.4	0.1	-0.7	-0.9	1.8	-0.9	100	90.4	83.3	89	100	92.6
07-Aug-01	14:00	-0.2	0.8	-0.7	-1.2	2.1	-0.7	99.5	90.4	83.8	89	100	92
07-Aug-01	14:10	-0.2	1.1	-0.7	-1.2	2.3	-0.9	100	90.4	83.8	88.4	100	94.3
07-Aug-01	14:20	-0.2	1.8	-0.7	-0.9	2.1	-0.7	100	92.1	82.8	91.1	100	93.2
07-Aug-01	14:30	-0.2	1.6	-0.7	-0.7	1.1	-0.7	100	86.1	84.3	92.2	100	91.5
07-Aug-01	14:40	-0.4	1.1	-0.7	-0.4	0.6	-0.7	99.5	86.1	83.8	90.6	100	93.2

07-Aug-01	14:50	-0.4	0.3	-0.4	-0.7	-0.2	-0.7	100	86.1	83.3	90	100	94.3
07-Aug-01	15:00	-0.4	-0.4	-0.7	-0.4	-0.4	-0.9	99.5	87.7	83.8	90	100	90.9
07-Aug-01	15:10	-0.7	-0.2	-0.7	-0.7	0.1	-0.7	100	91.6	83.8	89	100	93.2
07-Aug-01	15:20	-0.4	-0.2	-0.7	-0.9	-0.2	-0.9	100	88.8	83.3	88.4	100	94.3
07-Aug-01	15:30	-0.4	-0.2	-0.4	-0.9	-0.4	-0.7	100	87.7	84.3	88.4	100	91.5
07-Aug-01	15:40	-0.7	-0.4	-0.7	-1.2	-0.2	-0.7	100	91.6	84.3	88.4	100	92
07-Aug-01	15:50	-0.4	-0.4	-0.4	-1.2	-0.2	-0.7	99.5	91.6	84.3	88.4	100	92.6
07-Aug-01	16:00	-0.7	-0.2	-0.2	-1.2	-0.4	-0.2	100	88.3	84.9	88.4	100	93.2
07-Aug-01	16:10	-0.2	-0.4	-0.2	-1.2	-0.2	0.8	100	91	85.4	89	100	94.3
07-Aug-01	16:20	1.1	-0.2	0.3	-0.9	0.1	1.3	100	91	85.9	92.2	100	94.8
07-Aug-01	16:30	1.8	-0.2	0.3	-0.7	-0.2	1.1	100	90.4	87.5	92.8	100	90.9
07-Aug-01	16:40	0.6	-0.2	0.3	-0.4	-0.4	0.1	97.3	90.4	85.9	90	100	91.5
07-Aug-01	16:50	-0.4	-0.2	0.1	-0.9	0.1	-0.7	99.5	88.3	84.9	89.5	100	93.7
07-Aug-01	17:00	-0.2	-0.4	-0.2	-0.7	0.1	-0.7	100	91	84.9	89.5	100	92.6
07-Aug-01	17:10	-0.2	-0.2	-0.4	-0.7	-0.4	-0.7	99.5	88.3	83.8	90	100	96
07-Aug-01	17:20	-0.7	-0.4	-0.7	-0.4	-0.2	-0.7	100	90.4	83.3	89.5	100	93.7
07-Aug-01	17:30	-0.7	-0.4	-0.7	-0.4	0.3	-0.4	98.9	91.6	83.3	90	100	93.7
07-Aug-01	17:40	-0.7	-0.4	-0.7	-0.4	-0.2	-0.7	100	88.3	86.5	90	100	95.4
07-Aug-01	17:50	-0.4	-0.4	-0.7	-0.7	-0.4	-0.7	100	91	84.3	89.5	100	94.3
07-Aug-01	18:00	-0.7	-0.2	-0.7	-0.4	-0.2	-0.7	98.9	91.6	83.8	89.5	100	93.2
07-Aug-01	18:10	-0.7	-0.2	-0.7	-0.4	0.1	-0.7	100	88.3	87	89.5	100	96
07-Aug-01	18:20	-0.9	-0.4	-0.7	-0.4	-0.4	-0.7	99.5	91	84.3	89.5	100	93.7
07-Aug-01	18:30	-0.9	-0.2	-0.7	-0.4	-0.4	-0.7	100	91.6	84.9	89.5	100	93.7
07-Aug-01	18:40	-0.4	-0.2	-0.7	-0.4	-0.2	-0.7	100	88.3	85.9	89.5	100	95.4
07-Aug-01	18:50	-0.9	-0.4	-0.7	-0.4	-0.2	-0.7	100	91	83.8	89.5	100	95.4
07-Aug-01	19:00	-0.7	-0.2	-0.7	-0.4	-0.2	-0.7	100	91.6	85.9	89.5	100	94.8
07-Aug-01	19:10	-0.7	-0.2	-0.7	-0.2	-0.4	-0.7	100	88.8	85.9	90	100	93.2
07-Aug-01	19:20	-0.7	-0.4	-0.7	-0.2	-0.2	-0.4	100	91	83.8	90	100	93.2
07-Aug-01	19:30	-0.7	-0.4	-0.9	-0.2	-0.2	-0.7	100	92.1	85.9	90	100	93.7
07-Aug-01	19:40	-0.7	-0.2	-0.7	-0.2	0.3	-0.7	100	88.3	84.9	90	100	95.4
07-Aug-01	19:50	-0.7	-0.7	-0.7	-0.2	0.6	-0.7	100	91	85.9	90	100	95.4
07-Aug-01	20:00	-0.7	-0.4	-0.7	-0.2	1.1	-0.7	100	92.1	85.9	89.5	100	94.3
07-Aug-01	20:10	-0.7	-0.4	-0.7	-0.4	1.6	-0.4	100	91.6	84.3	88.4	100	93.7
07-Aug-01	20:20	-0.9	-0.7	-0.7	-0.4	1.1	-0.7	100	90.4	86.5	88.4	100	95.4
07-Aug-01	20:30	-0.7	-0.7	-0.7	-0.9	0.1	-0.7	100	92.1	84.9	87.9	100	96
07-Aug-01	20:40	-0.7	-0.4	-0.7	-1.2	-0.7	-0.7	100	92.7	85.9	87.9	100	95.4
07-Aug-01	20:50	-0.4	-0.4	-0.7	-0.9	-0.4	-0.9	100	88.3	86.5	90	100	93.2
07-Aug-01	21:00	-1.2	-0.4	-0.9	-0.9	-0.2	-0.4	100	92.1	83.8	91.1	100	93.7
07-Aug-01	21:10	-0.7	-0.4	-0.9	-0.7	0.1	-0.9	100	93.2	85.9	90	100	96
07-Aug-01	21:20	-0.9	-0.4	-0.7	-0.9	-0.4	-0.7	100	88.8	85.4	89	100	93.7
07-Aug-01	21:30	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	91	85.4	88.4	100	93.2
07-Aug-01	21:40	-0.7	-0.4	-0.4	-0.9	-0.2	-0.7	100	91	85.4	90.6	100	95.4
07-Aug-01	21:50	-0.9	-0.4	-0.2	-1.2	-0.2	-0.7	100	91	84.9	91.7	100	95.4
07-Aug-01	22:00	-0.9	-0.2	0.1	-0.7	-0.4	-0.9	100	91	84.9	90	100	93.2
07-Aug-01	22:10	-0.7	0.3	-0.2	-0.7	-0.4	-0.7	100	91	84.3	89	100	96
07-Aug-01	22:20	0.3	0.6	0.1	-1.2	-0.2	-0.9	100	90.4	84.3	88.4	100	96
07-Aug-01	22:30	1.3	0.8	0.1	-1.2	0.1	-0.7	100	91.6	88.1	91.7	100	93.7
07-Aug-01	22:40	-0.2	0.6	0.1	-0.7	-0.2	-0.7	97.3	91.6	85.9	90.6	100	93.7
07-Aug-01	22:50	-0.9	0.6	-0.4	-0.7	-0.4	-0.9	100	88.3	85.4	90	100	96

07-Aug-01	23:00	-0.7	-0.2	-0.7	-0.7	-0.2	-0.9	100	89.3	84.9	90	100	95.4
07-Aug-01	23:10	-0.9	-0.2	-0.9	-0.9	0.1	-0.4	100	92.1	84.3	89	100	93.2
07-Aug-01	23:20	-0.7	-0.4	-0.9	-1.2	-0.2	-0.7	100	88.8	87	88.4	100	96
07-Aug-01	23:30	-0.7	-0.7	-0.7	-1.2	-0.4	-0.9	98.4	91.6	85.9	92.2	100	94.8
07-Aug-01	23:40	-0.9	-0.7	-0.9	-0.7	-0.4	-0.7	100	92.7	85.9	92.2	100	93.2
07-Aug-01	23:50	-0.9	-0.4	-0.9	-0.4	-0.2	-0.9	100	88.8	87	90	100	93.2
08-Aug-01	00:00	-1.2	-0.7	-0.7	-0.9	-0.2	-0.4	99.5	92.1	84.9	89	100	93.7
08-Aug-01	00:10	-0.9	-0.4	-0.9	-0.9	-0.4	0.3	100	93.2	87	89	100	93.2
08-Aug-01	00:20	-0.9	-0.7	-0.7	-1.2	-0.4	0.8	100	88.8	85.9	92.2	100	90.9
08-Aug-01	00:30	-0.9	-0.7	-0.9	-0.7	-0.2	1.1	100	92.1	85.9	91.7	100	92.6
08-Aug-01	00:40	-0.7	-0.4	-0.7	-0.7	0.1	-0.2	100	93.2	87	90	100	92
08-Aug-01	00:50	-0.9	-0.7	-0.7	-0.9	-0.2	-0.7	100	88.8	84.9	89	100	94.8
08-Aug-01	01:00	-0.9	-0.4	-0.9	-1.2	-0.4	-0.9	100	92.1	87	90	100	93.2
08-Aug-01	01:10	-0.9	-0.4	-0.7	-0.9	-0.2	-0.7	100	93.2	85.9	91.7	100	93.2
08-Aug-01	01:20	-1.2	-0.4	-0.9	-0.7	0.1	-0.4	100	89.3	85.9	91.1	100	93.7
08-Aug-01	01:30	-0.7	-0.7	-0.7	-0.7	0.3	-0.9	99.5	93.2	87.5	89.5	100	96
08-Aug-01	01:40	-0.9	-0.4	-0.7	-1.2	0.8	-0.7	100	91.6	85.4	89	100	94.3
08-Aug-01	01:50	-0.9	-0.7	-0.9	-0.9	1.3	-0.7	100	91.6	87	91.1	100	94.3
08-Aug-01	02:00	-1.2	-0.7	-0.7	-0.9	1.8	-0.7	100	93.2	85.9	91.7	100	96
08-Aug-01	02:10	-0.7	-0.4	-0.9	-0.7	1.8	-0.9	100	88.3	85.9	90.6	100	94.8
08-Aug-01	02:20	-0.7	-0.4	-0.7	-0.7	1.1	-0.4	100	92.1	87	89.5	100	94.3
08-Aug-01	02:30	-0.7	-0.7	-0.7	-1.2	0.6	-0.9	100	93.2	84.3	89	100	96
08-Aug-01	02:40	-0.7	-0.7	-0.9	-1.2	-0.4	-0.7	100	88.8	86.5	90	100	96
08-Aug-01	02:50	-0.9	-0.7	-0.7	-0.9	-0.4	-0.7	98.9	92.7	85.4	90	100	94.8
08-Aug-01	03:00	-0.9	-0.4	-0.9	-0.7	-0.2	-0.4	100	93.2	85.9	90.6	100	93.7
08-Aug-01	03:10	-0.9	-0.7	-0.7	-0.7	-0.2	-0.7	100	88.8	85.9	89.5	100	93.2
08-Aug-01	03:20	-0.9	-0.7	-0.9	-1.2	-0.7	-0.7	100	92.7	84.9	89	100	94.8
08-Aug-01	03:30	-0.7	-0.7	-0.9	-1.2	-0.7	-0.7	100	93.2	85.4	91.7	100	96
08-Aug-01	03:40	-0.7	-0.7	-0.7	-0.9	-0.2	-0.7	100	89.3	85.4	91.7	100	96
08-Aug-01	03:50	-0.9	-0.4	-0.7	-0.9	0.1	-0.7	100	93.2	85.4	89.5	100	94.3
08-Aug-01	04:00	-0.7	-0.4	-0.4	-0.7	-0.2	-0.7	100	93.2	85.4	89.5	100	93.2
08-Aug-01	04:10	-0.7	-0.4	-0.2	-1.2	-0.4	-0.4	100	91.6	84.9	90	100	95.4
08-Aug-01	04:20	0.6	-0.4	-0.2	-0.9	-0.2	-0.4	100	91.6	85.4	92.2	100	96
08-Aug-01	04:30	0.8	-0.4	-0.2	-0.7	0.1	-0.7	98.9	91.6	87.5	91.7	100	94.3
08-Aug-01	04:40	-0.4	-0.4	-0.4	-0.7	-0.2	-0.7	98.4	91.6	85.9	90	100	93.7
08-Aug-01	04:50	-0.7	-0.7	-0.7	-0.9	-0.7	-0.7	100	90.4	85.9	89	100	96
08-Aug-01	05:00	-0.7	-0.7	-0.9	-1.2	-0.2	-0.7	100	92.7	85.4	91.1	100	93.2
08-Aug-01	05:10	-0.9	-0.4	-0.9	-0.9	0.1	-0.7	100	91.6	87	91.7	100	95.4
08-Aug-01	05:20	-0.7	-0.7	-0.7	-0.4	-0.2	-0.9	100	91	86.5	90	100	96
08-Aug-01	05:30	-1.2	-0.4	-1.2	-0.7	-0.4	-0.7	100	91.6	85.9	89.5	100	93.2
08-Aug-01	05:40	-0.9	-0.4	-0.7	-0.9	-0.4	-0.7	100	91	88.1	90	100	96
08-Aug-01	05:50	-0.9	-0.2	-0.7	-0.9	-0.2	-0.9	98.4	91.6	85.4	92.2	100	96
08-Aug-01	06:00	-0.9	0.1	-0.7	-0.7	0.1	-0.7	100	91.6	87	91.1	100	94.3
08-Aug-01	06:10	-0.9	0.3	-0.7	-0.7	-0.2	-0.7	100	91	86.5	89.5	100	93.7
08-Aug-01	06:20	-1.2	0.8	-0.7	-0.9	-0.4	-0.7	100	91.6	86.5	89	100	94.8
08-Aug-01	06:30	-0.7	0.8	-0.7	-1.2	-0.2	-0.7	100	88.8	88.1	91.1	100	96
08-Aug-01	06:40	-1.2	0.1	-0.9	-1.2	0.1	-0.9	100	86.6	85.4	91.7	100	95.4
08-Aug-01	06:50	-0.7	-0.2	-0.9	-0.7	0.1	-0.4	100	91.6	87	91.1	100	93.7
08-Aug-01	07:00	-0.9	-0.2	-0.7	-0.9	-0.7	-0.4	98.9	89.9	85.9	89.5	100	94.3

08-Aug-01	07:10	-0.9	-0.7	-0.9	-0.9	-0.4	-0.4	100	91	85.9	89	100	96
08-Aug-01	07:20	-0.9	-0.7	-0.7	-0.9	-0.2	-0.7	100	92.7	86.5	91.1	100	95.4
08-Aug-01	07:30	-0.9	-0.4	-0.7	-0.7	0.3	-0.7	100	89.3	84.9	92.2	100	93.2
08-Aug-01	07:40	-0.4	-0.4	-0.7	-0.7	0.8	-0.7	100	91.6	87	90	100	94.8
08-Aug-01	07:50	-0.4	-0.4	-0.9	-0.9	1.1	-0.7	100	92.1	85.9	89.5	100	93.2
08-Aug-01	08:00	-0.4	-0.2	-0.7	-0.9	1.8	0.1	100	89.3	86.5	89.5	100	93.7
08-Aug-01	08:10	-0.7	-0.4	-0.4	-1.2	2.3	0.8	100	91	85.9	89.5	100	96
08-Aug-01	08:20	-0.7	-0.4	-0.9	-0.9	1.6	1.6	100	92.1	85.4	89.5	100	92.6
08-Aug-01	08:30	-0.4	-0.2	-0.9	-0.9	0.8	1.3	100	88.3	87	89.5	100	90.9
08-Aug-01	08:40	-0.7	-0.2	-0.7	-0.9	0.3	0.1	98.9	91.6	85.9	89.5	100	91.5
08-Aug-01	08:50	-0.7	-0.4	-0.9	-0.9	-0.4	-0.7	100	88.8	85.9	89.5	100	92
08-Aug-01	09:00	-0.7	-0.4	-0.7	-0.4	-0.4	-0.4	100	91.6	85.9	90.6	100	93.2
08-Aug-01	09:10	-0.4	-0.2	-0.9	-0.7	-0.2	-0.4	100	92.1	84.3	90	100	95.4
08-Aug-01	09:20	-0.7	-0.4	-0.7	-0.4	-0.2	-0.9	100	88.8	85.9	90.6	100	94.3
08-Aug-01	09:30	-0.7	-0.4	-0.9	-0.4	-0.4	-0.7	100	91	85.4	90.6	100	93.2
08-Aug-01	09:40	-0.7	-0.2	-0.4	-0.2	-0.2	-0.7	100	92.1	85.4	90.6	100	93.2
08-Aug-01	09:50	-0.4	-0.4	-0.2	-0.4	0.3	-0.7	100	88.3	85.9	90.6	100	93.2
08-Aug-01	10:00	-0.7	-0.7	-0.4	-0.2	-0.2	-0.7	100	91.6	85.4	91.1	100	95.4
08-Aug-01	10:10	-0.2	-0.2	0.1	-0.2	-0.2	-0.7	100	91.6	85.4	90.6	100	95.4
08-Aug-01	10:20	1.1	-0.2	0.3	-0.2	0.1	-0.7	100	91	85.9	90.6	100	94.8
08-Aug-01	10:30	1.6	-0.2	0.1	-0.2	0.1	-0.4	99.5	91	87.5	91.1	100	93.7
08-Aug-01	10:40	0.3	-0.2	0.1	0.1	-0.4	-0.4	98.9	90.4	85.9	91.1	100	93.2
08-Aug-01	10:50	-0.4	-0.2	-0.2	0.1	-0.2	-0.7	99.5	88.3	85.9	91.1	100	93.2
08-Aug-01	11:00	-0.4	-0.4	-0.4	0.1	0.1	-0.4	100	91.6	85.4	91.1	100	93.7
08-Aug-01	11:10	-0.7	-0.2	-0.4	0.1	-0.2	-0.9	99.5	88.3	84.3	90	100	94.8
08-Aug-01	11:20	-0.7	-0.4	-0.9	0.1	-0.2	-0.7	100	91	84.3	90	100	93.2
08-Aug-01	11:30	-0.2	-0.4	-0.7	-0.2	0.1	-0.7	100	90.4	84.3	90	100	93.2
08-Aug-01	11:40	-0.7	-0.4	-0.9	-0.4	-0.2	-0.4	100	88.8	84.3	89.5	100	93.2
08-Aug-01	11:50	-0.4	-0.7	-0.9	-0.4	-0.2	-0.4	100	92.1	87	89.5	100	93.2
08-Aug-01	12:00	-0.7	-0.7	-0.7	-0.4	-0.2	-0.7	100	88.8	85.4	90	100	94.3
08-Aug-01	12:10	-0.4	-0.7	-0.9	-0.7	0.1	-0.7	100	91	84.3	89.5	100	94.3
08-Aug-01	12:20	-0.4	-0.7	-0.9	-0.7	-0.4	-0.9	100	89.3	85.4	89.5	100	92.6
08-Aug-01	12:30	-0.2	-0.9	-0.9	-0.9	-0.2	-0.4	100	89.3	85.9	89.5	100	93.7
08-Aug-01	12:40	-0.7	-0.7	-0.9	-0.7	0.3	-0.7	100	92.1	84.3	89.5	100	94.3
08-Aug-01	12:50	-0.4	-0.4	-0.7	-0.7	0.1	-0.9	100	87.2	83.8	89.5	100	94.3
08-Aug-01	13:00	-0.7	-0.9	-0.9	-0.9	-0.4	-0.9	100	91.6	85.9	89.5	100	92.6
08-Aug-01	13:10	-0.4	-0.4	-0.7	-0.7	0.1	-0.7	99.5	88.3	84.3	90	100	93.2
08-Aug-01	13:20	-0.2	-0.9	-0.9	-0.7	0.3	-0.7	100	90.4	83.8	90	100	93.2
08-Aug-01	13:30	-0.7	-0.4	-0.9	-0.7	0.6	-0.7	100	91	83.8	90	100	92.6
08-Aug-01	13:40	-0.2	-0.2	-0.9	-0.9	1.3	-0.7	100	91	83.8	89.5	100	93.2
08-Aug-01	13:50	-0.4	0.3	-0.9	-0.4	1.8	-0.7	100	90.4	83.8	89.5	100	94.8
08-Aug-01	14:00	-0.2	0.6	-1.2	-0.9	2.3	-0.9	100	89.3	83.8	89	100	93.2
08-Aug-01	14:10	-0.2	1.3	-1.2	-0.7	2.8	-0.7	100	90.4	83.3	89	100	92.6
08-Aug-01	14:20	0.1	2.1	-0.9	-0.9	2.3	-0.9	100	91	83.8	89.5	100	93.7
08-Aug-01	14:30	-0.4	1.8	-0.7	-0.7	1.3	-0.7	98.9	86.6	83.3	89	100	92.6
08-Aug-01	14:40	-0.2	1.1	-0.9	-0.7	0.8	-0.7	100	85	83.3	90	100	93.7
08-Aug-01	14:50	-0.2	0.6	-0.7	-0.7	0.3	-0.7	99.5	86.1	83.3	90	100	94.3
08-Aug-01	15:00	-0.2	-0.4	-0.9	-0.7	0.1	-0.9	100	86.1	83.3	90	100	92
08-Aug-01	15:10	-0.2	-0.7	-0.9	-0.7	-0.2	-0.7	100	86.1	83.8	89.5	100	93.2

08-Aug-01	15:20	-0.2	-0.7	-0.7	-0.7	-0.2	-0.9	100	91	83.8	89.5	100	93.2
08-Aug-01	15:30	0.1	-0.7	-0.7	-0.7	0.1	-0.9	100	87.2	84.3	89	100	92.6
08-Aug-01	15:40	-0.2	-0.7	-0.4	-0.4	0.1	-0.7	99.5	91.6	84.3	89	100	92.6
08-Aug-01	15:50	-0.2	-0.9	-0.2	-0.4	-0.2	-0.9	100	86.6	84.3	89.5	100	93.2
08-Aug-01	16:00	-0.2	-0.9	-0.2	-0.7	-0.2	0.1	99.5	91	84.3	89	100	94.3
08-Aug-01	16:10	0.1	-0.7	0.1	-0.7	0.3	0.6	100	89.9	85.4	88.4	100	96.5
08-Aug-01	16:20	1.1	-0.4	0.3	-0.9	0.1	1.8	100	89.9	86.5	89	100	98.8
08-Aug-01	16:30	2.6	-0.7	0.3	-0.7	-0.2	1.6	100	90.4	88.1	88.4	100	90.4
08-Aug-01	16:40	2.3	-0.4	0.3	-0.9	0.1	0.1	98.4	89.9	85.9	88.4	100	90.9
08-Aug-01	16:50	0.6	-0.4	0.1	-0.7	0.3	-0.4	98.9	87.7	85.9	88.4	100	92
08-Aug-01	17:00	0.1	-0.7	-0.2	-0.9	0.1	-0.7	100	89.3	85.4	89	100	93.2
08-Aug-01	17:10	0.3	-0.7	-0.4	-0.7	-0.2	-0.9	100	90.4	84.9	89.5	100	94.3
08-Aug-01	17:20	0.1	-0.9	-0.7	-0.4	0.3	-0.9	97.8	88.3	84.3	90	100	92.6
08-Aug-01	17:30	-0.4	-0.7	-0.7	-0.4	0.3	-0.9	100	91	83.8	89.5	100	93.7
08-Aug-01	17:40	-0.4	-0.7	-0.9	-0.4	-0.4	-0.7	98.4	89.3	83.8	90	100	95.4
08-Aug-01	17:50	-0.4	-0.7	-0.9	-0.4	-0.2	-0.7	100	89.9	84.9	90	100	93.2
08-Aug-01	18:00	-0.4	-0.4	-0.9	-0.4	0.3	-0.9	100	91.6	85.9	89.5	100	94.3
08-Aug-01	18:10	-0.7	-0.4	-0.9	-0.4	0.1	-0.9	100	87.7	84.3	89.5	100	96
08-Aug-01	18:20	-0.4	-0.4	-0.9	-0.4	-0.2	-0.7	100	91.6	83.8	89.5	100	93.2
08-Aug-01	18:30	-0.7	-0.4	-0.9	-0.2	-0.2	-0.7	100	91.6	86.5	90	100	94.3
08-Aug-01	18:40	-0.7	-0.4	-0.7	-0.2	0.1	-0.7	100	88.3	84.9	90	100	95.4
08-Aug-01	18:50	-0.9	-0.7	-0.9	-0.2	-0.2	-0.9	100	91	84.9	90	100	93.2
08-Aug-01	19:00	-0.4	-0.4	-0.9	-0.2	-0.7	-0.7	100	88.3	86.5	90	100	94.3
08-Aug-01	19:10	-0.9	-0.7	-0.7	-0.2	-0.4	-0.7	100	90.4	84.9	90	100	95.4
08-Aug-01	19:20	-0.4	-0.7	-0.9	-0.2	0.1	-0.7	100	92.1	85.4	90	100	94.3
08-Aug-01	19:30	-1.2	-0.4	-0.7	-0.2	0.3	-0.7	98.9	88.3	85.9	90	100	93.7
08-Aug-01	19:40	-0.7	-0.4	-0.7	-0.2	0.3	-0.7	100	91	84.3	90	100	95.4
08-Aug-01	19:50	-0.9	-0.7	-0.9	-0.2	0.8	-0.9	100	91.6	83.8	90	100	96
08-Aug-01	20:00	-0.4	-0.7	-0.9	-0.2	1.3	-0.7	100	88.3	84.3	89.5	100	93.2
08-Aug-01	20:10	-0.7	-0.7	-0.7	-0.4	1.8	-0.7	100	91.6	84.3	89	100	94.3
08-Aug-01	20:20	-0.7	-0.4	-0.7	-0.7	1.1	-0.9	100	92.1	83.3	88.4	100	96
08-Aug-01	20:30	-0.7	-0.4	-0.7	-0.7	0.1	-0.7	100	88.3	83.8	88.4	100	93.2
08-Aug-01	20:40	-0.7	-0.7	-0.4	-0.7	-0.4	-0.7	98.9	91	85.4	88.4	100	93.7
08-Aug-01	20:50	-0.9	-0.7	-0.9	-0.9	-0.7	-0.9	100	92.7	83.8	88.4	100	95.4
08-Aug-01	21:00	-0.9	-0.4	-0.9	-0.9	-0.2	-0.7	99.5	88.8	84.3	91.7	100	95.4
08-Aug-01	21:10	-0.9	-0.7	-0.4	-0.7	0.1	-0.7	100	91.6	84.9	90	100	93.2
08-Aug-01	21:20	-0.7	-0.7	-0.2	-0.7	-0.7	-0.7	100	92.7	83.3	89	100	93.2
08-Aug-01	21:30	-0.9	-0.7	-0.2	-0.9	-0.7	-0.9	97.3	90.4	83.3	88.4	100	96
08-Aug-01	21:40	-1.2	-0.4	-0.4	-0.9	-0.2	-0.7	100	90.4	83.8	91.1	100	93.2
08-Aug-01	21:50	-0.4	-0.2	0.1	-0.7	-0.2	-0.7	100	90.4	84.3	90	100	96
08-Aug-01	22:00	-0.9	0.3	0.1	-0.7	-0.7	-0.7	98.4	91	84.3	89.5	100	94.3
08-Aug-01	22:10	-0.7	0.3	0.3	-0.9	-0.7	-0.7	100	90.4	84.9	89.5	100	93.2
08-Aug-01	22:20	0.1	0.6	0.1	-0.7	-0.2	-0.7	100	90.4	85.9	91.1	100	95.4
08-Aug-01	22:30	1.3	0.8	0.3	-0.4	0.1	-0.9	100	91.6	85.9	90	100	93.7
08-Aug-01	22:40	0.6	0.8	0.3	-0.7	-0.2	-0.7	98.4	91	85.9	90	100	93.7
08-Aug-01	22:50	-0.4	0.3	-0.2	-0.7	-0.7	-0.9	97.8	88.3	84.3	90	100	96
08-Aug-01	23:00	-0.9	0.1	-0.2	-0.4	-0.2	-0.7	100	86.6	83.8	90	100	95.4
08-Aug-01	23:10	-0.7	-0.4	-0.4	-0.7	0.1	-0.7	100	91.6	83.8	89.5	100	94.8
08-Aug-01	23:20	-1.2	-0.2	-0.7	-0.9	-0.2	-0.7	100	88.3	83.8	89	100	93.2

08-Aug-01	23:30	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	100	91.6	85.4	91.1	100	95.4
08-Aug-01	23:40	-0.9	-0.7	-0.4	-0.7	-0.4	-0.9	100	92.1	84.9	91.7	100	95.4
08-Aug-01	23:50	-0.7	-0.7	-0.4	-0.9	0.1	-0.7	100	88.8	83.3	89.5	100	94.8
09-Aug-01	00:00	-1.2	-0.7	-0.7	-0.9	0.1	-0.4	99.5	91.6	85.9	89	100	94.3
09-Aug-01	00:10	-0.9	-0.7	-0.7	-0.9	-0.4	0.3	100	92.7	84.3	91.1	100	93.7
09-Aug-01	00:20	-0.7	-0.7	-0.7	-0.7	-0.4	1.1	100	88.8	84.3	91.7	100	92.6
09-Aug-01	00:30	-0.9	-0.9	-0.7	-0.7	0.1	1.1	100	91.6	85.9	89.5	100	91.5
09-Aug-01	00:40	-0.7	-0.7	-0.7	-0.9	0.1	-0.2	100	92.7	83.3	89	100	92
09-Aug-01	00:50	-0.9	-0.7	-0.4	-0.7	-0.4	-0.9	100	88.8	84.9	91.1	100	93.7
09-Aug-01	01:00	-1.2	-0.7	-0.4	-0.9	-0.7	-0.4	100	92.1	84.3	91.7	100	93.7
09-Aug-01	01:10	-0.7	-0.4	-0.7	-0.9	-0.2	-0.7	100	93.2	83.3	89.5	100	96
09-Aug-01	01:20	-1.2	-0.7	-0.4	-0.9	0.1	-0.7	100	88.3	85.4	89	100	93.7
09-Aug-01	01:30	-0.9	-0.7	-0.4	-0.9	0.3	-0.7	99.5	92.1	83.8	91.7	100	94.3
09-Aug-01	01:40	-1.2	-0.7	-0.7	-0.7	0.6	-0.9	100	92.7	84.3	90	100	96
09-Aug-01	01:50	-0.9	-0.4	-0.4	-0.7	0.8	-0.7	98.9	88.3	85.9	89.5	100	93.7
09-Aug-01	02:00	-1.2	-0.7	-0.4	-0.9	1.3	-0.7	100	92.1	83.3	90	100	93.2
09-Aug-01	02:10	-0.9	-0.7	-0.7	-0.9	2.1	-0.7	100	92.7	85.4	91.7	100	96
09-Aug-01	02:20	-0.7	-0.7	-0.4	-0.9	1.1	-0.7	100	88.8	83.8	90	100	93.7
09-Aug-01	02:30	-0.9	-0.7	-0.9	-0.9	0.1	-0.7	100	92.1	84.3	89.5	100	94.3
09-Aug-01	02:40	-0.7	-0.4	-0.7	-0.9	-0.4	-0.9	99.5	92.1	85.9	89.5	100	96
09-Aug-01	02:50	-0.7	-0.9	-0.4	-0.7	-0.7	-0.9	100	89.3	83.3	90	100	93.7
09-Aug-01	03:00	-0.9	-0.7	-0.4	-0.7	-0.4	-0.7	100	92.1	84.9	89.5	100	94.8
09-Aug-01	03:10	-0.7	-0.4	-0.4	-0.7	0.1	-0.9	100	91	83.8	89.5	100	96
09-Aug-01	03:20	-0.7	-0.7	-0.4	-0.9	-0.4	-0.7	100	91	83.3	91.7	100	93.2
09-Aug-01	03:30	-0.9	-0.7	-0.7	-0.7	-0.4	-0.7	100	92.7	83.8	92.2	100	93.7
09-Aug-01	03:40	-0.7	-0.4	-0.7	-0.7	-0.4	-0.7	100	89.3	84.3	90	100	95.4
09-Aug-01	03:50	-1.2	-0.7	-0.4	-0.9	0.1	-0.9	100	91.6	83.8	89	100	96
09-Aug-01	04:00	-0.7	-0.7	-0.2	-0.9	-0.7	-0.7	100	92.7	84.3	91.1	100	94.3
09-Aug-01	04:10	-0.4	-0.4	-0.2	-0.9	-0.4	-0.7	100	91.6	83.8	91.7	100	93.7
09-Aug-01	04:20	0.3	-0.7	0.1	-0.4	-0.2	-0.7	100	91	84.3	90	100	96
09-Aug-01	04:30	1.3	-0.7	0.1	-0.7	0.1	-0.7	100	91	85.9	89.5	100	95.4
09-Aug-01	04:40	0.1	-0.7	-0.2	-0.9	-0.7	-0.9	97.3	91	84.9	91.7	100	93.2
09-Aug-01	04:50	-0.9	-0.4	-0.4	-0.7	-0.4	-0.7	100	88.3	84.3	92.2	100	96
09-Aug-01	05:00	-0.4	-0.9	-0.4	-0.7	-0.4	-0.7	100	91.6	83.8	89.5	100	94.3
09-Aug-01	05:10	-0.9	-0.7	-0.9	-0.7	0.1	-0.7	100	91.6	84.3	89.5	100	93.7
09-Aug-01	05:20	-0.7	-0.9	-0.7	-0.9	-0.2	-0.7	100	89.3	85.9	92.2	100	95.4
09-Aug-01	05:30	-0.9	-0.7	-0.9	-0.7	-0.7	-0.9	100	91.6	83.8	91.1	100	96
09-Aug-01	05:40	-0.9	-0.4	-0.9	-0.9	-0.4	-0.7	100	91.6	85.4	89.5	100	93.7
09-Aug-01	05:50	-1.2	-0.2	-0.7	-0.9	-0.2	-0.4	100	91.6	85.4	89	100	94.3
09-Aug-01	06:00	-0.9	0.1	-0.7	-0.7	0.1	-0.9	100	91	84.3	91.1	100	96
09-Aug-01	06:10	-1.2	0.3	-0.4	-0.7	-0.4	-0.9	99.5	91	85.9	91.7	100	93.2
09-Aug-01	06:20	-0.9	0.6	-0.7	-0.9	-0.2	-0.7	100	91	83.8	89.5	100	96
09-Aug-01	06:30	-0.9	1.1	-0.4	-0.7	-0.2	-0.9	99.5	88.8	85.9	89.5	100	95.4
09-Aug-01	06:40	-0.9	0.3	-0.7	-0.9	-0.2	-0.9	100	86.1	84.3	92.2	100	93.2
09-Aug-01	06:50	-0.9	-0.4	-0.7	-0.7	-0.7	-0.7	100	90.4	85.4	91.1	100	93.7
09-Aug-01	07:00	-0.7	-0.2	-0.4	-0.9	-0.7	-0.9	100	91.6	85.9	89.5	100	96
09-Aug-01	07:10	-0.9	-0.4	-0.7	-0.9	-0.2	-0.9	100	88.8	83.8	89.5	100	96
09-Aug-01	07:20	-1.2	-0.4	-0.7	-0.9	0.1	-0.9	100	92.1	84.9	92.2	100	93.2
09-Aug-01	07:30	-0.7	-0.4	-0.4	-0.4	0.3	-0.4	100	88.8	84.9	90.6	100	94.3

09-Aug-01	07:40	-0.7	-0.7	-0.9	-0.7	0.8	-0.9	100	91.6	83.8	90	100	96
09-Aug-01	07:50	-0.7	-0.4	-0.7	-0.7	1.3	-0.7	100	92.1	85.9	89.5	100	95.4
09-Aug-01	08:00	-0.7	-0.7	-0.4	-1.2	2.1	-0.2	100	88.3	84.3	90	100	94.3
09-Aug-01	08:10	-0.4	-0.9	-0.9	-0.7	2.6	0.3	100	91	83.8	92.2	100	93.2
09-Aug-01	08:20	-0.7	-0.7	-0.4	-0.4	2.1	0.8	100	92.1	85.4	90	100	92
09-Aug-01	08:30	-0.4	-0.4	-0.7	-0.7	1.3	1.1	100	87.7	83.8	89.5	100	91.5
09-Aug-01	08:40	-0.4	-0.7	-0.9	-0.9	0.3	0.1	100	91	83.8	89.5	100	92.6
09-Aug-01	08:50	-0.2	-0.7	-0.7	-0.7	-0.2	-0.4	100	92.1	83.8	90	100	91.5
09-Aug-01	09:00	-0.7	-0.7	-0.7	-0.7	-0.4	-0.7	100	88.3	84.3	90.6	100	92
09-Aug-01	09:10	-0.4	-0.7	-0.4	-0.4	-0.4	-0.7	100	91.6	83.3	90.6	100	94.3
09-Aug-01	09:20	-0.7	-0.4	-0.7	-0.7	0.1	-0.7	100	88.3	83.8	91.1	100	92.6
09-Aug-01	09:30	-0.2	-0.7	-0.7	-0.2	-0.2	-0.7	100	91	83.8	91.1	100	93.2
09-Aug-01	09:40	-0.4	-0.4	-0.7	-0.2	-0.2	-0.9	100	92.1	84.3	91.1	100	94.3
09-Aug-01	09:50	-0.4	-0.4	-0.4	-0.2	-0.2	-0.7	100	88.3	84.3	90.6	100	92.6
09-Aug-01	10:00	-0.2	-0.7	-0.2	-0.2	0.1	-0.4	100	91.6	84.3	91.1	100	94.3
09-Aug-01	10:10	0.3	-0.7	-0.2	-0.2	-0.2	-0.9	100	91	84.3	91.1	100	92
09-Aug-01	10:20	1.1	-0.7	0.1	0.1	-0.2	-0.7	100	90.4	84.9	90.6	100	93.2
09-Aug-01	10:30	2.3	-0.7	0.3	0.1	0.1	-0.7	100	90.4	86.5	90.6	100	91.5
09-Aug-01	10:40	1.1	-0.4	0.1	-0.2	0.1	-0.7	97.8	90.4	85.4	90.6	100	92.6
09-Aug-01	10:50	-0.2	-0.7	-0.2	-0.2	-0.4	-0.7	100	88.3	84.9	91.1	100	93.2
09-Aug-01	11:00	-0.2	-0.7	-0.4	0.1	-0.4	-0.9	100	91	84.3	92.8	100	93.2
09-Aug-01	11:10	-0.2	-0.7	-0.4	0.1	-0.2	-0.9	100	88.3	83.8	91.1	100	91.5
09-Aug-01	11:20	-0.2	-0.7	-0.4	-0.2	0.1	-0.4	100	91.6	84.3	90.6	100	93.2
09-Aug-01	11:30	-0.4	-0.4	-0.9	-0.4	-0.4	-0.7	100	89.9	83.8	91.1	100	92
09-Aug-01	11:40	-0.2	-0.9	-0.9	-0.4	0.1	-0.9	100	89.3	83.8	90	100	93.2
09-Aug-01	11:50	-0.2	-0.7	-0.7	-0.4	0.1	-0.7	100	91	83.3	90	100	91.5
09-Aug-01	12:00	-0.2	-0.9	-0.7	-0.4	-0.2	-0.9	100	88.3	83.3	91.1	100	94.3
09-Aug-01	12:10	-0.2	-0.7	-0.7	-0.2	-0.2	-0.9	100	91.6	83.3	90	100	92
09-Aug-01	12:20	-0.2	-0.7	-0.9	-0.4	0.1	-0.7	100	87.2	83.3	89.5	100	92.6
09-Aug-01	12:30	-0.2	-0.7	-0.7	-0.4	-0.4	-0.9	100	91.6	85.4	90	100	93.7
09-Aug-01	12:40	-0.4	-0.4	-0.4	-0.7	-0.4	-0.7	100	88.3	83.3	90	100	92
09-Aug-01	12:50	-0.2	-0.7	-0.7	-0.4	0.1	-0.9	100	90.4	83.3	90	100	91.5
09-Aug-01	13:00	-0.2	-0.7	-0.7	-0.7	-0.2	-0.9	100	89.3	85.4	90	100	93.2
09-Aug-01	13:10	-0.4	-0.9	-0.9	-0.4	-0.4	-0.9	100	90.4	83.8	90	100	91.5
09-Aug-01	13:20	-0.2	-0.7	-0.9	-0.7	-0.2	-0.9	100	88.8	84.3	90	100	92.6
09-Aug-01	13:30	-0.2	-0.7	-0.7	-0.7	0.6	-0.9	100	89.3	83.8	90	100	94.3
09-Aug-01	13:40	0.1	-0.4	-0.9	-0.4	1.1	-0.9	100	89.3	83.8	90	100	92.6
09-Aug-01	13:50	-0.4	-0.2	-0.7	-0.4	1.8	-0.7	100	89.3	85.9	90	100	92.6
09-Aug-01	14:00	-0.2	0.3	-0.7	-0.4	1.8	-0.9	100	89.3	83.8	90.6	100	92
09-Aug-01	14:10	-0.4	0.8	-0.7	-0.4	2.6	-0.9	100	88.8	83.3	90	100	92.6
09-Aug-01	14:20	0.1	1.1	-0.7	-0.2	2.1	-0.9	100	91	83.3	90.6	100	93.7
09-Aug-01	14:30	-0.2	1.6	-0.4	-0.7	0.8	-0.9	100	86.6	83.3	90	100	92
09-Aug-01	14:40	-0.2	0.8	-0.7	-0.4	0.3	-0.9	100	85.5	83.3	90	100	93.2
09-Aug-01	14:50	0.1	-0.2	-0.9	-0.2	0.1	-0.9	100	85.5	82.8	91.1	100	92
09-Aug-01	15:00	-0.2	-0.2	-0.9	0.1	-0.4	-1.2	100	90.4	84.3	91.1	100	90.9
09-Aug-01	15:10	0.1	-0.2	-0.7	-0.2	-0.2	-0.7	100	86.6	83.3	90	100	93.2
09-Aug-01	15:20	-0.2	-0.4	-0.7	-0.2	-0.2	-0.9	100	91.6	83.3	89.5	100	90.9
09-Aug-01	15:30	-0.2	-0.4	-0.4	-0.2	-0.2	-0.9	100	86.6	83.3	90.6	100	94.3
09-Aug-01	15:40	-0.2	-0.7	-0.7	-0.2	-0.4	-0.9	100	91.6	83.3	90	100	90.9

09-Aug-01	15:50	0.1	-0.4	-0.2	-0.4	-0.2	-0.9	100	88.8	83.3	90	100	93.2
09-Aug-01	16:00	0.1	-0.7	-0.2	-0.4	-0.2	-0.4	100	90.4	83.3	90	100	94.3
09-Aug-01	16:10	0.3	-0.7	0.1	-0.7	-0.4	0.3	100	91	83.3	89.5	100	97.1
09-Aug-01	16:20	1.3	-0.4	0.1	-0.7	-0.2	1.3	100	89.9	83.8	89.5	100	98.8
09-Aug-01	16:30	2.3	-0.4	0.1	-0.4	0.1	1.6	100	89.9	88.1	89.5	100	89.8
09-Aug-01	16:40	2.3	-0.4	0.1	-0.4	-0.2	0.3	99.5	89.9	85.9	90	100	89.8
09-Aug-01	16:50	0.8	-0.4	-0.2	-0.4	-0.4	-0.2	100	87.7	84.9	90	100	90.4
09-Aug-01	17:00	0.3	-0.4	-0.7	-0.4	0.1	-0.7	100	91.6	84.3	90	100	90.9
09-Aug-01	17:10	0.6	-0.7	-0.7	-0.4	-0.2	-0.7	100	89.3	84.3	90	100	92.6
09-Aug-01	17:20	0.1	-0.7	-0.7	-0.4	-0.2	-0.7	100	89.3	83.8	90	100	93.2
09-Aug-01	17:30	0.3	-0.4	-0.9	-0.4	0.1	-0.7	100	91.6	83.8	90	100	92.6
09-Aug-01	17:40	0.1	-0.4	-0.9	-0.2	0.1	-0.9	100	86.6	85.9	90	100	90.9
09-Aug-01	17:50	0.1	-0.7	-0.7	-0.2	0.1	-0.9	100	91	84.3	90	100	94.3
09-Aug-01	18:00	-0.2	-0.4	-1.2	0.1	0.3	-0.7	100	91.6	83.8	90	100	91.5
09-Aug-01	18:10	0.1	-0.4	-0.9	0.1	-0.2	-0.9	100	88.8	85.9	90	100	92
09-Aug-01	18:20	-0.4	-0.4	-0.7	0.1	-0.2	-1.2	99.5	91.6	84.3	90	100	93.2
09-Aug-01	18:30	-0.2	-0.2	-0.9	0.1	-0.2	-0.9	100	89.3	85.4	90	100	93.2
09-Aug-01	18:40	-0.4	-0.4	-0.7	0.1	-0.2	-0.7	99.5	90.4	85.4	90	100	92.6
09-Aug-01	18:50	-0.2	-0.4	-0.9	0.1	-0.4	-0.7	100	91.6	83.8	90	100	95.4
09-Aug-01	19:00	-0.4	-0.4	-0.7	0.1	-0.4	-0.7	100	88.8	85.4	90	100	93.2
09-Aug-01	19:10	-0.4	-0.4	-0.7	0.1	0.1	-0.9	100	91	84.3	90	100	95.4
09-Aug-01	19:20	-0.4	-0.4	-0.9	0.3	0.1	-0.7	100	91.6	84.3	90	100	93.7
09-Aug-01	19:30	-0.4	-0.7	-0.7	0.1	0.1	-0.7	99.5	88.3	84.9	90	100	95.4
09-Aug-01	19:40	-0.4	-0.4	-0.9	0.1	0.3	-0.7	100	91.6	83.8	90	100	93.2
09-Aug-01	19:50	-0.2	-0.4	-0.7	0.1	0.8	-0.4	100	89.9	85.9	90	100	93.2
09-Aug-01	20:00	-0.4	-0.4	-0.7	0.1	1.3	-0.7	98.4	91	83.8	90	100	94.3
09-Aug-01	20:10	-0.4	-0.7	-0.9	-0.2	1.6	-0.9	100	92.1	85.9	89.5	100	95.4
09-Aug-01	20:20	-0.4	-0.4	-0.7	-0.7	1.1	-0.7	99.5	88.8	84.9	89.5	100	93.2
09-Aug-01	20:30	-0.7	-0.9	-0.7	-0.7	0.3	-0.7	100	91	83.8	89.5	100	92.6
09-Aug-01	20:40	-0.2	-0.4	-0.7	-0.7	-0.4	-0.7	100	92.1	85.4	89.5	100	93.2
09-Aug-01	20:50	-0.4	-0.7	-0.7	-0.7	-0.7	-0.7	100	88.8	84.3	89.5	100	95.4
09-Aug-01	21:00	-0.7	-0.7	-0.9	-0.7	-0.2	-0.7	99.5	91.6	83.8	89.5	100	94.3
09-Aug-01	21:10	-0.7	-0.4	-0.7	-0.7	0.1	-0.4	100	92.1	85.9	89.5	100	92.6
09-Aug-01	21:20	-0.7	-0.4	-0.9	-0.9	-0.4	-0.4	98.9	88.3	83.8	89.5	100	92.6
09-Aug-01	21:30	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	91	84.3	89	100	93.2
09-Aug-01	21:40	-0.4	-0.7	-0.4	-0.9	0.1	-0.7	98.4	91	84.3	89	100	93.2
09-Aug-01	21:50	-0.7	-0.2	-0.4	-1.2	-0.2	-0.7	100	91	83.8	89	100	95.4
09-Aug-01	22:00	-0.7	0.1	-0.4	-1.2	-0.7	-0.7	99.5	91	83.8	89	100	93.2
09-Aug-01	22:10	-0.7	0.3	-0.2	-1.2	-0.4	-0.4	100	91	83.8	89	100	93.2
09-Aug-01	22:20	0.3	0.6	0.1	-1.2	0.1	-0.7	100	90.4	83.8	89.5	100	95.4
09-Aug-01	22:30	0.8	0.8	0.1	-1.2	-0.2	-0.7	100	91.6	86.5	91.7	100	93.2
09-Aug-01	22:40	0.1	0.8	-0.2	-0.7	-0.4	-0.7	97.8	89.9	85.4	90.6	100	92.6
09-Aug-01	22:50	-0.4	0.3	-0.7	-0.7	-0.2	-0.7	100	87.7	85.4	90.6	100	95.4
09-Aug-01	23:00	-0.7	-0.2	-0.7	-0.7	0.1	-0.7	100	88.8	84.3	90	100	93.7
09-Aug-01	23:10	-0.4	-0.4	-0.9	-0.7	-0.2	-0.7	100	91.6	84.3	89.5	100	92
09-Aug-01	23:20	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	100	88.3	86.5	89	100	93.2
09-Aug-01	23:30	-0.4	-0.7	-0.9	-0.9	-0.2	-0.7	100	91.6	84.3	89	100	94.8
09-Aug-01	23:40	-0.7	-0.4	-0.7	-1.2	0.1	-0.7	100	91	85.9	89	100	91.5
09-Aug-01	23:50	-0.4	-0.9	-0.9	-0.9	-0.2	-0.7	100	91	85.4	91.1	100	93.7

10-Aug-01	00:00	-0.7	-0.7	-0.7	-0.7	-0.7	-0.2	100	92.7	85.9	91.7	100	93.2
10-Aug-01	00:10	-0.4	-0.7	-0.7	-0.7	-0.2	0.6	100	89.3	85.9	90	100	92
10-Aug-01	00:20	-0.7	-0.9	-0.9	-0.9	0.1	1.3	100	91.6	84.9	89.5	100	91.5
10-Aug-01	00:30	-0.7	-0.7	-0.7	-0.9	-0.2	1.3	100	92.1	86.5	89	100	90.4
10-Aug-01	00:40	-0.9	-0.4	-0.9	-0.9	-0.7	0.3	100	88.3	84.9	89	100	90.4
10-Aug-01	00:50	-0.4	-0.7	-0.7	-1.2	-0.2	-0.4	100	91.6	85.9	91.1	100	92
10-Aug-01	01:00	-0.7	-0.7	-0.7	-0.9	0.1	-0.4	100	92.7	84.9	91.7	100	91.5
10-Aug-01	01:10	-0.4	-0.7	-0.9	-0.9	-0.2	-0.7	100	88.8	85.9	89.5	100	95.4
10-Aug-01	01:20	-0.7	-0.7	-0.7	-0.7	-0.7	-0.4	100	92.1	85.4	89.5	100	92.6
10-Aug-01	01:30	-0.4	-0.7	-0.9	-0.9	-0.2	-0.7	100	91	86.5	89	100	93.2
10-Aug-01	01:40	-0.7	-0.7	-0.7	-1.2	0.1	-0.7	99.5	91	85.9	90	100	94.8
10-Aug-01	01:50	-0.4	-0.7	-0.9	-0.9	0.6	-0.7	100	92.7	85.9	91.1	100	92.6
10-Aug-01	02:00	-0.4	-0.7	-0.7	-0.9	1.1	-0.7	100	88.3	85.9	90	100	93.2
10-Aug-01	02:10	-0.7	-0.7	-0.7	-0.9	1.8	-0.7	100	92.1	84.3	89.5	100	94.3
10-Aug-01	02:20	-0.7	-0.7	-0.9	-0.9	1.3	-0.7	100	92.7	85.9	89.5	100	94.8
10-Aug-01	02:30	-0.7	-0.7	-0.9	-0.9	0.3	-0.7	100	88.8	84.9	89	100	93.2
10-Aug-01	02:40	-0.4	-0.7	-0.9	-0.9	-0.4	-0.7	100	92.1	86.5	89.5	100	92
10-Aug-01	02:50	-0.9	-0.7	-0.7	-0.7	-0.7	-0.7	100	91.6	84.9	90	100	94.8
10-Aug-01	03:00	-0.7	-0.7	-1.2	-0.4	-0.2	-0.9	100	91	85.9	90.6	100	94.3
10-Aug-01	03:10	-0.7	-0.7	-0.7	-0.9	-0.2	-0.7	100	92.7	85.9	89.5	100	92
10-Aug-01	03:20	-0.4	-0.4	-0.9	-0.9	-0.4	-0.4	100	89.9	84.3	89	100	95.4
10-Aug-01	03:30	-0.7	-0.9	-0.7	-1.2	-0.7	-0.4	100	91	84.9	89	100	93.2
10-Aug-01	03:40	-0.7	-0.7	-0.9	-1.2	-0.2	-0.4	100	92.7	85.4	91.1	100	92.6
10-Aug-01	03:50	-0.7	-0.4	-0.4	-0.7	-0.2	-0.4	100	88.3	84.9	91.7	100	95.4
10-Aug-01	04:00	-0.4	-0.9	-0.7	-0.7	-0.2	-0.7	100	91.6	84.3	89.5	100	93.7
10-Aug-01	04:10	-0.7	-0.7	-0.4	-0.7	-0.4	-0.7	100	92.7	84.3	89.5	100	93.2
10-Aug-01	04:20	0.3	-0.7	-0.4	-0.9	-0.2	-0.4	100	91	84.3	89	100	93.2
10-Aug-01	04:30	0.6	-0.7	-0.2	-1.2	0.1	-0.7	99.5	91	87	91.1	100	94.8
10-Aug-01	04:40	-0.4	-0.7	-0.4	-0.9	-0.2	-0.9	100	91	86.5	91.7	100	94.3
10-Aug-01	04:50	-0.4	-0.7	-0.4	-0.7	-0.4	-0.4	100	91	85.9	90.6	100	92
10-Aug-01	05:00	-0.7	-0.7	-0.7	-0.9	-0.2	-0.4	100	92.1	85.4	89.5	100	95.4
10-Aug-01	05:10	-0.4	-0.7	-0.7	-0.7	0.1	-0.7	100	89.3	85.9	89.5	100	94.3
10-Aug-01	05:20	-0.7	-0.9	-0.7	-1.2	-0.2	-0.7	100	91	85.9	90	100	92
10-Aug-01	05:30	-0.4	-0.7	-0.9	-0.9	-0.7	-0.4	100	91	85.9	91.1	100	94.3
10-Aug-01	05:40	-0.7	-0.4	-0.9	-0.7	-0.2	-0.7	100	91.6	87	91.1	100	94.3
10-Aug-01	05:50	-0.7	-0.2	-0.9	-0.7	0.1	-0.4	100	91.6	85.4	90	100	93.7
10-Aug-01	06:00	-0.9	0.1	-0.7	-1.2	0.1	-0.7	100	91.6	86.5	89.5	100	92
10-Aug-01	06:10	-0.4	0.6	-0.9	-1.2	-0.7	-0.4	100	91	85.9	89.5	100	93.7
10-Aug-01	06:20	-0.7	0.8	-0.7	-1.2	-0.4	-0.7	100	92.7	86.5	91.7	100	94.8
10-Aug-01	06:30	-0.4	1.1	-0.7	-0.7	0.1	-0.7	100	88.3	84.9	91.1	100	91.5
10-Aug-01	06:40	-0.7	0.3	-0.9	-0.7	0.1	-0.4	100	86.6	85.4	90	100	93.7
10-Aug-01	06:50	-0.9	-0.2	-0.9	-0.9	-0.4	-0.7	100	91	87	89.5	100	94.3
10-Aug-01	07:00	-0.4	-0.2	-0.7	-1.2	-0.7	-0.4	100	89.9	84.9	89.5	100	91.5
10-Aug-01	07:10	-0.7	-0.4	-0.9	-1.2	-0.2	-0.7	100	90.4	86.5	90.6	100	94.8
10-Aug-01	07:20	-0.4	-0.7	-0.7	-0.9	0.1	-0.9	100	92.1	85.9	92.8	100	93.2
10-Aug-01	07:30	-0.4	-0.4	-0.9	-0.4	0.1	-0.4	100	88.3	84.3	91.1	100	92
10-Aug-01	07:40	-0.2	-0.7	-0.7	-0.7	0.8	-0.7	100	91.6	86.5	90	100	95.4
10-Aug-01	07:50	-0.4	-0.4	-0.7	-0.7	1.6	-0.4	100	92.1	84.9	90	100	93.2
10-Aug-01	08:00	-0.2	-0.7	-0.7	-0.7	2.1	-0.2	100	89.3	85.9	90	100	93.2

10-Aug-01	08:10	-0.4	-0.4	-0.7	-1.2	2.3	0.6	100	92.1	85.4	89.5	100	92
10-Aug-01	08:20	-0.2	-0.4	-0.9	-0.9	1.8	1.6	100	88.8	85.4	92.8	100	93.2
10-Aug-01	08:30	-0.7	-0.7	-0.7	-0.4	0.8	1.6	99.5	91.6	85.9	91.1	100	90.4
10-Aug-01	08:40	-0.4	-0.4	-0.7	-0.4	0.1	0.6	100	92.1	84.3	90	100	89.8
10-Aug-01	08:50	-0.4	-0.4	-0.7	-0.2	-0.7	-0.2	100	88.3	83.3	91.1	100	90.4
10-Aug-01	09:00	-0.4	-0.7	-0.7	-0.2	-0.4	-0.7	100	91.6	85.9	90.6	100	93.2
10-Aug-01	09:10	-0.4	-0.4	-0.7	-0.4	0.1	-0.7	100	88.8	84.3	90.6	100	90.4
10-Aug-01	09:20	-0.7	-0.7	-0.9	-0.4	-0.2	-0.7	100	91.6	85.4	91.1	100	92
10-Aug-01	09:30	-0.7	-0.4	-0.7	0.1	-0.2	-0.4	99.5	92.1	85.4	91.1	100	93.2
10-Aug-01	09:40	-0.7	-0.7	-0.7	0.1	0.3	-0.7	100	88.8	85.4	91.1	100	94.8
10-Aug-01	09:50	-0.4	-0.4	-0.4	-0.2	-0.2	-0.9	100	92.1	85.4	91.1	100	93.7
10-Aug-01	10:00	-0.2	-0.7	-0.2	-0.2	-0.4	-0.7	100	90.4	85.9	90.6	100	90.9
10-Aug-01	10:10	0.1	-0.4	0.1	0.1	0.1	-0.7	100	90.4	85.9	90.6	100	95.4
10-Aug-01	10:20	1.1	-0.4	0.1	0.1	-0.2	-0.7	100	91	85.9	90.6	100	91.5
10-Aug-01	10:30	2.1	-0.4	0.1	0.1	-0.7	-0.9	100	91	88.1	90.6	100	92.6
10-Aug-01	10:40	0.6	-0.2	0.1	0.1	-0.2	-0.9	97.8	91	85.9	90.6	100	92.6
10-Aug-01	10:50	-0.4	-0.4	0.1	0.1	0.1	-0.7	100	88.8	85.4	90.6	100	94.8
10-Aug-01	11:00	0.1	-0.7	-0.2	-0.2	-0.4	-0.9	100	91	85.4	91.1	100	91.5
10-Aug-01	11:10	-0.7	-0.4	-0.4	-0.2	-0.2	-0.7	100	88.3	84.3	90	100	92.6
10-Aug-01	11:20	-0.4	-0.4	-0.4	-0.2	0.1	-0.7	100	91	84.3	90	100	94.8
10-Aug-01	11:30	-0.4	-0.4	-0.7	-0.4	-0.4	-0.9	100	89.3	83.8	90	100	93.2
10-Aug-01	11:40	-0.4	-0.7	-0.9	-0.7	-0.4	-0.7	100	91	83.8	89.5	100	91.5
10-Aug-01	11:50	-0.7	-0.4	-0.9	-0.7	-0.2	-0.7	100	91.6	83.3	89.5	100	93.2
10-Aug-01	12:00	-0.2	-0.7	-0.9	-0.9	0.1	-0.9	100	88.3	85.9	89.5	100	90.9
10-Aug-01	12:10	-0.4	-0.4	-0.7	-0.9	-0.4	-0.7	100	91.6	83.8	89.5	100	93.7
10-Aug-01	12:20	-0.2	-0.4	-1.2	-0.9	-0.2	-0.7	100	88.8	83.8	89.5	100	94.3
10-Aug-01	12:30	-0.4	-0.4	-0.9	-0.9	0.1	-0.7	99.5	91.6	85.4	89.5	100	91.5
10-Aug-01	12:40	-0.2	-0.4	-0.9	-0.9	-0.2	-0.7	100	89.3	84.3	89.5	100	91.5
10-Aug-01	12:50	-0.4	-0.4	-1.2	-0.9	-0.2	-0.9	100	91	83.8	89.5	100	92
10-Aug-01	13:00	-0.2	-0.4	-0.9	-0.7	0.1	-0.7	100	90.4	85.4	90	100	93.7
10-Aug-01	13:10	-0.2	-0.7	-0.9	-0.7	-0.2	-0.4	100	88.8	83.8	90	100	91.5
10-Aug-01	13:20	-0.2	-0.4	-0.9	-0.7	-0.2	-0.9	99.5	91.6	83.3	90	100	90.4
10-Aug-01	13:30	-0.4	-0.4	-1.2	-0.7	0.3	-0.9	100	89.9	83.8	89.5	100	90.9
10-Aug-01	13:40	-0.2	-0.2	-0.9	-0.9	1.1	-0.9	100	89.9	84.9	89.5	100	91.5
10-Aug-01	13:50	0.1	0.3	-0.9	-0.9	1.6	-0.9	100	89.9	83.3	89.5	100	90.9
10-Aug-01	14:00	-0.2	0.6	-0.9	-0.7	2.1	-0.9	99.5	89.9	83.8	90	100	90.4
10-Aug-01	14:10	-0.2	1.3	-0.7	-0.7	2.3	-0.9	100	89.3	85.9	90	100	90.9
10-Aug-01	14:20	-0.4	1.6	-0.7	-0.9	2.1	-0.9	99.5	89.9	83.3	89.5	100	93.2
10-Aug-01	14:30	-0.2	1.8	-0.9	-0.7	1.1	-0.9	100	86.6	83.8	89.5	100	91.5
10-Aug-01	14:40	-0.2	0.8	-0.9	-0.7	0.1	-0.7	100	86.1	83.8	89.5	100	91.5
10-Aug-01	14:50	0.1	0.3	-1.2	-0.9	-0.7	-0.9	100	86.1	84.3	89.5	100	94.3
10-Aug-01	15:00	-0.4	-0.2	-0.7	-0.4	-0.2	-0.7	100	88.8	84.9	90	100	90.9
10-Aug-01	15:10	-0.2	-0.7	-1.2	-0.4	0.1	-0.9	100	88.8	83.8	89	100	90.9
10-Aug-01	15:20	-0.4	-0.4	-0.9	-0.7	-0.2	-1.2	99.5	91	85.4	89.5	100	93.2
10-Aug-01	15:30	-0.4	-0.7	-0.7	-0.7	-0.4	-0.9	100	88.3	85.9	89.5	100	90.4
10-Aug-01	15:40	-0.2	-0.4	-0.4	-0.7	0.1	-0.9	100	91	84.9	90	100	93.7
10-Aug-01	15:50	-0.2	-0.7	-0.4	-0.7	-0.2	-0.4	98.9	87.7	84.3	89.5	100	93.7
10-Aug-01	16:00	-0.7	-0.4	-0.4	-0.7	-0.7	0.1	98.9	91.6	84.3	89	100	93.7
10-Aug-01	16:10	-0.4	-0.7	0.1	-0.9	-0.4	0.8	100	90.4	84.9	89	100	96.5

10-Aug-01	16:20	0.8	-0.4	-0.2	-0.9	0.1	1.8	100	89.9	85.4	89	100	98.8
10-Aug-01	16:30	2.1	-0.4	0.1	-0.9	-0.2	1.6	100	90.4	87	89	100	89.3
10-Aug-01	16:40	1.8	-0.4	0.1	-0.9	-0.4	0.3	98.9	90.4	85.9	89	100	89.8
10-Aug-01	16:50	0.6	-0.4	-0.2	-0.9	-0.2	-0.7	98.9	88.3	85.4	92.2	100	90.4
10-Aug-01	17:00	-0.2	-0.7	-0.7	-0.4	-0.2	-0.7	100	89.9	84.3	90.6	100	93.2
10-Aug-01	17:10	0.1	-0.4	-0.7	-0.7	-0.4	-0.7	100	91.6	83.8	90	100	94.3
10-Aug-01	17:20	-0.2	-0.7	-0.9	-0.4	-0.4	-0.9	99.5	88.8	84.3	90	100	92
10-Aug-01	17:30	-0.2	-0.4	-0.9	-0.4	-0.2	-0.7	100	91.6	85.9	90	100	95.4
10-Aug-01	17:40	-0.2	-0.4	-0.9	-0.4	0.1	-0.9	99.5	88.3	84.3	89.5	100	93.2
10-Aug-01	17:50	-0.2	-0.9	-1.2	-0.4	-0.4	-0.7	100	91	85.4	90	100	96
10-Aug-01	18:00	0.1	-0.7	-0.7	-0.4	-0.4	-0.7	100	92.1	85.4	89.5	100	94.3
10-Aug-01	18:10	-0.4	-0.7	-0.9	-0.4	-0.2	-0.4	100	88.8	84.9	89.5	100	93.2
10-Aug-01	18:20	-0.2	-0.7	-0.7	-0.4	0.1	-0.4	100	91.6	85.4	89.5	100	96
10-Aug-01	18:30	-0.7	-0.4	-0.9	-0.4	-0.2	-0.7	100	92.1	83.8	89.5	100	94.3
10-Aug-01	18:40	-0.4	-0.7	-0.9	-0.4	-0.7	-0.4	100	88.8	85.9	89.5	100	92.6
10-Aug-01	18:50	-0.4	-0.7	-0.9	-0.2	-0.4	-0.4	100	91.6	85.9	89.5	100	95.4
10-Aug-01	19:00	-0.4	-0.4	-0.9	-0.2	0.1	-0.7	100	92.1	83.8	90	100	93.2
10-Aug-01	19:10	-0.4	-0.4	-0.7	-0.2	0.1	-0.4	100	89.3	85.9	90	100	93.2
10-Aug-01	19:20	-0.7	-0.7	-0.7	-0.2	-0.2	-0.9	100	91.6	85.4	90	100	94.8
10-Aug-01	19:30	-0.4	-0.4	-0.9	-0.4	-0.2	-0.4	100	92.1	83.8	90	100	93.7
10-Aug-01	19:40	-0.7	-0.4	-0.9	-0.2	0.1	-0.9	98.9	92.1	86.5	90	100	96
10-Aug-01	19:50	-0.7	-0.4	-0.7	-0.4	0.6	-0.7	100	91	84.9	90	100	93.2
10-Aug-01	20:00	-0.4	-0.4	-0.7	-0.2	1.1	-0.7	100	92.1	84.3	89	100	96
10-Aug-01	20:10	-0.4	-0.7	-0.4	-0.7	1.3	-0.9	100	92.7	85.9	88.4	100	94.8
10-Aug-01	20:20	-0.7	-0.4	-0.7	-0.4	0.8	-0.7	100	88.8	83.8	88.4	100	94.8
10-Aug-01	20:30	-0.4	-0.7	-0.7	-0.7	0.1	-0.9	100	91.6	85.9	88.4	100	96
10-Aug-01	20:40	-0.7	-0.7	-0.7	-0.9	-0.7	-0.4	100	92.7	83.8	88.4	100	94.3
10-Aug-01	20:50	-0.4	-0.4	-0.9	-1.2	-0.4	-0.9	100	89.3	84.3	90	100	96
10-Aug-01	21:00	-0.4	-0.7	-0.7	-1.2	-0.2	-0.7	100	91.6	85.9	92.2	100	93.2
10-Aug-01	21:10	-0.7	-0.7	-0.9	-0.7	-0.2	-0.7	100	92.7	83.8	92.2	100	96
10-Aug-01	21:20	-0.4	-0.2	-0.9	-0.9	-0.7	-0.7	100	91	85.4	89.5	100	93.2
10-Aug-01	21:30	-0.9	-0.7	-0.7	-0.9	-0.4	-0.7	99.5	90.4	85.9	89	100	96
10-Aug-01	21:40	-0.7	-0.4	-0.4	-1.2	-0.2	-0.9	100	91	85.4	90.6	100	93.2
10-Aug-01	21:50	-0.7	-0.4	-0.7	-0.9	0.1	-0.7	100	91	85.4	92.2	100	96
10-Aug-01	22:00	-0.7	-0.4	-0.2	-0.4	-0.4	-0.9	100	91	84.9	92.2	100	95.4
10-Aug-01	22:10	-0.4	-0.2	0.1	-0.9	-0.4	-0.7	100	91	84.9	89.5	100	95.4
10-Aug-01	22:20	0.6	0.3	0.1	-0.9	-0.4	-0.7	100	91	84.3	89	100	96
10-Aug-01	22:30	1.1	0.6	0.1	-0.9	-0.2	-0.7	100	91.6	87.5	91.1	100	93.2
10-Aug-01	22:40	-0.2	0.1	-0.2	-0.9	0.1	-0.7	98.9	91	86.5	90.6	100	96
10-Aug-01	22:50	-0.4	0.3	-0.4	-0.7	-0.4	-0.7	100	88.3	85.4	90.6	100	93.2
10-Aug-01	23:00	-0.4	-0.4	-0.7	-0.7	-0.4	-0.7	100	90.4	84.3	90	100	96
10-Aug-01	23:10	-0.4	-0.4	-0.7	-0.9	-0.2	-0.7	100	92.1	84.3	89.5	100	94.3
10-Aug-01	23:20	-0.4	-0.4	-0.9	-0.9	-0.2	-0.4	100	88.8	85.9	89.5	100	96
10-Aug-01	23:30	-0.4	-0.7	-0.7	-0.9	-0.4	-0.7	100	91.6	85.9	92.2	100	95.4
10-Aug-01	23:40	-0.4	-0.7	-0.9	-0.7	-0.4	-0.7	100	93.2	85.4	92.2	100	93.2
10-Aug-01	23:50	-0.4	-0.4	-0.7	-0.7	-0.4	-0.9	100	91.6	87	90.6	100	93.7
11-Aug-01	00:00	-0.7	-0.7	-0.7	-0.7	-0.2	-0.4	100	91	84.9	89.5	100	94.3
11-Aug-01	00:10	-0.7	-0.7	-0.7	-0.9	0.1	0.1	100	92.7	86.5	89.5	100	93.7
11-Aug-01	00:20	-0.7	-0.4	-0.7	-1.2	-0.4	0.8	100	92.1	85.4	92.2	100	92.6

11-Aug-01	00:30	-0.7	-0.4	-0.9	-0.7	-0.4	0.8	100	88.8	85.9	92.2	100	90.9
11-Aug-01	00:40	-0.9	-0.4	-0.7	-0.4	-0.2	-0.2	100	92.1	85.9	89.5	100	90.4
11-Aug-01	00:50	-0.4	-0.7	-0.7	-0.7	0.1	-0.4	100	92.1	85.9	89.5	100	95.4
11-Aug-01	01:00	-0.9	-0.2	-0.7	-0.9	-0.2	-0.4	100	92.1	86.5	90	100	92.6
11-Aug-01	01:10	-0.7	-0.4	-0.7	-0.9	-0.4	-0.7	100	90.4	85.4	92.2	100	96
11-Aug-01	01:20	-0.7	-0.7	-0.7	-0.7	-0.4	-0.9	100	92.7	86.5	92.2	100	95.4
11-Aug-01	01:30	-0.4	-0.7	-0.9	-0.4	-0.2	-0.7	100	92.7	85.9	90	100	96
11-Aug-01	01:40	-0.7	-0.4	-0.7	-0.9	0.1	-0.7	100	89.3	85.9	89.5	100	95.4
11-Aug-01	01:50	-0.7	-0.7	-0.7	-0.9	0.6	-0.4	100	91.6	87	91.1	100	93.7
11-Aug-01	02:00	-0.7	-0.4	-0.7	-0.9	1.1	-0.7	100	93.2	85.9	92.2	100	96
11-Aug-01	02:10	-0.7	-0.4	-0.7	-0.7	1.3	-0.7	100	92.7	85.9	91.7	100	93.2
11-Aug-01	02:20	-0.9	-0.7	-0.9	-0.7	1.1	-0.9	100	90.4	85.4	89.5	100	96
11-Aug-01	02:30	-0.7	-0.7	-0.7	-0.7	-0.2	-0.7	100	92.7	85.9	89.5	100	93.2
11-Aug-01	02:40	-0.7	-0.4	-0.7	-1.2	-0.7	-0.7	100	92.1	85.9	89.5	100	96
11-Aug-01	02:50	-0.7	-0.4	-0.7	-0.7	-0.4	-0.7	100	90.4	86.5	90	100	93.7
11-Aug-01	03:00	-0.7	-0.4	-0.7	-0.7	-0.2	-0.7	100	91.6	87	90.6	100	96
11-Aug-01	03:10	-0.7	-0.7	-0.7	-0.7	-0.2	-0.9	100	92.7	84.9	90	100	93.2
11-Aug-01	03:20	-0.9	-0.4	-0.7	-1.2	-0.4	-0.9	100	92.7	85.9	89.5	100	96
11-Aug-01	03:30	-0.7	-0.4	-0.7	-0.7	-0.4	-0.7	100	89.3	85.9	92.2	100	93.7
11-Aug-01	03:40	-0.7	-0.4	-0.4	-0.7	-0.2	-0.7	100	92.1	85.9	91.7	100	96.5
11-Aug-01	03:50	-0.9	-0.4	-0.4	-0.4	-0.2	-0.9	100	93.2	85.9	89.5	100	95.4
11-Aug-01	04:00	-0.7	-0.4	-0.2	-0.7	-0.2	-0.4	100	90.4	85.9	90	100	93.7
11-Aug-01	04:10	-0.4	-0.4	0.1	-0.9	-0.4	-0.7	100	92.1	85.4	91.1	100	96
11-Aug-01	04:20	0.3	-0.2	0.1	-0.9	-0.4	-0.9	100	92.1	85.4	91.7	100	92.6
11-Aug-01	04:30	0.6	-0.2	0.1	-0.4	-0.4	-0.7	99.5	91.6	87	91.1	100	96
11-Aug-01	04:40	-0.4	-0.4	-0.2	-0.7	0.1	-0.7	100	91.6	85.9	89.5	100	93.2
11-Aug-01	04:50	-0.7	-0.7	-0.4	-0.9	-0.4	-0.9	100	90.4	85.4	89.5	100	96.5
11-Aug-01	05:00	-0.9	-0.7	-0.7	-1.2	-0.7	-0.7	100	92.7	85.4	92.2	100	95.4
11-Aug-01	05:10	-0.7	-0.4	-0.7	-0.9	-0.2	-0.9	100	93.2	85.9	91.7	100	93.7
11-Aug-01	05:20	-1.2	-0.4	-0.7	-0.4	-0.2	-0.7	100	88.8	85.9	90.6	100	96
11-Aug-01	05:30	-0.7	-0.7	-0.7	-0.7	0.1	-0.9	100	91.6	85.4	89.5	100	93.7
11-Aug-01	05:40	-0.7	-0.7	-0.9	-1.2	-0.4	-0.7	100	91	87.5	89.5	100	96
11-Aug-01	05:50	-0.7	-0.4	-0.7	-0.9	-0.4	-0.9	100	91	85.4	92.2	100	95.4
11-Aug-01	06:00	-0.9	-0.2	-0.7	-0.7	-0.2	-0.7	100	91	86.5	92.2	100	94.8
11-Aug-01	06:10	-0.7	0.1	-0.7	-0.4	0.1	-0.7	100	91.6	86.5	90	100	96
11-Aug-01	06:20	-0.9	0.3	-0.7	-0.9	-0.4	-0.7	100	91.6	85.9	89.5	100	93.2
11-Aug-01	06:30	-0.7	0.3	-0.7	-1.2	-0.7	-0.7	100	89.3	86.5	90	100	96
11-Aug-01	06:40	-0.7	-0.2	-0.7	-0.9	-0.7	-0.7	100	89.9	85.4	92.2	100	93.2
11-Aug-01	06:50	-0.7	-0.4	-0.7	-0.7	-0.4	-0.7	100	92.1	87	91.1	100	95.4
11-Aug-01	07:00	-0.9	-0.4	-0.7	-0.7	-0.2	-0.7	100	92.7	85.4	89.5	100	96
11-Aug-01	07:10	-0.9	-0.4	-0.9	-0.9	-0.4	-0.9	100	89.9	86.5	89.5	100	93.2
11-Aug-01	07:20	-0.7	-0.7	-0.7	-1.2	-0.7	-0.9	100	92.7	85.9	91.7	100	96
11-Aug-01	07:30	-0.7	-0.4	-0.7	-0.9	-0.2	-0.7	100	93.2	85.4	92.8	100	93.7
11-Aug-01	07:40	-0.9	-0.4	-0.9	-0.4	0.3	-0.9	99.5	89.3	86.5	91.1	100	96
11-Aug-01	07:50	-0.9	-0.4	-0.7	-0.7	0.8	-0.7	100	91.6	85.4	90	100	93.7
11-Aug-01	08:00	-0.4	-0.7	-0.7	-0.9	1.1	-0.4	100	92.7	86.5	90	100	94.8
11-Aug-01	08:10	-0.7	-0.2	-0.9	-0.7	1.8	0.3	100	90.4	85.9	90	100	93.7
11-Aug-01	08:20	-0.7	-0.4	-0.7	-0.7	0.8	0.8	100	91	85.9	89.5	100	93.2
11-Aug-01	08:30	-0.7	-0.4	-0.9	-0.4	0.1	1.3	100	92.7	85.9	90	100	91.5

11-Aug-01	08:40	-0.7	-0.2	-0.7	-0.4	-0.7	0.1	100	88.8	85.4	90	100	90.4
11-Aug-01	08:50	-0.9	-0.7	-0.7	-0.4	-0.7	-0.4	100	91.6	87	90	100	90.9
11-Aug-01	09:00	-0.7	-0.2	-0.7	-0.4	-0.4	-0.7	100	93.2	84.9	89.5	100	95.4
11-Aug-01	09:10	-0.7	-0.4	-0.7	-0.4	-0.4	-0.9	100	88.8	86.5	90	100	92.6
11-Aug-01	09:20	-0.7	-0.4	-0.7	-0.4	-0.7	-0.7	100	92.1	86.5	89.5	100	92.6
11-Aug-01	09:30	-0.9	-0.4	-0.4	-0.4	-0.4	-0.7	100	88.8	86.5	89.5	100	94.8
11-Aug-01	09:40	-0.7	-0.4	-0.7	-0.4	-0.2	-0.7	100	91.6	85.9	89.5	100	94.3
11-Aug-01	09:50	-0.7	-0.4	-0.4	-0.4	-0.2	-0.7	100	91.6	85.9	90	100	92.6
11-Aug-01	10:00	-0.4	-0.7	-0.2	-0.2	-0.4	-0.9	100	89.3	85.9	90	100	94.3
11-Aug-01	10:10	0.1	-0.7	-0.2	-0.2	-0.4	-0.9	100	92.7	85.4	90	100	91.5
11-Aug-01	10:20	0.6	-0.2	-0.2	-0.2	-0.2	-0.9	100	91	85.4	90	100	93.2
11-Aug-01	10:30	1.1	-0.4	-0.2	-0.2	-0.2	-0.9	100	91	87	90	100	93.2
11-Aug-01	10:40	-0.2	-0.4	-0.2	-0.2	-0.4	-0.9	98.9	91	86.5	90	100	92
11-Aug-01	10:50	-0.2	-0.4	-0.4	-0.2	-0.4	-0.9	100	88.3	85.4	90	100	95.4
11-Aug-01	11:00	-0.4	-0.4	-0.7	-0.2	0.1	-0.9	100	91.6	84.9	90	100	92
11-Aug-01	11:10	-0.4	-0.4	-0.9	-0.4	-0.4	-0.7	100	89.9	85.4	89.5	100	93.2
11-Aug-01	11:20	-0.7	-0.7	-0.7	-0.7	-0.4	-0.9	100	89.3	86.5	89	100	93.2
11-Aug-01	11:30	-0.4	-0.4	-0.7	-0.9	-0.2	-0.7	100	91.6	84.9	89	100	92.6
11-Aug-01	11:40	-0.7	-0.7	-0.7	-0.9	0.1	-0.9	100	88.8	86.5	89	100	93.2
11-Aug-01	11:50	-0.2	-0.7	-0.7	-0.9	-0.4	-0.9	100	92.1	85.9	89	100	91.5
11-Aug-01	12:00	-0.4	-0.9	-0.9	-0.9	-0.4	-0.7	100	89.3	85.9	92.2	100	93.7
11-Aug-01	12:10	-0.4	-0.7	-0.9	-0.7	-0.4	-1.2	100	89.3	85.9	92.8	100	90.9
11-Aug-01	12:20	-0.7	-0.9	-0.9	-0.4	0.1	-1.2	100	91	85.9	90	100	93.2
11-Aug-01	12:30	-0.7	-0.4	-0.9	-0.9	-0.4	-0.9	100	88.3	86.5	89.5	100	94.8
11-Aug-01	12:40	-0.4	-0.7	-0.7	-0.9	-0.4	-1.2	100	91	85.4	89.5	100	92.6
11-Aug-01	12:50	-0.4	-0.7	-1.2	-0.9	-0.4	-0.7	100	91.6	85.9	92.2	100	92.6
11-Aug-01	13:00	-0.7	-0.9	-0.9	-0.7	-0.2	-0.7	99.5	89.3	85.9	92.2	100	96
11-Aug-01	13:10	-0.7	-0.7	-0.9	-0.4	-0.2	-0.9	100	92.1	85.4	90	100	95.4
11-Aug-01	13:20	-0.4	-0.7	-0.7	-0.9	-0.7	-0.9	100	88.8	87	89.5	100	93.7
11-Aug-01	13:30	-0.2	-0.4	-0.9	-1.2	-0.2	-0.7	100	91	84.9	89.5	100	93.2
11-Aug-01	13:40	-0.4	-0.2	-0.9	-1.2	0.3	-0.9	100	91	86.5	91.1	100	94.3
11-Aug-01	13:50	-0.7	0.1	-0.7	-0.9	0.6	-0.9	100	90.4	85.4	92.8	100	96
11-Aug-01	14:00	-0.4	0.3	-0.9	-0.4	1.1	-0.7	100	90.4	85.9	92.2	100	93.2
11-Aug-01	14:10	-0.7	0.8	-0.9	-0.7	1.6	-0.7	100	91	85.9	90	100	96.5
11-Aug-01	14:20	-0.4	1.3	-0.9	-0.9	1.3	-0.9	100	91	85.4	89.5	100	94.3
11-Aug-01	14:30	-0.7	1.3	-0.9	-1.2	0.1	-0.7	100	86.6	86.5	90.6	100	93.7
11-Aug-01	14:40	-0.7	0.8	-0.7	-0.9	-0.4	-0.7	99.5	85.5	84.9	90.6	100	96
11-Aug-01	14:50	-0.4	0.1	-0.7	-0.7	-0.7	-0.7	100	86.1	86.5	90.6	100	93.7
11-Aug-01	15:00	-0.7	-0.2	-0.7	-0.4	-0.2	-0.7	99.5	90.4	86.5	91.1	100	95.4
11-Aug-01	15:10	-0.7	-0.2	-0.7	-0.7	0.1	-0.7	100	88.3	84.9	90	100	96
11-Aug-01	15:20	-0.7	-0.4	-0.9	-0.7	-0.4	-0.7	100	89.9	85.9	90	100	93.2
11-Aug-01	15:30	-0.7	-0.4	-0.7	-0.9	-0.4	-0.7	100	91.6	85.9	91.1	100	96
11-Aug-01	15:40	-0.7	-0.7	-0.4	-0.9	-0.2	-0.9	99.5	88.8	85.9	92.2	100	95.4
11-Aug-01	15:50	-0.7	-0.4	-0.7	-0.7	-0.2	-0.7	100	91	85.9	91.7	100	95.4
11-Aug-01	16:00	-0.7	-0.7	-0.2	-0.7	-0.4	-0.4	99.5	88.8	85.9	90	100	95.4
11-Aug-01	16:10	-0.4	-0.4	-0.2	-0.9	-0.7	0.1	100	89.9	85.4	89.5	100	93.7
11-Aug-01	16:20	0.3	-0.7	-0.2	-0.9	-0.4	0.8	100	90.4	85.4	90.6	100	94.8
11-Aug-01	16:30	1.3	-0.7	-0.2	-1.2	0.1	1.1	100	90.4	87.5	92.8	100	92
11-Aug-01	16:40	0.3	-0.7	-0.2	-0.9	-0.4	0.1	97.3	90.4	86.5	91.7	100	90.9

11-Aug-01	16:50	-0.7	-0.4	-0.4	-0.7	-0.4	-0.9	100	88.3	85.9	90	100	92
11-Aug-01	17:00	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	91.6	85.4	90	100	96
11-Aug-01	17:10	-0.7	-0.4	-1.2	-0.7	-0.2	-0.9	100	88.3	85.9	89.5	100	93.7
11-Aug-01	17:20	-0.7	-0.9	-0.7	-0.7	-0.4	-0.7	100	90.4	86.5	90	100	96
11-Aug-01	17:30	-0.4	-0.7	-0.9	-0.4	-0.4	-0.9	100	92.1	84.3	90	100	94.8
11-Aug-01	17:40	-0.7	-0.7	-0.7	-0.4	-0.4	-0.9	100	88.8	87	89.5	100	96
11-Aug-01	17:50	-0.4	-0.7	-0.7	-0.4	-0.2	-0.9	100	91	85.9	89.5	100	96
11-Aug-01	18:00	-0.9	-0.7	-0.7	-0.4	-0.2	-0.9	100	92.1	85.9	89.5	100	93.2
11-Aug-01	18:10	-0.7	-0.7	-0.9	-0.4	-0.4	-0.9	100	88.8	86.5	89.5	100	96
11-Aug-01	18:20	-0.7	-0.7	-0.9	-0.4	-0.4	-0.9	100	92.1	84.3	89.5	100	92.6
11-Aug-01	18:30	-0.4	-0.7	-0.9	-0.4	-0.2	-0.7	100	92.7	87	89.5	100	96
11-Aug-01	18:40	-0.7	-0.9	-0.7	-0.4	-0.2	-0.9	100	89.3	85.9	90	100	93.2
11-Aug-01	18:50	-0.4	-0.7	-0.9	-0.4	-0.4	-0.7	100	92.1	86.5	90	100	96
11-Aug-01	19:00	-0.9	-0.7	-0.9	-0.4	-0.4	-0.9	100	92.7	86.5	90	100	94.3
11-Aug-01	19:10	-0.7	-0.7	-0.9	-0.4	-0.2	-0.7	100	89.9	85.9	90	100	95.4
11-Aug-01	19:20	-0.7	-0.7	-0.7	-0.4	-0.2	-0.7	100	92.7	87	90	100	96.5
11-Aug-01	19:30	-0.7	-0.4	-0.9	-0.2	0.1	-0.7	100	93.2	85.4	90	100	93.2
11-Aug-01	19:40	-0.7	-0.7	-0.9	-0.2	0.6	-0.7	100	89.9	85.9	90	100	96
11-Aug-01	19:50	-0.7	-0.7	-0.7	-0.2	0.8	-0.7	100	92.7	86.5	90	100	93.2
11-Aug-01	20:00	-0.9	-0.4	-0.9	-0.2	1.6	-0.7	100	93.2	85.9	89.5	100	96
11-Aug-01	20:10	-0.7	-0.4	-0.7	-0.7	1.8	-0.9	100	88.3	86.5	88.4	100	95.4
11-Aug-01	20:20	-0.7	-0.7	-0.9	-0.9	1.3	-0.9	100	92.1	85.4	88.4	100	96
11-Aug-01	20:30	-0.7	-0.4	-0.7	-0.9	0.3	-0.9	100	93.2	86.5	88.4	100	96
11-Aug-01	20:40	-0.7	-0.4	-0.7	-1.2	-0.7	-0.9	100	88.8	85.9	88.4	100	93.7
11-Aug-01	20:50	-0.4	-0.7	-0.7	-1.2	-0.4	-0.7	100	92.1	85.9	91.7	100	96
11-Aug-01	21:00	-1.2	-0.4	-0.7	-0.7	-0.2	-0.7	100	93.2	87	92.2	100	93.2
11-Aug-01	21:10	-0.9	-0.7	-0.7	-0.7	-0.2	-0.7	100	90.4	84.9	90	100	96.5
11-Aug-01	21:20	-0.9	-0.7	-0.7	-0.7	-0.4	-0.7	100	91.6	86.5	89	100	93.2
11-Aug-01	21:30	-0.7	-0.7	-0.7	-0.9	-0.4	-0.9	100	91.6	85.9	89	100	96
11-Aug-01	21:40	-0.7	-0.4	-0.7	-0.9	-0.4	-0.9	100	91.6	85.9	92.2	100	96
11-Aug-01	21:50	-0.7	-0.4	-0.4	-0.9	-0.2	-0.7	100	91	86.5	91.7	100	96.5
11-Aug-01	22:00	-0.9	-0.2	-0.4	-0.7	-0.2	-0.7	100	91.6	85.9	90	100	94.3
11-Aug-01	22:10	-0.7	0.3	-0.4	-0.9	-0.4	-0.7	100	91.6	85.9	89.5	100	96
11-Aug-01	22:20	0.3	0.3	0.1	-0.9	-0.7	-0.7	100	91	85.9	89.5	100	93.7
11-Aug-01	22:30	0.3	0.6	-0.2	-0.9	-0.2	-0.9	99.5	91.6	87.5	92.2	100	96
11-Aug-01	22:40	-0.7	0.6	-0.2	-0.7	0.1	-0.7	100	91	85.9	90.6	100	94.3
11-Aug-01	22:50	-0.7	0.3	-0.7	-0.7	-0.7	-0.7	100	88.8	85.9	90.6	100	96
11-Aug-01	23:00	-0.7	-0.4	-0.9	-0.4	-0.4	-0.9	100	89.3	85.4	90.6	100	94.8
11-Aug-01	23:10	-0.7	-0.2	-0.9	-0.9	-0.2	-0.9	100	92.1	86.5	90	100	95.4
11-Aug-01	23:20	-0.7	-0.4	-0.9	-0.9	-0.2	-0.9	100	89.3	85.9	91.1	100	96.5
11-Aug-01	23:30	-0.4	-0.4	-0.9	-0.9	-0.2	-0.7	100	91.6	85.9	92.8	100	93.2
11-Aug-01	23:40	-0.7	-0.4	-0.7	-0.9	-0.4	-0.9	100	93.2	87.5	91.7	100	96
11-Aug-01	23:50	-0.7	-0.4	-0.9	-0.9	-0.7	-0.9	100	89.3	85.4	89.5	100	96
12-Aug-01	00:00	-0.7	-0.7	-0.9	-0.9	-0.4	-0.4	100	92.1	86.5	89.5	100	95.4
12-Aug-01	00:10	-0.7	-0.4	-0.7	-1.2	0.1	0.3	100	93.2	85.9	91.1	100	95.4
12-Aug-01	00:20	-0.7	-0.7	-0.7	-1.2	-0.4	1.1	100	89.3	86.5	92.8	100	93.7
12-Aug-01	00:30	-0.7	-0.7	-0.7	-0.9	-0.7	1.1	100	92.7	87	91.7	100	90.9
12-Aug-01	00:40	-0.9	-0.7	-0.9	-0.7	-0.2	0.1	100	91.6	85.9	90	100	90.4
12-Aug-01	00:50	-0.7	-0.7	-0.7	-1.2	0.1	-0.7	100	91	87	89.5	100	92.6

12-Aug-01	01:00	-0.9	-0.7	-0.9	-0.9	-0.2	-0.4	100	93.2	85.9	92.2	100	96
12-Aug-01	01:10	-0.9	-0.4	-0.9	-0.9	-0.7	-0.7	100	90.4	87	92.2	100	94.3
12-Aug-01	01:20	-0.9	-0.7	-0.7	-0.7	-0.4	-0.4	100	91.6	86.5	91.1	100	96
12-Aug-01	01:30	-0.7	-0.4	-0.7	-0.7	-0.2	-0.9	100	93.2	85.9	90	100	94.3
12-Aug-01	01:40	-0.7	-0.7	-0.9	-1.2	0.1	-0.9	100	88.8	86.5	89.5	100	96
12-Aug-01	01:50	-0.9	-0.7	-0.7	-1.2	0.6	-0.9	100	92.1	85.4	92.8	100	96
12-Aug-01	02:00	-0.9	-0.4	-0.7	-0.9	1.1	-0.9	100	93.2	87	91.7	100	93.7
12-Aug-01	02:10	-0.7	-0.7	-0.9	-0.7	1.6	-0.7	100	89.3	85.9	90	100	96
12-Aug-01	02:20	-0.7	-0.7	-0.7	-0.7	1.3	-0.4	100	93.2	85.9	90	100	94.3
12-Aug-01	02:30	-0.9	-0.7	-0.7	-1.2	0.1	-0.9	99.5	91.6	87	89.5	100	96
12-Aug-01	02:40	-0.7	-0.9	-0.7	-1.2	-0.9	-0.4	100	91	84.9	90	100	93.7
12-Aug-01	02:50	-0.9	-0.7	-0.7	-0.9	-0.7	-0.9	100	93.2	87	90.6	100	96.5
12-Aug-01	03:00	-0.9	-0.7	-0.7	-0.7	-0.2	-0.7	100	91	85.9	91.1	100	93.7
12-Aug-01	03:10	-0.9	-0.9	-0.9	-0.9	-0.2	-0.7	100	91	86.5	89.5	100	96
12-Aug-01	03:20	-0.9	-0.7	-0.7	-0.9	-0.7	-0.7	100	93.2	85.9	90	100	96.5
12-Aug-01	03:30	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	88.8	85.9	92.8	100	94.8
12-Aug-01	03:40	-1.2	-0.7	-0.7	-0.9	-0.4	-0.7	100	92.1	85.9	91.7	100	96
12-Aug-01	03:50	-0.9	-0.7	-0.2	-0.7	-0.2	-0.7	100	93.2	85.9	90	100	96
12-Aug-01	04:00	-1.2	-0.4	-0.4	-0.7	-0.4	-0.7	100	89.9	85.9	89.5	100	93.2
12-Aug-01	04:10	-0.9	-0.7	-0.2	-1.2	-0.4	-0.9	100	92.7	85.9	90	100	96
12-Aug-01	04:20	0.3	-0.7	-0.2	-1.2	-0.4	-0.7	100	92.1	85.9	92.8	100	93.2
12-Aug-01	04:30	0.1	-0.4	-0.2	-0.7	-0.2	-0.7	99.5	91.6	87	91.7	100	96
12-Aug-01	04:40	-0.7	-0.4	-0.4	-0.4	-0.2	-0.7	100	91	86.5	89.5	100	93.2
12-Aug-01	04:50	-0.9	-0.7	-0.4	-0.9	-0.4	-0.7	100	90.4	85.4	89.5	100	96
12-Aug-01	05:00	-0.9	-0.7	-0.7	-0.9	-0.7	-0.7	100	92.7	85.9	91.1	100	95.4
12-Aug-01	05:10	-0.7	-0.4	-0.7	-0.9	-0.4	-0.4	100	91	88.1	92.2	100	94.3
12-Aug-01	05:20	-0.7	-0.7	-0.7	-0.7	0.1	-0.9	100	91	85.9	91.7	100	96
12-Aug-01	05:30	-0.7	-0.7	-0.9	-0.7	-0.2	-0.7	100	92.1	86.5	89.5	100	93.2
12-Aug-01	05:40	-0.9	-0.4	-0.9	-0.9	-0.4	-0.7	100	91.6	85.9	89.5	100	96
12-Aug-01	05:50	-0.7	-0.2	-0.7	-1.2	-0.2	-0.7	100	91	85.9	91.7	100	93.2
12-Aug-01	06:00	-0.9	0.1	-0.7	-0.9	0.1	-0.7	100	91.6	87	92.8	100	96
12-Aug-01	06:10	-0.7	0.1	-0.7	-0.7	-0.2	-0.7	100	91	85.4	91.1	100	94.8
12-Aug-01	06:20	-0.7	0.6	-0.7	-0.7	-0.4	-0.7	100	91.6	87	90	100	95.4
12-Aug-01	06:30	-0.9	0.3	-0.7	-1.2	-0.7	-0.9	100	88.8	85.9	89.5	100	96
12-Aug-01	06:40	-0.7	0.1	-0.9	-0.9	-0.2	-0.4	100	88.3	85.9	92.2	100	93.7
12-Aug-01	06:50	-0.7	-0.4	-0.7	-0.7	0.1	-0.7	100	91.6	87	92.2	100	96
12-Aug-01	07:00	-0.9	-0.2	-0.9	-0.4	-0.7	-0.7	100	89.9	85.4	90.6	100	93.7
12-Aug-01	07:10	-0.7	-0.7	-0.7	-0.7	-0.7	-0.9	100	91.6	87	89.5	100	96
12-Aug-01	07:20	-1.2	-0.4	-0.9	-1.2	-0.4	-0.7	100	93.2	85.9	89.5	100	95.4
12-Aug-01	07:30	-0.9	-0.7	-0.7	-1.2	-0.2	-0.7	100	90.4	86.5	92.8	100	94.8
12-Aug-01	07:40	-0.9	-0.7	-0.7	-0.9	0.3	-0.7	100	91.6	87	91.7	100	96
12-Aug-01	07:50	-0.9	-0.4	-0.9	-0.4	0.8	-0.7	100	93.2	85.9	90	100	96
12-Aug-01	08:00	-0.7	-0.4	-0.7	-0.7	1.3	-0.4	100	89.3	87	90	100	95.4
12-Aug-01	08:10	-0.7	-0.7	-0.7	-0.7	1.8	0.1	100	91.6	85.9	90	100	94.8
12-Aug-01	08:20	-0.9	-0.4	-0.9	-0.4	0.8	0.8	100	93.2	86.5	90	100	93.2
12-Aug-01	08:30	-0.7	-0.4	-0.7	-0.4	0.1	0.8	100	88.8	86.5	90	100	90.9
12-Aug-01	08:40	-0.9	-0.7	-0.9	-0.4	-0.7	-0.2	100	92.1	85.9	90	100	90.4
12-Aug-01	08:50	-0.7	-0.4	-0.7	-0.4	-0.4	-0.9	100	91	87	90	100	93.2
12-Aug-01	09:00	-1.2	-0.7	-0.9	-0.4	-0.2	-0.7	100	91	85.4	90	100	94.8

12-Aug-01	09:10	-0.9	-0.7	-0.7	-0.4	-0.2	-0.9	100	92.7	87	90	100	94.3
12-Aug-01	09:20	-0.7	-0.4	-0.9	-0.4	-0.4	-0.7	100	88.3	85.9	90	100	96.5
12-Aug-01	09:30	-0.7	-0.7	-0.7	-0.4	-0.7	-0.7	100	92.7	85.9	90	100	93.7
12-Aug-01	09:40	-0.9	-0.2	-0.7	-0.4	-0.2	-0.7	100	89.9	85.9	90	100	96
12-Aug-01	09:50	-0.7	-0.7	-0.4	-0.4	0.1	-0.7	100	91	85.9	90	100	94.8
12-Aug-01	10:00	-0.9	-0.4	-0.4	-0.2	-0.4	-0.7	100	92.7	85.9	90	100	93.7
12-Aug-01	10:10	-0.9	-0.4	-0.2	-0.2	-0.4	-0.9	100	91	85.9	90	100	96
12-Aug-01	10:20	0.3	-0.4	-0.2	-0.2	-0.2	-0.7	100	91	85.9	90	100	93.2
12-Aug-01	10:30	0.1	-0.4	0.1	-0.2	-0.2	-0.7	99.5	91.6	87	90	100	96.5
12-Aug-01	10:40	-0.9	-0.4	-0.2	-0.2	-0.4	-0.7	100	91	86.5	90	100	93.2
12-Aug-01	10:50	-0.9	-0.7	-0.4	-0.2	-0.2	-0.9	100	88.8	85.9	90	100	93.7
12-Aug-01	11:00	-0.9	-0.7	-0.7	-0.2	-0.2	-0.7	100	92.1	85.4	90	100	96.5
12-Aug-01	11:10	-0.7	-0.4	-0.9	-0.4	0.1	-0.9	100	88.3	85.4	89.5	100	94.3
12-Aug-01	11:20	-0.9	-0.4	-0.9	-0.7	-0.4	-0.7	100	91.6	87	89.5	100	93.7
12-Aug-01	11:30	-0.9	-0.4	-0.7	-0.7	-0.4	-1.2	100	90.4	84.9	89.5	100	96
12-Aug-01	11:40	-0.9	-0.4	-0.9	-0.9	-0.2	-0.7	100	89.3	86.5	89	100	93.2
12-Aug-01	11:50	-0.9	-0.4	-0.7	-1.2	-0.2	-0.9	100	92.1	85.9	91.7	100	96
12-Aug-01	12:00	-0.7	-0.4	-0.7	-0.7	-0.4	-0.9	100	88.3	85.9	92.2	100	93.2
12-Aug-01	12:10	-0.9	-0.7	-0.7	-0.4	-0.2	-0.9	100	91.6	86.5	90	100	93.2
12-Aug-01	12:20	-0.7	-0.4	-1.2	-0.7	0.1	-0.7	100	88.8	84.3	89.5	100	96
12-Aug-01	12:30	-0.9	-0.9	-0.9	-1.2	-0.2	-0.7	100	91.6	86.5	89.5	100	92.6
12-Aug-01	12:40	-0.7	-0.7	-0.9	-0.9	-0.4	-1.2	100	89.3	85.4	91.1	100	96
12-Aug-01	12:50	-0.9	-0.9	-0.7	-0.9	-0.4	-0.9	100	89.3	85.9	92.2	100	92.6
12-Aug-01	13:00	-0.7	-0.7	-0.9	-0.7	0.1	-0.7	100	91.6	85.9	90.6	100	96
12-Aug-01	13:10	-0.7	-0.9	-0.7	-0.7	-0.2	-1.2	100	88.3	84.9	90	100	94.3
12-Aug-01	13:20	-0.7	-0.9	-0.9	-1.2	-0.4	-0.9	100	92.1	87	89.5	100	93.2
12-Aug-01	13:30	-0.9	-0.7	-0.7	-1.2	-0.2	-0.7	100	90.4	84.9	89.5	100	96
12-Aug-01	13:40	-0.9	-0.4	-0.9	-0.9	0.6	-1.2	99.5	90.4	86.5	92.2	100	94.8
12-Aug-01	13:50	-0.7	0.3	-0.7	-0.7	1.1	-0.7	100	90.4	85.9	92.2	100	93.7
12-Aug-01	14:00	-0.9	0.6	-0.9	-0.7	1.6	-0.7	100	89.3	84.3	90	100	96
12-Aug-01	14:10	-0.9	1.3	-1.2	-0.9	1.8	-0.9	100	89.9	85.9	89.5	100	93.7
12-Aug-01	14:20	-0.7	1.8	-0.7	-1.2	1.3	-0.9	99.5	91	84.9	89.5	100	93.2
12-Aug-01	14:30	-0.7	1.8	-0.9	-1.2	0.3	-0.9	100	87.7	85.4	92.2	100	96
12-Aug-01	14:40	-0.7	1.3	-0.9	-0.9	-0.4	-0.9	100	85.5	85.4	90.6	100	93.2
12-Aug-01	14:50	-0.9	0.3	-1.2	-0.7	-0.4	-0.9	100	85.5	83.8	90.6	100	96
12-Aug-01	15:00	-0.7	-0.2	-0.9	-0.7	-0.2	-0.9	100	86.1	85.9	91.1	100	92.6
12-Aug-01	15:10	-0.7	-0.7	-0.9	-0.7	0.1	-0.7	100	85.5	84.9	90	100	93.7
12-Aug-01	15:20	-0.7	-0.9	-0.9	-1.2	-0.7	-1.2	100	86.6	83.8	89.5	100	94.8
12-Aug-01	15:30	-0.7	-1.2	-0.7	-1.2	-0.7	-0.7	100	91	84.9	89.5	100	93.7
12-Aug-01	15:40	-0.7	-1.2	-0.9	-1.2	-0.2	-0.9	100	88.3	85.4	91.1	100	96
12-Aug-01	15:50	-0.9	-1.2	-0.7	-0.9	0.1	-0.7	100	91	85.4	92.8	100	94.3
12-Aug-01	16:00	-0.7	-1.2	-0.4	-0.7	-0.7	-0.4	100	90.4	84.9	91.1	100	94.8
12-Aug-01	16:10	-0.4	-0.9	-0.4	-0.9	-0.4	0.3	100	90.4	84.3	90	100	93.7
12-Aug-01	16:20	0.3	-1.2	-0.4	-1.2	-0.2	0.8	100	91	84.3	89.5	100	94.3
12-Aug-01	16:30	0.8	-0.9	-0.2	-1.2	0.1	1.1	100	91.6	87	89.5	100	91.5
12-Aug-01	16:40	-0.2	-0.9	-0.4	-1.2	-0.4	0.1	97.8	91.6	85.9	91.7	100	90.4
12-Aug-01	16:50	-0.7	-0.9	-0.7	-1.2	-0.7	-0.7	100	88.8	85.4	92.8	100	93.2
12-Aug-01	17:00	-0.4	-0.9	-0.7	-0.7	0.1	-0.7	100	91.6	84.3	91.1	100	93.7
12-Aug-01	17:10	-0.7	-1.2	-0.9	-0.4	-0.2	-0.9	100	91.6	84.3	90.6	100	96

12-Aug-01	17:20	-0.7	-1.2	-0.9	-0.7	-0.4	-0.7	100	88.3	86.5	90	100	92.6
12-Aug-01	17:30	-0.7	-1.2	-0.9	-0.7	-0.7	-0.7	100	92.1	85.9	90	100	96
12-Aug-01	17:40	-0.9	-0.9	-0.7	-0.4	-0.2	-0.9	100	91.6	85.9	90	100	93.7
12-Aug-01	17:50	-0.7	-0.9	-0.7	-0.2	-0.2	-0.9	100	90.4	85.9	90	100	96.5
12-Aug-01	18:00	-0.7	-0.9	-0.7	-0.4	-0.2	-0.7	100	93.2	85.9	90	100	95.4
12-Aug-01	18:10	-0.7	-0.7	-0.9	-0.4	-0.7	-0.9	100	93.2	86.5	90	100	94.3
12-Aug-01	18:20	-0.9	-0.4	-0.9	-0.4	-0.4	-0.9	100	89.9	85.4	89.5	100	96
12-Aug-01	18:30	-0.7	-0.7	-0.7	-0.4	-0.4	-0.9	100	91.6	86.5	89.5	100	93.2
12-Aug-01	18:40	-0.9	-0.9	-0.7	-0.4	-0.2	-0.7	100	92.7	85.9	89.5	100	96
12-Aug-01	18:50	-0.7	-0.7	-0.9	-0.4	-0.4	-0.9	100	93.2	85.9	89.5	100	93.2
12-Aug-01	19:00	-0.7	-0.7	-0.7	-0.2	-0.4	-0.7	100	88.8	87	89.5	100	96
12-Aug-01	19:10	-0.7	-0.7	-0.7	-0.4	-0.2	-0.7	100	92.1	84.9	90	100	95.4
12-Aug-01	19:20	-0.9	-0.4	-0.7	-0.2	-0.2	-0.7	100	93.2	86.5	90	100	96
12-Aug-01	19:30	-0.7	-0.4	-0.7	-0.2	0.1	-0.9	100	93.2	85.9	90	100	96
12-Aug-01	19:40	-0.9	-0.4	-0.9	-0.2	0.6	-0.7	100	89.3	85.9	90	100	96
12-Aug-01	19:50	-0.7	-0.7	-0.7	-0.2	0.8	-0.9	100	92.1	87	90	100	93.7
12-Aug-01	20:00	-0.9	-0.4	-0.7	-0.2	1.3	-0.7	100	93.2	85.4	89.5	100	96
12-Aug-01	20:10	-0.7	-0.4	-0.7	-0.7	1.6	-0.7	100	93.2	86.5	89	100	93.2
12-Aug-01	20:20	-0.9	-0.4	-0.7	-0.7	1.3	-0.7	100	88.3	85.9	88.4	100	96
12-Aug-01	20:30	-0.9	-0.7	-0.7	-0.9	0.1	-0.7	100	92.1	86.5	88.4	100	93.2
12-Aug-01	20:40	-1.2	-0.4	-0.7	-1.2	-0.7	-0.7	100	93.2	87	88.4	100	96
12-Aug-01	20:50	-0.7	-0.4	-0.7	-0.9	-0.4	-0.9	100	93.2	86.5	92.2	100	93.2
12-Aug-01	21:00	-0.9	-0.4	-0.9	-0.9	-0.2	-0.9	100	88.8	86.5	92.8	100	96
12-Aug-01	21:10	-0.9	-0.4	-0.7	-0.4	0.1	-0.9	100	92.1	85.9	90	100	96
12-Aug-01	21:20	-0.9	-0.4	-0.9	-0.7	-0.4	-0.7	100	93.2	85.9	89	100	96.5
12-Aug-01	21:30	-0.9	-0.4	-0.7	-1.2	-0.7	-0.7	100	92.1	86.5	90	100	96.5
12-Aug-01	21:40	-0.7	-0.2	-0.4	-0.9	-0.4	-0.7	100	91.6	85.9	92.8	100	94.3
12-Aug-01	21:50	-0.9	-0.4	-0.4	-0.9	-0.4	-0.9	100	91	86.5	91.7	100	96
12-Aug-01	22:00	-0.9	0.1	-0.4	-0.7	0.1	-0.7	100	91.6	85.9	89.5	100	94.3
12-Aug-01	22:10	-0.7	0.1	-0.2	-0.9	-0.4	-0.7	100	91	85.9	89	100	96
12-Aug-01	22:20	0.3	0.6	-0.2	-1.2	-0.7	-0.7	100	91	85.9	91.7	100	94.3
12-Aug-01	22:30	-0.2	0.6	0.1	-1.2	-0.4	-0.7	98.9	91	87	92.8	100	96
12-Aug-01	22:40	-0.9	0.3	-0.4	-0.7	0.1	-0.4	100	91	85.9	90.6	100	93.7
12-Aug-01	22:50	-0.9	0.1	-0.7	-0.4	0.1	-0.9	100	88.3	85.4	90.6	100	96
12-Aug-01	23:00	-0.9	-0.4	-0.9	-0.4	-0.4	-0.9	100	91.6	87	89.5	100	94.8
12-Aug-01	23:10	-0.9	-0.4	-0.9	-0.9	-0.7	-0.7	100	92.7	87	89.5	100	96.5
12-Aug-01	23:20	-0.9	-0.2	-0.9	-1.2	-0.4	-0.7	100	91.6	85.9	92.8	100	96
12-Aug-01	23:30	-1.2	-0.4	-0.7	-0.9	-0.2	-0.4	100	91.6	87.5	92.2	100	95.4
12-Aug-01	23:40	-0.9	-0.7	-0.7	-0.9	-0.2	-0.9	100	92.7	85.4	91.7	100	96
12-Aug-01	23:50	-1.2	-0.4	-0.7	-0.9	-0.4	-0.7	100	92.1	87	89.5	100	96
13-Aug-01	00:00	-0.7	-0.4	-0.7	-0.9	-0.7	-0.4	100	89.3	87	89	100	96
13-Aug-01	00:10	-0.9	-0.7	-0.7	-1.2	-0.4	0.3	100	91.6	86.5	92.8	100	94.3
13-Aug-01	00:20	-0.7	-0.7	-0.9	-0.9	-0.2	0.8	100	92.7	87	92.2	100	93.2
13-Aug-01	00:30	-0.9	-0.4	-0.7	-0.4	-0.2	0.8	100	92.1	85.4	91.1	100	90.9
13-Aug-01	00:40	-0.7	-0.4	-0.9	-0.7	-0.4	0.1	100	88.8	87.5	89.5	100	89.8
13-Aug-01	00:50	-0.7	-0.7	-0.7	-0.9	-0.7	-0.7	100	92.7	87	90	100	96
13-Aug-01	01:00	-0.7	-0.4	-0.7	-1.2	-0.4	-0.9	100	92.7	85.9	92.8	100	94.3
13-Aug-01	01:10	-0.7	-0.4	-0.7	-0.9	-0.2	-0.7	100	91.6	87	91.7	100	96.5
13-Aug-01	01:20	-0.9	-0.4	-0.4	-0.4	-0.2	-0.7	100	88.8	86.5	90	100	95.4

13-Aug-01	01:30	-0.9	-0.4	-0.9	-0.7	0.1	-0.4	100	92.1	87	89	100	96.5
13-Aug-01	01:40	-1.2	-0.7	-0.9	-1.2	0.3	-0.9	100	92.1	87.5	91.7	100	96
13-Aug-01	01:50	-1.2	-0.4	-0.9	-0.9	0.8	-0.4	100	91.6	85.9	92.8	100	95.4
13-Aug-01	02:00	-0.9	-0.4	-0.7	-0.7	1.3	-0.9	100	89.3	87	91.7	100	96
13-Aug-01	02:10	-0.9	-0.7	-0.7	-0.4	1.8	-0.4	100	92.7	85.9	90	100	95.4
13-Aug-01	02:20	-1.2	-0.7	-0.9	-1.2	1.1	-0.7	100	92.7	87	89	100	96
13-Aug-01	02:30	-0.9	-0.4	-0.7	-1.2	0.1	-0.7	100	91	87.5	92.8	100	93.2
13-Aug-01	02:40	-1.2	-0.4	-0.9	-0.9	-0.7	-0.7	100	90.4	85.9	90.6	100	96
13-Aug-01	02:50	-0.9	-0.7	-0.9	-0.7	-0.7	-0.7	100	92.7	87.5	90.6	100	93.2
13-Aug-01	03:00	-0.7	-0.4	-0.4	-0.4	-0.4	-0.7	100	92.1	86.5	90	100	96
13-Aug-01	03:10	-0.9	-0.2	-0.9	-0.9	0.1	-0.9	100	90.4	86.5	89.5	100	94.3
13-Aug-01	03:20	-0.7	-0.4	-0.7	-0.9	-0.4	-0.7	100	91	87.5	92.2	100	96.5
13-Aug-01	03:30	-0.9	-0.4	-0.7	-0.9	-0.7	-0.9	100	93.2	87	92.8	100	96
13-Aug-01	03:40	-0.9	-0.4	-0.4	-0.7	-0.7	-0.4	100	92.1	86.5	91.7	100	96
13-Aug-01	03:50	-0.9	-0.4	-0.4	-0.7	-0.4	-0.7	100	91	86.5	89.5	100	95.4
13-Aug-01	04:00	-1.2	-0.4	-0.4	-0.9	0.1	-0.7	100	91.6	85.9	89.5	100	96
13-Aug-01	04:10	-0.7	-0.7	-0.2	-0.9	-0.4	-0.7	100	92.7	85.9	92.2	100	96
13-Aug-01	04:20	0.1	-0.4	0.1	-0.9	-0.7	-0.7	100	92.1	85.9	92.2	100	93.7
13-Aug-01	04:30	-0.4	-0.4	-0.2	-0.9	-0.4	-0.7	99.5	91	86.5	91.1	100	96.5
13-Aug-01	04:40	-1.2	-0.4	-0.4	-0.4	-0.2	-0.7	100	91	85.4	90	100	93.2
13-Aug-01	04:50	-0.7	-0.7	-0.7	-0.9	-0.2	-0.7	100	91.6	84.9	89.5	100	96
13-Aug-01	05:00	-0.9	-0.7	-0.7	-0.9	-0.4	-0.7	100	91.6	88.1	92.2	100	93.7
13-Aug-01	05:10	-0.7	-0.4	-0.4	-0.7	-0.7	-0.4	100	89.3	85.9	92.2	100	96
13-Aug-01	05:20	-0.9	-0.7	-0.9	-0.7	-0.4	-0.9	100	91	87	91.1	100	95.4
13-Aug-01	05:30	-0.9	-0.4	-0.4	-0.7	-0.2	-0.7	100	91.6	88.1	89.5	100	96
13-Aug-01	05:40	-0.7	-0.7	-0.7	-0.9	-0.2	-0.7	100	91	85.9	90	100	95.4
13-Aug-01	05:50	-0.9	-0.4	-0.7	-0.9	-0.2	-0.4	100	91	88.1	92.8	100	96
13-Aug-01	06:00	-0.7	0.1	-0.7	-0.9	-0.7	-0.7	100	91.6	85.9	91.7	100	96
13-Aug-01	06:10	-0.9	0.1	-0.7	-0.7	-0.4	-0.7	100	91	87	91.1	100	96
13-Aug-01	06:20	-0.7	0.3	-0.7	-0.7	-0.4	-0.7	100	91	88.1	89.5	100	96
13-Aug-01	06:30	-0.9	0.3	-0.7	-1.2	-0.2	-0.4	100	88.8	85.4	91.1	100	95.4
13-Aug-01	06:40	-1.2	0.1	-0.9	-0.9	-0.2	-0.9	100	88.3	87.5	92.2	100	96
13-Aug-01	06:50	-0.9	-0.4	-0.4	-0.9	-0.9	-0.7	100	91.6	87	91.7	100	93.7
13-Aug-01	07:00	-1.2	-0.2	-0.7	-0.7	-0.4	-0.7	100	90.4	87	91.1	100	96
13-Aug-01	07:10	-0.7	-0.4	-0.4	-0.7	-0.2	-0.7	100	91.6	88.1	89.5	100	93.2
13-Aug-01	07:20	-0.9	-0.4	-0.7	-0.9	-0.2	-0.7	100	92.7	85.9	91.1	100	96
13-Aug-01	07:30	-0.9	-0.4	-0.9	-0.9	0.1	-0.7	100	91	87.5	92.8	100	93.2
13-Aug-01	07:40	-0.9	-0.4	-0.7	-0.7	0.3	-0.4	100	91	87	91.7	100	96
13-Aug-01	07:50	-0.7	-0.7	-0.7	-0.4	0.8	-0.7	100	92.7	85.9	90	100	94.3
13-Aug-01	08:00	-0.9	-0.2	-0.4	-1.2	1.1	-0.2	100	92.1	88.1	89.5	100	94.3
13-Aug-01	08:10	-0.9	-0.4	-0.7	-0.7	1.8	0.6	100	89.3	85.4	89.5	100	93.7
13-Aug-01	08:20	-0.9	-0.7	-0.7	-0.7	1.3	1.3	100	92.7	87	90	100	92
13-Aug-01	08:30	-0.9	-0.4	-0.7	-0.4	0.1	1.3	100	92.1	85.9	90	100	90.4
13-Aug-01	08:40	-0.9	-0.7	-0.7	-0.4	-0.4	0.1	100	90.4	87	90	100	89.8
13-Aug-01	08:50	-1.2	-0.7	-0.7	-0.4	-0.4	-0.4	100	92.7	86.5	90	100	90.4
13-Aug-01	09:00	-0.9	-0.4	-0.7	-0.2	-0.2	-0.9	100	91.6	86.5	90	100	93.7
13-Aug-01	09:10	-0.9	-0.7	-0.7	-0.2	-0.4	-0.7	100	91	87.5	90	100	91.5
13-Aug-01	09:20	-0.7	-0.4	-0.9	-0.4	-0.7	-0.7	100	93.2	85.9	90	100	94.3
13-Aug-01	09:30	-0.9	-0.2	-0.7	-0.4	-0.2	-0.9	100	88.8	86.5	89.5	100	93.7

13-Aug-01	09:40	-0.7	-0.7	-0.4	-0.4	-0.2	-0.7	100	92.1	86.5	89.5	100	92
13-Aug-01	09:50	-0.7	-0.7	-0.4	-0.4	-0.4	-0.7	100	92.7	85.9	89.5	100	94.3
13-Aug-01	10:00	-0.7	-0.4	-0.4	-0.4	-0.4	-0.9	100	89.3	85.9	89.5	100	95.4
13-Aug-01	10:10	-0.4	-0.4	-0.4	-0.4	-0.2	-0.9	100	93.2	85.9	89.5	100	91.5
13-Aug-01	10:20	0.6	-0.2	-0.2	-0.4	-0.2	-0.9	100	91.6	85.9	89.5	100	93.7
13-Aug-01	10:30	0.8	-0.2	-0.2	-0.2	-0.2	-1.2	100	91	86.5	89.5	100	93.2
13-Aug-01	10:40	-0.4	-0.4	-0.4	-0.4	-0.4	-0.7	98.9	91.6	85.9	89	100	92.6
13-Aug-01	10:50	-0.4	-0.7	-0.4	-0.7	-0.4	-0.9	100	88.8	85.4	89	100	94.3
13-Aug-01	11:00	-0.7	-0.7	-0.7	-0.7	-0.2	-0.7	100	91.6	84.3	89	100	91.5
13-Aug-01	11:10	-0.4	-0.7	-0.7	-0.9	-0.7	-0.9	100	90.4	84.3	89.5	100	93.2
13-Aug-01	11:20	-0.7	-0.7	-0.9	-1.2	-0.2	-0.9	100	91	86.5	89.5	100	93.7
13-Aug-01	11:30	-0.4	-0.7	-0.9	-0.9	0.1	-0.7	100	92.7	84.3	89.5	100	91.5
13-Aug-01	11:40	-0.4	-0.4	-0.9	-1.2	-0.2	-0.7	100	89.3	85.9	89.5	100	95.4
13-Aug-01	11:50	-0.7	-0.7	-0.7	-1.2	-0.4	-0.9	100	93.2	85.4	89.5	100	90.9
13-Aug-01	12:00	-0.7	-0.7	-0.7	-0.9	-0.2	-0.9	100	88.8	84.3	89.5	100	92.6
13-Aug-01	12:10	-0.7	-0.7	-0.4	-0.9	-0.2	-0.9	100	92.1	86.5	89.5	100	93.2
13-Aug-01	12:20	-0.4	-0.7	-0.7	-0.9	-0.4	-0.7	100	88.3	83.8	91.7	100	92
13-Aug-01	12:30	-0.7	-0.7	-0.7	-0.7	-0.4	-0.9	100	91.6	83.8	92.2	100	94.3
13-Aug-01	12:40	-0.2	-0.7	-0.7	-0.4	0.1	-0.7	100	88.3	85.4	89.5	100	90.9
13-Aug-01	12:50	-0.7	-0.9	-0.7	-0.9	-0.2	-0.9	100	91	84.3	89.5	100	93.2
13-Aug-01	13:00	-0.7	-0.9	-0.7	-0.7	-0.4	-0.9	100	88.8	83.8	89.5	100	94.3
13-Aug-01	13:10	-0.4	-0.9	-0.4	-0.7	-0.2	-0.9	100	90.4	83.3	89.5	100	90.9
13-Aug-01	13:20	-0.4	-0.7	-0.7	-0.9	0.1	-0.9	100	89.3	83.8	89.5	100	92.6
13-Aug-01	13:30	-0.2	-0.9	-0.7	-0.9	0.1	-0.9	100	89.3	84.3	89.5	100	90.4
13-Aug-01	13:40	-0.4	-0.7	-0.7	-1.2	0.3	-0.7	99.5	89.3	83.3	89	100	93.2
13-Aug-01	13:50	-0.4	-0.2	-0.9	-1.4	0.8	-0.9	100	89.9	83.8	89	100	93.2
13-Aug-01	14:00	-0.7	0.1	-0.9	-1.2	1.3	-0.9	99.5	89.3	85.9	90	100	90.9
13-Aug-01	14:10	-0.4	0.8	-0.7	-0.9	2.1	-0.9	100	89.3	83.3	90	100	93.7
13-Aug-01	14:20	-0.7	1.1	-0.7	-0.9	1.6	-0.7	99.5	88.8	83.3	92.2	100	93.7
13-Aug-01	14:30	-0.7	1.6	-0.9	-0.7	0.8	-0.7	100	87.7	83.3	92.2	100	91.5
13-Aug-01	14:40	-0.7	0.8	-0.7	-0.7	0.1	-0.9	99.5	86.1	84.3	90	100	93.2
13-Aug-01	14:50	-0.7	0.3	-0.7	-0.4	-0.7	-0.9	100	86.6	83.3	90	100	94.3
13-Aug-01	15:00	-0.7	-0.4	-0.7	-0.4	-0.4	-0.7	99.5	86.1	83.8	90.6	100	91.5
13-Aug-01	15:10	-0.7	-0.4	-0.9	-0.7	-0.2	-0.7	100	87.2	85.9	90	100	92.6
13-Aug-01	15:20	-0.4	-0.7	-0.9	-0.4	-0.2	-0.9	98.9	87.7	83.8	90	100	93.7
13-Aug-01	15:30	-1.2	-0.9	-0.4	-0.7	-0.4	-0.7	100	87.7	83.8	90	100	93.7
13-Aug-01	15:40	-0.7	-1.2	-0.4	-0.7	-0.2	-0.7	100	89.3	84.3	89.5	100	91.5
13-Aug-01	15:50	-0.9	-1.2	-0.2	-1.2	0.3	-0.4	97.3	86.1	83.8	89.5	100	93.7
13-Aug-01	16:00	-0.9	-1.2	0.1	-0.9	-0.2	0.1	100	91	84.3	90	100	93.7
13-Aug-01	16:10	-0.2	-1.2	0.1	-1.2	-0.4	0.6	100	90.4	84.3	89.5	100	93.2
13-Aug-01	16:20	0.8	-0.7	0.1	-1.2	0.1	1.6	100	89.9	85.4	89.5	100	95.4
13-Aug-01	16:30	2.3	-0.7	0.6	-1.2	0.1	1.3	100	90.4	87	90.6	100	90.4
13-Aug-01	16:40	1.1	-0.4	0.1	-1.2	-0.4	0.6	98.4	90.4	85.4	92.8	100	89.8
13-Aug-01	16:50	-0.2	-0.7	-0.2	-0.7	-0.2	-0.2	98.9	88.3	84.3	90.6	100	90.9
13-Aug-01	17:00	-0.7	-0.9	-0.4	-0.9	0.1	-0.4	100	89.9	83.8	89.5	100	91.5
13-Aug-01	17:10	-0.4	-0.9	-0.7	-0.7	0.1	-0.7	99.5	91	83.8	90	100	91.5
13-Aug-01	17:20	-0.4	-0.7	-0.4	-0.7	-0.2	-0.9	100	89.3	83.3	90	100	93.2
13-Aug-01	17:30	-0.4	-0.7	-0.9	-0.7	0.1	-0.7	100	91.6	83.8	90	100	93.2
13-Aug-01	17:40	-0.7	-0.7	-0.7	-0.7	0.1	-0.7	100	88.3	85.9	90	100	93.7

13-Aug-01	17:50	-0.4	-0.7	-0.9	-0.7	-0.7	-0.7	100	91.6	85.4	89.5	100	95.4
13-Aug-01	18:00	-0.7	-0.7	-0.7	-0.7	-0.4	-0.9	100	91	83.8	89.5	100	92.6
13-Aug-01	18:10	-0.9	-0.7	-0.7	-0.7	0.1	-0.7	99.5	88.8	86.5	89.5	100	96
13-Aug-01	18:20	-0.9	-0.7	-0.4	-0.7	0.1	-0.7	100	91.6	84.9	89.5	100	93.7
13-Aug-01	18:30	-0.9	-0.7	-0.7	-0.7	-0.7	-0.7	99.5	88.8	83.8	89.5	100	93.7
13-Aug-01	18:40	-0.9	-0.4	-0.9	-0.4	-0.4	-0.7	100	91	85.9	89.5	100	96
13-Aug-01	18:50	-0.9	-0.4	-0.7	-0.4	-0.2	-0.9	100	92.1	84.3	89.5	100	93.7
13-Aug-01	19:00	-0.9	-0.7	-0.7	-0.4	-0.2	-0.4	100	87.7	83.3	90	100	93.7
13-Aug-01	19:10	-0.9	-0.7	-0.7	-0.4	-0.4	-0.7	100	91.6	86.5	90	100	96.5
13-Aug-01	19:20	-0.9	-0.4	-0.4	-0.4	-0.4	-0.7	100	92.1	83.8	90	100	93.2
13-Aug-01	19:30	-0.9	-0.4	-0.7	-0.4	-0.2	-0.7	100	88.3	83.8	90	100	96
13-Aug-01	19:40	-0.7	-0.7	-0.9	-0.4	0.1	-0.9	100	91	87	90	100	93.2
13-Aug-01	19:50	-1.2	-0.7	-0.7	-0.4	0.6	-0.4	100	92.1	84.3	90	100	94.8
13-Aug-01	20:00	-0.9	-0.7	-0.7	-0.2	1.1	-0.7	100	88.3	85.9	89	100	96
13-Aug-01	20:10	-0.9	-0.7	-0.4	-0.4	1.6	-0.7	100	91.6	85.4	87.9	100	93.2
13-Aug-01	20:20	-0.7	-0.4	-0.7	-0.7	0.8	-0.7	100	93.2	85.4	87.9	100	96
13-Aug-01	20:30	-1.2	-0.7	-0.4	-0.9	0.1	-0.7	100	89.3	86.5	87.9	100	96
13-Aug-01	20:40	-0.9	-0.7	-0.7	-1.2	-0.4	-0.4	100	91.6	83.8	87.9	100	94.3
13-Aug-01	20:50	-0.9	-0.7	-0.9	-1.2	-0.4	-0.7	100	93.2	85.4	91.1	100	96
13-Aug-01	21:00	-0.7	-0.7	-0.7	-0.9	-0.2	-0.4	100	93.2	85.4	92.8	100	93.2
13-Aug-01	21:10	-0.9	-0.4	-0.4	-0.9	0.1	-0.7	100	88.3	83.3	90	100	96
13-Aug-01	21:20	-0.9	-0.7	-0.7	-1.2	-0.4	-0.7	100	92.1	85.9	89	100	93.2
13-Aug-01	21:30	-0.9	-0.7	-0.4	-1.2	-0.7	-0.7	100	91.6	85.4	90	100	96
13-Aug-01	21:40	-0.9	-0.4	-0.4	-0.9	-0.2	-0.9	100	91	85.4	92.2	100	95.4
13-Aug-01	21:50	-0.9	-0.2	-0.2	-0.9	-0.2	-0.4	100	91.6	84.9	91.1	100	93.7
13-Aug-01	22:00	-0.7	0.1	0.1	-0.7	0.1	-0.9	100	91.6	84.9	89	100	96
13-Aug-01	22:10	-0.2	0.1	0.1	-1.2	-0.7	-0.7	100	91	85.4	89.5	100	93.2
13-Aug-01	22:20	0.6	0.3	0.1	-1.2	-0.4	-0.9	100	91	85.9	92.2	100	96
13-Aug-01	22:30	0.6	0.8	0.3	-0.7	-0.2	-0.7	99.5	92.1	88.1	92.2	100	93.2
13-Aug-01	22:40	-0.4	0.6	0.1	-0.7	-0.2	-0.7	99.5	91.6	85.9	89.5	100	96.5
13-Aug-01	22:50	-0.9	0.1	-0.2	-0.7	-0.2	-0.7	100	88.8	84.3	90	100	93.2
13-Aug-01	23:00	-0.9	-0.4	-0.2	-0.9	-0.4	-0.7	100	89.3	83.8	89.5	100	96
13-Aug-01	23:10	-0.9	-0.4	-0.4	-0.7	-0.7	-0.7	100	92.1	83.3	89.5	100	93.2
13-Aug-01	23:20	-0.9	-0.4	-0.4	-1.2	-0.2	-0.7	100	93.2	84.3	92.2	100	96
13-Aug-01	23:30	-0.9	-0.4	-0.4	-0.9	0.1	-0.7	100	88.8	85.9	92.2	100	95.4
13-Aug-01	23:40	-1.2	-0.4	-0.4	-0.7	-0.4	-0.7	100	92.1	83.8	90	100	93.7
13-Aug-01	23:50	-0.9	-0.7	-0.7	-0.7	-0.7	-0.9	100	93.2	85.9	89.5	100	93.2
14-Aug-01	00:00	-1.2	-0.4	-0.4	-1.2	-0.2	-0.7	100	92.7	85.4	92.2	100	93.7
14-Aug-01	00:10	-0.9	-0.4	-0.7	-0.9	-0.2	0.1	100	89.3	85.4	92.8	100	93.7
14-Aug-01	00:20	-1.2	-0.7	-0.4	-0.7	-0.4	0.8	100	92.7	85.9	92.2	100	93.2
14-Aug-01	00:30	-1.2	-0.4	-0.4	-0.9	-0.4	0.8	100	93.2	85.4	89.5	100	90.9
14-Aug-01	00:40	-1.2	-0.4	-0.4	-0.9	-0.4	-0.2	100	92.7	86.5	89	100	90.9
14-Aug-01	00:50	-0.9	-0.7	-0.4	-0.9	-0.2	-0.7	100	88.8	84.3	92.8	100	96
14-Aug-01	01:00	-0.9	-0.4	-0.4	-0.9	0.1	-0.7	100	92.1	85.9	92.2	100	92.6
14-Aug-01	01:10	-1.2	-0.4	-0.4	-0.4	-0.4	-0.4	100	93.2	85.4	89.5	100	96
14-Aug-01	01:20	-0.9	-0.2	-0.7	-0.7	-0.4	-0.7	100	92.1	85.9	89.5	100	94.8
14-Aug-01	01:30	-0.9	-0.4	-0.4	-0.9	-0.2	-0.7	100	89.3	85.9	92.8	100	94.3
14-Aug-01	01:40	-0.4	-0.7	-0.7	-0.7	0.1	-0.9	100	92.1	84.3	92.2	100	96
14-Aug-01	01:50	-0.9	-0.4	-0.4	-0.7	0.3	-0.7	100	93.2	86.5	90	100	93.2

14-Aug-01	02:00	-0.9	-0.4	-0.4	-0.9	1.1	-0.7	100	92.1	84.3	89	100	96.5
14-Aug-01	02:10	-0.9	-0.7	-0.7	-1.2	1.3	-0.7	100	89.3	85.9	92.2	100	93.2
14-Aug-01	02:20	-1.2	-0.9	-0.4	-0.9	1.1	-0.4	100	92.7	84.9	92.2	100	96
14-Aug-01	02:30	-0.7	-0.4	-0.7	-0.7	0.1	-0.9	100	93.2	85.9	89.5	100	96
14-Aug-01	02:40	-1.2	-0.4	-0.4	-0.7	-0.7	-0.7	100	91.6	86.5	90	100	94.3
14-Aug-01	02:50	-0.9	-0.4	-0.4	-0.7	-0.7	-0.7	100	89.9	85.9	90	100	96.5
14-Aug-01	03:00	-0.9	-0.7	-0.7	-0.7	-0.4	-0.9	100	92.7	86.5	90	100	93.2
14-Aug-01	03:10	-0.9	-0.4	-0.4	-0.9	0.1	-0.7	100	93.2	84.3	90	100	96.5
14-Aug-01	03:20	-1.2	-0.4	-0.7	-0.9	-0.7	-0.7	100	90.4	85.9	92.2	100	96
14-Aug-01	03:30	-0.9	-0.4	-0.4	-0.7	-0.4	-0.7	100	91.6	85.9	92.2	100	93.7
14-Aug-01	03:40	-1.2	-0.4	-0.4	-0.7	-0.2	-0.9	100	93.2	85.9	89.5	100	96
14-Aug-01	03:50	-0.9	-0.4	-0.2	-0.9	-0.2	-0.9	100	92.1	85.9	89.5	100	93.2
14-Aug-01	04:00	-0.7	-0.4	0.1	-0.9	-0.4	-0.4	100	88.8	85.9	92.2	100	96
14-Aug-01	04:10	-0.7	-0.4	0.1	-0.9	-0.4	-0.7	100	92.1	85.4	92.8	100	96
14-Aug-01	04:20	0.3	-0.7	0.1	-0.9	-0.4	-0.9	100	92.7	85.9	90	100	93.2
14-Aug-01	04:30	0.3	-0.4	0.1	-0.9	-0.2	-0.7	100	91	87	89.5	100	96
14-Aug-01	04:40	-0.7	-0.4	0.1	-0.9	0.1	-0.9	100	91	85.4	92.2	100	96
14-Aug-01	04:50	-0.9	-0.7	-0.2	-0.9	-0.7	-0.7	100	91	84.3	92.2	100	93.2
14-Aug-01	05:00	-0.9	-0.7	-0.2	-0.9	-0.7	-0.7	100	92.7	83.3	90	100	96.5
14-Aug-01	05:10	-0.9	-0.4	-0.7	-0.9	-0.4	-0.7	100	91.6	85.4	89.5	100	95.4
14-Aug-01	05:20	-0.9	-0.7	-0.4	-1.2	-0.2	-0.7	100	90.4	85.9	92.2	100	95.4
14-Aug-01	05:30	-1.2	-0.9	-0.7	-0.9	-0.2	-0.7	100	91	83.8	92.8	100	96
14-Aug-01	05:40	-0.9	-0.7	-0.7	-0.7	-0.7	-0.4	100	91	86.5	90.6	100	93.7
14-Aug-01	05:50	-1.2	-0.4	-0.4	-0.9	-0.7	-0.9	100	91	85.4	89.5	100	96
14-Aug-01	06:00	-1.2	-0.2	-0.7	-0.9	-0.2	-0.9	100	91.6	85.9	92.2	100	93.7
14-Aug-01	06:10	-0.9	0.3	-0.7	-0.9	-0.2	-0.7	100	91.6	85.9	92.2	100	96.5
14-Aug-01	06:20	-0.9	0.3	-0.4	-0.7	-0.4	-0.7	100	91.6	85.4	90	100	96
14-Aug-01	06:30	-1.2	0.3	-0.4	-0.9	-0.4	-0.7	100	88.8	86.5	89.5	100	93.7
14-Aug-01	06:40	-1.2	-0.4	-0.4	-1.2	-0.4	-0.9	100	88.8	84.3	92.8	100	96.5
14-Aug-01	06:50	-0.9	-0.4	-0.7	-0.7	-0.2	-0.4	100	92.1	85.9	92.2	100	93.2
14-Aug-01	07:00	-0.9	-0.4	-0.4	-0.7	-0.2	-0.7	100	93.2	84.9	90	100	96.5
14-Aug-01	07:10	-1.2	-0.2	-0.4	-1.2	-0.2	-0.7	100	91.6	85.9	89.5	100	93.7
14-Aug-01	07:20	-1.2	-0.4	-0.4	-1.2	-0.4	-0.9	100	91	86.5	92.8	100	96
14-Aug-01	07:30	-1.2	-0.7	-0.4	-0.7	-0.2	-0.7	100	92.7	84.9	92.2	100	95.4
14-Aug-01	07:40	-1.2	-0.4	-0.4	-0.7	0.1	-0.4	99.5	93.2	85.9	90	100	95.4
14-Aug-01	07:50	-0.9	-0.4	-0.4	-0.7	0.3	-0.7	100	88.3	84.3	89.5	100	93.7
14-Aug-01	08:00	-0.9	-0.9	-0.7	-0.9	1.1	-0.2	100	92.1	85.9	91.1	100	96
14-Aug-01	08:10	-0.9	-0.7	-0.4	-0.7	1.6	0.3	100	93.8	84.9	92.8	100	96.5
14-Aug-01	08:20	-1.2	-0.7	-0.7	-0.4	1.3	1.3	100	89.3	84.3	90.6	100	96.5
14-Aug-01	08:30	-0.9	-0.7	-0.7	-0.9	0.3	1.3	100	92.1	85.9	89.5	100	90.9
14-Aug-01	08:40	-0.9	-0.7	-0.4	-1.2	-0.4	0.6	100	93.2	84.3	89.5	100	90.4
14-Aug-01	08:50	-0.7	-0.4	-0.7	-0.7	-0.7	-0.4	100	89.3	85.9	89.5	100	90.9
14-Aug-01	09:00	-0.9	-0.9	-0.7	-0.7	-0.2	-0.7	100	91.6	84.3	90	100	95.4
14-Aug-01	09:10	-0.7	-0.7	-0.7	-0.4	0.1	-0.9	100	93.2	83.8	89.5	100	90.9
14-Aug-01	09:20	-0.9	-0.7	-0.7	-0.4	-0.4	-0.7	100	89.3	85.9	90	100	93.2
14-Aug-01	09:30	-0.7	-0.7	-0.4	-0.4	-0.4	-0.9	100	91.6	85.9	90	100	93.2
14-Aug-01	09:40	-0.4	-0.7	-0.4	-0.4	-0.2	-0.7	100	93.2	85.9	90	100	96
14-Aug-01	09:50	-0.7	-0.7	0.1	-0.4	0.1	-0.7	100	88.8	85.9	90	100	92
14-Aug-01	10:00	-0.4	-0.7	-0.2	-0.2	-0.4	-0.4	100	91.6	85.9	90	100	93.2

14-Aug-01	10:10	0.1	-0.7	0.3	-0.2	-0.7	-0.4	100	93.8	85.9	90	100	94.8
14-Aug-01	10:20	0.8	-0.7	0.3	-0.2	0.1	-0.2	100	91	85.9	90	100	97.1
14-Aug-01	10:30	1.6	-0.7	0.3	-0.4	0.1	-0.2	100	91.6	87.5	89.5	100	91.5
14-Aug-01	10:40	0.3	-0.9	0.3	-0.4	-0.4	-0.2	99.5	91	85.9	89.5	100	93.2
14-Aug-01	10:50	-0.2	-0.7	0.1	-0.9	-0.4	-0.4	100	89.3	84.9	89.5	100	95.4
14-Aug-01	11:00	-0.4	-0.9	-0.2	-0.7	0.1	-0.4	100	91	83.8	89.5	100	92.6
14-Aug-01	11:10	-0.4	-0.7	-0.2	-0.7	-0.2	-0.7	100	91	83.3	89.5	100	92.6
14-Aug-01	11:20	-0.4	-0.9	-0.4	-0.9	-0.4	-0.9	99.5	88.8	83.3	89.5	100	95.4
14-Aug-01	11:30	-0.7	-1.2	-0.7	-1.2	-0.2	-0.7	100	92.1	83.3	89.5	100	92
14-Aug-01	11:40	-0.7	-0.7	-0.7	-1.2	0.1	-0.4	99.5	91	83.3	89.5	100	93.2
14-Aug-01	11:50	-0.4	-1.2	-0.9	-0.9	-0.4	-0.4	100	88.8	83.3	92.2	100	93.7
14-Aug-01	12:00	-0.4	-1.2	-0.9	-0.7	-0.2	-0.7	100	92.1	83.3	92.8	100	92
14-Aug-01	12:10	-0.4	-0.9	-0.9	-0.4	-0.2	-0.4	100	90.4	85.9	90	100	93.7
14-Aug-01	12:20	-0.4	-1.2	-0.9	-0.9	-0.4	-0.4	100	89.3	83.8	89	100	94.3
14-Aug-01	12:30	-0.4	-1.2	-0.7	-1.2	0.1	-0.9	100	92.7	83.8	89	100	92
14-Aug-01	12:40	-0.7	-0.9	-0.7	-1.4	-0.4	-0.7	99.5	89.3	82.8	88.4	100	93.2
14-Aug-01	12:50	-0.7	-0.9	-0.7	-0.9	-0.4	-0.7	100	91	85.9	92.8	100	95.4
14-Aug-01	13:00	-0.4	-1.2	-0.7	-0.7	-0.2	-0.7	100	93.2	83.8	92.8	100	92
14-Aug-01	13:10	-0.7	-0.9	-0.9	-0.7	-0.2	-0.7	100	88.3	83.3	90	100	93.7
14-Aug-01	13:20	-0.7	-0.9	-0.9	-0.9	-0.4	-0.7	100	92.1	85.4	89.5	100	95.4
14-Aug-01	13:30	-0.4	-0.9	-0.7	-0.9	-0.2	-0.7	100	92.1	84.3	89.5	100	91.5
14-Aug-01	13:40	-0.4	-0.7	-0.7	-0.9	0.3	-0.9	100	91.6	83.3	89.5	100	93.2
14-Aug-01	13:50	-0.7	-0.4	-0.7	-1.2	1.1	-0.7	100	91	83.3	91.7	100	94.8
14-Aug-01	14:00	-0.4	0.1	-0.4	-0.7	1.3	-0.7	100	91.6	85.9	92.2	100	92.6
14-Aug-01	14:10	-0.4	0.3	-0.4	-0.7	2.1	-0.7	100	91	83.3	89.5	100	92.6
14-Aug-01	14:20	-0.4	0.8	-0.9	-0.7	1.3	-0.7	100	92.1	83.3	89.5	100	93.7
14-Aug-01	14:30	-0.2	0.8	-0.9	-1.2	0.8	-1.2	100	88.8	83.8	88.4	100	94.3
14-Aug-01	14:40	0.1	0.1	-0.7	-1.2	-0.2	-0.7	99.5	87.2	85.4	89	100	92
14-Aug-01	14:50	-0.2	-0.4	-0.7	-0.9	-0.4	-0.9	100	86.6	83.3	90	100	94.3
14-Aug-01	15:00	-0.7	-0.9	-0.7	-1.2	0.1	-0.9	98.9	88.3	82.8	89.5	100	94.3
14-Aug-01	15:10	-0.7	-1.2	-0.7	-0.9	-0.2	-0.7	100	91	85.4	88.4	100	92.6
14-Aug-01	15:20	-0.4	-1.2	-0.4	-1.2	-0.4	-0.7	100	88.3	83.3	87.9	100	95.4
14-Aug-01	15:30	-0.4	-1.4	-0.4	-1.2	-0.2	-0.9	98.4	91	83.3	87.9	100	92
14-Aug-01	15:40	-0.4	-1.2	-0.2	-1.2	-0.2	-0.9	100	92.1	83.3	92.2	100	93.2
14-Aug-01	15:50	-0.2	-1.2	-0.2	-0.9	-0.7	-0.7	98.4	88.8	83.8	92.2	100	96
14-Aug-01	16:00	-0.7	-1.2	-0.2	-0.7	-0.7	0.3	100	91.6	83.8	89.5	100	96.5
14-Aug-01	16:10	0.1	-1.2	0.3	-0.7	0.1	1.1	100	92.7	84.3	88.4	100	93.7
14-Aug-01	16:20	1.3	-1.2	0.3	-0.9	-0.2	2.1	100	91	85.4	88.4	100	93.2
14-Aug-01	16:30	1.8	-1.2	0.3	-1.2	-0.4	1.6	98.4	91	85.9	91.1	100	89.8
14-Aug-01	16:40	0.1	-1.2	0.3	-0.7	-0.2	0.6	97.8	91	84.3	91.1	100	90.4
14-Aug-01	16:50	-0.7	-0.9	0.1	-0.4	0.1	-0.2	100	92.1	83.8	90	100	90.9
14-Aug-01	17:00	-0.4	-0.7	-0.2	-0.7	-0.4	-0.7	100	93.2	83.8	89.5	100	93.2
14-Aug-01	17:10	-0.4	-0.7	-0.4	-0.7	-0.2	-0.7	100	88.8	83.3	90	100	96
14-Aug-01	17:20	-0.4	-0.9	-0.2	-0.4	0.1	-0.7	100	92.1	82.8	90	100	92.6
14-Aug-01	17:30	-0.7	-0.7	-0.7	-0.4	-0.4	-0.4	97.8	93.2	82.3	90	100	96
14-Aug-01	17:40	-0.4	-0.7	-0.4	-0.4	-0.4	-0.7	100	88.3	83.3	90	100	96
14-Aug-01	17:50	-0.7	-0.9	-0.7	-0.4	-0.2	-0.4	100	92.1	85.4	90	100	93.2
14-Aug-01	18:00	-0.7	-0.7	-0.4	-0.4	0.3	-0.4	100	93.2	83.3	90	100	95.4
14-Aug-01	18:10	-0.7	-0.4	-0.7	-0.4	-0.4	-0.7	99.5	91.6	83.8	90	100	96

14-Aug-01	18:20	-0.7	-0.7	-0.4	-0.4	-0.7	-0.4	100	91.6	84.9	89.5	100	93.7
14-Aug-01	18:30	-0.9	-0.7	-0.4	-0.4	-0.2	-0.4	99.5	93.2	83.3	89.5	100	93.7
14-Aug-01	18:40	-0.7	-0.7	-0.4	-0.4	0.1	-0.7	100	93.2	85.4	89.5	100	96
14-Aug-01	18:50	-0.7	-0.4	-0.4	-0.4	-0.4	-0.7	100	88.3	83.8	89.5	100	94.3
14-Aug-01	19:00	-0.7	-0.7	-0.4	-0.4	-0.4	-0.7	100	92.1	83.3	89.5	100	93.2
14-Aug-01	19:10	-0.9	-0.7	-0.7	-0.4	-0.4	-0.4	100	93.2	85.9	89.5	100	96
14-Aug-01	19:20	-0.7	-0.4	-0.7	-0.4	0.1	-0.7	100	91.6	83.8	89.5	100	96
14-Aug-01	19:30	-0.9	-0.7	-0.7	-0.4	0.1	-0.4	100	91.6	83.3	89.5	100	93.7
14-Aug-01	19:40	-0.7	-0.7	-0.4	-0.4	0.3	-0.4	100	93.2	85.9	89.5	100	94.3
14-Aug-01	19:50	-0.9	-0.7	-0.7	-0.4	0.8	-0.4	100	93.2	83.3	89.5	100	96
14-Aug-01	20:00	-0.7	-0.4	-0.7	-0.4	1.3	-0.7	100	89.3	85.4	88.4	100	95.4
14-Aug-01	20:10	-0.9	-0.9	-0.4	-0.4	1.8	-0.4	100	92.7	84.3	87.9	100	93.7
14-Aug-01	20:20	-0.9	-0.7	-0.7	-0.7	1.3	-0.7	100	93.2	83.3	87.9	100	96
14-Aug-01	20:30	-0.7	-0.4	-0.7	-0.9	0.1	-0.7	100	90.4	85.9	87.3	100	96
14-Aug-01	20:40	-0.7	-0.7	-0.4	-1.2	-0.7	-0.4	100	91	83.3	90.6	100	93.2
14-Aug-01	20:50	-0.4	-0.7	-0.7	-0.7	-0.4	-0.7	100	93.2	84.9	91.1	100	96
14-Aug-01	21:00	-0.4	-0.7	-0.4	-0.7	-0.2	-0.7	100	93.2	84.9	91.1	100	96
14-Aug-01	21:10	-0.7	-0.7	-0.4	-0.7	0.1	-0.7	100	89.3	83.3	89	100	93.7
14-Aug-01	21:20	-0.4	-0.9	-0.4	-0.9	-0.7	-0.4	100	92.1	85.4	88.4	100	95.4
14-Aug-01	21:30	-0.7	-0.9	-0.4	-0.9	-0.7	-0.7	100	92.1	84.9	90	100	96
14-Aug-01	21:40	-0.4	-0.4	-0.4	-0.9	-0.2	-0.4	100	91.6	84.9	92.2	100	93.7
14-Aug-01	21:50	-0.7	-0.4	-0.4	-0.7	-0.2	-0.7	100	91	84.3	91.7	100	96
14-Aug-01	22:00	-0.7	-0.4	-0.2	-0.7	-0.2	-0.4	100	91	84.3	91.1	100	96
14-Aug-01	22:10	-0.4	0.1	0.1	-0.7	-0.4	-0.4	100	91.6	84.9	88.4	100	95.4
14-Aug-01	22:20	0.3	0.3	0.1	-0.9	-0.7	-0.7	100	91.6	85.9	88.4	100	93.2
14-Aug-01	22:30	0.3	0.6	0.1	-0.9	-0.2	-0.4	98.9	92.1	85.9	90.6	100	96
14-Aug-01	22:40	-0.4	0.3	0.1	-1.2	0.1	-0.7	100	91.6	84.9	90	100	94.8
14-Aug-01	22:50	-0.7	0.1	-0.2	-0.9	-0.2	-0.4	100	88.8	83.3	90	100	94.3
14-Aug-01	23:00	-0.7	-0.7	-0.4	-0.7	-0.7	-0.4	100	89.3	83.3	89.5	100	96
14-Aug-01	23:10	-0.7	-0.4	-0.4	-1.2	-0.2	-0.7	100	92.1	83.3	89	100	94.8
14-Aug-01	23:20	-0.7	-0.4	-0.4	-1.2	-0.2	-0.7	100	93.2	85.9	90	100	94.3
14-Aug-01	23:30	-0.7	-0.7	-0.7	-0.9	0.1	-0.4	100	90.4	83.8	92.2	100	96.5
14-Aug-01	23:40	-0.9	-0.7	-0.7	-0.9	-0.7	-0.7	100	93.2	84.3	91.7	100	93.7
14-Aug-01	23:50	-0.7	-0.4	-0.4	-0.7	-0.4	-0.7	100	93.2	85.9	91.1	100	94.8
15-Aug-01	00:00	-0.7	-0.7	-0.4	-0.9	-0.4	-0.2	100	88.8	83.3	89	100	94.8
15-Aug-01	00:10	-0.4	-0.7	-0.4	-0.9	0.1	0.3	100	92.1	85.9	88.4	100	93.7
15-Aug-01	00:20	-0.7	-0.4	-0.4	-0.9	0.1	0.8	100	93.2	84.9	92.2	100	92.6
15-Aug-01	00:30	-0.7	-0.4	-0.7	-0.9	-0.7	1.1	100	88.8	84.3	91.7	100	90.4
15-Aug-01	00:40	-0.4	-0.7	-0.7	-0.4	-0.4	-0.2	100	91.6	85.9	90.6	100	90.4
15-Aug-01	00:50	-0.7	-0.7	-0.4	-0.4	-0.4	-0.4	100	93.8	83.3	89.5	100	95.4
15-Aug-01	01:00	-0.7	-0.7	-0.4	-1.2	0.1	-0.4	100	92.7	85.9	88.4	100	93.7
15-Aug-01	01:10	-0.9	-0.7	-0.2	-1.2	-0.2	-0.4	100	89.3	83.8	91.1	100	94.8
15-Aug-01	01:20	-0.7	-0.9	-0.7	-0.9	-0.7	-0.4	100	92.7	85.4	92.2	100	96
15-Aug-01	01:30	-0.4	-0.7	-0.4	-0.9	-0.7	-0.7	100	93.2	85.9	91.1	100	93.2
15-Aug-01	01:40	-0.4	-0.4	-0.4	-0.4	-0.2	-0.7	100	90.4	83.3	89.5	100	96.5
15-Aug-01	01:50	-0.7	-0.7	-0.4	-0.9	0.3	-0.4	100	91.6	85.9	89	100	95.4
15-Aug-01	02:00	-0.7	-0.7	-0.7	-1.2	0.6	-0.7	100	93.2	83.8	89	100	93.2
15-Aug-01	02:10	-0.7	-0.4	-0.7	-0.9	1.3	-0.7	100	93.2	85.9	92.2	100	96
15-Aug-01	02:20	-0.4	-0.7	-0.7	-0.9	0.8	-0.4	100	88.8	85.4	91.7	100	96

15-Aug-01	02:30	-0.7	-0.9	-0.7	-0.7	-0.2	-0.4	100	92.7	83.8	90.6	100	93.2
15-Aug-01	02:40	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	100	93.8	85.9	90	100	96
15-Aug-01	02:50	-0.7	-0.7	-0.4	-0.4	-0.4	-0.7	100	91.6	83.3	89.5	100	94.8
15-Aug-01	03:00	-0.7	-0.9	-0.4	-0.4	-0.2	-0.4	100	91	85.9	90	100	94.3
15-Aug-01	03:10	-0.7	-0.7	-0.2	-0.9	0.1	-0.7	100	93.2	83.8	89.5	100	96
15-Aug-01	03:20	-0.7	-0.4	-0.4	-1.2	-0.7	-0.4	100	93.2	84.3	91.7	100	95.4
15-Aug-01	03:30	-0.9	-0.4	-0.7	-0.9	-0.4	-0.7	100	89.3	84.3	91.7	100	93.7
15-Aug-01	03:40	-0.4	-0.7	-0.4	-0.7	-0.2	-0.4	100	92.1	84.3	90.6	100	96
15-Aug-01	03:50	-0.7	-0.4	-0.4	-0.4	-0.2	-0.4	100	93.2	84.3	89.5	100	96
15-Aug-01	04:00	-0.4	-0.4	-0.2	-0.9	-0.2	-0.4	100	91.6	84.9	89	100	93.2
15-Aug-01	04:10	-0.7	-0.7	0.1	-1.2	-0.4	-0.4	100	91	84.9	90	100	96
15-Aug-01	04:20	0.3	-0.4	-0.2	-0.9	-0.7	-0.4	100	92.1	85.4	92.2	100	96
15-Aug-01	04:30	0.1	-0.4	0.1	-0.7	-0.4	-0.4	99.5	92.1	85.9	91.1	100	93.2
15-Aug-01	04:40	-0.7	-0.4	-0.2	-0.4	-0.2	-0.4	100	91.6	83.8	90.6	100	96
15-Aug-01	04:50	-0.7	-0.7	-0.2	-0.7	-0.4	-0.4	100	88.8	83.3	89.5	100	96
15-Aug-01	05:00	-0.7	-0.7	-0.4	-0.9	-0.9	-0.4	100	92.1	83.3	89	100	93.2
15-Aug-01	05:10	-0.7	-0.7	-0.7	-1.2	-0.4	-0.4	100	92.7	85.9	91.7	100	96
15-Aug-01	05:20	-0.7	-0.7	-0.7	-0.9	-0.2	-0.4	100	88.8	84.3	91.7	100	96
15-Aug-01	05:30	-0.7	-0.7	-0.7	-0.7	0.1	-0.7	100	91.6	84.3	90.6	100	94.3
15-Aug-01	05:40	-0.4	-0.4	-0.4	-0.7	-0.2	-0.7	100	91.6	86.5	89.5	100	94.3
15-Aug-01	05:50	-0.7	-0.4	-0.4	-0.9	-0.4	-0.4	100	91.6	83.3	89	100	96
15-Aug-01	06:00	-0.7	-0.2	-0.4	-1.2	-0.4	-0.7	100	91.6	85.9	90.6	100	95.4
15-Aug-01	06:10	-0.9	0.1	-0.7	-0.9	-0.2	-0.7	100	91.6	84.3	92.2	100	94.3
15-Aug-01	06:20	-0.4	0.3	-0.4	-0.7	-0.2	-0.4	100	91.6	85.4	90.6	100	96.5
15-Aug-01	06:30	-0.9	0.3	-0.7	-0.7	-0.2	-0.7	100	89.3	85.9	90	100	96
15-Aug-01	06:40	-0.9	-0.4	-0.7	-0.7	-0.4	-0.7	100	88.8	83.8	89.5	100	93.2
15-Aug-01	06:50	-0.4	-0.7	-0.4	-1.2	-0.4	-0.4	100	92.1	85.9	89	100	96
15-Aug-01	07:00	-0.7	-0.4	-0.4	-0.9	-0.2	-0.7	100	93.2	83.8	92.2	100	96.5
15-Aug-01	07:10	-0.4	-0.4	-0.7	-0.7	-0.2	-0.4	100	91.6	85.9	92.2	100	93.2
15-Aug-01	07:20	-0.7	-0.7	-0.4	-0.7	-0.2	-0.4	100	91.6	85.4	90.6	100	96.5
15-Aug-01	07:30	-0.7	-0.4	-0.4	-0.4	-0.2	-0.7	100	93.2	83.3	90	100	96
15-Aug-01	07:40	-0.4	-0.4	-0.7	-0.9	0.3	-0.7	100	93.2	85.9	89.5	100	93.2
15-Aug-01	07:50	-0.7	-0.4	-0.4	-1.2	0.6	-0.7	100	88.3	83.3	89.5	100	94.3
15-Aug-01	08:00	-0.7	-0.7	-0.4	-0.9	1.1	-0.2	100	92.1	85.9	92.2	100	94.3
15-Aug-01	08:10	-0.7	-0.7	-0.4	-0.7	1.6	0.8	100	93.2	83.8	92.2	100	95.4
15-Aug-01	08:20	-0.7	-0.4	-0.4	-0.4	1.1	1.6	100	88.3	84.9	90	100	93.7
15-Aug-01	08:30	-0.9	-0.7	-0.4	-0.9	0.1	1.3	100	92.1	85.4	89.5	100	90.4
15-Aug-01	08:40	-0.7	-0.4	-0.4	-0.9	-0.4	0.3	100	93.2	83.8	90	100	90.9
15-Aug-01	08:50	-0.4	-0.4	-0.7	-0.9	-0.7	-0.4	100	88.8	85.9	90	100	90.9
15-Aug-01	09:00	-0.7	-0.7	-0.4	-0.9	-0.2	-0.4	100	92.1	83.3	90	100	93.7
15-Aug-01	09:10	-0.7	-0.4	-0.7	-1.2	-0.2	-0.4	100	93.2	85.4	89.5	100	94.8
15-Aug-01	09:20	-0.7	-0.4	-0.7	-0.9	-0.7	-0.7	100	88.8	84.3	90	100	92.6
15-Aug-01	09:30	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	92.1	84.3	90	100	94.8
15-Aug-01	09:40	-0.4	-0.4	-0.2	-0.7	-0.2	-0.4	100	93.2	84.9	90	100	92.6
15-Aug-01	09:50	-0.7	-0.4	-0.4	-0.4	-0.2	-0.7	100	88.3	84.3	90	100	94.3
15-Aug-01	10:00	-0.4	-0.9	0.1	-0.4	-0.4	-0.7	100	92.1	84.9	90	100	96
15-Aug-01	10:10	0.1	-0.7	0.1	-0.4	-0.4	-0.7	100	92.7	84.9	90	100	92
15-Aug-01	10:20	0.8	-0.4	0.1	-0.4	-0.2	-0.4	100	91.6	85.4	90	100	93.7
15-Aug-01	10:30	0.6	-0.7	0.1	-0.4	-0.2	-0.7	98.9	91	85.9	89.5	100	95.4

15-Aug-01	10:40	-0.7	-0.7	0.1	-0.4	-0.7	-0.9	100	91	83.8	89.5	100	93.7
15-Aug-01	10:50	-0.4	-0.7	-0.2	-0.4	-0.2	-0.4	100	88.3	83.3	89.5	100	93.2
15-Aug-01	11:00	-0.4	-0.4	-0.2	-0.4	-0.2	-0.7	100	91.6	83.3	89.5	100	96
15-Aug-01	11:10	-0.4	-0.2	-0.4	-0.4	-0.2	-0.7	100	91	83.3	88.4	100	96
15-Aug-01	11:20	-0.4	-0.4	-0.4	-0.7	-0.4	-0.7	100	89.3	82.8	88.4	100	93.7
15-Aug-01	11:30	-0.4	-0.4	-0.7	-0.9	-0.2	-0.7	100	92.1	84.3	88.4	100	92.6
15-Aug-01	11:40	-0.4	-0.7	-0.4	-1.2	-0.2	-0.4	100	88.8	84.9	88.4	100	93.2
15-Aug-01	11:50	-0.4	-0.7	-0.7	-1.2	-0.7	-0.2	100	91.6	83.3	88.4	100	96.5
15-Aug-01	12:00	-0.7	-0.7	-0.7	-1.2	-0.2	0.3	99.5	92.7	85.4	90.6	100	94.3
15-Aug-01	12:10	-0.4	-0.7	-0.7	-1.2	-0.2	0.3	100	88.3	83.8	92.2	100	94.8
15-Aug-01	12:20	-0.4	-0.7	-0.7	-0.7	-0.4	0.1	100	91.6	82.8	92.2	100	93.7
15-Aug-01	12:30	-0.7	-0.7	-0.7	-0.7	-0.7	-0.2	100	92.7	85.9	89.5	100	92
15-Aug-01	12:40	-0.9	-0.7	-0.4	-0.9	0.1	-0.4	100	88.3	83.3	89	100	93.2
15-Aug-01	12:50	-0.4	-0.7	-0.9	-1.2	-0.2	-0.4	100	91.6	85.4	89.5	100	96
15-Aug-01	13:00	-0.7	-0.7	-0.4	-1.4	-0.7	-0.7	100	90.4	83.8	90	100	95.4
15-Aug-01	13:10	-0.4	-0.7	-0.4	-1.2	-0.2	-0.4	100	88.8	83.3	92.8	100	92.6
15-Aug-01	13:20	-0.4	-0.9	-0.4	-0.7	0.1	-0.4	100	92.1	85.9	92.2	100	93.2
15-Aug-01	13:30	-0.4	-0.4	-0.7	-0.7	0.3	-0.7	100	92.1	83.3	89.5	100	93.2
15-Aug-01	13:40	-0.4	-0.4	-0.7	-0.7	0.8	-0.4	100	91.6	84.3	89.5	100	93.7
15-Aug-01	13:50	-0.7	0.3	-0.7	-0.9	1.3	-0.7	100	91	83.8	89	100	96
15-Aug-01	14:00	-0.4	0.6	-0.7	-1.2	1.8	-0.7	100	91	83.3	89	100	93.7
15-Aug-01	14:10	-0.7	0.8	-0.7	-1.2	2.6	-0.7	100	91	85.9	91.1	100	91.5
15-Aug-01	14:20	-0.4	1.3	-0.7	-1.2	1.8	-0.7	100	91	83.8	92.8	100	93.2
15-Aug-01	14:30	-0.7	1.3	-0.7	-0.4	0.8	-0.9	100	87.2	83.3	92.2	100	94.3
15-Aug-01	14:40	-0.7	0.8	-0.4	-0.7	0.1	-0.7	100	86.1	84.3	89.5	100	92.6
15-Aug-01	14:50	-0.4	0.1	-0.4	-0.4	-0.4	-0.7	100	85.5	83.3	89.5	100	96
15-Aug-01	15:00	-0.4	-0.4	-0.7	-0.4	-0.2	-0.7	100	86.1	84.3	90	100	91.5
15-Aug-01	15:10	-0.7	-0.7	-0.4	-0.7	0.1	-0.9	100	91	83.8	90	100	96
15-Aug-01	15:20	-0.4	-0.9	-0.7	-0.9	-0.7	-0.7	99.5	88.3	83.3	90	100	91.5
15-Aug-01	15:30	-0.2	-0.9	-0.4	-1.2	-0.4	-0.7	100	86.6	83.3	89.5	100	95.4
15-Aug-01	15:40	-0.7	-0.9	-0.4	-1.4	0.1	-0.7	100	91.6	83.3	89.5	100	92
15-Aug-01	15:50	-0.4	-0.7	-0.2	-1.2	0.1	-0.9	100	89.3	83.3	92.8	100	92.6
15-Aug-01	16:00	-0.7	-0.9	0.1	-0.9	-0.4	-0.2	100	90.4	83.3	92.8	100	93.2
15-Aug-01	16:10	-0.2	-0.7	0.3	-0.4	0.1	0.3	100	92.1	83.3	89.5	100	94.3
15-Aug-01	16:20	1.1	-0.4	0.3	-0.7	-0.2	1.3	100	91	83.8	90	100	95.4
15-Aug-01	16:30	0.6	-0.7	0.3	-0.9	-0.4	1.6	97.8	90.4	85.9	89.5	100	90.4
15-Aug-01	16:40	-0.2	-0.7	0.3	-1.2	-0.2	0.3	98.4	90.4	84.3	92.2	100	90.4
15-Aug-01	16:50	-0.4	-0.4	0.3	-0.7	0.1	-0.7	100	88.3	83.3	92.2	100	90.4
15-Aug-01	17:00	-0.7	-0.4	-0.2	-0.7	-0.4	-0.7	100	91.6	83.3	90	100	98.8
15-Aug-01	17:10	-0.2	-0.4	-0.2	-0.4	-0.2	1.1	100	91	83.3	90	100	92
15-Aug-01	17:20	-0.2	-0.4	-0.7	-0.2	-0.2	0.3	100	88.8	83.3	90	100	90.4
15-Aug-01	17:30	-0.4	-0.7	-0.4	-0.4	-0.4	-0.4	100	91.6	82.8	90	100	94.3
15-Aug-01	17:40	-0.7	-0.4	-0.7	-0.4	-0.4	-0.4	100	89.3	82.8	89.5	100	93.2
15-Aug-01	17:50	-0.4	-0.9	-0.7	-0.4	-0.2	-0.7	100	91	85.9	90	100	93.7
15-Aug-01	18:00	-0.4	-0.7	-0.7	-0.4	-0.2	-0.4	100	92.1	83.3	90	100	96.5
15-Aug-01	18:10	-0.7	-0.7	-0.7	-0.4	-0.4	-0.7	100	91.6	82.8	90	100	94.8
15-Aug-01	18:20	-0.4	-0.7	-0.7	-0.4	-0.2	-0.7	100	89.9	86.5	90	100	92.6
15-Aug-01	18:30	-0.4	-0.7	-0.7	-0.4	-0.2	-0.4	100	92.1	83.3	89.5	100	94.3
15-Aug-01	18:40	-0.7	-0.4	-0.7	-0.4	0.1	-0.7	99.5	93.2	83.3	89.5	100	96

15-Aug-01	18:50	-0.4	-0.4	-0.7	-0.4	-0.7	-0.7	100	88.3	85.9	89.5	100	96
15-Aug-01	19:00	-0.7	-0.7	-0.7	-0.4	-0.4	-0.7	100	92.1	83.3	89.5	100	94.8
15-Aug-01	19:10	-0.7	-0.4	-0.4	-0.4	-0.2	-0.7	100	93.2	84.9	89.5	100	96.5
15-Aug-01	19:20	-0.9	-0.7	-0.4	-0.4	0.1	-0.7	100	89.3	84.9	89.5	100	95.4
15-Aug-01	19:30	-0.7	-0.9	-0.4	-0.4	0.3	-0.4	100	91	83.3	89.5	100	93.2
15-Aug-01	19:40	-0.4	-0.7	-0.4	-0.4	0.6	-0.4	100	93.2	85.9	89.5	100	96
15-Aug-01	19:50	-0.7	-0.4	-0.4	-0.4	0.8	-0.7	100	93.2	83.3	89.5	100	93.2
15-Aug-01	20:00	-0.4	-0.7	-0.7	-0.4	1.3	-0.7	100	90.4	82.8	89.5	100	96
15-Aug-01	20:10	-0.4	-0.7	-0.7	-0.7	1.8	-0.7	100	93.2	83.8	88.4	100	94.8
15-Aug-01	20:20	-0.4	-0.7	-0.7	-0.9	0.8	-0.4	100	93.2	84.3	88.4	100	96
15-Aug-01	20:30	-0.7	-0.4	-0.7	-1.2	-0.2	-0.9	100	89.9	82.8	88.4	100	95.4
15-Aug-01	20:40	-0.4	-0.7	-0.9	-1.2	-0.4	-0.7	100	91.6	83.3	91.7	100	93.7
15-Aug-01	20:50	-0.9	-0.7	-0.4	-0.7	-0.7	-0.7	100	93.2	84.3	92.2	100	96
15-Aug-01	21:00	-0.7	-0.7	-0.4	-0.9	-0.2	-0.7	100	93.2	82.8	89.5	100	93.2
15-Aug-01	21:10	-0.7	-0.7	-0.9	-0.9	-0.2	-0.9	100	89.3	83.8	90	100	96
15-Aug-01	21:20	-0.7	-0.9	-0.7	-0.9	-0.9	-0.4	100	92.7	84.3	92.2	100	96
15-Aug-01	21:30	-0.7	-0.4	-0.4	-0.9	-0.4	-0.7	100	92.1	84.3	90	100	95.4
15-Aug-01	21:40	-0.7	-0.7	-0.4	-0.9	-0.2	-0.4	100	91.6	83.8	89.5	100	93.7
15-Aug-01	21:50	-0.7	-0.2	-0.4	-1.2	-0.2	-0.4	100	91.6	83.8	91.7	100	96
15-Aug-01	22:00	-0.7	-0.2	-0.2	-0.9	-0.4	-0.4	100	91	83.8	91.7	100	93.2
15-Aug-01	22:10	-0.4	0.3	0.1	-0.4	-0.7	-0.7	100	91.6	83.8	90	100	96.5
15-Aug-01	22:20	0.3	0.3	0.3	-0.9	-0.4	-0.7	100	91.6	83.8	89.5	100	93.2
15-Aug-01	22:30	-0.2	0.6	0.1	-1.2	0.1	-0.7	97.3	91.6	85.9	91.7	100	96
15-Aug-01	22:40	-0.4	0.3	0.1	-1.2	-0.4	-0.7	100	91.6	84.9	91.1	100	93.2
15-Aug-01	22:50	-0.7	0.3	-0.2	-0.7	-0.7	-0.9	100	88.3	83.8	90.6	100	96.5
15-Aug-01	23:00	-0.4	-0.4	-0.4	-0.7	-0.4	-0.4	100	88.3	83.3	90	100	96
15-Aug-01	23:10	-0.7	-0.7	-0.7	-0.9	0.1	-0.7	100	92.1	83.3	90	100	94.3
15-Aug-01	23:20	-0.7	-0.7	-0.7	-0.9	-0.4	-0.4	100	92.7	83.3	92.2	100	96
15-Aug-01	23:30	-0.4	-0.7	-0.9	-0.7	-0.4	-0.9	100	89.9	85.9	91.1	100	92.6
15-Aug-01	23:40	-0.4	-0.9	-0.4	-0.7	-0.4	-0.7	100	92.7	83.3	90	100	96
15-Aug-01	23:50	-0.4	-0.4	-0.7	-1.2	-0.2	-0.7	100	93.2	85.4	89.5	100	96
16-Aug-01	00:00	-0.7	-0.7	-0.4	-1.2	-0.2	-0.4	100	89.3	84.9	92.8	100	95.4
16-Aug-01	00:10	-0.4	-0.9	-0.4	-0.7	-0.4	0.3	100	92.7	83.3	91.7	100	93.7
16-Aug-01	00:20	-0.7	-0.7	-0.7	-0.7	-0.7	1.1	100	93.2	85.9	89.5	100	93.2
16-Aug-01	00:30	-0.7	-0.7	-0.4	-1.2	-0.2	1.1	100	88.8	83.3	89.5	100	91.5
16-Aug-01	00:40	-0.7	-0.9	-0.7	-1.2	0.1	0.1	99.5	92.7	85.4	92.2	100	90.4
16-Aug-01	00:50	-0.7	-0.7	-0.7	-0.7	-0.4	-0.4	100	93.8	85.9	91.7	100	93.2
16-Aug-01	01:00	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	89.3	83.3	89.5	100	93.2
16-Aug-01	01:10	-0.7	-0.7	-0.7	-1.2	-0.2	-0.9	100	92.7	85.9	89.5	100	96.5
16-Aug-01	01:20	-0.7	-0.7	-0.4	-1.2	0.1	-0.9	100	93.2	83.8	92.2	100	93.2
16-Aug-01	01:30	-0.9	-0.9	-0.7	-0.7	0.1	-0.7	100	88.8	84.9	91.1	100	96
16-Aug-01	01:40	-0.7	-0.9	-0.7	-0.4	0.6	-0.9	100	92.1	85.9	89.5	100	94.3
16-Aug-01	01:50	-0.7	-0.7	-0.4	-1.2	1.1	-0.7	100	93.2	83.3	89.5	100	96
16-Aug-01	02:00	-0.7	-0.7	-0.9	-0.9	1.6	-0.9	100	88.8	85.9	92.2	100	94.8
16-Aug-01	02:10	-0.7	-0.7	-0.7	-0.9	1.8	-0.4	100	92.1	83.8	92.2	100	96
16-Aug-01	02:20	-0.4	-0.7	-0.7	-0.7	1.3	-0.7	100	93.8	85.4	90.6	100	93.2
16-Aug-01	02:30	-0.7	-0.4	-0.4	-0.7	0.1	-0.7	100	88.8	85.4	89.5	100	96
16-Aug-01	02:40	-0.7	-0.7	-0.7	-1.2	-0.4	-0.7	100	91.6	83.3	89.5	100	93.2
16-Aug-01	02:50	-0.4	-0.7	-0.9	-0.7	-0.7	-0.7	100	93.2	85.9	90	100	96.5

16-Aug-01	03:00	-0.7	-0.4	-0.7	-0.7	-0.2	-0.7	100	91.6	83.3	90	100	94.3
16-Aug-01	03:10	-0.7	-0.7	-0.7	-0.7	-0.2	-0.4	100	91.6	85.9	90	100	95.4
16-Aug-01	03:20	-0.7	-0.9	-0.4	-0.9	-0.7	-0.7	100	93.2	85.9	92.2	100	95.4
16-Aug-01	03:30	-0.7	-0.7	-0.7	-0.9	-0.4	-0.4	100	91	85.4	91.7	100	96
16-Aug-01	03:40	-0.4	-0.7	-0.2	-0.4	-0.2	-0.7	100	91.6	84.9	90	100	96
16-Aug-01	03:50	-0.7	-0.7	-0.2	-0.9	-0.2	-0.7	100	93.2	84.3	89.5	100	93.2
16-Aug-01	04:00	-0.7	-0.4	-0.4	-1.2	-0.4	-0.9	100	93.2	84.3	91.7	100	96
16-Aug-01	04:10	-0.2	-0.4	-0.2	-0.9	-0.7	-0.7	100	91.6	84.3	92.2	100	93.7
16-Aug-01	04:20	0.3	-0.7	0.1	-0.7	-0.4	-0.7	100	91.6	84.9	91.1	100	96
16-Aug-01	04:30	-0.2	-0.7	0.1	-0.7	-0.2	-0.7	99.5	92.7	85.9	90	100	94.8
16-Aug-01	04:40	-0.7	-0.7	-0.2	-0.9	-0.4	-0.4	100	92.7	84.3	89.5	100	96
16-Aug-01	04:50	-0.9	-0.4	-0.2	-1.2	-0.7	-0.7	99.5	88.8	83.3	92.2	100	96
16-Aug-01	05:00	-0.7	-0.9	-0.7	-0.7	-0.7	-0.4	100	91.6	83.8	91.1	100	93.7
16-Aug-01	05:10	-0.9	-0.7	-0.9	-0.7	-0.2	-0.7	100	93.2	85.9	89.5	100	96.5
16-Aug-01	05:20	-0.9	-0.4	-0.4	-1.2	0.1	-0.9	100	90.4	85.9	89.5	100	94.3
16-Aug-01	05:30	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	90.4	83.3	92.2	100	96
16-Aug-01	05:40	-0.9	-0.7	-0.7	-0.7	-0.4	-0.7	100	91	86.5	91.7	100	94.8
16-Aug-01	05:50	-0.7	-0.7	-0.4	-0.4	-0.2	-0.4	100	91.6	83.8	90	100	96
16-Aug-01	06:00	-0.7	-0.2	-0.9	-0.9	-0.2	-0.7	100	91.6	85.9	89.5	100	96
16-Aug-01	06:10	-0.9	0.1	-0.7	-1.2	-0.4	-0.7	100	91.6	85.9	91.7	100	94.8
16-Aug-01	06:20	-0.9	0.3	-0.7	-0.9	-0.7	-0.7	100	91.6	83.3	92.2	100	96
16-Aug-01	06:30	-0.7	0.3	-0.7	-0.7	-0.4	-0.7	100	89.3	86.5	91.1	100	93.2
16-Aug-01	06:40	-0.7	-0.2	-0.7	-0.4	-0.4	-0.7	100	88.3	84.3	90	100	96
16-Aug-01	06:50	-0.7	-0.7	-0.9	-1.2	-0.2	-0.7	100	91.6	85.9	89.5	100	94.3
16-Aug-01	07:00	-0.9	-0.4	-0.4	-1.2	-0.7	-0.4	100	93.2	85.9	92.2	100	96
16-Aug-01	07:10	-0.7	-0.7	-0.4	-0.7	-0.4	-0.7	100	89.3	83.3	91.1	100	96
16-Aug-01	07:20	-0.7	-0.7	-0.7	-0.7	-0.2	-0.7	100	91.6	86.5	90	100	94.8
16-Aug-01	07:30	-0.7	-0.4	-0.7	-1.2	-0.2	-0.4	100	93.2	84.3	89.5	100	93.7
16-Aug-01	07:40	-0.4	-0.4	-0.7	-0.9	0.6	-0.7	100	90.4	85.9	92.2	100	96
16-Aug-01	07:50	-0.4	-0.4	-0.7	-0.9	0.8	-0.4	100	91.6	85.9	91.7	100	95.4
16-Aug-01	08:00	-0.7	-0.4	-0.7	-0.4	1.3	-0.2	100	93.2	84.3	90	100	94.8
16-Aug-01	08:10	-0.7	-0.4	-0.7	-0.9	1.6	0.8	100	90.4	86.5	89.5	100	93.7
16-Aug-01	08:20	-0.4	-0.4	-0.7	-0.9	1.1	1.6	100	91.6	83.8	91.1	100	92.6
16-Aug-01	08:30	-0.4	-0.4	-0.7	-0.7	0.3	1.6	100	92.7	85.9	92.2	100	90.9
16-Aug-01	08:40	-0.4	-0.4	-0.7	-0.7	-0.4	0.6	100	88.8	84.3	90.6	100	90.4
16-Aug-01	08:50	-0.2	-0.4	-0.4	-0.4	-0.4	-0.4	100	91.6	85.4	90.6	100	90.4
16-Aug-01	09:00	-0.2	-0.4	-0.7	-0.4	-0.2	-0.7	100	93.2	85.9	90	100	96
16-Aug-01	09:10	-0.2	-0.4	-0.4	-0.7	0.1	-0.7	100	90.4	83.3	89.5	100	92
16-Aug-01	09:20	-0.4	-0.7	-0.4	-0.7	-0.4	-0.7	100	91	85.9	90	100	93.2
16-Aug-01	09:30	-0.7	-0.4	-0.7	-0.9	-0.4	-0.7	100	93.2	85.4	91.7	100	96
16-Aug-01	09:40	-0.4	-0.2	-0.2	-0.7	-0.2	-0.7	100	89.9	84.9	91.7	100	93.2
16-Aug-01	09:50	-0.2	-0.4	-0.2	-0.4	-0.4	-0.2	100	91	84.3	90.6	100	91.5
16-Aug-01	10:00	-0.2	-0.7	0.1	-0.4	-0.4	-0.4	100	92.7	84.3	90.6	100	92
16-Aug-01	10:10	0.1	-0.2	0.1	-0.4	0.1	-0.7	100	91.6	84.3	90	100	94.8
16-Aug-01	10:20	0.8	-0.4	0.1	-0.2	0.1	-0.4	100	91	84.3	90	100	92.6
16-Aug-01	10:30	0.3	-0.4	0.3	-0.2	-0.4	-0.7	97.3	91	85.9	90	100	92
16-Aug-01	10:40	-0.4	-0.4	0.1	-0.2	-0.4	-0.4	100	91	83.8	90	100	93.2
16-Aug-01	10:50	-0.4	-0.4	0.1	-0.2	0.1	-0.4	100	88.8	83.3	90	100	94.3
16-Aug-01	11:00	-0.7	-0.7	-0.4	-0.2	-0.4	-0.7	100	91.6	83.8	90	100	93.7

16-Aug-01	11:10	-0.4	-0.7	-0.4	-0.4	-0.4	-0.7	100	92.1	83.3	89.5	100	91.5
16-Aug-01	11:20	-0.4	-0.4	-0.7	-0.7	0.1	-0.7	100	87.7	82.8	89	100	92
16-Aug-01	11:30	-0.4	-0.7	-0.9	-0.7	0.1	-0.4	99.5	91	83.3	89.5	100	93.2
16-Aug-01	11:40	-0.2	-0.4	-0.7	-0.9	-0.2	-0.9	100	90.4	82.8	89.5	100	94.3
16-Aug-01	11:50	-0.4	-0.7	-0.7	-1.2	0.1	-0.4	100	87.7	82.8	91.1	100	93.7
16-Aug-01	12:00	-0.2	-0.9	-0.9	-0.7	-0.2	-0.4	100	91.6	85.9	92.2	100	93.2
16-Aug-01	12:10	-0.2	-0.9	-0.9	-0.4	-0.4	-0.7	100	88.8	83.3	89.5	100	92
16-Aug-01	12:20	-0.4	-0.9	-0.7	-0.9	0.1	-0.7	99.5	90.4	82.8	89.5	100	92.6
16-Aug-01	12:30	-0.4	-0.9	-0.7	-0.9	0.1	-0.4	99.5	91	84.9	89.5	100	93.7
16-Aug-01	12:40	-0.4	-0.9	-0.7	-1.2	-0.4	-0.7	100	88.3	83.8	91.7	100	93.7
16-Aug-01	12:50	-0.4	-1.4	-0.9	-0.7	-0.2	-0.4	100	91	83.3	92.2	100	94.3
16-Aug-01	13:00	-0.2	-1.2	-0.9	-0.7	0.3	-0.7	100	91	83.3	90	100	93.2
16-Aug-01	13:10	-0.2	-1.2	-0.7	-0.9	-0.4	-0.7	100	88.3	84.9	89.5	100	92
16-Aug-01	13:20	-0.4	-1.2	-0.7	-1.2	-0.2	-0.7	100	91	83.3	89.5	100	93.2
16-Aug-01	13:30	-0.2	-0.9	-0.7	-1.4	0.1	-0.9	99.5	91.6	82.8	91.1	100	93.7
16-Aug-01	13:40	-0.2	-0.9	-0.4	-0.9	0.6	-0.9	100	91	81.7	92.2	100	92
16-Aug-01	13:50	-0.4	-0.4	-0.7	-0.7	1.3	-0.9	100	91.6	83.3	90	100	92.6
16-Aug-01	14:00	-0.4	-0.2	-0.4	-0.9	1.6	-0.9	100	91	82.8	89.5	100	93.7
16-Aug-01	14:10	-0.2	0.6	-0.4	-0.9	2.3	-0.7	100	91	81.7	89.5	100	91.5
16-Aug-01	14:20	-0.2	0.8	-0.4	-1.2	1.8	-0.9	100	91.6	81.2	89.5	100	94.8
16-Aug-01	14:30	-0.2	1.1	-0.7	-1.2	0.8	-0.7	100	88.8	81.2	92.2	100	92.6
16-Aug-01	14:40	-0.4	0.3	-0.7	-0.9	0.1	-0.7	99.5	86.6	83.8	90.6	100	92
16-Aug-01	14:50	0.1	-0.4	-0.4	-0.9	-0.4	-0.9	100	85.5	82.8	90	100	93.2
16-Aug-01	15:00	-0.4	-0.9	-0.9	-0.4	-0.2	-0.4	100	86.1	81.7	89.5	100	96.5
16-Aug-01	15:10	-0.2	-1.4	-0.7	-0.9	-0.2	-0.7	100	86.6	82.8	89.5	100	92.6
16-Aug-01	15:20	0.1	-1.2	-0.7	-0.9	-0.4	-0.7	100	91.6	83.3	89.5	100	92
16-Aug-01	15:30	-0.2	-1.2	-0.7	-1.2	-0.4	-0.4	100	88.3	83.8	89	100	93.2
16-Aug-01	15:40	0.1	-1.7	-0.2	-1.4	0.1	-0.7	100	86.6	83.3	89	100	94.8
16-Aug-01	15:50	-0.2	-1.7	-0.4	-1.2	-0.4	-0.4	100	91.6	83.3	92.2	100	93.7
16-Aug-01	16:00	-0.2	-1.4	-0.2	-0.9	-0.4	0.3	99.5	90.4	83.3	92.2	100	93.2
16-Aug-01	16:10	0.3	-1.2	0.1	-0.9	0.1	0.8	100	91	83.3	89.5	100	93.2
16-Aug-01	16:20	1.1	-1.2	0.3	-0.9	0.1	2.1	100	91	83.3	89.5	100	93.2
16-Aug-01	16:30	1.6	-1.2	0.3	-1.2	-0.4	1.6	97.3	91	84.3	89	100	90.4
16-Aug-01	16:40	0.6	-1.2	0.3	-0.9	0.1	0.6	97.3	91	83.3	92.2	100	90.4
16-Aug-01	16:50	-0.2	-0.9	0.1	-0.7	0.1	-0.4	100	88.3	83.3	90.6	100	90.4
16-Aug-01	17:00	-0.2	-0.9	-0.2	-1.2	-0.4	-0.4	99.5	90.4	82.8	90	100	92.6
16-Aug-01	17:10	0.3	-1.2	-0.4	-0.9	-0.2	-0.4	99.5	91	82.8	90	100	93.7
16-Aug-01	17:20	-0.2	-1.2	-0.4	-0.9	0.1	-0.7	100	87.7	82.8	89.5	100	94.3
16-Aug-01	17:30	-0.2	-1.2	-0.9	-0.9	-0.4	-0.7	100	91.6	82.3	89.5	100	93.2
16-Aug-01	17:40	-0.2	-1.2	-0.7	-0.7	-0.2	-0.4	100	92.7	82.3	89.5	100	92.6
16-Aug-01	17:50	-0.7	-1.2	-0.9	-0.7	-0.2	-0.7	100	89.3	84.3	89.5	100	93.2
16-Aug-01	18:00	-0.4	-0.9	-0.7	-0.7	0.1	-0.7	100	92.1	83.3	90	100	93.7
16-Aug-01	18:10	-0.4	-0.7	-0.9	-0.4	-0.7	-0.7	100	93.2	82.8	90	100	95.4
16-Aug-01	18:20	-0.4	-0.7	-0.7	-0.7	-0.2	-0.7	100	88.3	85.4	90	100	94.3
16-Aug-01	18:30	-0.4	-0.9	-0.7	-0.4	-0.4	-0.7	100	92.1	83.3	90	100	93.2
16-Aug-01	18:40	-0.4	-0.7	-0.7	-0.4	0.1	-0.7	99.5	93.2	81.7	90	100	93.2
16-Aug-01	18:50	-0.4	-0.4	-0.4	-0.4	-0.4	-0.7	100	91.6	84.9	90	100	92.6
16-Aug-01	19:00	-0.4	-0.7	-0.7	-0.2	-0.7	-0.7	100	91	82.3	90	100	93.2
16-Aug-01	19:10	-0.4	-0.9	-0.7	-0.2	-0.2	-0.4	100	92.7	82.8	90	100	95.4

16-Aug-01	19:20	-0.4	-0.7	-0.4	-0.2	0.1	-0.7	100	93.2	83.3	90	100	95.4
16-Aug-01	19:30	-0.4	-0.4	-0.9	-0.2	0.1	-0.7	100	93.2	82.3	90	100	93.7
16-Aug-01	19:40	-0.7	-0.9	-0.4	-0.2	0.6	-0.4	100	89.3	84.9	90	100	93.7
16-Aug-01	19:50	-0.7	-0.9	-0.7	-0.2	0.8	-0.9	100	92.1	82.8	90	100	96
16-Aug-01	20:00	-0.4	-0.7	-0.7	-0.2	1.3	-0.7	100	93.2	83.3	89	100	93.7
16-Aug-01	20:10	-0.7	-0.7	-0.4	-0.4	1.8	-0.7	99.5	93.2	83.8	88.4	100	94.3
16-Aug-01	20:20	-0.4	-0.7	-0.7	-0.9	1.1	-0.7	100	88.8	82.8	88.4	100	96
16-Aug-01	20:30	-0.4	-0.7	-0.7	-0.9	0.3	-0.7	100	92.1	83.3	88.4	100	96
16-Aug-01	20:40	-0.4	-0.4	-0.7	-1.2	-0.4	-0.4	100	93.2	83.3	91.7	100	93.7
16-Aug-01	20:50	-0.4	-0.7	-0.4	-0.7	-0.4	-0.7	100	92.7	81.7	92.2	100	95.4
16-Aug-01	21:00	-0.7	-0.7	-0.9	-0.9	-0.2	-0.4	100	90.4	82.8	89.5	100	96
16-Aug-01	21:10	-0.4	-0.9	-0.7	-0.9	0.1	-0.4	100	92.7	83.3	89	100	95.4
16-Aug-01	21:20	-0.4	-0.4	-0.9	-1.2	-0.7	-0.7	100	93.2	82.3	92.2	100	93.7
16-Aug-01	21:30	-0.4	-0.4	-0.7	-0.7	-0.4	-0.7	100	92.1	83.3	91.7	100	94.8
16-Aug-01	21:40	-0.7	-0.4	-0.7	-0.7	-0.2	-0.4	100	91.6	83.3	90	100	96
16-Aug-01	21:50	-0.7	-0.4	-0.4	-0.9	0.1	-0.4	100	91	83.3	89.5	100	95.4
16-Aug-01	22:00	-0.4	-0.2	-0.2	-1.2	-0.4	-0.7	100	91	83.3	91.7	100	93.2
16-Aug-01	22:10	-0.2	0.3	0.1	-0.9	-0.4	-0.4	100	91.6	83.3	92.2	100	93.7
16-Aug-01	22:20	0.8	0.6	0.1	-0.9	-0.4	-0.4	100	91.6	83.3	91.1	100	96
16-Aug-01	22:30	0.6	0.3	-0.2	-0.9	0.1	-0.9	97.3	91.6	85.4	89.5	100	96
16-Aug-01	22:40	-0.4	0.3	-0.2	-0.9	-0.2	-0.7	100	91.6	83.8	90	100	93.2
16-Aug-01	22:50	-0.7	0.3	-0.2	-0.9	-0.4	-0.4	100	88.8	83.3	89.5	100	95.4
16-Aug-01	23:00	-0.4	-0.2	-0.7	-0.9	-0.4	-0.4	100	89.3	82.8	90	100	96
16-Aug-01	23:10	-0.7	-0.4	-0.9	-1.2	-0.2	-0.7	100	92.1	82.8	92.2	100	96
16-Aug-01	23:20	-0.7	-0.4	-0.7	-0.9	-0.2	-0.4	100	93.2	84.3	91.7	100	93.2
16-Aug-01	23:30	-0.7	-0.7	-0.9	-0.7	-0.4	-0.4	100	88.8	83.8	90.6	100	95.4
16-Aug-01	23:40	-0.7	-0.9	-0.9	-0.7	-0.4	-0.4	100	92.7	83.3	89.5	100	96.5
16-Aug-01	23:50	-0.4	-0.7	-0.9	-1.2	-0.4	-0.7	100	93.2	85.9	90.6	100	94.8
17-Aug-01	00:00	-0.4	-0.7	-0.7	-0.9	-0.2	-0.2	100	91	83.3	92.2	100	94.3
17-Aug-01	00:10	-0.4	-0.7	-0.7	-0.7	-0.2	0.3	100	91	85.4	91.1	100	93.2
17-Aug-01	00:20	-0.7	-0.7	-0.7	-0.7	-0.4	0.8	100	93.2	83.8	89.5	100	92.6
17-Aug-01	00:30	-0.7	-0.4	-0.7	-0.9	-0.7	0.8	100	93.2	84.3	89.5	100	90.9
17-Aug-01	00:40	-0.7	-0.4	-0.9	-0.9	-0.4	-0.2	100	90.4	84.3	92.2	100	90.4
17-Aug-01	00:50	-0.4	-0.7	-0.9	-0.7	-0.2	-0.7	100	91.6	83.3	91.1	100	95.4
17-Aug-01	01:00	-0.7	-0.7	-0.7	-0.7	0.1	-0.4	100	93.2	85.9	90	100	96
17-Aug-01	01:10	-0.7	-0.4	-0.7	-0.7	-0.4	-0.7	100	93.2	83.3	89.5	100	95.4
17-Aug-01	01:20	-0.7	-0.4	-0.7	-1.2	-0.7	-0.7	100	88.8	85.4	92.2	100	93.2
17-Aug-01	01:30	-0.7	-0.9	-0.4	-0.9	-0.2	-0.7	100	91.6	83.3	92.2	100	96
17-Aug-01	01:40	-0.4	-0.7	-0.7	-0.7	0.3	-0.7	100	93.2	85.4	90.6	100	96
17-Aug-01	01:50	-0.4	-0.7	-0.4	-0.7	0.3	-0.4	100	92.7	83.3	89.5	100	93.7
17-Aug-01	02:00	-0.4	-0.4	-0.9	-0.9	1.1	-0.4	100	89.3	84.3	89.5	100	94.3
17-Aug-01	02:10	-0.4	-0.7	-0.4	-1.2	1.6	-0.4	100	91.6	84.3	92.2	100	96.5
17-Aug-01	02:20	-0.4	-0.4	-0.7	-0.7	0.8	-0.7	100	93.2	84.3	91.1	100	96
17-Aug-01	02:30	-0.7	-0.4	-0.7	-0.7	0.1	-0.4	100	92.1	85.4	89.5	100	93.2
17-Aug-01	02:40	-0.4	-0.2	-0.7	-0.7	-0.4	-0.7	100	89.3	82.8	90	100	96
17-Aug-01	02:50	-0.4	-0.7	-0.7	-0.7	-0.4	-0.7	100	91.6	85.9	89.5	100	96
17-Aug-01	03:00	-0.4	-0.4	-0.7	-0.7	-0.2	-0.7	100	93.2	83.3	90	100	93.2
17-Aug-01	03:10	-0.4	-0.4	-0.9	-0.9	0.1	-0.4	100	92.1	85.4	92.2	100	96.5
17-Aug-01	03:20	-0.4	-0.4	-0.4	-0.9	-0.7	-0.7	100	88.8	83.8	92.2	100	96

17-Aug-01	03:30	-0.7	-0.7	-0.7	-0.7	-0.4	-0.7	100	91.6	83.8	91.1	100	93.7
17-Aug-01	03:40	-0.4	-0.4	-0.7	-0.7	-0.2	-0.7	100	93.2	83.8	89.5	100	96
17-Aug-01	03:50	-0.4	-0.4	-0.2	-0.9	0.1	-0.4	100	92.1	83.8	90	100	96
17-Aug-01	04:00	-0.7	-0.4	-0.2	-0.9	-0.2	-0.4	100	90.4	83.3	92.2	100	96
17-Aug-01	04:10	-0.2	-0.7	0.1	-0.7	-0.4	-0.7	100	92.1	83.3	91.1	100	94.8
17-Aug-01	04:20	0.8	-0.4	-0.2	-0.7	-0.4	-0.4	100	92.1	83.8	89.5	100	94.3
17-Aug-01	04:30	0.3	-0.4	0.1	-0.7	-0.2	-0.4	98.4	91.6	84.3	89.5	100	96
17-Aug-01	04:40	-0.4	-0.4	-0.4	-0.9	-0.2	-0.7	100	91	83.3	92.2	100	96
17-Aug-01	04:50	-0.4	-0.4	-0.7	-0.7	-0.2	-0.4	100	89.9	83.3	91.1	100	93.2
17-Aug-01	05:00	-0.7	-0.4	-0.9	-0.4	-0.4	-0.7	100	92.1	83.3	90.6	100	96.5
17-Aug-01	05:10	-0.7	-0.4	-0.7	-0.9	-0.7	-0.4	100	92.1	86.5	89.5	100	96
17-Aug-01	05:20	-0.4	-0.7	-0.7	-0.9	-0.2	-0.7	100	88.8	83.3	91.1	100	95.4
17-Aug-01	05:30	-0.7	-0.7	-0.7	-0.9	0.1	-0.4	100	91	85.9	92.2	100	93.7
17-Aug-01	05:40	-0.4	-0.7	-0.7	-0.9	-0.4	-0.7	100	91.6	83.8	91.1	100	96
17-Aug-01	05:50	-0.4	-0.4	-0.9	-0.4	-0.7	-0.7	100	91.6	85.4	90	100	96
17-Aug-01	06:00	-0.7	-0.2	-0.4	-0.9	-0.4	-0.7	100	91.6	84.9	89	100	93.7
17-Aug-01	06:10	-0.7	0.1	-0.7	-1.2	-0.2	-0.7	100	91.6	83.8	92.2	100	95.4
17-Aug-01	06:20	-0.4	0.3	-0.7	-0.7	0.1	-0.4	100	91.6	85.9	91.1	100	96
17-Aug-01	06:30	-0.7	0.3	-0.7	-0.4	-0.2	-0.4	100	88.8	83.3	90.6	100	96
17-Aug-01	06:40	-0.7	-0.2	-0.7	-0.9	-0.7	-0.7	100	88.8	85.9	89.5	100	93.7
17-Aug-01	06:50	-0.4	-0.4	-0.7	-1.2	-0.4	-0.7	100	91.6	83.8	92.2	100	95.4
17-Aug-01	07:00	-0.4	-0.2	-0.9	-1.2	-0.4	-0.7	100	92.7	85.9	92.2	100	96
17-Aug-01	07:10	-0.7	-0.2	-0.4	-0.7	-0.2	-0.7	100	88.3	83.3	90.6	100	96
17-Aug-01	07:20	-0.7	-0.7	-0.7	-0.4	-0.4	-0.7	100	91.6	85.4	90	100	94.8
17-Aug-01	07:30	-0.7	-0.4	-0.4	-0.9	-0.2	-0.4	100	92.7	84.3	90	100	93.7
17-Aug-01	07:40	-0.7	-0.2	-0.7	-1.2	-0.2	-0.4	100	89.3	84.9	92.2	100	96.5
17-Aug-01	07:50	-0.4	-0.4	-0.4	-0.7	0.3	-0.4	100	91.6	85.9	91.1	100	94.3
17-Aug-01	08:00	-0.4	-0.7	-0.7	-0.4	1.1	0.1	100	92.7	83.3	90	100	94.3
17-Aug-01	08:10	-0.9	-0.4	-0.7	-0.9	1.6	0.6	100	90.4	85.9	89.5	100	94.3
17-Aug-01	08:20	-0.4	-0.7	-0.7	-0.9	1.1	1.3	100	91	83.3	92.2	100	93.7
17-Aug-01	08:30	-0.7	-0.7	-0.7	-0.9	0.3	1.6	100	92.7	85.9	91.7	100	90.4
17-Aug-01	08:40	-0.9	-0.4	-0.7	-0.4	-0.7	0.3	100	89.3	83.3	90.6	100	90.4
17-Aug-01	08:50	-0.4	-0.7	-0.7	-0.7	-0.7	-0.4	100	91	85.4	90	100	92.6
17-Aug-01	09:00	-0.4	-0.4	-0.7	-0.4	0.1	-0.7	100	93.2	83.8	90	100	92
17-Aug-01	09:10	-0.4	-0.4	-0.7	-0.7	-0.2	-0.7	100	89.9	83.3	89.5	100	92.6
17-Aug-01	09:20	-0.7	-0.7	-0.7	-0.4	-0.7	-0.7	100	90.4	85.4	89.5	100	93.2
17-Aug-01	09:30	-0.7	-0.7	-0.4	-0.4	-0.2	-0.4	100	92.7	84.9	89.5	100	93.2
17-Aug-01	09:40	-0.9	-0.4	-0.2	-0.4	-0.2	-0.4	100	89.9	84.3	90	100	93.2
17-Aug-01	09:50	-0.4	-0.7	-0.4	-0.4	-0.4	-0.7	100	90.4	83.8	90	100	93.2
17-Aug-01	10:00	-0.9	-0.7	-0.2	-0.7	0.1	-0.7	100	92.7	83.8	89.5	100	96
17-Aug-01	10:10	-0.2	-0.4	0.1	-0.7	0.1	-0.7	100	91	83.8	89.5	100	95.4
17-Aug-01	10:20	1.3	-0.4	0.1	-0.4	-0.4	-0.4	100	91	83.8	89.5	100	93.7
17-Aug-01	10:30	0.6	-0.4	0.1	-0.4	-0.2	-0.4	97.3	91	85.4	89.5	100	92.6
17-Aug-01	10:40	-0.2	-0.4	-0.2	-0.2	0.1	-0.7	100	91	83.8	90	100	92.6
17-Aug-01	10:50	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	100	88.8	83.8	90	100	93.2
17-Aug-01	11:00	-0.2	-0.7	-0.7	-0.4	-0.2	-0.7	100	90.4	82.8	89.5	100	93.2
17-Aug-01	11:10	-0.4	-0.7	-0.7	-0.7	0.1	-0.9	100	92.1	82.8	89	100	93.7
17-Aug-01	11:20	-0.2	-0.4	-0.4	-0.9	0.1	-0.7	100	87.7	82.8	89	100	93.7
17-Aug-01	11:30	-0.2	-0.9	-0.7	-0.9	-0.2	-0.7	100	91	82.3	88.4	100	92

17-Aug-01	11:40	-0.4	-0.7	-0.7	-1.2	0.1	-0.7	99.5	91	82.3	88.4	100	92.6
17-Aug-01	11:50	-0.2	-0.9	-0.7	-1.2	-0.2	-0.7	100	88.3	82.3	88.4	100	94.8
17-Aug-01	12:00	-0.4	-0.9	-0.7	-1.2	-0.4	-0.4	100	89.9	81.7	90.6	100	94.8
17-Aug-01	12:10	-0.2	-1.2	-0.7	-0.9	0.3	-0.7	100	91	81.7	91.7	100	91.5
17-Aug-01	12:20	-0.4	-1.2	-0.7	-0.9	-0.2	-0.7	100	88.3	81.7	89.5	100	93.2
17-Aug-01	12:30	-0.4	-1.2	-0.7	-0.9	-0.2	-0.7	98.9	87.7	81.7	89.5	100	93.7
17-Aug-01	12:40	-0.4	-1.2	-0.7	-0.9	0.1	-0.9	100	91.6	83.3	89	100	93.2
17-Aug-01	12:50	-0.4	-0.9	-0.7	-1.2	0.1	-0.7	100	88.3	82.8	89	100	92
17-Aug-01	13:00	-0.2	-1.2	-0.7	-1.2	-0.2	-0.7	100	88.8	81.7	90.6	100	93.2
17-Aug-01	13:10	-0.2	-0.9	-0.7	-1.2	-0.2	-0.7	100	91.6	81.2	92.2	100	91.5
17-Aug-01	13:20	-0.4	-0.9	-0.9	-0.9	0.1	-0.9	100	87.7	81.2	89.5	100	93.7
17-Aug-01	13:30	-0.2	-0.9	-0.9	-0.7	0.6	-0.7	100	88.3	81.2	89.5	100	91.5
17-Aug-01	13:40	-0.4	-0.9	-0.9	-0.9	0.8	-0.9	100	88.8	80.7	89	100	91.5
17-Aug-01	13:50	-0.4	-0.4	-0.7	-1.2	1.3	-0.9	100	89.3	80.7	89	100	92.6
17-Aug-01	14:00	-0.4	0.1	-1.2	-1.2	1.8	-1.2	100	88.8	80.7	91.1	100	90.9
17-Aug-01	14:10	-0.2	0.8	-1.2	-0.9	2.3	-0.9	100	88.8	80.7	92.2	100	92.6
17-Aug-01	14:20	-0.4	1.1	-0.9	-0.7	1.8	-0.9	100	89.9	80.7	90	100	93.2
17-Aug-01	14:30	-0.4	1.6	-0.9	-1.2	0.6	-0.9	100	87.7	80.7	89.5	100	93.7
17-Aug-01	14:40	-0.2	0.6	-0.9	-1.2	0.1	-0.7	100	85	80.7	90	99.5	91.5
17-Aug-01	14:50	-0.4	0.1	-0.9	-1.2	-0.4	-1.2	100	85.5	80.7	89.5	100	93.2
17-Aug-01	15:00	-0.4	-0.4	-0.9	-0.7	0.1	-0.9	98.9	85.5	80.7	90	100	91.5
17-Aug-01	15:10	-0.4	-0.9	-1.2	-1.2	0.1	-0.9	100	85.5	80.7	89.5	100	94.3
17-Aug-01	15:20	-0.7	-1.2	-0.9	-1.2	-0.7	-0.7	99.5	90.4	81.2	90	100	90.9
17-Aug-01	15:30	-0.7	-1.2	-0.7	-0.9	-0.4	-0.9	100	87.2	81.7	92.2	100	94.3
17-Aug-01	15:40	-0.4	-1.4	-0.4	-0.7	0.1	-0.7	100	85.5	81.7	90	100	92.6
17-Aug-01	15:50	-0.2	-1.2	-0.2	-1.2	-0.2	-0.7	100	91	81.7	89.5	100	93.2
17-Aug-01	16:00	-0.2	-1.2	-0.2	-1.2	-0.4	-0.2	100	88.8	82.3	89.5	100	93.2
17-Aug-01	16:10	0.1	-0.9	-0.2	-0.9	0.1	0.6	100	89.9	82.3	92.2	100	96.5
17-Aug-01	16:20	1.1	-0.9	0.1	-0.7	0.1	1.8	100	89.9	82.8	90	100	97.7
17-Aug-01	16:30	2.1	-0.7	-0.2	-1.2	-0.4	1.8	100	89.9	85.4	89.5	100	89.8
17-Aug-01	16:40	0.8	-0.7	0.1	-1.2	-0.4	0.3	97.3	89.9	83.3	91.1	100	89.8
17-Aug-01	16:50	0.1	-0.9	0.1	-1.2	0.1	-0.2	100	88.8	83.3	91.7	100	90.4
17-Aug-01	17:00	0.1	-0.9	-0.2	-0.7	-0.2	-0.7	99.5	91	82.8	90	100	92
17-Aug-01	17:10	0.1	-0.7	-0.4	-0.7	-0.4	-0.7	100	90.4	82.3	90	100	90.9
17-Aug-01	17:20	-0.4	-1.2	-0.4	-0.4	0.1	-0.7	100	88.8	82.3	90	100	93.2
17-Aug-01	17:30	-0.2	-0.7	-0.7	-0.4	-0.2	-0.7	100	91.6	81.7	89.5	100	94.3
17-Aug-01	17:40	-0.4	-0.9	-0.9	-0.4	-0.7	-0.7	100	89.3	81.7	89.5	100	92
17-Aug-01	17:50	-0.4	-1.2	-1.2	-0.4	-0.2	-0.9	100	90.4	81.7	89.5	100	92
17-Aug-01	18:00	-0.4	-1.2	-1.2	-0.4	0.1	-0.7	100	92.1	81.7	90	100	93.2
17-Aug-01	18:10	-0.4	-0.7	-0.9	-0.4	0.1	-0.7	100	92.1	83.3	90	100	94.8
17-Aug-01	18:20	-0.4	-0.9	-0.7	-0.4	-0.4	-0.9	100	89.3	83.3	90	100	92
17-Aug-01	18:30	-0.4	-0.9	-0.7	-0.7	-0.4	-0.7	100	92.1	81.7	89.5	100	92.6
17-Aug-01	18:40	-0.4	-0.9	-1.2	-0.7	-0.2	-0.7	100	92.7	81.2	89.5	100	93.2
17-Aug-01	18:50	-0.2	-0.7	-0.9	-0.7	0.1	-0.7	100	89.3	83.8	89.5	100	94.8
17-Aug-01	19:00	-0.4	-0.9	-0.9	-0.4	-0.4	-0.7	100	91.6	82.3	89.5	100	93.2
17-Aug-01	19:10	-0.4	-0.7	-1.2	-0.4	-0.7	-0.7	100	92.1	81.7	89.5	100	96
17-Aug-01	19:20	-0.4	-0.7	-0.7	-0.4	-0.2	-0.9	100	92.7	84.3	89.5	100	94.3
17-Aug-01	19:30	-0.7	-0.7	-0.9	-0.4	0.1	-0.4	100	88.3	82.3	89.5	100	95.4
17-Aug-01	19:40	-0.7	-0.7	-1.2	-0.4	0.3	-0.7	100	91.6	83.3	89.5	100	95.4

17-Aug-01	19:50	-0.7	-0.7	-0.7	-0.4	0.8	-0.7	100	92.7	83.3	89.5	100	93.7
17-Aug-01	20:00	-0.7	-0.7	-0.9	-0.4	1.1	-0.4	100	92.7	81.7	89.5	100	93.7
17-Aug-01	20:10	-0.7	-0.4	-0.9	-0.7	1.6	-0.9	100	88.3	83.3	88.4	100	96
17-Aug-01	20:20	-0.7	-0.9	-0.7	-0.7	1.1	-0.7	100	91.6	83.8	88.4	100	94.8
17-Aug-01	20:30	-0.9	-0.9	-0.7	-1.2	0.1	-0.7	100	92.7	82.8	88.4	100	93.2
17-Aug-01	20:40	-0.9	-0.7	-0.7	-1.4	-0.7	-0.7	100	92.7	82.3	91.7	100	96
17-Aug-01	20:50	-0.7	-0.4	-0.7	-0.7	-0.7	-0.7	100	91.6	81.7	92.2	100	95.4
17-Aug-01	21:00	-0.7	-0.7	-0.7	-0.7	-0.2	-0.7	100	90.4	83.8	90	100	93.2
17-Aug-01	21:10	-0.4	-0.9	-0.7	-0.9	-0.2	-0.7	100	92.1	82.8	89	100	96
17-Aug-01	21:20	-0.7	-0.7	-0.9	-1.2	-0.4	-0.7	100	92.7	82.3	92.2	100	96
17-Aug-01	21:30	-0.9	-0.7	-0.7	-0.9	-0.4	-0.7	100	92.1	82.8	92.2	100	93.2
17-Aug-01	21:40	-0.7	-0.4	-0.7	-0.4	-0.4	-0.7	100	91.6	82.8	90	100	95.4
17-Aug-01	21:50	-0.7	-0.2	-0.4	-0.7	-0.2	-0.7	100	91.6	82.8	89.5	100	96
17-Aug-01	22:00	-0.7	0.1	-0.2	-1.2	-0.2	-0.7	100	91.6	82.8	91.7	100	93.7
17-Aug-01	22:10	-0.4	0.1	-0.2	-0.9	-0.4	-0.7	100	91	82.8	92.2	100	94.8
17-Aug-01	22:20	0.6	0.3	-0.2	-0.7	-0.4	-0.7	100	91	82.8	90	100	96
17-Aug-01	22:30	0.3	0.6	-0.2	-0.9	-0.4	-0.4	97.8	91.6	84.3	89.5	100	93.7
17-Aug-01	22:40	-0.7	0.6	-0.2	-0.9	-0.2	-0.7	100	91.6	83.3	90	100	94.3
17-Aug-01	22:50	-0.7	0.1	-0.7	-0.9	-0.2	-0.7	100	88.8	82.8	90	100	96
17-Aug-01	23:00	-0.7	-0.4	-0.7	-0.7	-0.7	-0.4	100	90.4	82.8	90.6	100	93.7
17-Aug-01	23:10	-0.4	-0.4	-0.9	-0.9	-0.7	-0.7	100	92.1	85.4	89.5	100	95.4
17-Aug-01	23:20	-0.7	-0.4	-0.7	-1.2	-0.4	-0.7	100	92.1	83.3	91.1	100	96
17-Aug-01	23:30	-0.4	-0.4	-0.9	-0.9	-0.2	-0.7	100	88.3	83.3	92.2	100	93.2
17-Aug-01	23:40	-0.7	-0.4	-0.7	-0.7	0.1	-0.7	100	92.1	85.4	91.1	100	95.4
17-Aug-01	23:50	-0.7	-0.7	-0.7	-0.7	-0.7	-0.4	100	92.7	83.3	90	100	93.7
18-Aug-01	00:00	-0.4	-0.4	-0.7	-1.2	-0.7	-0.2	100	92.1	83.8	89.5	100	93.7
18-Aug-01	00:10	-0.4	-0.4	-0.4	-1.2	-0.4	0.3	100	88.8	83.8	92.2	100	93.7
18-Aug-01	00:20	-0.4	-0.7	-0.7	-0.7	-0.2	0.8	100	91.6	82.8	91.1	100	92.6
18-Aug-01	00:30	-0.7	-0.7	-0.7	-0.7	-0.2	0.8	100	92.7	85.4	89.5	100	90.9
18-Aug-01	00:40	-0.4	-0.4	-0.7	-0.9	-0.2	-0.2	100	91.6	83.8	89.5	100	90.4
18-Aug-01	00:50	-0.7	-0.4	-0.9	-0.9	-0.4	-0.7	100	89.3	83.3	92.2	100	93.2
18-Aug-01	01:00	-0.7	-0.7	-0.9	-0.9	-0.7	-0.7	100	91.6	85.4	91.7	100	96
18-Aug-01	01:10	-0.4	-0.7	-0.7	-0.4	-0.2	-0.4	100	92.7	83.8	90.6	100	93.2
18-Aug-01	01:20	-0.7	-0.4	-0.9	-0.9	-0.2	-0.4	100	92.1	84.3	89.5	100	96
18-Aug-01	01:30	-0.7	-0.4	-0.7	-1.2	0.1	-0.4	100	90.4	83.8	91.7	100	96
18-Aug-01	01:40	-0.4	-0.7	-0.9	-0.9	0.6	-0.7	100	91	83.8	92.2	100	93.2
18-Aug-01	01:50	-0.7	-0.7	-0.7	-0.9	0.6	-0.4	100	92.1	84.3	91.1	100	96.5
18-Aug-01	02:00	-0.7	-0.4	-0.7	-0.9	1.1	-0.7	100	92.1	82.8	89.5	100	95.4
18-Aug-01	02:10	-0.7	-0.2	-0.7	-1.2	1.6	-0.7	100	91	84.9	91.1	100	94.3
18-Aug-01	02:20	-0.7	-0.7	-0.7	-0.9	1.1	-0.7	100	90.4	82.8	92.2	100	96
18-Aug-01	02:30	-0.9	-0.7	-0.7	-0.9	0.1	-0.4	100	92.1	84.9	91.1	100	94.3
18-Aug-01	02:40	-0.7	-0.7	-0.7	-0.7	-0.7	-0.4	100	92.7	83.8	90	100	93.7
18-Aug-01	02:50	-0.7	-0.4	-0.9	-0.7	-0.4	-0.7	100	91.6	83.8	90	100	96
18-Aug-01	03:00	-0.7	-0.4	-0.4	-0.7	-0.4	-0.7	99.5	88.8	84.3	89.5	100	94.8
18-Aug-01	03:10	-0.4	-0.4	-0.9	-0.9	-0.2	-0.4	100	92.1	83.3	90	100	93.7
18-Aug-01	03:20	-0.9	-0.7	-0.7	-1.2	-0.2	-0.4	100	92.1	85.4	92.8	100	96
18-Aug-01	03:30	-0.9	-0.4	-0.7	-0.7	-0.4	-0.7	100	91.6	84.3	91.1	100	95.4
18-Aug-01	03:40	-0.7	-0.4	-0.4	-0.7	-0.7	-0.7	100	88.3	83.8	90	100	93.2
18-Aug-01	03:50	-0.9	-0.7	-0.4	-0.9	-0.2	-0.4	100	91.6	83.3	89.5	100	96

18-Aug-01	04:00	-0.7	-0.7	-0.2	-1.2	-0.2	-0.7	100	92.7	83.3	92.2	100	95.4
18-Aug-01	04:10	-0.7	-0.7	-0.4	-0.9	-0.2	-0.4	100	91.6	83.8	91.7	100	93.2
18-Aug-01	04:20	0.6	-0.2	0.1	-0.7	-0.7	-0.4	100	91.6	83.3	90.6	100	96
18-Aug-01	04:30	-0.2	-0.2	0.1	-0.7	-0.4	-0.4	97.8	90.4	83.8	89.5	100	96.5
18-Aug-01	04:40	-0.4	-0.4	-0.2	-1.2	-0.2	-0.4	100	91.6	83.3	91.7	100	93.7
18-Aug-01	04:50	-0.4	-0.4	-0.7	-0.7	-0.2	-0.4	100	91.6	82.8	92.2	100	96
18-Aug-01	05:00	-0.4	-0.4	-0.7	-0.9	-0.2	-0.7	100	91.6	83.3	91.1	100	96
18-Aug-01	05:10	-0.9	-0.2	-0.7	-0.7	-0.4	-0.7	100	89.3	84.3	89.5	100	93.2
18-Aug-01	05:20	-0.7	-0.4	-0.7	-0.9	-0.7	-0.4	100	91	83.3	89.5	100	96
18-Aug-01	05:30	-0.4	-0.7	-0.7	-1.2	-0.2	-0.4	100	91	85.4	92.8	100	96
18-Aug-01	05:40	-0.7	-0.7	-0.4	-0.7	-0.4	-0.4	100	91.6	82.8	91.7	100	93.2
18-Aug-01	05:50	-0.7	-0.2	-0.7	-0.7	-0.2	-0.4	100	91.6	84.9	90	100	96
18-Aug-01	06:00	-0.7	0.1	-0.7	-0.7	-0.4	-0.7	100	91.6	83.3	89.5	100	96
18-Aug-01	06:10	-0.7	0.1	-0.9	-1.2	-0.7	-0.4	100	91.6	84.3	92.2	100	93.7
18-Aug-01	06:20	-0.9	0.3	-0.4	-0.9	-0.7	-0.7	100	91.6	84.3	92.2	100	96
18-Aug-01	06:30	-0.9	0.3	-0.7	-0.7	-0.2	-0.7	100	87.7	83.8	90.6	100	96
18-Aug-01	06:40	-0.7	-0.2	-0.7	-0.9	0.1	-0.4	100	89.9	85.4	89.5	100	94.3
18-Aug-01	06:50	-0.9	-0.4	-0.9	-0.9	-0.4	-0.4	100	92.1	82.8	90.6	100	94.3
18-Aug-01	07:00	-0.7	-0.4	-0.9	-1.2	-0.4	-0.7	100	92.7	85.4	92.2	100	96
18-Aug-01	07:10	-0.9	-0.2	-0.9	-0.7	-0.7	-0.4	100	91	83.3	91.1	100	94.8
18-Aug-01	07:20	-0.9	-0.7	-0.7	-0.7	-0.2	-0.7	100	91	84.9	89.5	100	93.7
18-Aug-01	07:30	-0.9	-0.7	-0.4	-0.9	-0.2	-0.7	100	92.7	83.3	89.5	100	96
18-Aug-01	07:40	-0.7	-0.4	-0.7	-1.2	0.1	-0.4	100	92.1	83.8	92.2	100	96
18-Aug-01	07:50	-0.9	-0.4	-0.9	-0.9	0.6	-0.4	100	88.8	85.4	91.7	100	94.8
18-Aug-01	08:00	-0.7	-0.7	-0.7	-0.7	1.1	0.1	100	91	83.3	90.6	100	94.3
18-Aug-01	08:10	-0.9	-0.7	-0.9	-0.7	1.6	0.8	100	92.7	85.4	90.6	100	93.7
18-Aug-01	08:20	-0.9	-0.4	-0.9	-0.7	0.8	1.3	100	92.1	83.3	90	100	92.6
18-Aug-01	08:30	-0.7	-0.7	-0.7	-0.7	0.1	1.3	100	88.8	84.3	90	100	89.8
18-Aug-01	08:40	-0.7	-0.7	-0.4	-0.4	-0.7	0.1	100	92.1	83.3	90	100	90.4
18-Aug-01	08:50	-0.4	-0.4	-0.9	-0.4	-0.4	-0.7	100	93.2	84.3	90	100	90.4
18-Aug-01	09:00	-0.7	-0.4	-0.4	-0.4	-0.4	-0.4	100	89.3	83.8	90	100	92.6
18-Aug-01	09:10	-0.7	-0.9	-0.7	-0.4	0.1	-0.4	100	91	82.8	90	100	94.8
18-Aug-01	09:20	-0.7	-0.7	-0.7	-0.4	-0.4	-0.4	100	93.2	85.4	90	100	95.4
18-Aug-01	09:30	-0.4	-0.4	-0.4	-0.4	-0.7	-0.7	100	90.4	84.9	90	100	94.3
18-Aug-01	09:40	-0.7	-0.7	-0.7	-0.4	-0.2	-0.4	100	91.6	84.3	90	100	92.6
18-Aug-01	09:50	-0.7	-0.7	-0.4	-0.4	0.1	-0.7	100	93.2	83.8	90	100	93.7
18-Aug-01	10:00	-0.4	-0.7	-0.4	-0.4	0.1	-0.7	100	90.4	83.3	90	100	96
18-Aug-01	10:10	-0.4	-0.9	0.1	-0.4	-0.7	-0.7	100	91	83.3	90	100	94.3
18-Aug-01	10:20	0.8	-0.7	0.1	-0.4	-0.4	-0.7	100	91.6	83.3	90	100	92.6
18-Aug-01	10:30	0.6	-0.9	0.1	-0.4	0.1	-0.7	96.7	91.6	83.8	90	100	93.2
18-Aug-01	10:40	-0.2	-0.9	-0.4	-0.2	0.1	-0.4	100	91.6	83.3	90	100	95.4
18-Aug-01	10:50	-0.2	-0.9	-0.4	-0.4	-0.4	-0.7	100	88.8	82.8	90	100	92.6
18-Aug-01	11:00	-0.4	-0.7	-0.4	-0.4	-0.7	-0.7	100	92.1	82.8	90	100	93.2
18-Aug-01	11:10	-0.4	-0.7	-0.9	-0.4	-0.2	-0.4	100	91.6	82.8	89.5	100	93.2
18-Aug-01	11:20	-0.4	-0.9	-0.9	-0.9	0.1	-0.7	100	88.8	82.3	89	100	95.4
18-Aug-01	11:30	-0.4	-0.9	-0.9	-0.9	-0.4	-0.9	100	92.7	82.3	89.5	100	92
18-Aug-01	11:40	-0.7	-0.7	-0.9	-1.2	-0.4	-0.4	100	89.3	84.9	91.7	100	93.2
18-Aug-01	11:50	-0.4	-0.9	-0.9	-0.9	-0.2	-0.7	100	91.6	83.3	92.8	100	95.4
18-Aug-01	12:00	-0.4	-0.9	-1.2	-0.7	0.1	-0.9	100	93.2	82.8	90.6	100	93.2

18-Aug-01	12:10	-0.4	-1.2	-0.9	-0.9	-0.4	-0.9	100	88.8	83.3	90	100	92.6
18-Aug-01	12:20	-0.4	-1.2	-0.7	-1.2	-0.4	-0.7	100	91.6	84.3	89.5	100	93.2
18-Aug-01	12:30	-0.4	-0.9	-0.9	-1.2	-0.4	-0.9	100	92.7	82.8	92.8	100	94.3
18-Aug-01	12:40	-0.2	-1.2	-1.2	-0.7	0.1	-0.9	100	88.8	83.8	92.2	100	92
18-Aug-01	12:50	-0.4	-0.9	-0.7	-0.7	-0.7	-0.7	100	92.1	83.3	90	100	93.2
18-Aug-01	13:00	-0.4	-0.9	-0.9	-1.2	-0.4	-0.7	99.5	93.2	82.8	89.5	100	93.2
18-Aug-01	13:10	-0.4	-1.2	-1.2	-1.2	-0.2	-0.7	100	88.8	83.8	92.2	100	93.7
18-Aug-01	13:20	-0.4	-0.9	-0.9	-0.7	0.1	-0.7	100	92.1	83.3	92.2	100	94.8
18-Aug-01	13:30	-0.4	-0.7	-0.9	-0.7	0.3	-0.9	100	92.1	82.3	90	100	93.7
18-Aug-01	13:40	-0.4	-0.4	-0.7	-0.9	0.6	-0.7	100	91.6	84.9	90	100	92.6
18-Aug-01	13:50	-0.4	-0.4	-0.9	-1.4	0.8	-0.7	100	91	83.3	91.7	100	93.2
18-Aug-01	14:00	-0.7	-0.2	-0.9	-1.2	1.3	-0.9	100	91	82.8	92.8	100	92
18-Aug-01	14:10	-0.4	0.3	-0.7	-0.4	2.1	-0.7	100	91.6	84.9	90.6	100	92.6
18-Aug-01	14:20	-0.7	0.6	-0.7	-0.9	1.6	-0.9	100	93.2	82.8	90	100	94.8
18-Aug-01	14:30	-0.7	0.8	-0.7	-1.4	0.3	-0.7	100	89.3	83.3	91.1	100	92
18-Aug-01	14:40	-0.7	0.1	-0.7	-0.9	-0.4	-0.7	99.5	86.1	84.3	91.1	100	92.6
18-Aug-01	14:50	-0.7	-0.7	-0.9	-0.9	-0.7	-0.7	100	89.3	82.8	90.6	100	94.8
18-Aug-01	15:00	-0.7	-0.7	-0.9	-0.9	-0.7	-0.7	100	92.1	81.7	90	100	92
18-Aug-01	15:10	-0.2	-0.7	-0.9	-0.7	-0.2	-0.7	100	88.8	84.9	90	100	93.2
18-Aug-01	15:20	-0.4	-0.9	-0.7	-1.2	-0.4	-0.7	100	91	83.3	90	100	93.2
18-Aug-01	15:30	-0.4	-0.7	-0.9	-0.9	-0.7	-0.7	99.5	92.7	83.3	92.2	100	91.5
18-Aug-01	15:40	-0.4	-0.7	-0.7	-0.7	-0.4	-0.7	100	88.8	83.3	92.2	100	93.7
18-Aug-01	15:50	-0.7	-0.9	-0.7	-0.7	-0.2	-0.4	100	91	83.3	90	100	93.7
18-Aug-01	16:00	-0.7	-0.7	-0.2	-0.9	-0.2	-0.2	100	93.2	83.3	90	100	93.7
18-Aug-01	16:10	-0.2	-0.7	-0.2	-1.2	-0.4	0.6	100	91	83.3	92.2	100	96.5
18-Aug-01	16:20	0.6	-0.9	0.1	-1.2	-0.4	1.6	100	91	83.3	92.8	100	97.1
18-Aug-01	16:30	0.8	-0.7	-0.2	-0.4	-0.2	1.3	98.4	91.6	84.3	90.6	100	90.4
18-Aug-01	16:40	-0.2	-0.9	-0.2	-0.9	0.1	0.1	100	91.6	83.3	90	100	90.4
18-Aug-01	16:50	-0.4	-0.9	-0.4	-0.9	-0.7	-0.4	100	90.4	83.3	91.1	100	90.9
18-Aug-01	17:00	-0.4	-0.9	-0.9	-1.2	-0.4	-0.7	100	92.7	82.8	91.7	100	94.3
18-Aug-01	17:10	-0.7	-0.7	-0.7	-1.2	0.1	-0.7	100	89.9	82.8	91.1	100	94.8
18-Aug-01	17:20	-0.4	-0.7	-1.2	-0.7	0.1	-0.7	100	91.6	82.8	90.6	100	92.6
18-Aug-01	17:30	-0.7	-0.7	-0.9	-0.7	-0.7	-0.7	100	93.2	85.4	90.6	100	93.2
18-Aug-01	17:40	-0.7	-0.7	-0.7	-0.4	-0.4	-0.9	100	88.3	83.3	90.6	100	94.8
18-Aug-01	17:50	-0.7	-1.2	-0.9	-0.4	-0.2	-0.7	99.5	92.1	83.3	90.6	100	93.2
18-Aug-01	18:00	-0.7	-0.7	-0.7	-0.7	-0.2	-0.7	100	93.2	85.4	90	100	96
18-Aug-01	18:10	-0.7	-0.7	-0.7	-0.7	-0.4	-0.7	100	88.3	82.8	90	100	95.4
18-Aug-01	18:20	-0.4	-0.9	-0.9	-0.7	-0.4	-0.9	100	91.6	84.3	90	100	93.2
18-Aug-01	18:30	-0.7	-0.7	-0.7	-0.7	-0.4	-0.7	100	93.2	83.8	90	100	96
18-Aug-01	18:40	-0.7	-0.4	-0.7	-0.4	-0.2	-0.7	100	90.4	82.8	90	100	95.4
18-Aug-01	18:50	-0.7	-0.7	-0.9	-0.4	-0.4	-0.4	100	91.6	85.4	90	100	93.7
18-Aug-01	19:00	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	100	93.2	83.3	90	100	96
18-Aug-01	19:10	-0.7	-0.7	-0.9	-0.4	-0.7	-0.9	99.5	93.2	83.8	90	100	95.4
18-Aug-01	19:20	-0.7	-0.7	-0.7	-0.4	-0.2	-0.4	100	89.3	84.9	90	100	93.7
18-Aug-01	19:30	-0.7	-0.9	-0.7	-0.2	-0.2	-0.7	100	92.7	82.8	90	100	96
18-Aug-01	19:40	-0.7	-0.7	-0.9	-0.2	0.3	-0.7	100	93.2	84.9	90	100	94.3
18-Aug-01	19:50	-0.7	-0.4	-0.7	-0.4	0.6	-0.4	100	89.3	83.3	90	100	93.7
18-Aug-01	20:00	-0.4	-0.9	-0.9	-0.2	1.3	-0.7	100	91.6	83.3	90	100	96
18-Aug-01	20:10	-0.7	-0.7	-0.9	-0.4	1.6	-0.7	100	93.2	85.4	89	100	93.7

18-Aug-01	20:20	-0.9	-0.4	-0.9	-0.9	1.3	-0.4	100	91	83.3	89	100	95.4
18-Aug-01	20:30	-0.7	-0.9	-0.7	-1.2	0.3	-0.7	100	91	84.3	89	100	96
18-Aug-01	20:40	-0.7	-0.7	-0.7	-1.2	-0.7	-0.7	100	93.2	83.8	92.8	100	93.7
18-Aug-01	20:50	-0.7	-0.7	-0.7	-0.9	-0.7	-0.4	100	93.2	82.8	92.8	100	95.4
18-Aug-01	21:00	-0.9	-0.7	-0.9	-0.7	-0.2	-0.7	100	88.8	85.4	90	100	96
18-Aug-01	21:10	-0.7	-0.9	-0.9	-1.2	-0.2	-0.4	100	92.7	83.3	89.5	100	93.7
18-Aug-01	21:20	-0.9	-0.7	-0.9	-1.2	-0.7	-0.4	100	93.2	84.3	92.8	100	96
18-Aug-01	21:30	-0.7	-0.7	-0.7	-0.7	-0.7	-0.9	100	92.7	84.3	92.2	100	96
18-Aug-01	21:40	-0.7	-0.4	-0.7	-0.7	-0.2	-0.7	100	91.6	83.8	90	100	93.2
18-Aug-01	21:50	-0.7	-0.2	-0.4	-1.2	0.1	-0.7	100	91.6	83.8	90	100	96
18-Aug-01	22:00	-0.9	0.1	-0.4	-1.2	-0.2	-0.7	100	91	83.3	92.8	100	94.8
18-Aug-01	22:10	-0.4	0.3	-0.4	-0.7	-0.4	-0.7	100	91.6	83.3	92.2	100	95.4
18-Aug-01	22:20	0.6	0.6	-0.2	-0.7	-0.4	-0.7	100	91	83.3	90	100	96
18-Aug-01	22:30	0.1	0.8	0.1	-1.2	-0.2	-0.7	98.9	91.6	83.8	89.5	100	93.7
18-Aug-01	22:40	-0.4	0.3	-0.4	-1.4	-0.2	-0.4	100	91	83.3	91.1	100	96
18-Aug-01	22:50	-0.4	0.3	-0.7	-1.2	-0.2	-0.7	100	88.8	83.3	90.6	100	96
18-Aug-01	23:00	-0.7	-0.4	-0.7	-0.9	-0.7	-0.7	100	88.8	82.8	90	100	93.2
18-Aug-01	23:10	-0.4	-0.7	-0.9	-0.9	-0.7	-0.4	100	91.6	82.8	89.5	100	96
18-Aug-01	23:20	-0.7	-0.4	-0.9	-1.2	-0.4	-0.7	100	93.2	85.4	92.8	100	96
18-Aug-01	23:30	-0.4	-0.7	-0.9	-0.9	0.1	-0.4	100	88.3	83.3	92.8	100	93.2
18-Aug-01	23:40	-0.7	-0.7	-0.7	-0.7	-0.4	-0.4	100	92.7	84.3	90	100	96
18-Aug-01	23:50	-0.7	-0.7	-0.9	-0.9	-0.7	-0.4	100	93.2	85.4	89.5	100	94.3
19-Aug-01	00:00	-0.4	-0.4	-0.7	-1.2	-0.4	-0.4	100	88.8	82.8	92.2	100	94.8
19-Aug-01	00:10	-0.4	-0.7	-0.9	-0.9	-0.2	0.3	100	92.1	84.3	92.2	100	93.7
19-Aug-01	00:20	-0.7	-0.7	-0.7	-0.4	0.1	0.8	100	93.8	83.8	90.6	100	92.6
19-Aug-01	00:30	-0.7	-0.4	-0.7	-0.9	-0.4	1.1	100	90.4	83.3	89.5	100	91.5
19-Aug-01	00:40	-0.7	-0.7	-0.7	-1.2	-0.4	-0.2	100	91.6	85.4	92.2	100	91.5
19-Aug-01	00:50	-0.7	-0.7	-0.7	-0.9	-0.2	-0.4	100	93.2	83.3	92.2	100	95.4
19-Aug-01	01:00	-0.7	-0.4	-0.9	-0.7	0.1	-0.7	100	93.2	84.3	91.1	100	93.2
19-Aug-01	01:10	-0.4	-0.7	-0.7	-0.9	-0.2	-0.9	100	88.8	84.3	90	100	96
19-Aug-01	01:20	-0.7	-0.7	-0.7	-1.2	-0.4	-0.7	100	93.2	83.3	90.6	100	96
19-Aug-01	01:30	-0.4	-0.7	-0.9	-0.9	-0.2	-0.7	100	93.2	85.4	92.2	100	93.2
19-Aug-01	01:40	-0.9	-0.7	-0.7	-0.9	0.1	-0.9	100	92.7	83.3	91.7	100	96
19-Aug-01	01:50	-0.4	-0.7	-0.9	-0.7	0.3	-0.7	100	89.3	83.3	90	100	94.8
19-Aug-01	02:00	-0.4	-0.9	-0.7	-1.2	0.8	-0.7	100	92.7	85.9	89.5	100	94.3
19-Aug-01	02:10	-0.7	-0.4	-0.7	-1.2	1.3	-0.7	100	93.2	83.3	92.8	100	96.5
19-Aug-01	02:20	-0.4	-0.4	-0.7	-0.7	0.6	-0.7	100	92.1	84.9	92.2	100	93.7
19-Aug-01	02:30	-0.9	-0.4	-0.7	-0.7	-0.2	-0.7	100	89.9	83.3	90	100	94.8
19-Aug-01	02:40	-0.4	-0.7	-0.9	-0.7	-0.7	-0.9	100	93.2	83.8	90	100	96
19-Aug-01	02:50	-0.4	-0.4	-0.7	-0.9	-0.7	-0.7	100	93.2	85.4	90	100	94.8
19-Aug-01	03:00	-0.4	-0.2	-0.9	-0.7	-0.4	-0.4	100	91	82.8	89.5	100	93.7
19-Aug-01	03:10	-0.7	-0.7	-0.7	-1.4	0.1	-0.7	100	91.6	84.9	91.1	100	96
19-Aug-01	03:20	-0.7	-0.7	-0.7	-1.2	-0.4	-0.7	100	93.2	83.3	92.8	100	95.4
19-Aug-01	03:30	-0.7	-0.7	-0.7	-0.9	-0.7	-0.4	100	93.2	83.8	91.7	100	93.7
19-Aug-01	03:40	-0.7	-0.4	-0.7	-0.9	-0.7	-0.7	100	89.9	83.8	89.5	100	96
19-Aug-01	03:50	-0.9	-0.7	-0.4	-1.2	-0.4	-0.7	100	91	83.3	89.5	100	95.4
19-Aug-01	04:00	-0.7	-0.4	-0.4	-1.2	0.1	-0.4	100	93.2	83.3	92.8	100	94.3
19-Aug-01	04:10	-0.4	-0.4	-0.4	-0.9	-0.2	-0.7	100	93.2	83.8	92.2	100	96
19-Aug-01	04:20	0.6	-0.4	-0.2	-0.4	-0.7	-0.7	100	91.6	83.8	90	100	94.3

19-Aug-01	04:30	0.1	-0.4	-0.2	-0.9	-0.4	-0.4	97.8	91.6	84.3	89.5	100	95.4
19-Aug-01	04:40	-0.7	-0.4	-0.4	-1.2	-0.2	-0.9	100	92.1	83.3	92.8	100	96
19-Aug-01	04:50	-0.4	-0.4	-0.4	-0.7	-0.2	-0.7	100	92.1	82.8	92.2	100	93.2
19-Aug-01	05:00	-0.4	-0.4	-0.7	-0.7	-0.4	-0.7	100	90.4	82.8	90.6	100	96
19-Aug-01	05:10	-0.7	-0.7	-0.9	-0.7	-0.4	-0.7	100	91	82.8	90	100	96
19-Aug-01	05:20	-0.7	-0.4	-0.7	-1.4	-0.4	-0.7	100	93.2	84.9	91.7	100	93.7
19-Aug-01	05:30	-0.7	-0.4	-0.7	-1.2	-0.2	-0.7	100	92.1	83.3	92.8	100	96.5
19-Aug-01	05:40	-0.7	-0.7	-0.7	-0.7	-0.2	-0.7	100	91.6	82.8	91.1	100	96
19-Aug-01	05:50	-0.7	-0.2	-0.9	-0.7	-0.4	-0.4	100	91.6	85.4	89.5	100	93.7
19-Aug-01	06:00	-0.7	0.1	-0.7	-0.9	-0.4	-0.9	100	91.6	83.3	90	100	96.5
19-Aug-01	06:10	-0.9	-0.2	-0.9	-1.2	-0.4	-0.7	100	91	84.3	92.8	100	93.7
19-Aug-01	06:20	-0.4	0.3	-0.7	-0.9	0.1	-0.7	100	91.6	84.9	91.7	100	96
19-Aug-01	06:30	-0.9	0.3	-0.7	-0.4	0.1	-0.7	100	88.3	83.3	90	100	96
19-Aug-01	06:40	-0.9	-0.4	-0.7	-0.9	-0.7	-0.7	100	89.3	84.9	89.5	100	94.3
19-Aug-01	06:50	-0.7	-0.4	-0.7	-1.4	-0.7	-0.7	100	92.1	83.8	92.8	100	95.4
19-Aug-01	07:00	-0.7	-0.4	-0.9	-0.7	-0.4	-0.7	100	92.7	83.8	92.2	100	96.5
19-Aug-01	07:10	-0.9	-0.4	-0.7	-0.9	-0.2	-0.7	100	90.4	85.9	91.1	100	95.4
19-Aug-01	07:20	-0.7	-0.4	-0.7	-0.7	0.1	-0.7	100	91.6	83.3	90	100	93.7
19-Aug-01	07:30	-0.7	-0.4	-0.9	-1.2	0.3	-0.7	100	93.2	84.3	92.2	100	96
19-Aug-01	07:40	-0.7	-0.4	-0.7	-0.9	0.3	-0.7	100	92.7	84.3	92.2	100	96
19-Aug-01	07:50	-0.7	-0.4	-0.9	-0.7	0.8	-0.7	100	89.3	83.3	91.1	100	95.4
19-Aug-01	08:00	-0.4	-0.7	-0.9	-0.4	1.3	-0.2	100	91	85.4	90	100	95.4
19-Aug-01	08:10	-0.4	-0.4	-0.4	-0.9	1.8	0.1	100	93.2	83.3	90	100	94.3
19-Aug-01	08:20	-0.4	-0.7	-0.7	-0.7	1.3	0.8	100	92.7	84.3	90	100	93.2
19-Aug-01	08:30	-0.7	-0.4	-0.9	-0.7	0.3	0.8	100	88.8	84.3	90	100	90.9
19-Aug-01	08:40	-0.7	-0.7	-0.7	-0.7	-0.4	0.1	100	92.1	82.8	90	100	91.5
19-Aug-01	08:50	-0.7	-0.7	-0.9	-0.7	-0.7	-0.7	100	93.8	85.4	90	100	94.3
19-Aug-01	09:00	-0.9	-0.7	-0.7	-0.7	-0.4	-0.7	100	91	83.3	90	100	93.2
19-Aug-01	09:10	-0.7	-0.7	-0.7	-0.7	0.1	-0.4	100	90.4	83.8	90	100	93.7
19-Aug-01	09:20	-0.4	-0.7	-0.7	-0.7	-0.7	-0.7	100	93.2	84.3	90	100	96
19-Aug-01	09:30	-0.9	-0.4	-0.4	-0.7	-0.4	-0.7	100	92.1	84.3	90	100	95.4
19-Aug-01	09:40	-0.7	-0.9	-0.4	-0.7	-0.4	-0.7	100	88.8	83.8	90	100	93.2
19-Aug-01	09:50	-0.9	-0.7	-0.7	-0.4	0.1	-0.7	100	93.2	83.8	90	100	94.3
19-Aug-01	10:00	-0.9	-0.4	-0.2	-0.4	-0.4	-0.9	100	93.8	83.3	90	100	96
19-Aug-01	10:10	-0.4	-0.4	0.1	-0.4	-0.7	-0.7	100	91.6	83.3	90	100	93.2
19-Aug-01	10:20	0.3	-0.7	-0.2	-0.4	-0.4	-0.9	100	91	83.3	90	100	93.7
19-Aug-01	10:30	-0.2	-0.7	0.1	-0.4	0.1	-0.9	99.5	91	83.8	90	100	96
19-Aug-01	10:40	-0.4	-0.7	-0.2	-0.4	-0.2	-0.9	100	91	83.3	90	100	95.4
19-Aug-01	10:50	-0.7	-0.7	-0.4	-0.4	-0.4	-0.7	100	89.3	83.3	90	100	93.7
19-Aug-01	11:00	-0.4	-0.7	-0.4	-0.4	-0.2	-0.7	100	91.6	82.8	89.5	100	96
19-Aug-01	11:10	-0.4	-0.7	-0.7	-0.7	0.1	-0.9	100	93.2	82.8	89.5	100	95.4
19-Aug-01	11:20	-0.7	-0.7	-0.9	-0.9	-0.4	-0.7	100	88.3	82.8	89.5	100	93.7
19-Aug-01	11:30	-0.7	-1.2	-1.2	-1.2	-0.4	-0.9	99.5	91	82.3	89.5	100	96.5
19-Aug-01	11:40	-0.4	-1.2	-1.2	-1.4	-0.2	-0.9	100	93.8	83.8	89.5	100	95.4
19-Aug-01	11:50	-0.4	-1.2	-0.9	-1.2	-0.2	-0.7	100	88.8	85.4	91.1	100	93.7
19-Aug-01	12:00	-0.4	-1.2	-0.9	-0.9	-0.4	-0.7	100	91	82.8	92.2	100	96
19-Aug-01	12:10	-0.4	-0.9	-1.2	-0.9	-0.4	-0.9	100	93.2	83.8	91.1	100	95.4
19-Aug-01	12:20	-0.7	-1.2	-0.7	-0.9	-0.4	-0.7	100	88.8	84.9	90	100	93.7
19-Aug-01	12:30	-0.4	-1.4	-0.9	-0.9	0.1	-0.9	100	92.1	82.8	90	100	94.3

19-Aug-01	12:40	-0.4	-1.2	-0.9	-1.2	-0.4	-0.7	100	91	82.8	92.2	100	96
19-Aug-01	12:50	-0.7	-1.2	-0.9	-0.9	-0.4	-0.7	100	88.8	84.9	92.8	100	94.8
19-Aug-01	13:00	-0.4	-1.4	-0.9	-0.7	-0.2	-0.7	100	92.7	83.3	90.6	100	93.7
19-Aug-01	13:10	-0.7	-0.9	-0.9	-0.9	-0.2	-0.7	100	88.3	82.8	89.5	100	94.8
19-Aug-01	13:20	-0.7	-1.2	-0.9	-1.2	-0.4	-0.9	100	91.6	83.8	90	100	96
19-Aug-01	13:30	-0.4	-0.9	-0.9	-1.2	-0.2	-0.7	100	92.1	83.8	92.8	100	93.2
19-Aug-01	13:40	-0.4	-0.7	-1.2	-0.9	0.1	-0.9	100	91.6	82.3	92.8	100	93.2
19-Aug-01	13:50	-0.7	-0.4	-1.2	-0.7	0.8	-0.7	100	91	82.3	90	100	96
19-Aug-01	14:00	-0.4	0.1	-1.2	-1.2	1.3	-0.9	100	91.6	84.3	90	100	96
19-Aug-01	14:10	-0.7	0.3	-1.2	-1.2	1.6	-0.7	100	91.6	83.3	91.7	100	93.2
19-Aug-01	14:20	-0.7	0.8	-0.9	-0.9	1.3	-0.9	100	91.6	82.3	92.8	100	96
19-Aug-01	14:30	-0.7	0.8	-0.9	-0.7	0.3	-0.9	100	87.7	81.7	90.6	100	96
19-Aug-01	14:40	-0.7	0.1	-1.2	-0.9	-0.7	-0.7	100	86.6	83.8	90	100	93.2
19-Aug-01	14:50	-0.4	-0.4	-0.7	-0.7	-0.7	-0.7	100	86.6	83.3	90.6	100	94.8
19-Aug-01	15:00	-0.7	-0.9	-0.9	-0.9	-0.4	-0.9	100	90.4	82.3	90	100	96
19-Aug-01	15:10	-0.7	-0.7	-1.2	-0.9	-0.2	-0.9	100	92.1	82.3	90	100	93.2
19-Aug-01	15:20	-0.7	-1.2	-1.2	-1.2	-0.7	-0.7	100	88.3	84.3	90	100	94.8
19-Aug-01	15:30	-0.7	-1.2	-0.9	-0.9	-0.4	-0.7	100	92.1	83.8	92.8	100	96
19-Aug-01	15:40	-0.9	-1.2	-0.7	-0.9	-0.2	-0.7	100	92.7	83.8	92.8	100	94.8
19-Aug-01	15:50	-0.7	-0.9	-0.4	-0.9	-0.2	-0.7	100	88.8	83.3	89.5	100	95.4
19-Aug-01	16:00	-0.7	-1.2	-0.4	-1.2	-0.7	-0.2	100	92.1	83.3	90	100	94.8
19-Aug-01	16:10	-0.2	-0.9	-0.2	-1.4	-0.4	0.3	100	93.2	83.3	92.8	100	93.7
19-Aug-01	16:20	1.1	-0.9	-0.2	-0.9	-0.2	1.1	100	91	83.3	92.8	100	93.2
19-Aug-01	16:30	0.8	-0.7	-0.2	-0.7	-0.2	0.8	98.4	91	84.9	90	100	92
19-Aug-01	16:40	-0.4	-0.9	-0.4	-0.9	-0.4	0.1	100	91.6	83.8	90	100	92
19-Aug-01	16:50	-0.4	-0.9	-0.4	-1.2	-0.7	-0.7	100	92.1	83.3	91.1	100	93.7
19-Aug-01	17:00	-0.7	-0.9	-0.7	-0.9	-0.4	-0.9	100	89.3	83.3	92.2	100	93.2
19-Aug-01	17:10	-0.4	-1.2	-0.7	-0.9	0.1	-0.7	100	92.7	82.8	91.1	100	96.5
19-Aug-01	17:20	-0.4	-0.7	-0.9	-0.7	-0.4	-0.9	100	91.6	82.8	90.6	100	93.2
19-Aug-01	17:30	-0.7	-0.9	-1.2	-0.9	-0.4	-0.7	100	91	84.3	90.6	100	94.3
19-Aug-01	17:40	-0.7	-0.9	-0.9	-0.7	-0.4	-0.9	100	93.2	83.3	90.6	100	96
19-Aug-01	17:50	-0.4	-0.7	-0.9	-0.4	-0.2	-0.7	100	92.7	82.8	90.6	100	93.7
19-Aug-01	18:00	-0.7	-0.7	-1.2	-0.4	-0.2	-0.4	100	89.3	84.3	90.6	100	94.3
19-Aug-01	18:10	-0.9	-1.2	-0.9	-0.4	-0.4	-0.7	100	92.7	83.8	90.6	100	96
19-Aug-01	18:20	-0.7	-0.7	-0.7	-0.4	-0.4	-0.7	100	93.2	82.8	90.6	100	93.2
19-Aug-01	18:30	-0.7	-0.7	-0.9	-0.4	-0.2	-0.9	100	89.9	83.8	90.6	100	95.4
19-Aug-01	18:40	-0.7	-0.9	-0.9	-0.4	-0.2	-0.9	100	93.2	83.8	90.6	100	96
19-Aug-01	18:50	-0.7	-0.7	-1.2	-0.4	-0.4	-0.9	100	92.1	82.8	90.6	100	95.4
19-Aug-01	19:00	-0.7	-0.9	-0.7	-0.4	-0.4	-0.7	100	90.4	84.9	90.6	100	93.2
19-Aug-01	19:10	-0.4	-0.9	-0.7	-0.4	-0.2	-0.7	100	93.2	83.3	90.6	100	96.5
19-Aug-01	19:20	-0.7	-0.7	-0.7	-0.4	-0.2	-0.7	100	91.6	83.3	90.6	100	96
19-Aug-01	19:30	-0.7	-0.9	-0.7	-0.4	0.3	-0.4	100	90.4	84.9	90.6	100	93.2
19-Aug-01	19:40	-0.4	-0.9	-0.7	-0.4	0.8	-0.7	100	93.2	82.8	90.6	100	96.5
19-Aug-01	19:50	-0.7	-0.9	-0.7	-0.4	1.1	-0.7	100	93.8	84.3	90	100	96
19-Aug-01	20:00	-0.7	-0.7	-0.7	-0.4	1.6	-0.9	100	89.3	83.3	90	100	93.7
19-Aug-01	20:10	-0.7	-0.9	-0.9	-0.7	2.1	-0.7	100	92.7	82.8	89.5	100	94.8
19-Aug-01	20:20	-0.7	-0.9	-0.7	-0.7	1.3	-0.7	100	93.8	84.9	89	100	96
19-Aug-01	20:30	-0.7	-0.7	-0.7	-0.9	0.3	-0.9	99.5	89.3	83.3	89.5	100	93.2
19-Aug-01	20:40	-0.7	-0.9	-0.9	-1.2	-0.7	-0.4	100	92.1	83.3	90	100	96

19-Aug-01	20:50	-0.4	-0.9	-0.7	-1.2	-0.7	-0.7	100	93.2	84.9	92.8	100	96
19-Aug-01	21:00	-0.7	-0.7	-0.9	-0.7	-0.4	-0.7	100	92.1	82.8	92.2	100	93.2
19-Aug-01	21:10	-0.7	-0.9	-0.9	-0.9	-0.2	-0.7	100	90.4	83.8	90	100	96.5
19-Aug-01	21:20	-0.7	-0.7	-0.7	-1.2	-0.4	-0.7	100	93.2	83.8	89.5	100	96.5
19-Aug-01	21:30	-0.7	-0.7	-0.4	-1.2	-0.4	-0.7	100	92.7	84.3	92.8	100	93.7
19-Aug-01	21:40	-0.9	-0.4	-0.7	-0.9	-0.2	-0.7	100	92.1	83.8	92.8	100	96
19-Aug-01	21:50	-0.7	-0.4	-0.7	-0.9	0.1	-0.7	100	91.6	83.8	89.5	100	96
19-Aug-01	22:00	-0.7	-0.2	-0.4	-1.2	-0.2	-0.7	100	91	83.3	90	100	93.2
19-Aug-01	22:10	-0.4	0.1	-0.4	-1.2	-0.7	-0.9	100	91	83.8	92.8	100	96
19-Aug-01	22:20	0.6	0.3	-0.2	-0.9	-0.4	-0.7	100	91.6	83.3	92.8	100	96
19-Aug-01	22:30	0.6	0.6	-0.2	-0.9	-0.2	-0.7	97.8	92.1	84.3	90	100	93.2
19-Aug-01	22:40	-0.4	0.3	-0.4	-0.9	0.1	-0.9	100	91	83.3	90	100	96
19-Aug-01	22:50	-0.4	0.3	-0.7	-0.9	-0.4	-0.7	100	88.3	83.3	90.6	100	96
19-Aug-01	23:00	-0.4	-0.4	-0.7	-0.7	-0.7	-0.7	100	87.7	82.8	90	100	94.3
19-Aug-01	23:10	-0.7	-0.7	-0.9	-0.9	-0.4	-0.9	100	91.6	82.8	90	100	96.5
19-Aug-01	23:20	-0.4	-0.7	-1.2	-0.9	-0.2	-0.7	100	93.2	84.3	92.2	100	94.8
19-Aug-01	23:30	-0.9	-0.7	-0.7	-0.7	0.1	-0.7	100	88.8	83.8	92.2	100	93.2
19-Aug-01	23:40	-0.7	-0.7	-0.9	-0.7	-0.4	-0.7	100	92.1	83.3	90	100	96.5
19-Aug-01	23:50	-0.4	-0.7	-0.9	-0.9	-0.7	-0.4	100	93.2	85.4	90	100	95.4
20-Aug-01	00:00	-0.4	-0.4	-0.7	-1.2	-0.2	-0.4	100	90.4	83.3	92.8	100	95.4
20-Aug-01	00:10	-0.4	-0.7	-0.7	-1.2	0.1	0.3	100	91.6	82.8	92.8	100	93.7
20-Aug-01	00:20	-0.7	-0.9	-1.2	-0.7	-0.2	0.8	100	93.2	85.4	90	100	92.6
20-Aug-01	00:30	-0.7	-0.7	-0.9	-0.9	-0.7	1.1	100	93.2	83.8	90	100	90.9
20-Aug-01	00:40	-0.4	-0.7	-0.7	-1.2	-0.4	-0.2	100	88.8	82.8	92.2	100	91.5
20-Aug-01	00:50	-0.9	-0.9	-0.9	-0.9	-0.2	-0.7	100	93.2	85.4	92.8	100	94.8
20-Aug-01	01:00	-0.7	-0.7	-0.7	-0.7	0.1	-0.4	100	93.8	83.3	90.6	100	93.7
20-Aug-01	01:10	-0.4	-0.4	-0.9	-0.7	-0.4	-0.4	100	91.6	83.8	90	100	96
20-Aug-01	01:20	-0.7	-0.7	-0.7	-1.4	-0.4	-0.7	100	91.6	85.4	91.7	100	96
20-Aug-01	01:30	-0.7	-0.9	-0.7	-0.9	-0.4	-0.7	100	93.2	83.3	92.8	100	93.7
20-Aug-01	01:40	-0.7	-0.7	-0.9	-0.7	-0.2	-0.7	100	93.8	84.3	90.6	100	96
20-Aug-01	01:50	-0.7	-0.7	-0.7	-0.9	0.3	-0.7	100	88.8	83.8	90	100	94.3
20-Aug-01	02:00	-0.4	-0.9	-0.7	-1.2	1.1	-0.7	100	92.7	82.8	91.1	100	94.3
20-Aug-01	02:10	-0.4	-0.9	-0.9	-0.9	1.3	-0.9	100	93.8	85.4	92.8	100	96
20-Aug-01	02:20	-0.7	-0.4	-0.9	-0.7	1.1	-0.7	100	90.4	83.8	92.2	100	94.3
20-Aug-01	02:30	-0.7	-0.7	-0.7	-0.9	-0.2	-0.4	100	91	83.3	89.5	100	94.3
20-Aug-01	02:40	-0.9	-0.9	-0.9	-0.9	-0.7	-0.7	100	93.8	85.4	90	100	96.5
20-Aug-01	02:50	-0.9	-0.7	-0.7	-0.9	-0.7	-0.9	100	93.2	83.3	90.6	100	95.4
20-Aug-01	03:00	-0.9	-0.7	-0.9	-1.2	-0.4	-0.7	100	89.3	83.8	90	100	94.3
20-Aug-01	03:10	-0.7	-0.7	-0.9	-1.2	0.1	-0.9	100	93.2	85.4	91.7	100	96
20-Aug-01	03:20	-0.9	-0.7	-0.7	-0.9	-0.4	-0.9	100	93.2	83.3	92.8	100	94.8
20-Aug-01	03:30	-0.7	-0.4	-0.7	-0.7	-0.7	-0.7	100	89.3	83.3	91.7	100	95.4
20-Aug-01	03:40	-0.7	-0.9	-0.4	-0.9	-0.7	-0.7	100	92.1	83.3	90	100	96.5
20-Aug-01	03:50	-0.7	-0.9	-0.4	-1.2	-0.2	-0.7	100	93.8	83.3	89.5	100	95.4
20-Aug-01	04:00	-0.9	-0.7	-0.4	-0.9	-0.2	-0.7	100	92.1	83.3	92.2	100	94.3
20-Aug-01	04:10	-0.7	-0.4	-0.4	-0.7	-0.7	-0.7	100	91.6	83.8	92.2	100	96
20-Aug-01	04:20	0.8	-0.7	-0.4	-0.7	-0.7	-0.7	100	92.1	83.8	90	100	93.2
20-Aug-01	04:30	0.1	-0.7	-0.2	-1.2	-0.4	-0.7	97.8	92.7	84.3	89.5	100	96.5
20-Aug-01	04:40	-0.7	-0.7	-0.4	-1.2	0.1	-0.7	100	91.6	83.3	92.8	100	96
20-Aug-01	04:50	-0.7	-0.4	-0.4	-1.2	-0.4	-0.7	100	89.3	83.3	92.8	100	93.7

20-Aug-01	05:00	-0.7	-0.7	-0.7	-0.7	-0.9	-0.7	100	92.7	83.3	91.1	100	96
20-Aug-01	05:10	-0.4	-0.4	-0.7	-1.2	-0.4	-0.7	100	93.2	82.8	89.5	100	93.2
20-Aug-01	05:20	-0.4	-0.7	-0.7	-1.4	-0.2	-0.7	100	88.8	85.9	91.1	100	96.5
20-Aug-01	05:30	-0.4	-0.7	-0.7	-0.9	-0.2	-0.7	100	91	83.3	92.2	100	96
20-Aug-01	05:40	-0.7	-0.7	-0.9	-0.7	-0.2	-0.7	100	91	83.3	92.2	100	93.7
20-Aug-01	05:50	-0.7	-0.4	-0.9	-0.7	-0.7	-0.7	100	91	85.9	90	100	96
20-Aug-01	06:00	-0.7	-0.4	-0.7	-1.2	-0.4	-0.7	100	91.6	83.3	89.5	100	96.5
20-Aug-01	06:10	-0.9	0.1	-0.9	-0.9	0.1	-0.7	100	91.6	84.3	92.2	100	94.3
20-Aug-01	06:20	-0.7	0.3	-0.7	-0.9	-0.2	-0.4	100	91	85.4	92.2	100	94.3
20-Aug-01	06:30	-0.7	0.3	-0.9	-0.9	-0.7	-0.7	100	89.3	83.3	90	100	96
20-Aug-01	06:40	-0.4	-0.2	-0.7	-1.2	-0.7	-0.9	100	87.7	85.9	89.5	100	96
20-Aug-01	06:50	-0.7	-0.4	-0.7	-1.2	-0.4	-0.7	100	91.6	83.3	92.2	100	93.7
20-Aug-01	07:00	-0.7	-0.4	-0.9	-0.9	-0.2	-0.9	100	93.2	84.3	92.2	100	96
20-Aug-01	07:10	-0.7	-0.4	-0.7	-0.7	-0.4	-0.7	100	91.6	85.9	90.6	100	96
20-Aug-01	07:20	-0.7	-0.7	-0.9	-0.9	-0.7	-0.7	100	91.6	83.3	90	100	93.2
20-Aug-01	07:30	-0.7	-0.7	-0.9	-1.2	-0.4	-0.7	100	93.2	85.4	90	100	95.4
20-Aug-01	07:40	-0.4	-0.4	-0.7	-0.9	0.1	-0.7	100	93.8	83.8	92.8	100	96
20-Aug-01	07:50	-0.4	-0.4	-0.7	-0.7	0.8	-0.4	100	88.8	83.3	92.8	100	94.8
20-Aug-01	08:00	-0.7	-0.7	-0.7	-0.4	1.3	0.1	100	92.7	85.4	90.6	100	95.4
20-Aug-01	08:10	-0.4	-0.4	-0.9	-0.7	2.1	0.8	100	93.2	83.3	91.1	100	96.5
20-Aug-01	08:20	-0.7	-0.7	-0.7	-0.4	1.6	1.6	100	88.8	84.9	90.6	100	94.3
20-Aug-01	08:30	-0.4	-0.7	-0.9	-0.7	0.6	1.6	100	91.6	83.3	90.6	100	90.9
20-Aug-01	08:40	-0.7	-0.7	-0.7	-0.2	0.1	0.3	100	93.2	83.8	90.6	100	90.9
20-Aug-01	08:50	-0.7	-0.4	-0.7	-0.2	-0.4	-0.4	100	88.8	85.4	91.1	100	92
20-Aug-01	09:00	-0.7	-0.7	-0.7	-0.2	-0.2	-0.7	99.5	92.7	83.3	90.6	100	94.8
20-Aug-01	09:10	-0.7	-0.4	-0.7	-0.2	0.1	-0.7	100	88.8	84.9	90.6	100	93.2
20-Aug-01	09:20	-0.7	-0.7	-0.4	0.1	-0.7	-0.7	100	91.6	83.3	90.6	100	93.2
20-Aug-01	09:30	-0.7	-0.7	-0.7	-0.2	-0.2	-0.7	100	93.2	83.3	90.6	100	94.8
20-Aug-01	09:40	-0.4	-0.7	-0.7	-0.4	0.1	-0.7	100	88.8	83.8	90	100	96
20-Aug-01	09:50	-0.4	-0.9	-0.4	-0.2	-0.2	-0.7	98.9	92.1	83.3	90	100	94.3
20-Aug-01	10:00	-0.7	-0.7	-0.2	-0.4	-0.2	-0.7	100	93.2	83.3	89.5	100	93.2
20-Aug-01	10:10	0.1	-0.4	-0.4	-0.4	-0.2	-0.7	100	91	83.3	89.5	100	93.7
20-Aug-01	10:20	0.8	-0.4	-0.2	-0.4	-0.2	-0.7	100	91.6	83.8	89	100	93.7
20-Aug-01	10:30	0.6	-0.4	-0.2	-0.7	-0.4	-0.7	98.4	91.6	85.4	89	100	95.4
20-Aug-01	10:40	-0.4	-0.4	-0.2	-0.7	0.1	-0.9	100	91.6	83.3	89.5	100	95.4
20-Aug-01	10:50	-0.4	-0.4	-0.4	-0.9	-0.2	-0.9	100	88.8	83.8	89	100	92.6
20-Aug-01	11:00	-0.7	-0.7	-0.4	-0.9	-0.4	-0.9	100	91	83.3	89.5	100	93.2
20-Aug-01	11:10	-0.4	-0.7	-0.7	-0.9	-0.2	-0.7	100	90.4	82.8	89.5	100	94.8
20-Aug-01	11:20	-0.4	-0.9	-0.9	-1.2	0.1	-0.9	100	87.7	82.8	89.5	100	94.3
20-Aug-01	11:30	-0.4	-0.7	-0.9	-1.2	-0.4	-0.9	100	91.6	82.8	92.2	100	94.3
20-Aug-01	11:40	-0.7	-0.7	-0.9	-0.7	-0.2	-0.9	100	88.8	84.3	90.6	100	92.6
20-Aug-01	11:50	-0.7	-0.9	-0.7	-0.7	-0.2	-0.7	100	89.9	83.8	90	100	93.7
20-Aug-01	12:00	-0.7	-0.9	-0.7	-1.2	-0.2	-0.9	99.5	92.7	83.3	89.5	100	94.8
20-Aug-01	12:10	-0.4	-0.7	-0.9	-1.2	-0.4	-0.9	100	88.3	83.8	91.7	100	94.3
20-Aug-01	12:20	-0.7	-0.9	-0.7	-0.9	0.1	-0.7	100	92.1	83.8	92.8	100	93.7
20-Aug-01	12:30	-0.4	-0.7	-0.9	-0.7	-0.2	-0.9	100	90.4	83.3	89.5	100	92.6
20-Aug-01	12:40	-0.4	-0.9	-0.9	-0.9	-0.7	-0.9	100	88.8	83.8	89.5	100	92.6
20-Aug-01	12:50	-0.4	-0.7	-0.7	-0.9	-0.4	-0.7	100	92.1	84.3	91.1	100	93.2
20-Aug-01	13:00	-0.2	-0.7	-0.7	-0.9	0.3	-0.7	100	88.8	82.8	92.8	100	95.4

20-Aug-01	13:10	-0.7	-0.9	-0.9	-0.9	-0.4	-0.9	100	88.3	82.8	90	100	94.8
20-Aug-01	13:20	-0.2	-1.2	-0.9	-1.2	-0.4	-0.7	100	91.6	83.3	89.5	100	92
20-Aug-01	13:30	-0.4	-0.7	-0.7	-1.2	0.1	-0.7	100	91.6	84.9	91.7	100	93.2
20-Aug-01	13:40	-0.4	-0.2	-0.7	-0.9	0.6	-0.9	99.5	91.6	83.3	91.1	100	92
20-Aug-01	13:50	-0.4	0.1	-0.7	-0.9	1.1	-0.9	100	91	82.3	89.5	100	92.6
20-Aug-01	14:00	-0.4	0.6	-0.7	-1.2	1.8	-0.9	98.9	90.4	81.7	90	100	94.3
20-Aug-01	14:10	-0.4	1.1	-0.7	-0.9	2.3	-0.9	100	90.4	81.7	90	100	92.6
20-Aug-01	14:20	-0.4	1.3	-0.9	-1.4	1.8	-0.9	98.4	91	82.3	89.5	100	92.6
20-Aug-01	14:30	-0.7	1.3	-0.9	-1.2	0.8	-0.7	100	88.3	82.3	90.6	100	92.6
20-Aug-01	14:40	-0.7	0.6	-0.9	-0.9	0.6	-0.9	100	85.5	81.2	90.6	100	94.3
20-Aug-01	14:50	-0.4	0.1	-0.9	-0.9	-0.2	-0.9	100	85.5	84.3	90.6	100	92
20-Aug-01	15:00	-0.4	-0.4	-0.7	-0.7	-0.4	-0.9	100	88.8	82.8	89.5	100	92.6
20-Aug-01	15:10	-0.7	-0.7	-0.7	-1.2	0.1	-0.7	98.9	88.8	81.7	89.5	100	93.2
20-Aug-01	15:20	-0.7	-0.9	-0.7	-1.2	-0.2	-0.9	100	86.6	82.8	89	100	93.7
20-Aug-01	15:30	-0.7	-0.7	-0.9	-1.2	-0.7	-0.9	97.8	91.6	83.3	88.4	100	92
20-Aug-01	15:40	-0.7	-0.9	-0.7	-1.2	0.1	-0.7	100	87.2	83.3	88.4	100	93.7
20-Aug-01	15:50	-0.4	-0.9	-0.7	-1.2	0.1	-0.4	98.4	91	83.3	90.6	100	93.2
20-Aug-01	16:00	-0.4	-0.9	-0.2	-0.9	-0.4	0.1	100	90.4	83.3	92.2	100	93.7
20-Aug-01	16:10	0.3	-0.7	-0.2	-0.9	0.1	0.6	100	90.4	83.3	91.1	100	95.4
20-Aug-01	16:20	1.1	-0.7	-0.2	-0.9	0.1	1.6	100	91	83.8	89.5	100	96.5
20-Aug-01	16:30	2.1	-0.9	0.1	-0.9	-0.2	1.3	100	90.4	85.9	89.5	100	90.4
20-Aug-01	16:40	1.6	-0.7	-0.2	-1.2	-0.2	0.3	97.3	90.4	84.3	89.5	100	90.4
20-Aug-01	16:50	0.3	-0.7	-0.2	-1.4	-0.2	-0.7	99.5	88.3	83.3	91.7	100	90.9
20-Aug-01	17:00	-0.4	-0.9	-0.2	-0.9	-0.2	-0.7	100	91.6	83.3	91.1	100	93.7
20-Aug-01	17:10	-0.2	-0.7	-0.7	-0.9	-0.7	-0.9	100	89.3	83.3	90.6	100	93.2
20-Aug-01	17:20	-0.2	-1.2	-0.7	-0.7	-0.2	-0.9	100	90.4	82.8	90	100	94.8
20-Aug-01	17:30	-0.4	-0.9	-0.7	-0.7	0.1	-0.7	100	92.7	82.8	90	100	96
20-Aug-01	17:40	-0.7	-0.7	-0.9	-0.4	-0.4	-0.7	100	91	82.3	90	100	94.8
20-Aug-01	17:50	-0.7	-0.9	-0.9	-0.4	-0.7	-0.7	100	91.6	82.8	89.5	100	93.2
20-Aug-01	18:00	-0.4	-0.9	-0.9	-0.4	-0.4	-0.9	100	92.7	85.4	90	100	96
20-Aug-01	18:10	-0.7	-0.7	-0.7	-0.4	-0.2	-0.7	100	89.3	83.3	90	100	93.2
20-Aug-01	18:20	-0.7	-0.9	-0.7	-0.7	-0.4	-0.7	100	91	82.8	89.5	100	96
20-Aug-01	18:30	-0.4	-0.7	-0.9	-0.7	-0.4	-0.7	100	92.7	83.3	89.5	100	93.2
20-Aug-01	18:40	-0.4	-0.7	-0.7	-0.7	-0.4	-0.7	100	90.4	84.3	89.5	100	96
20-Aug-01	18:50	-0.7	-0.7	-0.7	-0.7	-0.2	-0.9	100	91	82.8	89.5	100	96
20-Aug-01	19:00	-0.7	-0.7	-0.9	-0.7	-0.4	-0.7	100	93.2	82.8	89.5	100	95.4
20-Aug-01	19:10	-0.7	-0.7	-0.7	-0.4	-0.7	-0.7	100	92.1	84.9	90	100	95.4
20-Aug-01	19:20	-0.7	-0.9	-0.9	-0.7	-0.2	-0.9	100	90.4	82.8	89.5	100	93.7
20-Aug-01	19:30	-0.4	-0.9	-1.2	-0.4	-0.2	-0.9	100	92.7	82.8	90	100	93.2
20-Aug-01	19:40	-0.4	-0.7	-0.9	-0.4	0.1	-0.7	100	93.2	84.3	90	100	96
20-Aug-01	19:50	-0.9	-0.7	-0.9	-0.4	0.6	-0.7	100	88.8	83.3	89.5	100	93.2
20-Aug-01	20:00	-0.7	-0.9	-1.2	-0.4	1.1	-0.7	99.5	92.1	82.8	89.5	100	96
20-Aug-01	20:10	-0.4	-0.7	-1.2	-0.7	1.3	-0.9	100	93.2	82.3	89	100	93.2
20-Aug-01	20:20	-0.9	-0.7	-0.9	-0.9	0.8	-0.7	100	89.3	83.3	89	100	96
20-Aug-01	20:30	-0.7	-0.9	-0.9	-1.2	0.1	-0.7	100	91.6	83.3	89	100	93.2
20-Aug-01	20:40	-0.7	-0.7	-0.9	-1.2	-0.7	-0.9	100	93.2	82.3	89	100	93.7
20-Aug-01	20:50	-0.7	-0.7	-0.9	-1.4	-0.7	-0.7	100	91	83.8	89	100	96
20-Aug-01	21:00	-0.7	-0.9	-0.7	-1.4	-0.2	-0.7	100	91.6	83.3	92.2	100	95.4
20-Aug-01	21:10	-0.9	-0.7	-0.9	-0.9	-0.2	-0.7	100	93.2	82.3	92.8	100	93.2

20-Aug-01	21:20	-0.7	-0.7	-1.2	-0.9	-0.7	-0.7	100	93.2	82.3	89.5	100	96
20-Aug-01	21:30	-0.4	-0.7	-0.9	-1.2	-0.7	-0.9	100	91	83.3	89.5	100	93.2
20-Aug-01	21:40	-0.9	-0.7	-0.9	-1.4	-0.2	-0.7	100	91	83.3	89.5	100	93.2
20-Aug-01	21:50	-0.7	-0.7	-0.7	-1.4	0.1	-0.7	100	91.6	83.3	92.2	100	96
20-Aug-01	22:00	-0.7	-0.2	-0.4	-0.9	-0.7	-0.7	100	91.6	82.8	92.8	100	93.2
20-Aug-01	22:10	-0.2	0.1	-0.4	-0.7	-0.4	-0.9	100	91.6	83.3	90	100	95.4
20-Aug-01	22:20	0.8	0.3	-0.4	-1.2	-0.4	-0.9	100	91	83.3	90	100	96
20-Aug-01	22:30	1.3	0.6	0.1	-1.2	-0.2	-0.9	98.9	92.1	85.9	90	100	93.2
20-Aug-01	22:40	0.3	0.3	-0.4	-1.2	-0.4	-0.7	97.8	91	83.8	90.6	100	96
20-Aug-01	22:50	-0.4	0.3	-0.7	-0.9	-0.4	-0.9	100	88.3	83.8	90.6	100	95.4
20-Aug-01	23:00	-0.7	-0.2	-0.4	-0.9	-0.4	-0.7	100	88.3	83.3	90.6	100	93.2
20-Aug-01	23:10	-0.4	-0.7	-0.9	-0.9	0.1	-0.7	100	91.6	83.3	90	100	96
20-Aug-01	23:20	-0.7	-0.7	-0.9	-1.2	-0.4	-0.9	100	91	82.8	89.5	100	96
20-Aug-01	23:30	-0.4	-0.7	-0.9	-1.4	-0.7	-0.9	100	89.9	84.9	92.8	100	93.2
20-Aug-01	23:40	-0.4	-0.7	-0.9	-0.9	-0.2	-0.9	100	93.2	83.8	92.8	100	96
20-Aug-01	23:50	-0.7	-0.7	-1.2	-0.7	0.1	-0.7	100	93.2	83.3	90.6	100	95.4
21-Aug-01	00:00	-0.4	-0.7	-0.9	-0.9	-0.2	-0.2	100	89.3	85.4	90	100	94.3
21-Aug-01	00:10	-0.4	-0.9	-0.9	-1.2	-0.4	0.3	100	92.7	83.3	89.5	100	93.2
21-Aug-01	00:20	-0.7	-0.9	-0.9	-1.4	-0.4	0.8	100	93.8	85.4	92.8	100	93.2
21-Aug-01	00:30	-0.4	-0.7	-0.7	-1.2	0.1	0.8	100	88.8	83.3	92.2	100	91.5
21-Aug-01	00:40	-0.7	-0.9	-0.9	-0.7	0.1	0.1	100	92.7	84.3	90.6	100	91.5
21-Aug-01	00:50	-0.7	-0.7	-0.9	-0.9	-0.4	-0.7	100	93.8	83.3	90	100	92.6
21-Aug-01	01:00	-0.4	-0.7	-0.9	-1.4	-0.7	-0.7	100	88.8	83.8	89.5	100	96.5
21-Aug-01	01:10	-0.4	-0.9	-0.7	-1.4	-0.2	-0.7	100	92.1	83.3	92.8	100	93.2
21-Aug-01	01:20	-0.4	-0.9	-1.2	-0.9	0.1	-0.9	100	93.2	82.8	92.2	100	96
21-Aug-01	01:30	-0.4	-0.9	-0.9	-0.7	0.1	-0.7	100	89.3	84.9	90.6	100	95.4
21-Aug-01	01:40	-0.4	-0.9	-0.9	-0.9	0.6	-0.9	100	92.1	83.3	90	100	94.8
21-Aug-01	01:50	-0.7	-0.7	-0.7	-1.4	0.8	-0.7	100	93.2	84.9	89.5	100	93.2
21-Aug-01	02:00	-0.4	-0.9	-0.7	-1.4	1.3	-0.9	100	89.3	83.3	92.8	100	96
21-Aug-01	02:10	-0.4	-0.7	-0.9	-0.9	2.1	-0.9	100	91.6	84.3	92.2	100	94.8
21-Aug-01	02:20	-0.4	-0.9	-0.9	-0.9	1.3	-0.7	100	93.8	83.3	89.5	100	93.2
21-Aug-01	02:30	-0.4	-0.7	-0.9	-1.2	0.3	-0.7	100	91	83.8	89.5	100	96
21-Aug-01	02:40	-0.4	-0.7	-0.9	-1.2	-0.4	-0.7	100	91.6	83.8	90	100	96
21-Aug-01	02:50	-0.7	-0.7	-0.7	-1.2	-0.9	-0.7	100	93.2	82.8	89.5	100	93.2
21-Aug-01	03:00	-0.7	-0.7	-0.9	-0.7	-0.4	-0.9	100	91.6	84.9	90.6	100	96.5
21-Aug-01	03:10	-0.7	-0.9	-0.9	-0.9	-0.2	-0.7	100	91	83.3	90	100	95.4
21-Aug-01	03:20	-0.7	-0.9	-1.2	-1.2	-0.7	-0.9	100	93.2	84.3	89.5	100	95.4
21-Aug-01	03:30	-0.9	-0.4	-0.7	-1.2	-0.4	-0.7	100	93.2	84.3	92.8	100	96
21-Aug-01	03:40	-0.4	-0.9	-0.7	-1.2	-0.2	-0.7	100	89.3	83.8	92.8	100	94.3
21-Aug-01	03:50	-0.7	-0.9	-0.4	-0.7	0.1	-0.7	100	93.2	83.3	90.6	100	96
21-Aug-01	04:00	-0.7	-0.9	-0.4	-0.7	-0.4	-0.7	100	93.8	83.3	90	100	93.2
21-Aug-01	04:10	-0.2	-0.7	-0.2	-1.2	-0.7	-0.9	100	91	83.3	90	100	96
21-Aug-01	04:20	0.8	-0.7	-0.2	-1.4	-0.4	-0.7	100	91.6	83.3	92.8	100	96
21-Aug-01	04:30	0.8	-0.7	-0.2	-0.9	0.1	-0.7	98.9	91	85.4	92.2	100	94.8
21-Aug-01	04:40	-0.2	-0.7	-0.2	-0.7	0.1	-0.7	98.9	91.6	83.8	90	100	93.2
21-Aug-01	04:50	-0.4	-0.7	-0.4	-0.9	-0.7	-0.7	100	92.7	83.3	90	100	96
21-Aug-01	05:00	-0.4	-0.4	-0.7	-1.2	-0.4	-0.7	100	91.6	83.3	91.1	100	96
21-Aug-01	05:10	-0.4	-0.9	-0.9	-1.2	-0.2	-0.9	100	91	83.3	92.8	100	93.7
21-Aug-01	05:20	-0.7	-0.7	-0.9	-0.9	0.1	-0.7	100	93.2	84.3	91.7	100	96

21-Aug-01	05:30	-0.7	-0.7	-0.7	-0.9	-0.4	-0.9	100	92.7	83.3	90	100	93.2
21-Aug-01	05:40	-0.4	-0.7	-0.9	-1.2	-0.7	-0.9	100	92.1	83.3	89.5	100	96
21-Aug-01	05:50	-0.4	-0.2	-0.9	-1.2	-0.4	-0.9	100	91.6	85.9	92.2	100	93.2
21-Aug-01	06:00	-0.4	0.1	-0.9	-1.2	-0.2	-0.7	100	91.6	83.3	92.8	100	96
21-Aug-01	06:10	-0.7	0.3	-0.9	-0.9	-0.2	-0.7	100	91.6	84.3	91.7	100	94.3
21-Aug-01	06:20	-0.7	0.3	-0.9	-0.7	-0.7	-0.7	100	93.2	83.8	90	100	94.3
21-Aug-01	06:30	-0.7	0.6	-0.9	-1.2	-0.7	-0.9	100	88.3	83.3	90	100	96.5
21-Aug-01	06:40	-0.7	-0.2	-0.7	-1.2	-0.2	-0.9	100	88.3	85.9	92.8	100	95.4
21-Aug-01	06:50	-0.7	-0.7	-0.7	-0.9	0.1	-0.9	100	91	83.3	92.2	100	93.7
21-Aug-01	07:00	-0.4	-0.7	-0.9	-0.7	-0.4	-0.7	100	92.7	84.9	91.1	100	96
21-Aug-01	07:10	-0.7	-0.7	-0.7	-0.7	-0.7	-0.9	100	91	83.3	90	100	96
21-Aug-01	07:20	-0.7	-0.9	-0.9	-1.2	-0.4	-0.7	100	91	83.3	90	100	93.7
21-Aug-01	07:30	-0.4	-0.7	-0.9	-1.2	0.1	-0.7	100	93.2	85.4	92.2	100	94.3
21-Aug-01	07:40	-0.4	-0.7	-0.7	-0.9	0.3	-0.7	100	91	83.3	92.8	100	95.4
21-Aug-01	07:50	-0.2	-0.7	-0.9	-0.7	0.8	-0.4	100	91	84.9	90.6	100	95.4
21-Aug-01	08:00	-0.4	-0.7	-0.9	-0.9	1.3	-0.2	100	93.2	83.8	89.5	100	96.5
21-Aug-01	08:10	-0.4	-0.7	-1.2	-0.9	1.8	0.6	100	90.4	84.3	90	100	98.2
21-Aug-01	08:20	-0.4	-0.9	-0.9	-1.4	1.3	1.6	100	91	83.3	92.8	100	96.5
21-Aug-01	08:30	-0.4	-0.4	-0.9	-0.7	0.6	1.6	100	93.2	83.8	92.8	100	91.5
21-Aug-01	08:40	-0.4	-0.4	-0.9	-0.7	-0.2	0.3	100	89.3	83.8	91.7	100	91.5
21-Aug-01	08:50	-0.7	-0.9	-0.9	-0.7	-0.4	-0.2	100	91.6	83.3	91.1	100	92.6
21-Aug-01	09:00	-0.4	-0.4	-0.9	-0.7	-0.2	-0.7	100	93.2	84.3	91.1	100	92.6
21-Aug-01	09:10	-0.4	-0.7	-0.7	-0.4	0.1	-0.9	100	88.3	83.8	90.6	100	92.6
21-Aug-01	09:20	-0.7	-0.7	-0.7	-0.4	-0.7	-0.9	99.5	91.6	82.8	90.6	100	93.2
21-Aug-01	09:30	-0.4	-0.7	-0.9	-0.4	-0.4	-0.9	100	92.7	83.3	90.6	100	93.2
21-Aug-01	09:40	-0.4	-0.9	-0.7	-0.4	0.1	-1.2	100	88.8	83.8	90.6	100	92.6
21-Aug-01	09:50	-0.4	-0.9	-0.7	-0.7	-0.7	-1.2	100	92.1	83.3	90	100	96
21-Aug-01	10:00	-0.4	-0.7	-0.4	-0.4	-0.4	-0.9	100	91	83.3	90.6	100	93.2
21-Aug-01	10:10	0.1	-0.7	-0.4	-0.4	0.1	-1.2	100	91	83.3	90	100	93.2
21-Aug-01	10:20	1.3	-0.4	-0.4	-0.2	-0.2	-0.9	100	91.6	83.8	90	100	93.7
21-Aug-01	10:30	1.8	-0.7	-0.2	-0.4	-0.4	-1.2	99.5	91	85.4	90	100	94.8
21-Aug-01	10:40	0.6	-0.7	0.1	-0.2	-0.2	-0.9	98.4	91	83.8	90.6	100	93.2
21-Aug-01	10:50	0.1	-0.4	-0.2	-0.2	-0.2	-0.9	100	88.3	83.3	90.6	100	93.2
21-Aug-01	11:00	-0.4	-0.9	-0.7	0.1	-0.4	-0.9	100	91	83.3	91.7	100	93.2
21-Aug-01	11:10	-0.2	-0.7	-0.4	0.1	-0.4	-1.2	100	91	83.3	90	100	92.6
21-Aug-01	11:20	-0.2	-0.7	-0.9	-0.4	-0.2	-0.9	100	88.3	83.3	90	100	95.4
21-Aug-01	11:30	-0.4	-0.7	-0.7	-0.4	-0.2	-1.2	100	92.1	83.3	90	100	92.6
21-Aug-01	11:40	-0.4	-0.4	-0.7	-0.4	-0.4	-1.2	100	88.3	82.8	90	100	93.2
21-Aug-01	11:50	-0.2	-0.9	-0.9	-0.7	-0.4	-0.9	100	91	82.8	90	100	93.2
21-Aug-01	12:00	0.1	-0.7	-0.9	-0.9	0.1	-1.2	100	91	82.3	89.5	100	94.8
21-Aug-01	12:10	-0.2	-0.7	-0.9	-0.7	-0.2	-0.9	100	88.3	82.3	90	100	92.6
21-Aug-01	12:20	-0.2	-0.9	-0.7	-0.9	-0.7	-0.9	100	92.1	81.2	90	100	93.7
21-Aug-01	12:30	-0.2	-0.7	-0.7	-0.9	-0.2	-0.9	100	88.3	81.2	90	100	92
21-Aug-01	12:40	-0.2	-0.7	-0.9	-1.2	-0.2	-1.2	100	91.6	83.3	89.5	100	94.3
21-Aug-01	12:50	-0.2	-0.7	-0.7	-0.9	-0.7	-0.9	100	91.6	82.8	90	100	92
21-Aug-01	13:00	-0.4	-0.9	-0.7	-0.9	-0.2	-1.2	100	89.3	82.8	89.5	100	95.4
21-Aug-01	13:10	0.1	-0.7	-0.9	-0.9	-0.2	-0.9	100	92.1	83.3	90	100	92.6
21-Aug-01	13:20	-0.4	-0.7	-0.7	-1.2	0.1	-1.2	100	88.3	82.3	89.5	100	93.2
21-Aug-01	13:30	-0.4	-0.9	-0.9	-0.9	0.3	-1.2	100	89.3	83.8	90	100	92.6

21-Aug-01	13:40	0.1	-0.7	-0.7	-0.9	0.6	-1.2	100	89.3	82.8	90	100	94.3
21-Aug-01	13:50	0.1	-0.2	-0.9	-1.2	1.1	-0.9	100	89.9	82.8	90	100	92.6
21-Aug-01	14:00	0.1	0.1	-0.7	-0.9	1.3	-0.9	100	89.9	81.7	92.2	100	93.2
21-Aug-01	14:10	0.1	0.6	-0.9	-0.7	2.1	-0.9	100	91.6	83.8	92.8	100	95.4
21-Aug-01	14:20	0.1	1.1	-0.7	-0.7	1.6	-0.9	100	91	82.8	90	100	93.7
21-Aug-01	14:30	-0.2	1.3	-0.7	-0.9	0.6	-0.7	100	88.8	81.7	90	100	92.6
21-Aug-01	14:40	-0.2	0.3	-0.9	-1.2	-0.2	-0.9	100	85.5	83.3	89.5	100	94.3
21-Aug-01	14:50	-0.4	-0.2	-0.9	-0.9	-0.7	-0.9	100	86.6	83.3	90	100	94.8
21-Aug-01	15:00	-0.2	-0.4	-0.9	-0.7	-0.4	-0.9	100	91	82.3	90	100	93.7
21-Aug-01	15:10	-0.4	-0.4	-0.9	-0.7	-0.4	-0.9	100	88.3	83.3	90	100	92
21-Aug-01	15:20	-0.2	-0.7	-0.7	-0.9	-0.4	-1.2	100	88.8	83.3	90	100	94.8
21-Aug-01	15:30	0.1	-0.7	-0.7	-0.9	-0.2	-0.9	100	91	83.3	90	100	92.6
21-Aug-01	15:40	-0.2	-1.2	-0.4	-0.9	0.1	-0.9	100	88.3	83.3	90	100	94.8
21-Aug-01	15:50	0.1	-0.9	-0.7	-0.9	-0.4	-0.7	99.5	91	83.3	89.5	100	93.2
21-Aug-01	16:00	-0.2	-1.2	-0.4	-0.9	-0.2	-0.2	100	88.8	83.3	89.5	100	93.7
21-Aug-01	16:10	0.6	-1.2	-0.2	-0.7	0.1	0.6	100	90.4	83.3	89.5	100	96
21-Aug-01	16:20	1.6	-0.9	0.1	-0.9	0.1	1.3	100	91	83.8	89.5	100	98.2
21-Aug-01	16:30	2.6	-0.9	0.1	-0.7	-0.4	1.6	100	91.6	85.9	92.2	100	90.4
21-Aug-01	16:40	3.4	-0.7	0.1	-0.7	-0.4	0.3	100	91.6	84.9	90	100	90.9
21-Aug-01	16:50	1.8	-0.7	-0.2	-0.7	-0.2	-0.4	98.9	88.8	83.8	90	100	90.9
21-Aug-01	17:00	0.8	-1.2	-0.2	-1.2	-0.2	-0.7	98.9	88.8	83.3	89.5	100	91.5
21-Aug-01	17:10	0.3	-1.2	-0.4	-0.9	-0.4	-1.2	100	92.1	83.3	90	100	95.4
21-Aug-01	17:20	0.3	-1.2	-0.4	-0.7	-0.2	-1.2	100	87.7	83.3	90	100	92
21-Aug-01	17:30	0.1	-1.4	-0.7	-0.7	0.1	-0.7	100	92.1	82.8	90	100	93.2
21-Aug-01	17:40	-0.2	-1.2	-0.7	-0.7	-0.2	-1.2	100	91	82.8	90	100	94.3
21-Aug-01	17:50	-0.2	-1.4	-0.7	-0.7	-0.7	-0.9	100	91	82.8	90	100	92.6
21-Aug-01	18:00	-0.2	-1.2	-0.9	-0.4	-0.4	-1.2	100	93.2	84.3	90	100	95.4
21-Aug-01	18:10	-0.2	-0.9	-0.9	-0.4	0.1	-0.9	100	91.6	83.8	90	100	92
21-Aug-01	18:20	-0.4	-1.2	-0.9	-0.7	0.1	-0.9	100	90.4	82.8	90	100	93.2
21-Aug-01	18:30	-0.4	-1.2	-0.7	-0.7	-0.7	-1.2	100	93.2	83.3	90	100	92
21-Aug-01	18:40	-0.4	-0.9	-0.7	-0.7	-0.7	-1.2	100	91	83.3	90	100	96
21-Aug-01	18:50	-0.4	-1.2	-0.7	-0.4	-0.2	-0.9	100	91	82.8	90	100	93.7
21-Aug-01	19:00	-0.2	-1.2	-0.7	-0.4	0.1	-0.9	100	93.2	82.8	90	100	92.6
21-Aug-01	19:10	-0.4	-0.9	-0.7	-0.4	-0.2	-1.2	100	91	83.3	90	100	94.8
21-Aug-01	19:20	-0.2	-0.9	-0.7	-0.4	-0.4	-0.9	100	91	83.3	90	100	96
21-Aug-01	19:30	-0.4	-1.2	-0.7	-0.4	-0.2	-0.7	100	93.8	84.3	90	100	95.4
21-Aug-01	19:40	-0.4	-0.9	-0.7	-0.4	0.1	-0.9	100	92.1	83.3	90	100	92.6
21-Aug-01	19:50	-0.4	-0.9	-0.7	-0.4	0.3	-0.9	100	90.4	82.8	90	100	96
21-Aug-01	20:00	-0.4	-1.2	-0.7	-0.2	0.8	-0.7	100	93.2	82.8	90	100	96.5
21-Aug-01	20:10	-0.4	-0.9	-0.7	-0.7	1.3	-0.7	100	94.3	83.3	89.5	100	93.2
21-Aug-01	20:20	-0.4	-0.9	-0.7	-0.7	1.1	-0.7	100	88.8	82.8	89	100	96
21-Aug-01	20:30	-0.2	-1.2	-0.7	-0.9	0.1	-0.7	100	93.2	83.8	89	100	96.5
21-Aug-01	20:40	-0.2	-0.9	-0.9	-0.9	-0.7	-0.9	100	93.8	83.3	89	100	92.6
21-Aug-01	20:50	-0.7	-0.7	-0.7	-0.9	-0.7	-0.7	100	91	82.3	91.7	100	96
21-Aug-01	21:00	-0.4	-1.2	-0.9	-0.7	-0.4	-0.7	100	91	83.8	92.2	100	96.5
21-Aug-01	21:10	-0.2	-0.9	-0.4	-0.7	0.1	-0.7	100	93.8	83.3	90	100	93.2
21-Aug-01	21:20	-0.7	-0.7	-0.7	-1.2	-0.4	-0.9	100	94.3	82.3	89.5	100	94.3
21-Aug-01	21:30	-0.7	-0.9	-0.4	-1.2	-0.7	-0.9	100	91	82.8	90.6	100	96
21-Aug-01	21:40	-0.4	-0.9	-0.7	-0.9	-0.7	-0.7	100	91	83.3	92.2	100	96

21-Aug-01	21:50	-0.4	-0.4	-0.4	-0.7	-0.2	-0.7	100	91.6	83.3	90.6	100	93.2
21-Aug-01	22:00	-0.4	-0.2	-0.2	-0.9	0.1	-0.9	100	91.6	83.3	90	100	96
21-Aug-01	22:10	-0.2	0.1	0.1	-0.9	-0.4	-0.7	100	91.6	83.3	90	100	96
21-Aug-01	22:20	0.6	0.3	-0.2	-0.9	-0.4	-0.7	100	91.6	83.8	92.2	100	95.4
21-Aug-01	22:30	1.8	0.6	0.1	-0.7	-0.2	-0.4	100	92.7	85.4	92.2	100	96
21-Aug-01	22:40	1.1	0.3	0.1	-0.7	-0.2	-0.9	98.9	91.6	84.3	90.6	100	95.4
21-Aug-01	22:50	0.1	0.1	-0.2	-0.7	0.1	-0.7	100	88.8	83.3	90.6	100	96
21-Aug-01	23:00	-0.2	-0.7	-0.7	-0.7	-0.7	-0.9	100	88.8	83.3	90	100	94.8
21-Aug-01	23:10	-0.2	-0.7	-0.7	-1.2	-0.4	-0.7	100	92.7	83.3	89.5	100	95.4
21-Aug-01	23:20	-0.2	-0.7	-0.7	-1.2	-0.2	-0.7	100	92.7	82.8	91.7	100	96.5
21-Aug-01	23:30	-0.2	-0.7	-0.9	-0.9	-0.2	-0.7	100	89.9	85.9	92.2	100	93.2
21-Aug-01	23:40	-0.4	-0.9	-0.9	-0.7	0.3	-0.7	100	93.2	83.3	90.6	100	96
21-Aug-01	23:50	-0.2	-0.7	-0.9	-0.9	-0.7	-0.7	100	93.8	84.3	89.5	100	95.4
22-Aug-01	00:00	-0.2	-0.7	-0.7	-0.9	-0.4	-0.4	100	89.3	83.3	91.1	100	94.8
22-Aug-01	00:10	-0.4	-1.2	-0.9	-0.7	-0.4	0.3	100	91.6	84.3	92.2	100	93.7
22-Aug-01	00:20	-0.4	-0.9	-0.7	-0.7	0.1	0.8	100	94.3	84.3	90.6	100	93.2
22-Aug-01	00:30	-0.7	-0.4	-0.7	-0.9	0.1	0.6	100	93.8	84.3	90	100	90.9
22-Aug-01	00:40	-0.4	-0.7	-0.9	-0.9	-0.7	-0.2	100	88.3	85.4	90.6	100	91.5
22-Aug-01	00:50	-0.4	-1.2	-0.7	-0.9	-0.4	-0.9	100	92.7	83.3	92.2	100	94.8
22-Aug-01	01:00	-0.4	-0.7	-0.7	-0.9	-0.4	-0.7	100	93.8	85.9	91.7	100	96
22-Aug-01	01:10	-0.4	-0.9	-0.7	-0.7	0.1	-0.9	100	89.3	83.3	90	100	92.6
22-Aug-01	01:20	-0.7	-0.9	-0.7	-0.9	0.1	-0.7	100	92.1	85.4	89.5	100	96
22-Aug-01	01:30	-0.4	-0.9	-0.7	-0.9	0.3	-0.7	100	93.8	83.3	92.2	100	96
22-Aug-01	01:40	-0.4	-0.4	-0.9	-0.7	0.3	-0.9	100	93.2	84.3	92.2	100	96
22-Aug-01	01:50	-0.7	-0.9	-0.7	-0.7	0.8	-0.4	100	88.8	83.8	89.5	100	96
22-Aug-01	02:00	-0.4	-0.9	-0.7	-1.2	1.3	-0.9	100	93.2	84.9	89.5	100	94.3
22-Aug-01	02:10	-0.4	-0.7	-0.9	-0.9	1.8	-0.9	100	93.8	84.3	92.2	100	96
22-Aug-01	02:20	-0.4	-0.7	-0.9	-0.9	1.1	-0.9	100	92.1	83.8	91.7	100	96
22-Aug-01	02:30	-0.4	-0.7	-0.7	-0.7	0.1	-0.7	100	89.9	84.9	90	100	96
22-Aug-01	02:40	-0.7	-1.2	-0.9	-0.9	-0.7	-0.9	100	93.2	83.8	89.5	100	96
22-Aug-01	02:50	-0.4	-0.7	-0.9	-0.9	-0.4	-0.7	100	93.8	85.4	90	100	96
22-Aug-01	03:00	-0.4	-0.4	-0.7	-0.9	-0.4	-0.7	100	93.2	83.3	90	100	96.5
22-Aug-01	03:10	-0.4	-0.7	-0.7	-0.9	-0.2	-0.7	100	88.8	85.9	90.6	100	95.4
22-Aug-01	03:20	-0.4	-0.9	-0.7	-0.7	-0.2	-0.7	100	93.2	83.3	92.2	100	96
22-Aug-01	03:30	-0.4	-0.7	-0.7	-0.9	-0.9	-0.9	100	93.8	83.3	91.7	100	93.2
22-Aug-01	03:40	-0.7	-0.4	-0.7	-0.9	-0.4	-0.9	100	93.2	83.8	90	100	96.5
22-Aug-01	03:50	-0.7	-0.7	-0.4	-1.2	-0.2	-0.7	100	89.9	83.3	89.5	100	94.3
22-Aug-01	04:00	-0.7	-0.7	-0.4	-0.9	0.1	-0.7	100	93.2	83.3	92.2	100	96
22-Aug-01	04:10	-0.2	-0.7	-0.2	-0.9	-0.2	-0.7	100	93.8	83.3	91.7	100	96
22-Aug-01	04:20	0.8	-0.4	-0.2	-0.7	-0.9	-0.7	100	91.6	83.8	90	100	96
22-Aug-01	04:30	1.6	-0.4	0.1	-1.2	-0.4	-0.7	100	91.6	85.4	89.5	100	96
22-Aug-01	04:40	0.6	-0.7	-0.2	-1.2	-0.2	-0.7	97.3	91.6	84.3	91.7	100	94.3
22-Aug-01	04:50	-0.4	-0.9	-0.4	-0.7	0.1	-0.7	100	92.1	83.3	92.2	100	96
22-Aug-01	05:00	-0.7	-0.7	-0.7	-0.9	-0.2	-0.7	100	93.2	83.8	90.6	100	96
22-Aug-01	05:10	-0.2	-0.7	-0.9	-0.9	-0.4	-0.9	100	90.4	85.4	89.5	100	96.5
22-Aug-01	05:20	-0.4	-0.9	-0.7	-0.9	-0.4	-0.7	100	91	83.8	91.1	100	93.7
22-Aug-01	05:30	-0.4	-0.9	-0.7	-0.7	-0.2	-0.7	100	91.6	83.8	92.2	100	96
22-Aug-01	05:40	-0.4	-0.7	-0.7	-0.7	0.1	-0.9	100	91.6	85.4	90.6	100	93.2
22-Aug-01	05:50	-0.7	-0.4	-0.7	-0.7	-0.4	-0.7	100	91.6	83.8	90	100	96

22-Aug-01	06:00	-0.4	-0.2	-0.7	-0.9	-0.4	-0.7	100	91.6	84.9	91.1	100	95.4
22-Aug-01	06:10	-0.4	0.1	-0.7	-0.9	-0.4	-0.4	100	91.6	83.8	92.2	100	96
22-Aug-01	06:20	-0.4	0.3	-0.7	-0.7	-0.2	-0.9	100	91	85.9	90.6	100	96
22-Aug-01	06:30	-0.2	0.3	-0.9	-0.7	-0.2	-0.9	100	89.9	83.8	90	100	93.7
22-Aug-01	06:40	-0.4	-0.2	-0.7	-1.2	-0.4	-0.9	100	88.3	86.5	91.1	100	96
22-Aug-01	06:50	-0.2	-0.7	-0.7	-0.9	-0.7	-0.7	100	92.7	83.3	92.2	100	93.7
22-Aug-01	07:00	-0.4	-0.4	-0.9	-0.9	-0.4	-0.7	100	93.8	85.9	91.7	100	96
22-Aug-01	07:10	-0.4	-0.7	-0.7	-0.7	-0.2	-0.7	100	88.8	83.3	89.5	100	96
22-Aug-01	07:20	-0.2	-0.9	-0.7	-0.9	0.1	-0.7	100	92.7	85.9	90	100	94.8
22-Aug-01	07:30	-0.4	-0.7	-0.7	-0.9	0.1	-0.7	100	93.8	83.3	92.2	100	96
22-Aug-01	07:40	-0.4	-0.4	-0.7	-0.4	0.6	-0.7	100	91.6	85.4	90.6	100	93.7
22-Aug-01	07:50	-0.4	-0.7	-0.7	-0.7	0.8	-0.7	100	91.6	83.3	90	100	95.4
22-Aug-01	08:00	-0.4	-0.9	-0.9	-0.9	1.3	-0.2	100	93.8	85.4	90.6	100	96
22-Aug-01	08:10	-0.2	-0.7	-0.7	-0.7	1.8	0.6	100	93.2	84.9	92.2	100	96
22-Aug-01	08:20	-0.4	-0.7	-0.7	-0.7	1.6	1.3	100	89.3	83.3	91.7	100	96
22-Aug-01	08:30	-0.2	-0.7	-0.9	-0.4	0.3	1.6	100	93.2	85.4	90	100	90.4
22-Aug-01	08:40	-0.2	-0.7	-0.7	-0.7	-0.4	0.3	100	92.7	83.3	90	100	90.4
22-Aug-01	08:50	0.1	-0.4	-0.9	-0.7	-0.7	-0.2	100	88.3	84.3	90.6	100	90.9
22-Aug-01	09:00	-0.4	-0.9	-0.7	-0.4	-0.2	-0.7	99.5	92.7	83.8	90.6	100	91.5
22-Aug-01	09:10	-0.2	-0.7	-0.9	-0.7	-0.4	-0.7	100	91	83.3	89.5	100	92
22-Aug-01	09:20	-0.2	-0.7	-0.7	-0.9	-0.4	-0.7	100	91.6	85.4	90	100	93.2
22-Aug-01	09:30	-0.4	-0.4	-0.4	-1.2	-0.2	-0.7	100	92.1	83.8	91.7	100	92
22-Aug-01	09:40	0.1	-0.7	-0.2	-0.9	0.1	-0.7	100	88.8	83.3	91.7	100	95.4
22-Aug-01	09:50	-0.4	-0.9	0.1	-0.4	-0.4	-0.9	100	92.7	83.3	91.1	100	92
22-Aug-01	10:00	-0.2	-0.7	0.1	-0.7	-0.2	-1.2	100	88.8	83.3	91.1	100	92
22-Aug-01	10:10	0.1	-0.9	0.3	-0.7	0.1	-0.9	100	91.6	83.3	90.6	100	93.7
22-Aug-01	10:20	1.3	-0.7	0.3	-0.2	-0.4	-0.9	100	91.6	83.8	90.6	100	92
22-Aug-01	10:30	1.6	-0.7	0.3	-0.2	-0.4	-0.9	99.5	91.6	85.4	91.1	100	93.7
22-Aug-01	10:40	0.8	-0.7	0.3	-0.2	-0.2	-0.9	100	91.6	83.3	91.1	100	92.6
22-Aug-01	10:50	0.3	-0.4	-0.2	-0.2	0.1	-1.2	100	89.3	83.8	91.1	100	93.2
22-Aug-01	11:00	-0.2	-0.9	-0.2	0.1	-0.4	-1.2	100	88.3	83.3	90.6	100	93.2
22-Aug-01	11:10	0.1	-0.9	-0.4	-0.4	-0.2	-0.9	100	92.7	83.3	89.5	100	93.2
22-Aug-01	11:20	-0.2	-0.9	-0.7	-0.4	0.1	-0.9	100	88.3	83.3	90	100	92.6
22-Aug-01	11:30	0.1	-0.9	-0.4	-0.4	-0.4	-0.9	100	91.6	82.8	90	100	95.4
22-Aug-01	11:40	-0.2	-1.2	-0.7	-0.4	0.1	-1.2	100	88.8	82.8	90	100	94.3
22-Aug-01	11:50	0.1	-1.2	-0.9	-0.7	0.1	-0.9	100	91.6	82.8	89.5	100	93.7
22-Aug-01	12:00	-0.2	-1.2	-0.7	-0.9	-0.4	-0.9	100	91	82.3	89.5	100	92.6
22-Aug-01	12:10	-0.2	-1.2	-0.7	-0.7	-0.2	-0.9	100	91	82.3	90	100	96
22-Aug-01	12:20	-0.2	-1.2	-0.7	-0.9	-0.2	-0.9	100	92.7	82.3	90	100	94.8
22-Aug-01	12:30	-0.4	-0.9	-0.9	-1.2	-0.4	-0.9	100	88.8	84.3	91.7	100	93.7
22-Aug-01	12:40	-0.2	-0.9	-0.7	-0.7	-0.4	-0.9	100	92.1	83.3	92.8	100	93.2
22-Aug-01	12:50	-0.2	-0.7	-0.7	-0.7	-0.2	-0.7	100	88.3	82.8	90	100	96.5
22-Aug-01	13:00	0.1	-0.9	-1.2	-0.7	0.1	-1.2	100	91.6	83.3	90	100	92.6
22-Aug-01	13:10	-0.2	-0.9	-0.9	-0.7	-0.4	-0.9	100	92.7	83.3	90	100	93.2
22-Aug-01	13:20	-0.2	-0.9	-0.7	-0.7	-0.2	-0.9	100	88.8	82.8	90	100	94.3
22-Aug-01	13:30	-0.2	-0.9	-0.9	-0.7	0.3	-1.2	100	91.6	82.3	90	100	92.6
22-Aug-01	13:40	-0.2	-0.4	-0.7	-0.9	0.8	-0.9	100	91.6	83.8	90	100	96.5
22-Aug-01	13:50	0.1	-0.2	-0.7	-1.2	1.3	-0.7	100	91.6	82.8	89.5	100	92.6
22-Aug-01	14:00	-0.2	0.3	-0.7	-0.9	1.8	-0.9	100	91.6	82.3	90	100	92

22-Aug-01	14:10	-0.2	0.8	-0.9	-0.9	2.3	-1.2	100	91.6	81.7	90	100	93.7
22-Aug-01	14:20	0.1	1.3	-0.7	-0.9	2.1	-1.2	100	93.2	81.2	89.5	100	93.7
22-Aug-01	14:30	0.1	1.3	-0.9	-0.9	1.3	-0.9	100	88.8	81.2	90	100	92.6
22-Aug-01	14:40	0.1	0.8	-0.7	-1.2	0.6	-0.9	100	85.5	81.2	89.5	100	93.7
22-Aug-01	14:50	0.1	-0.2	-0.9	-0.9	0.1	-1.2	100	86.6	81.2	90	100	95.4
22-Aug-01	15:00	0.1	-0.7	-0.9	-0.7	-0.2	-0.9	100	86.6	81.2	90	100	92.6
22-Aug-01	15:10	0.1	-0.9	-0.9	-0.7	0.1	-0.9	100	86.6	83.8	90	100	93.2
22-Aug-01	15:20	-0.2	-1.2	-0.7	-1.2	0.1	-0.9	100	88.3	81.7	89.5	100	94.8
22-Aug-01	15:30	-0.4	-1.4	-0.4	-1.2	-0.4	-1.2	100	88.8	82.8	89.5	100	92
22-Aug-01	15:40	0.1	-1.4	-0.4	-0.9	0.1	-0.9	100	87.7	82.3	90	100	93.2
22-Aug-01	15:50	-0.2	-1.7	-0.4	-0.9	0.1	-0.9	100	91	82.3	90	100	93.2
22-Aug-01	16:00	0.3	-1.4	-0.2	-0.9	-0.2	-0.2	100	88.8	82.3	89.5	100	94.8
22-Aug-01	16:10	0.6	-1.4	0.1	-0.7	0.1	0.6	100	90.4	82.8	90	100	98.2
22-Aug-01	16:20	1.3	-1.2	0.3	-0.7	0.1	1.6	100	91	82.8	90	100	99.4
22-Aug-01	16:30	2.8	-0.9	0.6	-0.7	-0.4	1.3	100	91.6	85.4	90	100	90.4
22-Aug-01	16:40	2.8	-0.9	0.3	-0.9	-0.2	0.1	99.5	88.3	83.8	89.5	100	90.9
22-Aug-01	16:50	1.3	-1.4	0.1	-1.2	0.1	-0.4	97.8	86.6	83.3	91.1	100	91.5
22-Aug-01	17:00	0.3	-1.4	-0.4	-0.7	-0.2	-1.2	100	91	83.3	90.6	100	92
22-Aug-01	17:10	0.1	-1.7	-0.4	-0.4	-0.2	-1.2	100	88.3	83.3	90.6	100	92
22-Aug-01	17:20	0.1	-1.4	-0.7	-0.4	-0.2	-1.2	100	92.1	83.3	90.6	100	96
22-Aug-01	17:30	-0.2	-1.4	-0.7	-0.4	0.1	-0.9	100	88.3	82.8	90.6	100	93.2
22-Aug-01	17:40	-0.4	-1.4	-0.7	-0.7	-0.4	-0.9	100	92.1	82.8	90	100	95.4
22-Aug-01	17:50	-0.4	-1.4	-0.9	-0.7	-0.2	-1.2	100	89.3	82.8	90	100	92.6
22-Aug-01	18:00	-0.4	-1.4	-0.9	-0.4	0.1	-1.2	100	91	82.3	90	100	96
22-Aug-01	18:10	-0.2	-1.2	-0.7	-0.4	-0.4	-1.2	100	93.2	84.9	90	100	94.3
22-Aug-01	18:20	-0.7	-1.2	-0.9	-0.4	-0.4	-1.2	100	89.3	83.3	90	100	92.6
22-Aug-01	18:30	-0.7	-1.4	-0.9	-0.4	-0.2	-0.9	100	91	82.3	90	100	93.2
22-Aug-01	18:40	-0.4	-1.2	-0.9	-0.4	0.1	-0.9	100	93.2	84.3	90	100	96
22-Aug-01	18:50	-0.4	-0.9	-0.7	-0.4	-0.2	-0.7	100	91.6	82.8	90	100	92.6
22-Aug-01	19:00	-0.4	-0.9	-0.9	-0.4	-0.4	-0.9	100	91	83.3	90	100	95.4
22-Aug-01	19:10	-0.4	-0.9	-0.9	-0.4	-0.4	-1.2	100	93.2	83.8	90	100	95.4
22-Aug-01	19:20	-0.7	-0.9	-0.9	-0.4	0.1	-0.9	100	93.8	82.8	90	100	96.5
22-Aug-01	19:30	-0.4	-0.9	-0.7	-0.4	0.1	-0.7	100	88.8	83.8	90	100	93.2
22-Aug-01	19:40	-0.4	-1.2	-0.7	-0.4	0.3	-0.7	100	92.1	83.3	90	100	96
22-Aug-01	19:50	-0.7	-0.9	-0.9	-0.4	0.6	-0.9	100	93.8	82.3	90	100	94.3
22-Aug-01	20:00	-0.7	-0.7	-0.7	-0.4	1.1	-0.9	100	91.6	83.3	90	100	96.5
22-Aug-01	20:10	-0.4	-1.2	-0.7	-0.7	1.6	-0.7	100	91	83.3	89.5	100	93.2
22-Aug-01	20:20	-0.7	-1.2	-0.9	-0.7	1.3	-0.9	100	93.2	82.8	89.5	100	96.5
22-Aug-01	20:30	-0.7	-0.7	-0.9	-0.9	0.3	-0.7	100	93.8	83.8	89.5	100	93.2
22-Aug-01	20:40	-0.4	-0.9	-0.9	-0.9	-0.4	-0.7	100	88.8	82.3	89.5	100	96
22-Aug-01	20:50	-0.4	-1.2	-0.7	-0.9	-0.4	-0.7	100	92.1	83.8	92.2	100	93.2
22-Aug-01	21:00	-0.7	-1.2	-0.7	-0.7	-0.2	-0.7	100	93.8	82.8	92.2	100	96
22-Aug-01	21:10	-0.4	-0.9	-0.7	-0.7	0.1	-0.9	100	93.8	81.7	90	100	94.3
22-Aug-01	21:20	-0.4	-0.9	-0.9	-0.9	-0.4	-0.7	100	90.4	83.3	89.5	100	96
22-Aug-01	21:30	-0.4	-0.9	-0.7	-0.9	-0.7	-0.7	100	91.6	83.3	91.1	100	93.2
22-Aug-01	21:40	-0.7	-0.9	-0.7	-0.7	-0.2	-0.7	100	91.6	83.3	92.2	100	96
22-Aug-01	21:50	-0.4	-0.7	-0.2	-0.7	-0.2	-0.7	100	91	83.3	90.6	100	96
22-Aug-01	22:00	-0.7	-0.4	-0.4	-0.7	-0.2	-0.4	100	91	83.3	90	100	96.5
22-Aug-01	22:10	-0.2	-0.2	0.1	-0.9	-0.7	-0.7	100	91.6	83.3	90.6	100	96

22-Aug-01	22:20	0.3	0.3	-0.2	-0.7	-0.4	-0.7	100	91.6	83.3	92.2	100	93.7
22-Aug-01	22:30	1.8	0.6	0.3	-0.7	-0.2	-0.7	100	93.2	85.9	92.2	100	96
22-Aug-01	22:40	1.8	0.1	0.1	-0.7	-0.2	-0.7	98.4	91.6	84.3	90	100	93.2
22-Aug-01	22:50	0.3	-0.2	-0.2	-0.4	-0.7	-0.9	98.9	88.8	83.8	90.6	100	96
22-Aug-01	23:00	-0.4	-0.7	-0.4	-0.4	-0.7	-0.7	100	88.8	83.3	89.5	100	96
22-Aug-01	23:10	-0.7	-0.7	-0.4	-0.9	-0.4	-0.7	100	92.7	83.3	90	100	94.3
22-Aug-01	23:20	-0.7	-0.4	-0.7	-1.2	0.1	-0.7	100	93.2	83.3	91.7	100	94.3
22-Aug-01	23:30	-0.4	-0.7	-0.9	-0.7	0.1	-0.9	100	89.9	85.4	92.2	100	96
22-Aug-01	23:40	-0.4	-0.9	-0.7	-0.7	-0.4	-0.7	100	93.2	83.3	90.6	100	93.2
22-Aug-01	23:50	-0.4	-0.7	-0.7	-0.7	-0.2	-0.9	100	93.8	85.4	90	100	94.3
23-Aug-01	00:00	-0.4	-0.7	-0.7	-0.9	-0.2	-0.4	100	88.8	83.3	90.6	100	94.8
23-Aug-01	00:10	-0.7	-0.9	-0.9	-0.7	-0.2	0.1	100	92.1	85.4	92.2	100	93.7
23-Aug-01	00:20	-0.4	-0.9	-0.7	-0.7	-0.2	0.6	100	93.8	83.8	92.2	100	92.6
23-Aug-01	00:30	-0.7	-0.7	-0.7	-0.7	-0.4	0.8	100	93.2	84.9	89.5	100	91.5
23-Aug-01	00:40	-0.4	-0.7	-0.7	-0.7	-0.2	-0.4	100	88.8	84.3	90	100	90.9
23-Aug-01	00:50	-0.4	-0.7	-0.9	-0.9	0.1	-0.7	100	92.1	83.3	92.2	100	96
23-Aug-01	01:00	-0.4	-0.7	-0.7	-0.7	-0.2	-0.7	100	93.8	85.4	92.2	100	96.5
23-Aug-01	01:10	-0.7	-0.4	-0.7	-0.7	-0.4	-0.7	100	92.1	83.3	90.6	100	95.4
23-Aug-01	01:20	-0.7	-0.7	-0.7	-0.9	-0.7	-0.4	100	89.9	85.9	90	100	94.3
23-Aug-01	01:30	-0.7	-0.9	-0.7	-1.2	-0.2	-0.7	100	93.2	83.3	91.7	100	96
23-Aug-01	01:40	-0.7	-0.9	-0.7	-0.7	0.3	-0.9	100	93.8	85.4	92.2	100	93.2
23-Aug-01	01:50	-0.4	-0.7	-0.7	-0.7	0.6	-0.7	100	90.4	83.3	91.7	100	96
23-Aug-01	02:00	-0.7	-0.9	-0.9	-0.9	1.1	-0.7	100	91.6	85.4	89.5	100	93.7
23-Aug-01	02:10	-0.4	-1.2	-0.7	-0.9	1.6	-0.9	100	93.8	84.3	89.5	100	96
23-Aug-01	02:20	-0.4	-0.7	-0.7	-0.7	1.1	-0.7	100	93.2	84.9	92.2	100	96
23-Aug-01	02:30	-0.4	-0.4	-0.7	-0.7	0.1	-0.7	100	89.9	84.3	92.2	100	96
23-Aug-01	02:40	-0.7	-0.9	-0.7	-0.7	-0.4	-0.9	100	91	83.3	91.1	100	94.3
23-Aug-01	02:50	-0.4	-0.9	-0.7	-0.7	-0.4	-0.7	100	93.8	84.9	91.1	100	96
23-Aug-01	03:00	-0.4	-0.4	-0.7	-0.7	-0.2	-0.9	100	93.2	83.3	90	100	94.3
23-Aug-01	03:10	-0.7	-0.4	-0.7	-0.9	0.1	-0.7	100	88.3	85.4	90	100	96
23-Aug-01	03:20	-0.4	-0.9	-0.9	-0.7	-0.4	-0.9	100	91.6	83.8	92.2	100	96.5
23-Aug-01	03:30	-0.7	-0.9	-0.7	-0.9	-0.4	-0.7	100	93.8	83.8	92.8	100	93.2
23-Aug-01	03:40	-0.9	-0.4	-0.7	-0.7	-0.2	-0.9	100	93.2	83.8	91.7	100	96
23-Aug-01	03:50	-0.7	-0.7	-0.4	-0.7	-0.2	-0.9	100	88.8	83.3	90	100	96
23-Aug-01	04:00	-0.7	-0.7	-0.4	-0.9	0.1	-0.9	100	92.1	83.3	90.6	100	93.2
23-Aug-01	04:10	-0.4	-0.7	-0.2	-0.9	-0.7	-0.7	100	93.8	83.3	92.2	100	96
23-Aug-01	04:20	0.6	-0.7	-0.2	-0.7	-0.4	-0.7	100	92.7	83.8	92.2	100	96
23-Aug-01	04:30	1.3	-0.4	0.1	-0.7	-0.4	-0.7	100	91.6	85.9	90	100	93.2
23-Aug-01	04:40	0.6	-0.7	-0.2	-0.9	0.1	-0.9	98.4	91.6	83.8	90	100	96
23-Aug-01	04:50	-0.7	-0.7	-0.4	-0.9	-0.2	-0.7	100	89.3	83.3	92.2	100	96
23-Aug-01	05:00	-0.4	-0.9	-0.7	-0.7	-0.7	-0.7	100	93.2	83.3	92.2	100	94.8
23-Aug-01	05:10	-0.7	-0.9	-0.7	-0.7	-0.4	-0.9	100	93.8	84.9	91.7	100	96
23-Aug-01	05:20	-0.7	-0.7	-0.7	-0.7	0.1	-0.9	100	88.3	83.8	90	100	93.2
23-Aug-01	05:30	-0.4	-0.7	-0.9	-1.2	-0.2	-0.7	100	91.6	83.8	90	100	96
23-Aug-01	05:40	-0.7	-0.7	-0.9	-0.9	-0.4	-0.9	100	91.6	85.4	92.2	100	94.3
23-Aug-01	05:50	-0.7	-0.7	-0.7	-0.7	-0.4	-0.7	100	91	83.3	92.2	100	95.4
23-Aug-01	06:00	-0.7	-0.2	-0.9	-0.4	-0.2	-0.9	100	91.6	85.4	90	100	96
23-Aug-01	06:10	-0.7	0.1	-0.7	-0.9	0.1	-0.9	100	91.6	83.8	90	100	93.7
23-Aug-01	06:20	-0.7	0.3	-0.9	-0.9	-0.7	-0.7	100	93.8	85.4	92.2	100	96

23-Aug-01	06:30	-0.4	0.6	-0.7	-0.7	-0.7	-0.7	100	89.3	83.8	92.2	100	93.2
23-Aug-01	06:40	-0.7	0.1	-0.9	-0.7	-0.4	-0.9	100	86.6	85.4	90.6	100	96
23-Aug-01	06:50	-0.7	-0.4	-0.7	-0.9	0.1	-0.7	100	91	83.8	89.5	100	93.2
23-Aug-01	07:00	-0.4	-0.4	-0.7	-1.2	-0.7	-0.7	100	91.6	84.9	90.6	100	96
23-Aug-01	07:10	-0.4	-0.7	-0.7	-1.2	-0.4	-0.7	100	90.4	84.3	92.2	100	96
23-Aug-01	07:20	-0.4	-0.7	-0.9	-0.9	-0.2	-0.4	100	93.2	84.3	91.7	100	93.2
23-Aug-01	07:30	-0.4	-0.7	-0.7	-0.4	-0.2	-0.7	100	89.3	84.3	90	100	93.2
23-Aug-01	07:40	-0.4	-0.7	-0.7	-0.7	0.6	-0.7	100	91.6	84.9	90	100	96
23-Aug-01	07:50	-0.2	-0.9	-0.7	-0.9	0.8	-0.7	100	93.8	84.9	91.1	100	94.3
23-Aug-01	08:00	-0.4	-0.7	-0.7	-0.7	1.6	-0.2	100	88.8	83.3	91.1	100	94.8
23-Aug-01	08:10	-0.7	-0.7	-0.7	-0.7	2.1	0.6	100	92.1	85.9	90	100	96
23-Aug-01	08:20	-0.7	-0.4	-0.9	-1.2	1.6	1.3	100	93.2	83.8	91.1	100	94.3
23-Aug-01	08:30	-0.4	-0.7	-0.7	-0.7	0.6	1.6	100	88.8	84.9	92.2	100	90.4
23-Aug-01	08:40	-0.4	-0.9	-0.9	-0.4	-0.2	0.3	100	92.1	83.3	91.1	100	90.4
23-Aug-01	08:50	-0.7	-0.4	-0.7	-0.4	-0.4	-0.4	100	89.9	82.8	91.1	100	91.5
23-Aug-01	09:00	-0.4	-0.9	-0.7	-0.4	-0.2	-0.9	100	91.6	82.8	90.6	100	95.4
23-Aug-01	09:10	-0.2	-0.7	-0.7	-0.4	0.1	-0.9	100	93.2	82.8	89.5	100	93.2
23-Aug-01	09:20	-0.4	-0.7	-0.7	-0.7	-0.7	-0.7	100	88.3	85.4	89.5	100	93.2
23-Aug-01	09:30	-0.4	-0.7	-0.4	-0.7	-0.2	-0.7	100	92.1	84.9	90	100	94.8
23-Aug-01	09:40	-0.4	-0.7	-0.4	-0.9	0.1	-0.7	100	88.8	84.3	90	100	93.2
23-Aug-01	09:50	-0.7	-0.9	-0.2	-0.7	-0.4	-0.9	100	91.6	83.8	90.6	100	93.2
23-Aug-01	10:00	-0.2	-0.9	-0.2	-0.7	-0.2	-0.9	100	91.6	83.8	90	100	94.3
23-Aug-01	10:10	0.1	-0.9	-0.2	-0.7	-0.2	-0.7	100	91.6	83.8	90	100	94.3
23-Aug-01	10:20	1.1	-0.7	0.3	-0.7	-0.2	-0.7	100	91.6	84.3	90	100	93.2
23-Aug-01	10:30	2.3	-0.4	0.1	-0.4	-0.2	-0.9	100	91.6	85.9	90	100	95.4
23-Aug-01	10:40	1.3	-0.4	0.1	-0.4	0.1	-0.9	97.8	91.6	84.3	90	100	93.7
23-Aug-01	10:50	0.3	-0.4	0.3	-0.4	-0.2	-0.7	100	88.3	83.3	90	100	93.2
23-Aug-01	11:00	0.3	-0.9	0.1	-0.2	-0.4	-0.7	100	90.4	83.8	89.5	100	94.8
23-Aug-01	11:10	0.1	-0.7	0.1	-0.7	0.1	-0.9	100	91.6	83.3	89.5	100	95.4
23-Aug-01	11:20	-0.2	-0.9	-0.2	-0.7	-0.2	-0.4	100	88.3	82.8	90	100	93.2
23-Aug-01	11:30	-0.2	-0.9	-0.4	-0.7	-0.2	-0.4	100	92.1	82.8	90	100	93.7
23-Aug-01	11:40	0.1	-0.9	-0.4	-0.7	0.3	-0.4	100	87.7	82.8	90	100	96
23-Aug-01	11:50	-0.2	-1.2	-0.4	-0.7	-0.2	-0.4	100	91	82.8	90	100	93.7
23-Aug-01	12:00	0.1	-0.9	-0.4	-0.7	0.1	-0.7	100	87.7	82.8	90	100	93.2
23-Aug-01	12:10	-0.4	-1.2	-0.7	-0.9	0.1	-0.7	100	91.6	82.3	90	100	94.8
23-Aug-01	12:20	0.1	-1.2	-0.7	-1.2	-0.2	-0.7	100	88.3	82.3	90	100	93.2
23-Aug-01	12:30	-0.2	-1.2	-0.9	-0.9	0.1	-0.4	100	91.6	82.8	92.8	100	92.6
23-Aug-01	12:40	0.1	-0.9	-0.9	-0.7	0.1	-0.4	100	88.3	82.8	89.5	100	93.2
23-Aug-01	12:50	-0.2	-1.2	-1.2	-0.7	-0.4	-0.4	100	91	82.8	90	100	93.2
23-Aug-01	13:00	0.1	-1.2	-0.9	-0.9	-0.4	-0.4	100	88.8	82.8	89.5	100	92.6
23-Aug-01	13:10	0.1	-1.2	-0.7	-0.9	0.3	-0.7	100	91.6	82.3	89.5	100	96
23-Aug-01	13:20	-0.4	-0.9	-0.7	-0.9	0.1	-0.7	100	88.3	83.8	92.2	100	94.3
23-Aug-01	13:30	-0.2	-0.9	-0.7	-0.7	0.3	-0.9	100	89.3	83.3	90.6	100	92.6
23-Aug-01	13:40	-0.4	-0.9	-0.7	-0.7	0.6	-0.7	100	89.3	82.3	90	100	95.4
23-Aug-01	13:50	-0.4	-0.2	-0.4	-0.9	1.1	-0.7	100	89.9	81.7	89.5	100	92.6
23-Aug-01	14:00	-0.7	0.1	-0.7	-0.9	1.8	-0.7	100	89.9	81.2	90	100	94.3
23-Aug-01	14:10	-0.2	0.3	-0.7	-0.9	2.6	-0.7	100	90.4	81.2	91.7	100	95.4
23-Aug-01	14:20	-0.4	1.1	-0.7	-0.7	2.1	-0.7	100	92.7	81.2	90.6	100	92
23-Aug-01	14:30	-0.2	1.3	-0.7	-0.9	1.1	-0.9	100	88.3	81.2	90	100	95.4

23-Aug-01	14:40	-0.2	0.3	-0.4	-0.9	0.3	-0.9	100	85.5	81.2	90	100	92
23-Aug-01	14:50	-0.4	-0.2	-0.7	-0.7	-0.2	-0.7	100	87.7	81.7	90	100	93.7
23-Aug-01	15:00	-0.2	-0.4	-0.4	-0.7	-0.2	-0.7	100	88.8	81.2	89.5	100	94.3
23-Aug-01	15:10	-0.2	-0.7	-0.4	-0.7	0.1	-0.7	100	88.3	81.2	90	100	94.8
23-Aug-01	15:20	-0.2	-0.7	-0.4	-0.9	-0.4	-0.9	100	92.1	81.2	90	100	91.5
23-Aug-01	15:30	-0.2	-0.9	-0.4	-0.9	-0.2	-0.7	100	87.2	81.7	89.5	100	93.2
23-Aug-01	15:40	-0.2	-1.2	-0.2	-1.2	0.1	-0.9	100	91	82.3	89.5	100	92
23-Aug-01	15:50	-0.2	-0.9	-0.4	-1.2	-0.2	-0.9	99.5	88.3	81.7	91.7	100	93.2
23-Aug-01	16:00	0.1	-1.2	0.1	-0.7	-0.2	-0.4	100	91	81.7	92.2	100	96
23-Aug-01	16:10	0.3	-0.9	0.1	-0.9	-0.2	0.6	100	91.6	81.7	89.5	100	98.2
23-Aug-01	16:20	1.3	-0.7	0.3	-0.7	0.1	1.8	100	90.4	82.8	90	100	100
23-Aug-01	16:30	2.3	-0.9	0.3	-0.9	-0.4	1.3	100	91	84.9	90	100	90.9
23-Aug-01	16:40	3.1	-0.9	0.1	-0.9	0.1	0.3	100	91	83.8	90	100	90.4
23-Aug-01	16:50	1.6	-0.9	0.1	-0.9	0.1	-0.2	98.9	88.8	83.3	92.2	100	90.9
23-Aug-01	17:00	0.6	-0.9	0.1	-0.7	-0.2	-0.4	100	88.3	83.3	91.1	100	92
23-Aug-01	17:10	0.8	-1.2	-0.4	-0.9	0.1	-0.7	100	92.1	83.3	91.1	100	92
23-Aug-01	17:20	0.3	-0.9	-0.7	-0.7	0.3	-0.7	100	89.3	83.3	90.6	100	94.8
23-Aug-01	17:30	0.1	-1.2	-0.7	-0.4	0.8	-0.7	100	88.8	82.8	90.6	100	93.2
23-Aug-01	17:40	-0.2	-0.9	-0.7	-0.4	1.1	-0.7	100	92.1	82.8	90.6	100	92.6
23-Aug-01	17:50	-0.2	-0.9	-0.7	-0.4	1.1	-0.7	100	88.3	82.8	90.6	100	95.4
23-Aug-01	18:00	-0.2	-0.9	-1.2	-0.4	1.1	-0.7	100	91.6	83.8	90.6	100	94.8
23-Aug-01	18:10	-0.2	-0.9	-0.9	-0.4	1.1	-0.7	100	93.2	83.8	90.6	100	92
23-Aug-01	18:20	-0.2	-0.9	-0.4	-0.4	1.3	-0.7	100	87.2	82.8	90.6	100	93.2
23-Aug-01	18:30	-0.2	-0.9	-0.9	-0.4	1.3	-0.7	100	91.6	82.3	90.6	100	94.8
23-Aug-01	18:40	-0.2	-0.9	-0.9	-0.4	1.6	-0.7	100	93.2	84.3	90.6	100	93.2
23-Aug-01	18:50	-0.4	-1.2	-0.4	-0.4	1.3	-0.7	100	87.7	83.3	90.6	100	92.6
23-Aug-01	19:00	-0.2	-0.9	-0.7	-0.4	1.6	-0.7	100	92.1	82.8	90.6	100	93.2
23-Aug-01	19:10	-0.7	-0.7	-0.9	-0.4	1.6	-0.7	100	92.7	82.8	90.6	100	96
23-Aug-01	19:20	-0.4	-1.2	-0.9	-0.4	1.6	-0.7	100	88.3	82.3	90.6	100	94.3
23-Aug-01	19:30	-0.4	-1.2	-0.9	-0.4	1.8	-0.9	100	92.1	84.3	90.6	100	93.7
23-Aug-01	19:40	-0.4	-0.9	-0.4	-0.4	2.1	-0.7	100	93.2	83.3	90.6	100	93.7
23-Aug-01	19:50	-0.7	-0.9	-0.7	-0.4	2.6	-0.9	100	88.3	82.8	90	100	94.8
23-Aug-01	20:00	-0.2	-1.2	-0.7	-0.4	2.8	-0.9	100	91	82.8	89.5	100	96
23-Aug-01	20:10	-0.4	-1.4	-0.9	-0.4	3.1	-0.7	100	93.8	82.3	90	100	96
23-Aug-01	20:20	-0.4	-0.9	-0.7	-0.9	2.8	-0.7	100	91.6	81.7	89.5	100	94.3
23-Aug-01	20:30	-0.7	-1.2	-0.7	-0.9	1.6	-0.9	100	89.3	81.7	89.5	99.5	93.2
23-Aug-01	20:40	-0.4	-1.2	-0.7	-1.2	0.8	-0.7	100	93.2	81.2	89.5	98.9	94.3
23-Aug-01	20:50	-0.4	-0.9	-0.7	-1.2	0.1	-0.9	100	93.8	83.8	89.5	98.9	96
23-Aug-01	21:00	-0.4	-1.2	-0.4	-1.2	-0.4	-0.7	100	88.3	81.7	91.7	100	93.7
23-Aug-01	21:10	-0.7	-1.4	-0.7	-0.7	-0.2	-0.7	100	92.1	81.2	90.6	100	93.2
23-Aug-01	21:20	-0.4	-1.2	-0.9	-0.7	0.1	-0.7	100	93.8	81.2	90	100	96.5
23-Aug-01	21:30	-0.4	-0.9	-0.9	-0.9	-0.2	-0.7	100	92.7	83.3	89.5	100	94.8
23-Aug-01	21:40	-0.7	-0.7	-0.4	-1.2	-0.4	-0.4	100	91.6	82.8	91.7	100	96
23-Aug-01	21:50	-0.4	-0.4	-0.4	-0.7	0.1	-0.7	100	91	82.8	92.2	100	95.4
23-Aug-01	22:00	-0.4	-0.2	-0.4	-0.9	-0.2	-0.7	100	91	82.3	89.5	100	94.3
23-Aug-01	22:10	-0.2	0.3	-0.4	-0.9	-0.2	-0.9	100	91.6	82.8	90	100	96
23-Aug-01	22:20	0.3	0.6	0.1	-0.9	-0.4	-0.7	100	93.8	82.8	91.7	100	96.5
23-Aug-01	22:30	1.8	0.8	0.1	-0.7	0.1	-0.7	100	92.1	84.9	92.2	100	96
23-Aug-01	22:40	1.3	0.6	-0.2	-0.7	-0.2	-0.7	99.5	91	83.8	90.6	100	95.4

23-Aug-01	22:50	-0.2	0.3	-0.4	-0.7	-0.4	-0.4	100	88.8	83.3	90.6	100	93.7
23-Aug-01	23:00	-0.4	-0.4	-0.4	-0.4	-0.2	-0.7	99.5	86.1	83.3	90	100	96
23-Aug-01	23:10	-0.7	-0.9	-0.7	-0.7	-0.2	-0.7	100	91.6	83.3	90	100	93.7
23-Aug-01	23:20	-0.7	-0.9	-0.9	-0.9	-0.4	-0.7	100	93.8	83.8	91.1	100	96
23-Aug-01	23:30	-0.4	-0.9	-0.7	-0.7	-0.4	-0.4	100	88.3	84.3	92.2	100	93.7
23-Aug-01	23:40	-0.4	-1.4	-0.7	-0.9	0.1	-0.7	100	92.1	82.8	90	100	96
23-Aug-01	23:50	-0.4	-0.9	-0.7	-0.7	0.1	-0.4	100	94.3	85.9	90	100	95.4
24-Aug-01	00:00	-0.2	-0.9	-0.9	-0.9	-0.4	-0.2	100	92.7	83.3	91.1	100	95.4
24-Aug-01	00:10	-0.4	-1.2	-0.7	-0.9	-0.2	0.3	100	89.3	85.9	92.2	100	93.7
24-Aug-01	00:20	-0.4	-1.2	-0.7	-0.9	0.1	1.1	100	93.2	83.3	90	100	93.7
24-Aug-01	00:30	-0.4	-0.9	-0.7	-0.7	0.1	1.1	100	93.8	84.9	90	100	92.6
24-Aug-01	00:40	-0.4	-0.7	-0.7	-0.9	-0.4	0.1	100	91.6	83.8	91.7	100	91.5
24-Aug-01	00:50	-0.4	-1.2	-0.7	-0.7	-0.2	-0.7	100	89.3	83.3	92.2	100	94.3
24-Aug-01	01:00	-0.4	-1.2	-0.9	-0.7	-0.2	-0.7	100	93.8	85.4	90	100	95.4
24-Aug-01	01:10	-0.7	-0.7	-0.7	-0.7	-0.2	-0.7	100	93.8	83.3	90	100	96
24-Aug-01	01:20	-0.7	-0.9	-0.7	-1.2	-0.4	-0.4	100	89.3	85.9	91.7	100	93.2
24-Aug-01	01:30	-0.4	-0.9	-0.7	-0.9	-0.2	-0.7	100	91	83.3	92.2	100	96
24-Aug-01	01:40	-0.4	-1.2	-0.7	-0.7	0.3	-0.7	100	93.8	85.4	90	100	95.4
24-Aug-01	01:50	-0.4	-0.9	-0.4	-0.7	0.8	-0.7	100	93.8	83.3	90	100	94.8
24-Aug-01	02:00	-0.7	-0.9	-0.9	-1.2	1.1	-0.9	100	88.8	82.8	91.7	100	94.3
24-Aug-01	02:10	-0.4	-1.2	-0.7	-0.7	1.8	-0.9	100	91.6	85.4	92.2	100	96
24-Aug-01	02:20	-0.2	-0.9	-0.9	-0.7	1.1	-0.4	100	93.8	83.3	90	100	93.2
24-Aug-01	02:30	-0.4	-0.9	-0.7	-0.7	0.6	-0.7	100	93.2	85.9	90	100	96
24-Aug-01	02:40	-0.4	-0.7	-0.7	-0.9	-0.4	-0.9	100	88.8	83.3	90	100	96.5
24-Aug-01	02:50	-0.7	-1.4	-0.7	-0.9	-0.4	-0.7	100	92.1	84.9	90.6	100	93.2
24-Aug-01	03:00	-0.7	-0.9	-0.9	-0.7	-0.2	-0.7	100	93.8	83.8	90.6	100	96
24-Aug-01	03:10	-0.7	-0.9	-0.7	-0.9	0.1	-0.7	100	93.8	83.8	90	100	94.8
24-Aug-01	03:20	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	88.3	83.8	91.1	100	94.3
24-Aug-01	03:30	-0.7	-0.9	-0.7	-0.9	-0.4	-0.7	100	91.6	83.8	92.2	100	96
24-Aug-01	03:40	-0.7	-0.9	-0.7	-0.9	-0.2	-0.9	100	93.8	83.8	91.1	100	95.4
24-Aug-01	03:50	-0.4	-0.9	-0.2	-0.9	0.1	-0.7	100	93.8	83.3	89.5	100	95.4
24-Aug-01	04:00	-0.4	-1.2	-0.4	-0.9	-0.2	-0.7	100	88.8	83.8	91.7	100	96
24-Aug-01	04:10	-0.2	-0.9	-0.2	-0.9	-0.4	-0.7	100	93.2	83.3	92.2	100	93.2
24-Aug-01	04:20	0.8	-0.9	-0.2	-0.9	0.1	-0.7	100	93.8	83.8	90	100	96
24-Aug-01	04:30	1.6	-0.7	-0.2	-0.9	0.1	-0.7	100	91.6	85.4	90	100	93.2
24-Aug-01	04:40	0.6	-0.7	-0.4	-1.2	-0.7	-0.7	98.4	91.6	83.8	91.7	100	96
24-Aug-01	04:50	-0.2	-1.2	-0.2	-0.9	-0.2	-0.7	100	88.8	83.3	92.2	100	94.3
24-Aug-01	05:00	-0.2	-1.2	-0.7	-0.7	0.1	-0.4	100	92.7	83.3	90.6	100	96
24-Aug-01	05:10	-0.2	-0.9	-0.7	-0.9	0.1	-0.7	100	93.8	83.3	90	100	96
24-Aug-01	05:20	-0.4	-0.7	-0.7	-0.9	-0.7	-0.7	100	90.4	85.9	91.7	100	93.2
24-Aug-01	05:30	-0.4	-0.9	-0.7	-0.7	-0.2	-0.9	100	90.4	83.3	92.2	100	94.3
24-Aug-01	05:40	-0.4	-0.7	-0.7	-0.9	-0.2	-0.9	100	91	85.4	90.6	100	96.5
24-Aug-01	05:50	-0.4	-0.9	-0.7	-0.9	0.1	-0.7	100	91	83.3	89.5	100	93.7
24-Aug-01	06:00	-0.4	-0.4	-0.7	-0.9	-0.4	-0.7	100	91.6	83.3	91.1	100	96
24-Aug-01	06:10	-0.4	0.1	-0.7	-0.7	-0.2	-0.7	100	91.6	85.9	92.2	100	94.8
24-Aug-01	06:20	-0.2	0.1	-0.7	-0.7	-0.2	-0.7	100	92.1	83.3	90.6	100	95.4
24-Aug-01	06:30	-0.4	0.6	-0.7	-0.9	0.3	-0.7	100	89.9	85.9	89.5	100	96
24-Aug-01	06:40	-0.4	-0.2	-0.4	-0.9	0.3	-0.7	100	86.1	83.3	92.2	100	93.2
24-Aug-01	06:50	-0.7	-0.9	-0.7	-0.9	0.6	-0.7	100	91.6	85.4	92.2	100	96.5

24-Aug-01	07:00	-0.7	-0.9	-0.9	-0.7	0.6	-0.7	100	93.8	83.8	90	100	96
24-Aug-01	07:10	-0.4	-0.7	-0.7	-1.2	0.8	-0.7	100	92.7	83.3	90	100	94.3
24-Aug-01	07:20	-0.4	-0.9	-0.7	-1.2	1.1	-0.7	100	88.8	85.4	89.5	100	96
24-Aug-01	07:30	-0.2	-0.9	-0.7	-1.2	1.3	-0.9	100	93.2	83.3	90.6	100	93.2
24-Aug-01	07:40	-0.4	-0.7	-0.4	-0.9	1.6	-0.7	100	93.8	85.4	92.2	100	94.3
24-Aug-01	07:50	-0.2	-0.7	-0.7	-0.7	1.8	-0.7	100	88.8	83.3	91.1	100	93.7
24-Aug-01	08:00	0.1	-0.9	-0.7	-0.7	2.6	-0.4	100	91.6	85.9	90	100	96.5
24-Aug-01	08:10	-0.2	-0.9	-0.7	-1.2	3.1	0.6	100	93.2	83.3	89.5	100	98.8
24-Aug-01	08:20	-0.2	-0.7	-0.9	-0.9	2.3	1.6	100	88.3	85.9	91.1	100	98.8
24-Aug-01	08:30	-0.2	-1.2	-0.7	-0.9	1.6	1.6	100	91	83.3	92.8	100	90.9
24-Aug-01	08:40	-0.4	-1.2	-0.7	-0.7	0.6	0.6	100	93.2	84.3	91.7	100	91.5
24-Aug-01	08:50	-0.4	-0.7	-0.9	-0.4	0.1	-0.2	100	91	83.8	91.1	100	92
24-Aug-01	09:00	-0.7	-1.2	-0.9	-0.7	-0.4	-0.4	100	88.3	83.3	91.1	100	94.3
24-Aug-01	09:10	-0.2	-1.2	-0.7	-0.7	-0.2	-0.7	100	92.7	85.4	90	100	92.6
24-Aug-01	09:20	-0.4	-0.9	-0.7	-0.7	-0.2	-0.7	100	92.1	83.3	90	100	93.2
24-Aug-01	09:30	-0.2	-1.2	-0.4	-0.9	-0.4	-0.7	100	88.3	83.8	89.5	100	96
24-Aug-01	09:40	-0.4	-1.2	-0.7	-0.7	-0.2	-0.9	100	92.7	83.8	90	100	95.4
24-Aug-01	09:50	-0.2	-0.9	-0.4	-0.9	-0.2	-0.7	100	92.1	83.3	89.5	100	93.2
24-Aug-01	10:00	-0.4	-0.9	-0.4	-1.2	-0.4	-0.7	100	88.3	83.3	90	100	93.2
24-Aug-01	10:10	0.1	-1.2	-0.2	-1.2	0.1	-0.7	100	92.7	83.3	89.5	100	93.7
24-Aug-01	10:20	1.1	-1.2	-0.2	-1.2	0.1	-0.7	100	91	83.3	90.6	100	94.8
24-Aug-01	10:30	2.3	-1.2	0.1	-1.2	-0.2	-0.9	100	91	85.4	92.8	100	94.8
24-Aug-01	10:40	1.3	-0.9	-0.2	-0.7	-0.2	-0.7	99.5	91	83.8	92.8	100	93.2
24-Aug-01	10:50	0.6	-0.9	-0.4	-0.7	0.3	-0.9	100	88.8	83.3	90	100	92.6
24-Aug-01	11:00	0.1	-1.2	-0.7	-0.7	-0.2	-0.9	100	90.4	83.3	90	100	92.6
24-Aug-01	11:10	-0.2	-1.2	-0.4	-0.7	-0.4	-0.7	100	92.7	83.3	89.5	100	93.2
24-Aug-01	11:20	-0.2	-0.9	-0.9	-0.9	0.3	-0.7	100	88.3	83.3	90	100	94.3
24-Aug-01	11:30	-0.4	-1.2	-0.9	-0.9	0.1	-0.7	100	91	82.8	89.5	100	93.2
24-Aug-01	11:40	-0.2	-0.9	-0.9	-0.9	-0.2	-0.7	100	93.2	82.8	90	100	92.6
24-Aug-01	11:50	-0.2	-0.9	-0.9	-0.9	0.1	-0.7	100	88.8	85.9	90	100	92.6
24-Aug-01	12:00	-0.2	-1.4	-0.9	-0.9	0.1	-0.9	100	91	83.8	90	100	92.6
24-Aug-01	12:10	-0.2	-1.2	-0.7	-1.2	-0.4	-0.7	100	93.8	82.8	89.5	100	93.7
24-Aug-01	12:20	-0.2	-0.9	-0.9	-1.2	0.1	-0.7	100	87.7	82.8	91.7	100	93.2
24-Aug-01	12:30	-0.4	-1.2	-0.9	-0.7	0.1	-0.7	100	91.6	84.3	92.2	100	92
24-Aug-01	12:40	-0.2	-1.2	-0.9	-0.9	-0.2	-0.7	100	90.4	83.3	90	100	93.2
24-Aug-01	12:50	-0.4	-1.4	-0.9	-0.9	-0.2	-0.7	100	90.4	82.8	89.5	100	94.8
24-Aug-01	13:00	0.1	-1.2	-0.7	-0.9	0.1	-0.7	100	93.2	84.3	90	100	93.7
24-Aug-01	13:10	-0.2	-0.9	-0.7	-0.9	-0.4	-0.7	100	89.3	82.8	90	100	93.2
24-Aug-01	13:20	-0.2	-1.2	-0.9	-0.9	-0.2	-0.7	100	90.4	85.4	92.2	100	92
24-Aug-01	13:30	0.6	-0.9	-0.7	-0.7	0.3	-0.7	100	91.6	83.8	92.8	100	93.2
24-Aug-01	13:40	0.3	-0.9	-0.7	-0.7	0.8	-0.7	100	91.6	83.3	90	100	93.2
24-Aug-01	13:50	0.3	-0.2	-0.7	-0.7	1.6	-0.4	100	91.6	82.8	90	100	93.7
24-Aug-01	14:00	0.3	-0.2	-0.9	-0.7	1.8	-0.7	100	91	84.3	92.2	100	94.8
24-Aug-01	14:10	0.3	0.3	-0.7	-0.4	2.3	-0.7	100	92.7	83.3	92.2	100	94.8
24-Aug-01	14:20	0.1	0.8	-0.7	-0.7	2.1	-0.9	100	92.7	82.3	90	100	92.6
24-Aug-01	14:30	0.1	0.8	-0.9	-0.7	0.8	-0.7	100	88.8	83.8	90	100	92.6
24-Aug-01	14:40	-0.4	0.6	-0.7	-0.9	0.3	-0.4	100	86.1	83.3	89.5	100	92.6
24-Aug-01	14:50	-0.2	-0.4	-0.9	-0.9	-0.2	-0.4	100	86.1	82.3	90	100	93.7
24-Aug-01	15:00	-0.2	-0.7	-0.7	-0.7	-0.2	-0.7	100	91.6	83.3	90.6	100	94.8

24-Aug-01	15:10	-0.2	-0.9	-0.7	-0.7	0.1	-0.7	100	89.3	83.3	89.5	100	93.2
24-Aug-01	15:20	0.1	-0.9	-0.9	-0.7	0.1	-0.4	100	88.3	82.3	89.5	100	92
24-Aug-01	15:30	-0.4	-0.9	-0.4	-1.2	-0.4	-0.7	100	92.1	83.3	91.1	100	94.3
24-Aug-01	15:40	0.1	-0.9	-0.7	-0.7	0.1	-0.9	100	88.8	83.3	92.2	100	95.4
24-Aug-01	15:50	-0.4	-1.2	-0.4	-0.7	0.1	-0.7	100	89.9	83.3	91.1	100	94.3
24-Aug-01	16:00	-0.4	-1.2	-0.2	-0.7	-0.2	-0.2	100	92.7	82.8	90	100	95.4
24-Aug-01	16:10	0.1	-0.9	0.1	-0.7	0.3	0.8	100	91	82.8	90	100	96.5
24-Aug-01	16:20	1.3	-0.7	0.1	-0.4	0.1	1.6	100	91.6	83.3	92.2	100	98.2
24-Aug-01	16:30	2.3	-0.7	0.1	-0.4	-0.4	1.6	100	91.6	85.9	91.7	100	90.4
24-Aug-01	16:40	3.1	-0.7	0.1	-0.7	0.1	0.6	100	91.6	84.3	90.6	100	90.4
24-Aug-01	16:50	1.6	-0.9	-0.2	-0.7	0.1	-0.4	98.4	88.3	83.3	90	100	93.7
24-Aug-01	17:00	0.6	-1.2	-0.4	-0.7	-0.4	-0.7	100	91.6	83.3	90	100	93.2
24-Aug-01	17:10	0.3	-0.9	-0.4	-0.9	0.3	-0.7	100	93.2	83.3	90	100	93.2
24-Aug-01	17:20	0.1	-0.9	-0.7	-0.7	0.6	-0.4	100	87.7	83.3	90.6	100	96
24-Aug-01	17:30	0.1	-1.2	-0.7	-0.4	0.6	-0.7	100	91.6	82.8	90.6	100	93.7
24-Aug-01	17:40	-0.2	-0.9	-0.7	-0.4	0.8	-0.7	100	93.2	82.8	90.6	100	93.7
24-Aug-01	17:50	-0.4	-0.9	-0.9	-0.4	1.1	-0.4	100	91	82.8	90.6	100	93.7
24-Aug-01	18:00	-0.4	-1.2	-1.2	-0.4	0.8	-0.7	100	88.8	83.8	90.6	100	93.7
24-Aug-01	18:10	-0.7	-1.2	-0.7	-0.4	1.3	-0.4	100	92.7	83.3	90.6	100	95.4
24-Aug-01	18:20	-0.4	-0.9	-0.7	-0.4	1.3	-0.4	100	93.8	82.8	90.6	100	96
24-Aug-01	18:30	-0.4	-0.7	-0.9	-0.4	1.3	-0.7	100	88.8	82.3	90.6	100	95.4
24-Aug-01	18:40	-0.2	-0.9	-0.9	-0.4	1.1	-0.7	100	91	85.4	90.6	100	94.8
24-Aug-01	18:50	-0.7	-0.7	-0.9	-0.4	1.6	-0.7	100	93.2	82.8	90.6	100	93.7
24-Aug-01	19:00	-0.7	-0.9	-0.9	-0.4	1.3	-0.4	100	93.8	82.8	90.6	100	93.2
24-Aug-01	19:10	-0.4	-0.7	-0.7	-0.4	1.3	-0.4	100	87.7	83.8	90.6	100	94.8
24-Aug-01	19:20	-0.4	-0.9	-0.9	-0.4	1.6	-0.7	100	92.1	82.8	90.6	100	96
24-Aug-01	19:30	-0.4	-0.9	-0.4	-0.4	1.6	-0.9	100	93.8	84.9	90.6	100	96
24-Aug-01	19:40	-0.4	-0.7	-0.9	-0.4	1.6	-0.7	100	90.4	82.8	90.6	100	95.4
24-Aug-01	19:50	-0.4	-0.9	-0.7	-0.4	2.1	-0.7	100	89.9	82.3	90.6	100	94.3
24-Aug-01	20:00	-0.4	-0.9	-0.4	-0.4	2.6	-0.9	100	93.2	83.8	89.5	100	93.7
24-Aug-01	20:10	-0.4	-0.9	-0.7	-0.4	3.1	-0.4	100	93.8	83.3	89.5	100	93.7
24-Aug-01	20:20	-0.4	-0.4	-0.7	-0.9	2.6	-0.4	100	88.8	82.8	89.5	99.5	96
24-Aug-01	20:30	-0.7	-0.9	-0.7	-0.9	1.1	-0.7	100	91	82.8	89.5	97.8	96
24-Aug-01	20:40	-0.4	-0.9	-0.9	-0.9	0.3	-0.9	100	93.2	82.8	89.5	97.8	95.4
24-Aug-01	20:50	-0.4	-0.9	-0.7	-1.2	-0.2	-0.4	100	93.8	82.3	90.6	98.9	93.7
24-Aug-01	21:00	-0.4	-0.7	-0.7	-0.9	0.1	-0.7	100	88.8	82.3	92.2	100	93.2
24-Aug-01	21:10	-0.2	-1.2	-0.9	-0.7	0.1	-0.4	100	91	83.8	92.2	100	94.3
24-Aug-01	21:20	-0.4	-0.9	-0.7	-0.7	-0.7	-0.7	100	93.2	83.3	90	100	95.4
24-Aug-01	21:30	-0.4	-0.7	-0.4	-0.9	-0.2	-0.4	100	92.7	83.3	90	100	96
24-Aug-01	21:40	-0.4	-0.2	-0.4	-1.2	-0.2	-0.7	100	91.6	83.3	91.7	100	95.4
24-Aug-01	21:50	-0.4	-0.2	-0.4	-0.9	-0.4	-0.4	100	91.6	83.3	92.8	100	94.3
24-Aug-01	22:00	-0.4	0.3	-0.2	-0.7	-0.4	-0.4	100	91.6	83.3	92.2	100	93.2
24-Aug-01	22:10	0.1	0.3	-0.2	-0.7	0.1	-0.7	100	91.6	83.3	89.5	100	94.8
24-Aug-01	22:20	0.8	0.8	0.1	-0.7	-0.4	-0.9	100	91.6	83.3	90	100	96
24-Aug-01	22:30	1.1	0.8	-0.2	-1.2	-0.4	-0.7	100	91	84.3	91.7	100	94.8
24-Aug-01	22:40	-0.2	0.6	0.1	-0.9	0.1	-0.7	100	91	83.3	91.1	100	94.3
24-Aug-01	22:50	-0.2	0.6	-0.4	-0.7	0.1	-0.4	100	88.3	83.3	91.1	100	96
24-Aug-01	23:00	-0.4	-0.4	-0.7	-0.7	-0.4	-0.9	100	87.2	83.3	90.6	100	96
24-Aug-01	23:10	-0.7	-0.9	-0.7	-0.9	-0.2	-0.4	100	91.6	82.8	89.5	100	94.3

24-Aug-01	23:20	-0.7	-0.7	-0.9	-0.9	0.1	-0.4	100	93.2	85.4	91.1	100	93.7
24-Aug-01	23:30	-0.4	-0.4	-0.7	-0.9	-0.7	-0.7	100	91	83.8	92.2	100	96
24-Aug-01	23:40	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	89.3	83.3	92.8	100	96
24-Aug-01	23:50	-0.4	-1.2	-0.7	-0.7	0.1	-0.4	100	93.2	85.4	90.6	100	95.4
25-Aug-01	00:00	-0.4	-0.7	-0.7	-0.9	-0.2	-0.4	100	93.8	82.8	89.5	100	94.8
25-Aug-01	00:10	-0.4	-0.7	-0.7	-0.9	-0.7	0.3	100	91.6	85.9	91.1	100	93.7
25-Aug-01	00:20	-0.4	-0.9	-0.7	-0.9	-0.2	1.1	100	88.3	83.3	92.2	100	93.2
25-Aug-01	00:30	-0.4	-0.9	-0.7	-0.7	0.1	1.1	100	93.2	85.4	92.2	100	90.9
25-Aug-01	00:40	-0.4	-0.9	-0.7	-0.7	-0.7	0.1	100	93.8	83.3	90	100	90.4
25-Aug-01	00:50	-0.4	-0.7	-0.7	-0.7	-0.4	-0.4	100	93.2	84.9	89.5	100	94.8
25-Aug-01	01:00	-0.4	-0.7	-0.7	-0.9	-0.2	-0.7	100	88.3	83.8	90	100	96
25-Aug-01	01:10	-0.4	-1.4	-0.9	-1.2	-0.2	-0.7	100	92.1	83.3	92.8	100	94.8
25-Aug-01	01:20	-0.7	-0.9	-0.7	-0.9	-0.4	-0.7	100	93.8	84.9	92.2	100	93.2
25-Aug-01	01:30	-0.4	-0.7	-0.7	-0.9	-0.4	-0.7	100	93.8	83.3	91.7	100	93.7
25-Aug-01	01:40	-0.4	-0.4	-0.7	-0.7	-0.2	-0.7	100	90.4	85.4	89.5	100	96
25-Aug-01	01:50	-0.7	-0.9	-0.7	-1.2	0.6	-0.4	100	89.9	82.8	90	100	96
25-Aug-01	02:00	-0.7	-1.2	-0.7	-1.2	0.8	-0.7	100	93.2	85.4	92.2	100	95.4
25-Aug-01	02:10	-0.7	-0.9	-0.7	-0.9	1.8	-0.7	100	93.8	83.3	92.8	100	93.7
25-Aug-01	02:20	-0.4	-0.7	-0.9	-0.7	1.3	-0.4	100	92.7	85.4	92.2	100	94.3
25-Aug-01	02:30	-0.4	-0.9	-0.9	-0.7	0.3	-0.7	100	89.9	83.8	90	100	96
25-Aug-01	02:40	-0.7	-0.9	-0.7	-0.7	-0.4	-0.7	100	93.8	84.3	90	100	96
25-Aug-01	02:50	-0.4	-0.7	-0.9	-0.7	-0.4	-0.7	100	93.8	83.8	90.6	100	93.2
25-Aug-01	03:00	-0.4	-0.7	-0.9	-0.7	0.1	-0.4	100	91	83.8	90.6	100	96.5
25-Aug-01	03:10	-0.7	-1.2	-0.7	-1.2	-0.7	-0.7	100	88.8	84.3	90	100	96
25-Aug-01	03:20	-0.4	-1.2	-0.7	-1.2	-0.7	-0.7	100	93.2	83.3	91.7	100	94.3
25-Aug-01	03:30	-0.4	-0.9	-0.7	-0.9	0.1	-0.4	100	94.3	83.3	92.2	100	93.7
25-Aug-01	03:40	-0.7	-0.9	-0.7	-0.7	-0.4	-0.9	100	91.6	83.3	92.2	100	96
25-Aug-01	03:50	-0.4	-0.9	-0.7	-0.4	-0.7	-0.4	100	88.3	83.8	90.6	100	93.7
25-Aug-01	04:00	-0.4	-1.2	-0.4	-0.7	-0.2	-0.7	100	93.2	83.3	90	100	93.2
25-Aug-01	04:10	-0.4	-1.2	-0.2	-0.9	0.1	-0.7	100	94.3	83.3	90	100	94.3
25-Aug-01	04:20	0.8	-0.9	-0.4	-1.2	-0.4	-0.4	100	92.1	83.8	92.8	100	96
25-Aug-01	04:30	0.8	-0.9	-0.2	-0.7	-0.2	-0.7	98.9	91	85.4	92.2	100	96
25-Aug-01	04:40	-0.2	-0.9	-0.2	-0.4	0.1	-0.9	100	91	83.8	90.6	100	94.8
25-Aug-01	04:50	-0.4	-0.9	-0.4	-0.7	-0.4	-0.7	100	88.8	83.3	90	100	93.2
25-Aug-01	05:00	-0.4	-1.2	-0.7	-0.9	-0.4	-0.7	100	91.6	83.3	90	100	96
25-Aug-01	05:10	-0.2	-0.9	-0.9	-0.9	-0.2	-0.4	100	93.8	83.3	92.2	100	96
25-Aug-01	05:20	-0.7	-0.7	-0.9	-0.9	0.1	-0.7	100	93.8	83.8	92.2	100	96
25-Aug-01	05:30	-0.4	-0.7	-0.7	-0.7	-0.4	-0.9	100	91.6	83.8	91.7	100	95.4
25-Aug-01	05:40	-0.4	-0.7	-0.9	-0.4	-0.4	-0.7	100	91.6	83.3	90	100	94.3
25-Aug-01	05:50	-0.4	-0.7	-0.9	-0.9	-0.2	-0.7	100	91	85.9	89.5	100	93.2
25-Aug-01	06:00	-0.7	-0.4	-0.9	-0.9	-0.2	-0.4	100	91	83.3	91.1	100	96
25-Aug-01	06:10	-0.4	0.1	-0.7	-1.2	-0.4	-0.4	100	92.1	84.9	92.8	100	96
25-Aug-01	06:20	-0.4	0.3	-0.9	-0.7	-0.4	-0.9	100	93.8	83.8	92.2	100	95.4
25-Aug-01	06:30	-0.4	0.3	-0.9	-0.4	-0.2	-0.7	100	89.3	83.3	90.6	100	93.2
25-Aug-01	06:40	-0.4	-0.4	-0.9	-0.7	0.3	-0.4	100	86.6	85.4	90	100	95.4
25-Aug-01	06:50	-0.4	-0.7	-0.7	-1.2	0.6	-0.7	100	91	83.8	89.5	100	96
25-Aug-01	07:00	-0.4	-0.9	-0.7	-0.9	0.6	-0.7	100	93.8	85.9	92.2	100	94.8
25-Aug-01	07:10	-0.4	-0.9	-0.7	-1.2	0.8	-0.7	100	89.3	83.3	92.8	100	93.7
25-Aug-01	07:20	-0.4	-1.2	-0.9	-0.7	0.6	-0.7	100	91.6	85.9	92.2	100	95.4

25-Aug-01	07:30	-0.4	-0.9	-0.7	-0.7	0.8	-0.7	100	93.8	83.3	90	100	96
25-Aug-01	07:40	-0.4	-0.9	-0.7	-0.7	1.3	-0.7	100	92.1	84.9	90	100	95.4
25-Aug-01	07:50	-0.2	-0.7	-0.7	-1.2	1.6	-0.4	100	88.3	83.3	91.1	100	95.4
25-Aug-01	08:00	-0.4	-1.2	-0.9	-0.7	2.1	-0.4	100	92.7	84.3	91.1	100	94.8
25-Aug-01	08:10	-0.4	-0.9	-0.7	-0.7	2.6	0.3	100	93.8	83.3	91.1	100	93.7
25-Aug-01	08:20	-0.2	-0.9	-0.9	-0.9	2.1	0.8	100	88.3	83.3	91.1	100	94.8
25-Aug-01	08:30	-0.2	-0.9	-0.7	-0.9	0.8	1.6	100	91.6	85.4	91.1	100	92
25-Aug-01	08:40	-0.2	-0.9	-0.7	-0.7	0.1	0.3	100	93.8	83.3	91.1	98.9	90.9
25-Aug-01	08:50	-0.2	-0.7	-0.9	-0.7	-0.4	-0.2	100	89.9	85.9	90.6	100	91.5
25-Aug-01	09:00	-0.2	-0.9	-0.7	-0.7	0.1	-0.4	100	90.4	83.3	90.6	100	91.5
25-Aug-01	09:10	0.1	-1.2	-0.7	-0.7	-0.4	-0.4	100	93.8	84.9	90.6	100	93.2
25-Aug-01	09:20	0.1	-0.9	-0.7	-0.7	-0.4	-0.7	100	91	83.8	90.6	100	94.8
25-Aug-01	09:30	-0.2	-1.2	-0.4	-0.7	-0.2	-0.4	100	88.8	84.3	90.6	100	92.6
25-Aug-01	09:40	-0.4	-0.9	-0.7	-0.4	-0.2	-0.7	100	93.2	83.8	90.6	100	93.2
25-Aug-01	09:50	-0.4	-0.9	-0.4	-0.4	-0.7	-0.7	100	92.1	83.3	90.6	100	94.8
25-Aug-01	10:00	-0.2	-0.9	-0.4	-0.4	-0.4	-0.4	100	88.3	83.3	90.6	100	92.6
25-Aug-01	10:10	0.3	-1.2	-0.2	-0.4	0.1	-0.7	100	93.2	83.3	90.6	100	93.2
25-Aug-01	10:20	1.1	-0.9	-0.2	-0.4	-0.7	-0.7	100	92.7	83.8	90.6	100	95.4
25-Aug-01	10:30	1.8	-0.9	-0.2	-0.4	-0.4	-0.7	100	91	85.4	90.6	100	93.2
25-Aug-01	10:40	0.6	-0.7	-0.4	-0.4	-0.2	-0.4	100	91.6	83.8	90.6	100	93.2
25-Aug-01	10:50	-0.2	-0.7	-0.4	-0.4	-0.4	-0.4	100	88.8	83.3	90.6	100	93.7
25-Aug-01	11:00	-0.2	-1.2	-0.7	-0.4	-0.2	-0.7	100	91.6	83.3	90	100	94.8
25-Aug-01	11:10	0.1	-0.9	-0.7	-0.7	0.1	-0.7	100	93.2	83.3	89.5	100	93.7
25-Aug-01	11:20	0.1	-0.9	-0.9	-0.9	-0.4	-0.9	100	88.8	83.3	89.5	100	92.6
25-Aug-01	11:30	-0.2	-1.2	-1.2	-0.9	-0.7	-0.7	100	91.6	85.4	89.5	100	94.3
25-Aug-01	11:40	-0.2	-1.2	-0.7	-0.9	-0.2	-0.7	100	93.2	83.3	89.5	100	93.2
25-Aug-01	11:50	0.1	-1.2	-0.9	-0.9	0.1	-0.7	100	88.8	83.3	90	100	92.6
25-Aug-01	12:00	0.1	-1.2	-0.9	-1.2	-0.4	-0.9	100	91.6	85.4	90	100	94.3
25-Aug-01	12:10	0.3	-1.2	-0.7	-1.2	-0.2	-0.7	100	92.7	83.3	90	100	92
25-Aug-01	12:20	-0.2	-1.2	-1.2	-0.9	0.1	-0.9	100	88.3	83.3	92.2	100	93.2
25-Aug-01	12:30	-0.2	-1.4	-0.9	-0.9	-0.4	-0.7	100	92.7	84.3	92.8	100	94.8
25-Aug-01	12:40	0.1	-0.9	-0.9	-0.9	-0.2	-0.7	100	90.4	83.3	91.7	100	92
25-Aug-01	12:50	-0.4	-1.4	-1.2	-0.7	0.1	-0.9	100	88.3	85.4	90	100	92.6
25-Aug-01	13:00	0.1	-1.4	-0.7	-0.9	-0.2	-0.7	100	92.7	83.3	90	100	94.3
25-Aug-01	13:10	-0.2	-1.2	-1.2	-1.2	-0.4	-0.7	100	89.3	83.8	90	100	92
25-Aug-01	13:20	0.1	-1.7	-0.7	-0.9	-0.2	-0.9	100	88.3	83.3	92.2	100	93.2
25-Aug-01	13:30	0.1	-1.7	-0.9	-0.9	0.3	-0.7	100	91	82.8	92.8	100	93.7
25-Aug-01	13:40	0.1	-1.2	-0.9	-0.9	0.6	-0.9	100	91	84.9	90	100	92.6
25-Aug-01	13:50	0.3	-0.9	-0.7	-0.9	1.1	-0.9	100	91.6	83.3	90	100	94.3
25-Aug-01	14:00	-0.2	-0.4	-0.9	-1.2	1.8	-0.9	100	91.6	82.8	89.5	100	92
25-Aug-01	14:10	0.1	-0.2	-0.7	-1.2	2.3	-0.7	100	91	84.3	90.6	100	92.6
25-Aug-01	14:20	-0.2	0.3	-0.9	-1.2	1.8	-0.7	100	91.6	83.3	92.8	100	92.6
25-Aug-01	14:30	0.1	0.3	-0.7	-0.9	0.6	-0.9	100	89.3	84.9	92.8	100	94.3
25-Aug-01	14:40	0.1	-0.2	-0.7	-0.7	-0.2	-0.9	100	86.1	82.8	91.1	100	93.7
25-Aug-01	14:50	0.3	-0.9	-0.9	-0.7	-0.4	-0.7	100	86.6	83.8	91.1	100	93.7
25-Aug-01	15:00	0.1	-1.2	-0.7	-0.7	0.1	-0.7	100	91.6	83.3	91.1	100	93.2
25-Aug-01	15:10	0.1	-1.2	-0.9	-0.7	-0.4	-0.7	99.5	87.7	82.8	90	100	95.4
25-Aug-01	15:20	-0.4	-1.7	-0.9	-0.9	-0.4	-0.7	100	91	84.3	90	100	96
25-Aug-01	15:30	-0.7	-1.4	-0.7	-0.9	0.1	-0.7	100	89.3	83.8	89.5	100	93.7

25-Aug-01	15:40	-0.7	-1.4	-0.7	-1.2	-0.2	-0.7	99.5	88.8	83.3	91.1	100	93.2
25-Aug-01	15:50	-0.7	-1.4	-0.4	-0.9	-0.4	-0.7	100	93.2	83.3	92.8	100	93.7
25-Aug-01	16:00	-0.4	-1.4	-0.4	-0.9	-0.2	-0.4	100	90.4	83.3	92.8	100	93.2
25-Aug-01	16:10	-0.2	-1.4	-0.2	-0.4	0.1	-0.2	100	91.6	83.3	90.6	100	93.2
25-Aug-01	16:20	0.8	-1.4	-0.2	-0.7	-0.7	0.6	100	91	83.3	90	100	96.5
25-Aug-01	16:30	2.1	-1.2	-0.2	-0.9	-0.2	0.8	100	91.6	85.4	90	100	92
25-Aug-01	16:40	0.8	-1.2	-0.2	-1.2	0.1	-0.2	97.8	91.6	83.8	92.8	100	92
25-Aug-01	16:50	0.1	-0.9	-0.7	-0.7	-0.4	-0.7	100	89.3	83.3	92.2	100	94.8
25-Aug-01	17:00	-0.2	-1.4	-0.7	-0.7	-0.4	-0.7	100	91.6	83.3	91.1	100	93.2
25-Aug-01	17:10	-0.4	-1.4	-0.9	-0.7	-0.2	-0.4	100	93.8	83.3	91.1	100	96
25-Aug-01	17:20	-0.4	-0.9	-0.9	-0.7	0.1	-0.7	100	91	83.3	91.1	100	96
25-Aug-01	17:30	-0.4	-1.4	-0.9	-0.7	0.3	-0.9	100	90.4	84.3	90.6	100	93.2
25-Aug-01	17:40	-0.4	-1.2	-0.9	-0.7	0.3	-0.7	100	93.2	83.3	90.6	100	96.5
25-Aug-01	17:50	-0.7	-0.9	-0.7	-0.4	0.6	-0.9	100	93.8	85.9	90.6	100	95.4
25-Aug-01	18:00	-0.4	-1.2	-0.7	-0.4	0.8	-0.7	100	88.8	83.3	90.6	100	93.2
25-Aug-01	18:10	-0.4	-1.4	-0.9	-0.4	0.8	-0.4	100	91	82.8	90.6	100	94.8
25-Aug-01	18:20	-0.7	-1.2	-0.7	-0.7	0.8	-0.7	100	93.8	85.9	90.6	100	96
25-Aug-01	18:30	-0.4	-0.9	-0.7	-0.7	1.1	-0.7	100	93.8	83.3	90.6	100	93.2
25-Aug-01	18:40	-0.7	-0.9	-0.9	-0.4	1.1	-0.4	100	88.3	84.9	90.6	100	96.5
25-Aug-01	18:50	-0.4	-1.4	-0.7	-0.4	1.3	-0.7	100	91.6	83.3	90.6	100	95.4
25-Aug-01	19:00	-0.7	-1.2	-0.9	-0.4	1.3	-0.7	100	93.8	83.8	90.6	100	93.2
25-Aug-01	19:10	-0.4	-0.9	-0.7	-0.4	1.1	-0.4	100	93.8	84.3	90.6	100	95.4
25-Aug-01	19:20	-0.4	-0.7	-0.7	-0.4	1.6	-0.7	100	88.8	83.3	90.6	100	96
25-Aug-01	19:30	-0.4	-1.2	-0.9	-0.2	1.6	-0.7	100	91.6	85.9	90.6	100	94.8
25-Aug-01	19:40	-0.4	-1.2	-0.7	-0.2	1.8	-0.7	100	93.8	83.3	90.6	100	96
25-Aug-01	19:50	-0.4	-0.9	-0.7	-0.2	1.8	-0.9	100	93.8	86.5	90.6	100	96
25-Aug-01	20:00	-0.4	-0.7	-0.7	-0.2	2.6	-0.9	100	91	83.8	90	100	93.2
25-Aug-01	20:10	-0.4	-1.2	-0.9	-0.4	2.8	-0.7	100	89.3	85.9	90	100	96.5
25-Aug-01	20:20	-0.4	-1.4	-0.7	-0.7	2.6	-0.7	100	93.2	83.3	90	100	95.4
25-Aug-01	20:30	-0.7	-1.2	-0.9	-0.9	1.3	-0.7	100	94.3	85.4	90	98.3	93.2
25-Aug-01	20:40	-0.4	-0.7	-0.7	-0.9	0.3	-0.4	100	93.8	83.3	90	97.8	96.5
25-Aug-01	20:50	-0.4	-0.9	-0.7	-1.2	-0.4	-0.7	100	88.3	84.9	90	98.9	96
25-Aug-01	21:00	-0.4	-1.2	-0.7	-1.2	-0.2	-0.7	100	93.2	83.3	91.7	100	93.7
25-Aug-01	21:10	-0.4	-0.9	-0.9	-1.2	0.1	-0.4	100	93.8	84.3	92.8	100	93.7
25-Aug-01	21:20	-0.4	-0.7	-0.9	-0.9	-0.7	-0.7	100	93.2	83.8	91.7	100	96
25-Aug-01	21:30	-0.7	-0.7	-0.4	-0.7	-0.4	-0.7	100	91	83.8	90	100	94.8
25-Aug-01	21:40	-0.4	-0.7	-0.7	-0.9	-0.2	-0.4	100	91	83.8	90	100	96
25-Aug-01	21:50	-0.4	-0.4	-0.7	-0.9	-0.7	-0.7	100	91.6	83.8	90.6	100	94.8
25-Aug-01	22:00	-0.4	-0.2	-0.2	-1.2	-0.7	-0.4	100	91.6	83.3	92.8	100	95.4
25-Aug-01	22:10	-0.2	0.1	-0.4	-0.9	0.1	-0.7	100	91.6	83.3	92.8	100	96.5
25-Aug-01	22:20	0.8	0.3	-0.2	-0.4	-0.2	-0.7	100	91.6	83.3	90.6	100	94.3
25-Aug-01	22:30	1.3	0.3	0.1	-0.9	-0.4	-0.7	100	92.7	84.9	89.5	100	93.7
25-Aug-01	22:40	0.1	0.3	-0.2	-0.9	-0.2	-0.7	99.5	91.6	83.3	90	100	96
25-Aug-01	22:50	-0.2	-0.2	-0.4	-0.9	0.1	-0.9	100	88.8	83.3	90.6	100	95.4
25-Aug-01	23:00	-0.4	-0.4	-0.7	-0.7	-0.7	-0.7	100	88.3	83.3	90	100	94.3
25-Aug-01	23:10	-0.4	-0.9	-0.9	-0.9	-0.7	-0.4	100	92.7	83.3	90	100	96
25-Aug-01	23:20	-0.4	-0.7	-0.7	-0.9	-0.2	-0.9	100	93.8	85.9	92.2	100	96
25-Aug-01	23:30	-0.4	-0.4	-0.7	-0.9	-0.4	-0.7	100	91.6	83.3	92.2	100	93.2
25-Aug-01	23:40	-0.7	-0.9	-0.9	-0.9	-0.4	-0.4	100	88.8	85.9	91.7	100	96

25-Aug-01	23:50	-0.4	-1.2	-0.9	-0.7	-0.2	-0.7	100	93.2	83.3	90	100	94.3
26-Aug-01	00:00	-0.4	-1.2	-0.7	-0.7	-0.2	-0.4	100	94.3	85.9	90	100	94.3
26-Aug-01	00:10	-0.7	-0.9	-0.9	-0.9	-0.4	0.1	100	93.8	83.8	91.1	100	93.2
26-Aug-01	00:20	-0.4	-0.9	-0.9	-1.2	-0.4	0.6	100	88.3	85.4	92.8	100	92.6
26-Aug-01	00:30	-0.4	-0.9	-0.9	-0.7	0.1	1.1	100	93.2	83.8	92.2	100	91.5
26-Aug-01	00:40	-0.4	-0.9	-0.7	-0.4	-0.2	-0.2	100	93.8	84.3	90.6	100	90.9
26-Aug-01	00:50	-0.4	-0.7	-0.9	-0.7	-0.7	-0.7	100	93.2	84.3	89.5	100	96
26-Aug-01	01:00	-0.2	-0.7	-0.7	-0.9	-0.4	-0.4	100	88.8	83.3	91.1	100	93.7
26-Aug-01	01:10	-0.4	-0.9	-0.7	-0.9	-0.2	-0.7	100	91.6	85.9	92.8	100	96
26-Aug-01	01:20	-0.4	-0.9	-0.9	-0.7	-0.2	-0.7	100	93.8	83.3	92.2	100	96
26-Aug-01	01:30	-0.4	-0.7	-0.9	-0.7	0.1	-0.4	100	93.8	85.9	90	100	93.2
26-Aug-01	01:40	-0.7	-0.7	-0.7	-0.9	0.3	-0.7	100	92.7	83.3	90	100	96
26-Aug-01	01:50	-0.4	-0.7	-0.9	-0.9	0.6	-0.7	100	88.8	85.4	91.1	100	95.4
26-Aug-01	02:00	-0.4	-0.9	-0.7	-1.2	1.1	-0.7	100	91	83.8	92.8	100	93.2
26-Aug-01	02:10	-0.4	-0.9	-0.7	-0.7	1.6	-0.7	100	93.8	84.9	92.2	100	96
26-Aug-01	02:20	-0.4	-0.9	-0.7	-0.7	1.1	-0.9	100	93.8	83.8	90	100	96
26-Aug-01	02:30	-0.2	-0.7	-0.9	-0.7	0.1	-0.4	100	92.7	84.3	89.5	100	94.3
26-Aug-01	02:40	-0.4	-0.4	-0.7	-0.9	-0.4	-0.7	100	91	84.3	90	100	96
26-Aug-01	02:50	-0.4	-0.9	-0.7	-0.9	-0.4	-0.4	100	88.3	84.3	90.6	100	94.3
26-Aug-01	03:00	-0.4	-1.2	-0.7	-1.2	0.1	-0.7	100	92.7	84.9	90	100	94.3
26-Aug-01	03:10	-0.4	-0.9	-0.7	-1.2	-0.4	-0.7	100	93.8	83.3	90	100	96
26-Aug-01	03:20	-0.7	-0.7	-0.9	-1.2	-0.4	-0.4	100	93.2	85.4	92.8	100	95.4
26-Aug-01	03:30	-0.7	-0.4	-0.7	-0.7	-0.2	-0.7	100	92.1	84.3	92.2	100	94.8
26-Aug-01	03:40	-0.4	-0.4	-0.7	-0.9	-0.2	-0.7	100	88.3	84.3	91.7	100	96.5
26-Aug-01	03:50	-0.4	-0.9	-0.4	-0.7	-0.7	-0.7	100	91	83.8	90	100	94.3
26-Aug-01	04:00	-0.7	-1.2	-0.4	-0.9	-0.4	-0.4	100	93.2	83.8	90	100	95.4
26-Aug-01	04:10	-0.2	-0.9	-0.2	-0.9	-0.2	-0.7	100	93.8	83.8	92.2	100	96.5
26-Aug-01	04:20	0.8	-0.7	-0.2	-0.9	-0.4	-0.7	100	92.7	83.8	92.2	100	94.3
26-Aug-01	04:30	1.1	-0.4	0.1	-0.9	-0.7	-0.4	99.5	91.6	84.9	91.7	100	95.4
26-Aug-01	04:40	-0.2	-0.7	-0.2	-0.4	-0.2	-0.7	100	91	83.3	90	100	96.5
26-Aug-01	04:50	-0.4	-0.9	-0.7	-0.9	-0.2	-0.9	100	88.8	83.3	90	100	94.3
26-Aug-01	05:00	-0.4	-0.9	-0.9	-1.2	-0.4	-0.7	100	92.1	83.3	91.7	100	96
26-Aug-01	05:10	-0.4	-1.2	-0.9	-1.2	-0.4	-0.9	100	93.8	85.9	92.2	100	96
26-Aug-01	05:20	-0.7	-0.7	-0.7	-0.7	-0.2	-0.7	100	93.2	83.3	92.2	100	94.8
26-Aug-01	05:30	-0.7	-0.7	-0.9	-0.7	-0.2	-0.9	100	92.1	83.8	90	100	96
26-Aug-01	05:40	-0.4	-0.2	-0.9	-0.7	-0.4	-0.4	100	91.6	85.9	89.5	100	93.7
26-Aug-01	05:50	-0.7	-0.2	-0.9	-1.2	-0.4	-0.7	100	91.6	83.3	91.1	100	96
26-Aug-01	06:00	-0.7	-0.2	-0.7	-0.9	-0.2	-0.7	100	91.6	85.9	92.8	100	96
26-Aug-01	06:10	-0.4	-0.2	-0.9	-0.7	-0.2	-0.7	100	91	83.3	92.2	100	93.2
26-Aug-01	06:20	-0.7	0.3	-0.9	-0.7	-0.7	-0.7	100	91.6	85.9	91.1	100	96
26-Aug-01	06:30	-0.2	0.3	-0.7	-0.9	-0.4	-0.7	100	88.3	83.3	89.5	100	96
26-Aug-01	06:40	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	87.2	85.9	90	100	93.2
26-Aug-01	06:50	-0.4	-0.9	-0.9	-1.2	0.1	-0.7	100	92.1	83.8	92.8	100	96
26-Aug-01	07:00	-0.4	-0.9	-0.7	-0.9	0.1	-0.7	100	93.2	85.9	92.2	100	96
26-Aug-01	07:10	-0.7	-0.7	-0.9	-0.7	0.3	-0.7	100	93.2	84.3	91.7	100	94.3
26-Aug-01	07:20	-0.7	-0.7	-0.9	-0.4	0.3	-0.7	100	92.1	85.9	90	100	96.5
26-Aug-01	07:30	-0.4	-0.7	-0.4	-0.7	0.3	-0.7	100	88.3	84.9	90	100	94.3
26-Aug-01	07:40	-0.4	-0.9	-0.7	-0.9	0.8	-0.7	100	91.6	83.3	92.2	100	96.5
26-Aug-01	07:50	-0.4	-1.2	-0.7	-0.9	1.3	-0.7	100	93.8	85.9	92.2	100	95.4

26-Aug-01	08:00	-0.4	-0.7	-0.7	-0.7	1.8	-0.4	100	93.2	83.3	91.1	100	94.8
26-Aug-01	08:10	-0.7	-0.7	-0.7	-0.7	2.3	0.3	100	91	85.9	91.1	100	93.7
26-Aug-01	08:20	-0.4	-0.7	-0.7	-0.7	1.6	0.8	100	87.7	83.3	91.1	100	92.6
26-Aug-01	08:30	-0.4	-1.2	-0.7	-0.7	0.6	0.8	100	92.7	85.9	90.6	100	90.9
26-Aug-01	08:40	-0.4	-0.9	-0.7	-0.7	-0.2	0.1	100	94.3	83.3	90.6	100	90.9
26-Aug-01	08:50	-0.2	-0.7	-0.7	-0.7	-0.4	-0.4	100	93.2	85.9	90.6	100	95.4
26-Aug-01	09:00	-0.2	-0.7	-0.7	-0.4	-0.2	-0.7	100	87.7	83.3	90.6	100	94.3
26-Aug-01	09:10	-0.4	-1.2	-0.7	-0.4	-0.4	-0.4	100	92.7	85.9	90.6	100	93.7
26-Aug-01	09:20	-0.4	-0.9	-0.7	-0.4	-0.7	-0.4	100	94.3	83.3	90.6	100	96
26-Aug-01	09:30	-0.4	-0.9	-0.7	-0.4	-0.2	-0.7	100	90.4	83.8	90.6	100	96
26-Aug-01	09:40	-0.4	-1.2	-0.4	-0.4	-0.2	-0.4	100	88.8	83.8	90.6	100	93.7
26-Aug-01	09:50	-0.4	-1.4	-0.7	-0.4	-0.7	-0.4	100	93.2	83.8	90.6	100	96
26-Aug-01	10:00	-0.4	-0.9	-0.4	-0.4	-0.2	-0.7	100	93.8	83.8	90.6	100	96
26-Aug-01	10:10	0.1	-0.9	-0.2	-0.4	-0.2	-0.4	100	91.6	83.8	90.6	100	93.7
26-Aug-01	10:20	1.1	-0.9	-0.2	-0.2	-0.7	-0.4	100	91.6	83.8	90.6	100	96
26-Aug-01	10:30	1.1	-0.9	-0.2	-0.2	-0.4	-0.7	99.5	92.1	85.4	90.6	100	96
26-Aug-01	10:40	-0.2	-0.9	-0.2	-0.4	-0.2	-0.7	100	91.6	83.3	90.6	100	93.7
26-Aug-01	10:50	-0.2	-0.9	-0.4	-0.2	-0.4	-0.4	100	88.3	83.3	90.6	100	93.7
26-Aug-01	11:00	-0.2	-1.2	-0.7	-0.2	-0.4	-0.9	100	91.6	83.3	90	100	96
26-Aug-01	11:10	-0.4	-1.2	-0.7	-0.7	-0.2	-0.7	100	94.3	83.3	89.5	100	94.8
26-Aug-01	11:20	-0.4	-1.2	-0.9	-0.7	-0.2	-0.7	100	88.8	85.4	89.5	100	93.7
26-Aug-01	11:30	-0.2	-1.4	-0.7	-0.7	-0.4	-0.7	100	91.6	83.8	90	100	96
26-Aug-01	11:40	-0.2	-1.2	-0.7	-0.9	-0.2	-0.9	100	94.3	83.3	90	100	94.3
26-Aug-01	11:50	-0.4	-0.9	-0.9	-0.9	-0.4	-0.7	100	89.9	85.9	90	100	93.7
26-Aug-01	12:00	-0.2	-1.4	-0.9	-0.9	-0.9	-0.7	100	91	83.3	92.2	100	96
26-Aug-01	12:10	-0.2	-1.2	-1.2	-0.9	-0.4	-0.9	100	93.8	83.3	92.8	100	96
26-Aug-01	12:20	-0.4	-1.2	-0.7	-0.4	-0.4	-0.9	100	88.8	85.9	91.1	100	93.2
26-Aug-01	12:30	-0.2	-1.4	-0.7	-0.7	-0.7	-0.4	100	91.6	83.3	90	100	95.4
26-Aug-01	12:40	-0.2	-1.4	-0.9	-0.9	-0.4	-0.7	100	94.3	85.9	90	100	96
26-Aug-01	12:50	-0.4	-1.2	-0.7	-1.2	-0.2	-0.7	99.5	89.3	83.8	89.5	100	93.7
26-Aug-01	13:00	-0.4	-1.4	-0.9	-1.2	-0.7	-0.9	100	91.6	84.9	92.8	100	93.7
26-Aug-01	13:10	-0.4	-1.2	-0.7	-0.9	-0.4	-0.7	100	93.8	83.3	92.8	100	96
26-Aug-01	13:20	-0.2	-0.9	-0.9	-0.7	-0.2	-0.7	100	91	83.3	90.6	100	94.8
26-Aug-01	13:30	-0.4	-1.4	-0.9	-0.7	0.1	-0.7	100	90.4	86.5	89.5	100	93.7
26-Aug-01	13:40	-0.2	-0.9	-0.9	-0.9	0.6	-0.7	100	91	83.3	90	100	95.4
26-Aug-01	13:50	-0.4	-0.7	-0.9	-1.2	0.8	-0.9	100	91.6	85.4	91.1	100	96
26-Aug-01	14:00	-0.2	-0.4	-0.9	-1.2	1.6	-0.9	100	91	83.8	92.8	100	93.2
26-Aug-01	14:10	-0.4	0.1	-1.2	-0.7	2.1	-0.7	100	91.6	83.8	92.2	100	94.3
26-Aug-01	14:20	-0.2	0.6	-0.9	-0.7	1.6	-0.7	100	93.2	83.8	90	100	96
26-Aug-01	14:30	-0.4	0.6	-1.2	-0.9	0.6	-0.7	100	89.3	83.3	90	100	96
26-Aug-01	14:40	-0.7	-0.2	-0.7	-0.9	-0.4	-0.7	100	86.6	83.8	90	100	93.7
26-Aug-01	14:50	-0.4	-0.9	-0.9	-0.9	-0.7	-0.9	100	88.3	83.3	90.6	100	94.3
26-Aug-01	15:00	-0.4	-0.9	-0.9	-0.9	-0.2	-0.7	100	92.1	85.4	90.6	100	96
26-Aug-01	15:10	-0.4	-0.9	-0.9	-1.2	-0.7	-0.7	100	88.3	83.3	90	100	95.4
26-Aug-01	15:20	-0.2	-1.4	-0.9	-0.9	-0.9	-0.7	100	88.3	84.3	91.1	100	93.2
26-Aug-01	15:30	-0.4	-1.4	-0.7	-1.2	-0.2	-0.4	100	93.2	84.3	92.8	100	96
26-Aug-01	15:40	-0.4	-1.4	-0.7	-0.7	-0.4	-0.7	100	92.1	83.8	92.2	100	96
26-Aug-01	15:50	-0.7	-1.4	-0.4	-0.7	-0.7	-0.4	100	89.3	83.3	90	100	95.4
26-Aug-01	16:00	-0.4	-1.4	-0.4	-0.9	-0.4	-0.2	100	93.2	83.3	90	100	95.4

26-Aug-01	16:10	-0.2	-1.2	-0.4	-1.2	-0.2	0.3	100	92.7	83.8	89.5	100	94.3
26-Aug-01	16:20	1.1	-1.2	-0.4	-0.9	-0.7	1.1	100	91	83.3	92.2	100	93.2
26-Aug-01	16:30	2.1	-1.2	-0.2	-0.9	-0.4	1.1	100	91	85.4	92.8	100	92
26-Aug-01	16:40	0.6	-1.2	-0.2	-0.7	-0.2	-0.2	97.3	91	83.3	91.1	100	91.5
26-Aug-01	16:50	-0.2	-1.2	-0.4	-0.7	-0.4	-0.7	100	88.8	83.3	89.5	100	95.4
26-Aug-01	17:00	-0.2	-1.4	-0.7	-0.9	-0.4	-0.7	100	91.6	83.3	89.5	100	94.8
26-Aug-01	17:10	-0.2	-1.4	-0.7	-1.2	-0.2	-0.7	100	93.8	83.3	90.6	100	93.2
26-Aug-01	17:20	-0.4	-1.2	-0.9	-0.7	0.1	-0.7	100	94.3	83.3	90.6	100	96
26-Aug-01	17:30	-0.4	-1.2	-0.7	-0.7	0.1	-0.9	100	88.8	84.9	90.6	100	96
26-Aug-01	17:40	-0.2	-1.2	-0.7	-0.7	0.3	-0.4	100	91.6	83.3	90.6	100	93.2
26-Aug-01	17:50	-0.2	-1.2	-0.9	-0.4	0.6	-0.7	100	93.8	85.4	90.6	100	96
26-Aug-01	18:00	-0.4	-0.9	-0.7	-0.4	0.6	-0.7	100	94.3	83.3	90.6	100	96
26-Aug-01	18:10	-0.2	-0.7	-0.9	-0.4	0.8	-0.7	100	89.9	84.3	90.6	100	93.2
26-Aug-01	18:20	-0.4	-1.2	-0.7	-0.4	0.8	-0.7	100	91	83.8	90.6	100	96
26-Aug-01	18:30	-0.4	-1.2	-0.9	-0.4	0.8	-0.7	100	93.8	83.8	90.6	100	96.5
26-Aug-01	18:40	-0.7	-0.9	-0.9	-0.4	1.1	-0.4	100	93.8	85.4	90.6	100	93.7
26-Aug-01	18:50	-0.4	-0.9	-0.9	-0.4	0.8	-0.4	100	91	83.3	90.6	100	96
26-Aug-01	19:00	-0.4	-1.2	-0.7	-0.4	1.3	-0.7	100	88.3	85.4	90.6	100	96
26-Aug-01	19:10	-0.2	-1.2	-0.7	-0.4	1.3	-0.7	100	93.2	83.3	90.6	100	93.2
26-Aug-01	19:20	-0.4	-1.2	-0.7	-0.4	1.3	-0.7	100	94.3	85.4	90.6	100	96
26-Aug-01	19:30	-0.4	-0.9	-0.7	-0.4	1.3	-0.7	100	94.3	83.8	90.6	100	96
26-Aug-01	19:40	-0.4	-0.9	-0.9	-0.4	1.6	-0.7	100	88.8	85.4	90.6	100	94.3
26-Aug-01	19:50	-0.4	-1.2	-0.9	-0.4	2.1	-0.7	100	91	83.8	90.6	100	96.5
26-Aug-01	20:00	-0.7	-1.2	-0.7	-0.7	2.6	-0.9	100	93.8	85.9	89.5	100	96
26-Aug-01	20:10	-0.7	-1.2	-0.7	-0.7	3.1	-0.7	100	93.8	83.3	89.5	100	93.7
26-Aug-01	20:20	-0.4	-0.7	-0.9	-0.9	2.3	-0.7	100	91.6	86.5	89.5	100	96.5
26-Aug-01	20:30	-0.4	-0.9	-0.7	-1.2	1.1	-0.7	100	91	83.8	89.5	98.3	96
26-Aug-01	20:40	-0.4	-1.2	-0.7	-1.2	0.3	-0.7	100	93.8	84.9	89.5	98.3	93.7
26-Aug-01	20:50	-0.4	-0.7	-0.7	-1.2	-0.4	-0.7	100	93.8	83.3	92.2	98.9	96
26-Aug-01	21:00	-0.4	-0.7	-0.7	-1.2	-0.4	-0.7	100	92.7	84.9	92.8	100	96
26-Aug-01	21:10	-0.4	-0.9	-0.7	-0.7	-0.2	-0.7	100	88.3	83.3	92.2	100	93.7
26-Aug-01	21:20	-0.7	-1.2	-0.7	-0.7	-0.7	-0.7	100	93.2	83.3	90	100	96
26-Aug-01	21:30	-0.7	-1.2	-0.7	-0.9	-0.7	-0.7	100	92.7	84.3	90	100	96
26-Aug-01	21:40	-0.7	-0.9	-0.7	-1.2	-0.2	-0.7	100	92.1	83.8	91.7	100	93.2
26-Aug-01	21:50	-0.7	-0.7	-0.7	-1.2	-0.7	-0.4	100	92.1	83.8	92.8	100	96
26-Aug-01	22:00	-0.4	-0.7	-0.4	-0.9	-0.4	-0.7	100	92.1	83.3	92.2	100	96
26-Aug-01	22:10	-0.2	-0.2	-0.2	-0.7	-0.4	-0.4	100	91.6	83.3	90.6	100	93.7
26-Aug-01	22:20	0.6	0.3	-0.2	-0.7	-0.7	-0.7	100	91.6	83.3	90	100	96
26-Aug-01	22:30	1.8	0.3	-0.2	-0.9	-0.9	-0.9	98.9	92.7	84.9	90	100	94.8
26-Aug-01	22:40	0.6	0.3	-0.2	-1.2	-0.2	-0.4	96.7	91.6	83.3	91.1	100	95.4
26-Aug-01	22:50	-0.2	0.1	-0.7	-1.2	-0.2	-0.7	100	88.3	83.8	91.1	100	96
26-Aug-01	23:00	-0.4	-0.4	-0.7	-0.9	-0.7	-0.7	100	88.3	83.3	91.1	100	95.4
26-Aug-01	23:10	-0.7	-0.9	-0.9	-0.9	-0.4	-0.4	100	92.7	85.4	89.5	100	94.3
26-Aug-01	23:20	-0.4	-0.7	-0.7	-0.9	-0.2	-0.7	100	93.8	84.9	90	100	96
26-Aug-01	23:30	-0.4	-0.7	-0.7	-1.2	-0.7	-0.7	100	89.3	83.8	92.2	100	95.4
26-Aug-01	23:40	-0.7	-0.9	-0.7	-0.9	-0.4	-0.4	100	91	85.4	92.8	100	93.7
26-Aug-01	23:50	-0.4	-0.9	-0.7	-0.7	-0.2	-0.7	100	93.8	83.3	92.2	100	94.3
27-Aug-01	00:00	-0.4	-0.9	-0.7	-0.9	-0.4	-0.4	100	94.3	85.9	89.5	100	94.3
27-Aug-01	00:10	-0.4	-0.7	-0.7	-0.9	-0.7	0.3	100	92.7	83.8	90	100	93.7

27-Aug-01	00:20	-0.4	-0.9	-0.7	-0.9	-0.4	0.6	100	89.3	85.9	92.2	100	92.6
27-Aug-01	00:30	-0.7	-1.2	-0.7	-0.9	-0.2	1.1	100	93.2	83.3	92.2	100	91.5
27-Aug-01	00:40	-0.7	-1.2	-0.9	-0.9	-0.9	-0.2	100	94.3	85.9	91.7	100	90.9
27-Aug-01	00:50	-0.4	-0.9	-0.7	-0.4	-0.7	-0.4	100	93.8	83.3	89.5	100	96
27-Aug-01	01:00	-0.4	-0.4	-0.7	-0.7	-0.2	-0.7	100	89.9	85.9	90	100	94.8
27-Aug-01	01:10	-0.4	-0.9	-0.7	-1.2	-0.4	-0.7	100	90.4	83.3	91.7	100	95.4
27-Aug-01	01:20	-0.4	-0.9	-0.7	-0.9	-0.7	-0.7	100	93.8	85.9	92.8	100	96
27-Aug-01	01:30	-0.4	-0.9	-0.7	-0.7	-0.7	-0.7	100	94.3	83.8	92.2	100	94.8
27-Aug-01	01:40	-0.7	-0.9	-0.7	-0.7	-0.2	-0.7	100	93.2	86.5	90	100	94.8
27-Aug-01	01:50	-0.4	-0.4	-0.4	-0.7	0.6	-0.7	100	89.9	83.8	90	100	96
27-Aug-01	02:00	-0.7	-1.2	-0.9	-1.2	0.6	-0.4	100	91	85.4	90	100	96
27-Aug-01	02:10	-0.4	-0.9	-0.9	-1.2	1.3	-0.7	100	93.8	85.4	92.8	100	93.2
27-Aug-01	02:20	-0.7	-0.7	-0.9	-0.7	0.8	-0.7	100	93.8	83.8	92.2	100	96
27-Aug-01	02:30	-0.7	-0.7	-0.7	-0.7	-0.2	-0.7	100	92.7	85.9	91.7	100	95.4
27-Aug-01	02:40	-0.4	-0.7	-0.7	-0.7	-0.4	-0.7	100	88.3	83.3	90	100	96
27-Aug-01	02:50	-0.7	-0.9	-0.7	-0.4	-0.7	-0.7	100	91.6	86.5	90.6	100	96
27-Aug-01	03:00	-0.4	-0.9	-0.7	-0.9	-0.2	-0.4	100	93.8	83.3	90	100	93.7
27-Aug-01	03:10	-0.4	-0.9	-0.7	-0.9	-0.7	-0.4	100	93.8	85.9	89.5	100	96
27-Aug-01	03:20	-0.4	-0.7	-0.9	-1.2	-0.9	-0.7	100	92.7	84.3	92.2	100	96
27-Aug-01	03:30	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	99.5	87.7	84.3	92.2	100	93.2
27-Aug-01	03:40	-0.4	-1.2	-0.4	-0.7	-0.4	-0.7	100	92.7	83.8	92.2	100	96
27-Aug-01	03:50	-0.4	-0.9	-0.4	-0.4	-0.7	-0.7	100	93.8	83.8	90.6	100	96
27-Aug-01	04:00	-0.7	-0.7	-0.4	-0.9	-0.7	-0.7	100	93.2	83.8	89.5	100	94.8
27-Aug-01	04:10	-0.2	-0.4	-0.2	-0.9	-0.2	-0.7	100	91.6	83.8	89.5	100	96
27-Aug-01	04:20	0.8	-0.4	-0.2	-1.2	-0.7	-0.7	100	91.6	84.3	92.8	100	96.5
27-Aug-01	04:30	1.1	-0.7	0.1	-0.7	-0.7	-0.4	98.9	91.6	84.9	92.2	100	94.8
27-Aug-01	04:40	0.1	-1.2	-0.4	-0.7	-0.7	-0.7	97.3	91	83.3	91.7	100	96
27-Aug-01	04:50	-0.4	-1.2	-0.4	-0.7	-0.4	-0.7	100	92.7	83.3	90	100	96
27-Aug-01	05:00	-0.4	-0.7	-0.9	-0.9	-0.7	-0.7	100	93.2	83.3	90	100	93.7
27-Aug-01	05:10	-0.7	-0.4	-0.9	-0.9	-0.7	-0.4	100	91.6	85.9	92.2	100	96.5
27-Aug-01	05:20	-0.7	-0.7	-0.7	-0.9	-0.4	-0.9	100	87.7	83.3	92.2	100	96
27-Aug-01	05:30	-0.7	-0.9	-0.7	-0.9	-0.4	-0.7	100	91.6	85.9	91.7	100	93.2
27-Aug-01	05:40	-0.4	-1.2	-0.4	-0.7	-0.9	-0.7	100	91	84.3	90	100	96.5
27-Aug-01	05:50	-0.4	-0.9	-0.7	-0.9	-0.4	-0.7	100	91	85.9	89.5	100	96.5
27-Aug-01	06:00	-0.7	-0.4	-0.4	-0.9	-0.4	-0.4	100	91.6	84.3	90.6	100	93.7
27-Aug-01	06:10	-0.4	-0.4	-0.7	-0.9	-0.7	-0.7	100	91	85.9	92.8	100	96
27-Aug-01	06:20	-0.4	-0.2	-0.4	-0.7	-0.7	-0.7	100	91	84.9	92.2	100	96
27-Aug-01	06:30	-0.7	0.1	-0.7	-0.7	-0.4	-0.7	100	89.9	85.4	91.7	100	93.2
27-Aug-01	06:40	-0.4	-0.7	-0.7	-0.7	-0.2	-0.7	100	87.2	85.4	90	100	96.5
27-Aug-01	06:50	-0.7	-0.7	-0.7	-1.2	0.1	-0.7	100	92.1	83.8	89.5	100	96
27-Aug-01	07:00	-0.7	-0.7	-0.7	-1.2	0.1	-0.4	100	93.8	85.9	92.8	100	93.7
27-Aug-01	07:10	-0.7	-0.7	-0.7	-0.9	0.3	-0.7	100	93.8	83.3	92.2	100	96
27-Aug-01	07:20	-0.4	-0.7	-0.7	-0.7	0.3	-0.7	100	93.2	85.9	91.7	100	96
27-Aug-01	07:30	-0.4	-0.9	-0.7	-0.4	0.3	-0.4	100	88.3	83.3	89.5	100	94.3
27-Aug-01	07:40	-0.2	-1.2	-0.7	-0.9	0.6	-0.7	100	92.7	85.9	89.5	100	96
27-Aug-01	07:50	-0.4	-0.9	-0.7	-1.2	1.3	-0.4	100	94.3	83.3	91.7	100	94.8
27-Aug-01	08:00	-0.2	-0.7	-0.9	-0.7	1.8	-0.2	100	93.8	85.9	92.8	100	96
27-Aug-01	08:10	-0.4	-0.4	-0.7	-0.4	2.1	0.6	100	87.7	83.3	92.2	100	96.5
27-Aug-01	08:20	-0.4	-0.9	-0.7	-0.4	1.6	1.6	100	91.6	85.9	90	100	96

27-Aug-01	08:30	-0.4	-0.7	-0.7	-0.7	0.8	1.6	100	93.8	83.8	89.5	100	90.9
27-Aug-01	08:40	-0.7	-0.7	-0.9	-1.2	-0.2	0.3	100	92.7	85.9	89.5	100	90.4
27-Aug-01	08:50	-0.7	-0.7	-0.7	-0.7	-0.4	-0.4	100	88.3	83.8	90.6	100	91.5
27-Aug-01	09:00	-0.7	-0.9	-0.7	-0.9	-0.4	-0.4	100	93.2	83.3	91.1	100	93.2
27-Aug-01	09:10	-0.7	-0.9	-0.7	-0.7	-0.2	-0.4	100	94.3	85.9	91.1	100	95.4
27-Aug-01	09:20	-0.4	-0.7	-0.7	-0.7	-0.4	-0.4	99.5	89.3	83.3	91.1	100	93.2
27-Aug-01	09:30	-0.4	-1.2	-0.7	-0.7	-0.4	-0.4	100	91	84.3	91.1	100	95.4
27-Aug-01	09:40	-0.2	-0.9	-0.4	-0.4	0.1	-0.7	100	93.8	84.3	91.1	100	96
27-Aug-01	09:50	-0.4	-0.7	-0.4	-0.4	-0.7	-0.7	100	91.6	83.8	91.1	100	96
27-Aug-01	10:00	-0.2	-0.9	-0.4	-0.4	-0.4	-0.7	100	88.3	83.8	91.1	100	93.2
27-Aug-01	10:10	-0.2	-0.9	-0.4	-0.4	0.1	-0.7	100	93.8	83.8	90.6	100	93.2
27-Aug-01	10:20	1.1	-0.7	0.1	-0.4	-0.4	-0.7	100	92.1	83.8	91.1	100	93.2
27-Aug-01	10:30	2.1	-0.7	-0.2	-0.2	-0.2	-0.7	98.9	91.6	85.9	90.6	100	95.4
27-Aug-01	10:40	0.6	-0.7	-0.2	-0.2	0.1	-0.9	97.3	91.6	84.3	90.6	100	92.6
27-Aug-01	10:50	-0.2	-0.9	-0.4	-0.2	-0.2	-0.4	100	88.8	83.3	90.6	100	93.2
27-Aug-01	11:00	-0.2	-1.2	-0.4	-0.2	-0.7	-0.7	100	88.8	83.3	91.1	100	93.7
27-Aug-01	11:10	-0.2	-1.2	-0.7	-0.2	0.1	-0.9	100	93.2	83.3	90	100	93.2
27-Aug-01	11:20	-0.4	-0.9	-0.7	-0.4	-0.2	-0.7	100	89.3	83.3	90	100	92.6
27-Aug-01	11:30	-0.4	-1.2	-0.9	-0.4	-0.4	-0.9	100	89.9	83.3	89.5	100	95.4
27-Aug-01	11:40	-0.2	-1.2	-0.7	-0.7	0.1	-0.7	100	93.8	83.3	89.5	100	93.7
27-Aug-01	11:50	-0.2	-0.9	-1.2	-0.7	0.1	-0.7	100	88.8	83.3	90	100	92.6
27-Aug-01	12:00	-0.2	-1.4	-0.7	-0.7	-0.2	-0.7	99.5	91	84.3	89.5	100	93.7
27-Aug-01	12:10	0.1	-1.2	-0.9	-0.7	-0.2	-0.7	100	93.8	83.3	90	100	92
27-Aug-01	12:20	0.1	-0.9	-1.2	-0.9	0.1	-0.7	100	87.7	83.3	89.5	100	92.6
27-Aug-01	12:30	0.1	-1.4	-0.9	-0.9	-0.2	-0.7	100	92.1	82.8	90	100	94.8
27-Aug-01	12:40	0.1	-1.2	-0.9	-1.2	-0.2	-0.4	100	88.8	84.3	89.5	100	92.6
27-Aug-01	12:50	-0.2	-1.4	-0.9	-1.2	0.1	-0.7	100	90.4	83.3	91.1	100	91.5
27-Aug-01	13:00	0.1	-1.2	-1.2	-0.4	-0.2	-0.7	100	93.2	83.3	92.2	100	93.2
27-Aug-01	13:10	-0.2	-1.2	-0.9	-0.7	-0.4	-0.9	100	88.8	82.8	90	100	94.3
27-Aug-01	13:20	0.1	-1.4	-0.9	-0.4	0.1	-0.4	99.5	87.2	83.8	90	100	91.5
27-Aug-01	13:30	0.1	-1.4	-0.7	-0.7	0.1	-0.4	99.5	91	83.3	89.5	100	93.7
27-Aug-01	13:40	0.1	-1.2	-0.9	-0.7	0.8	-0.7	100	91.6	82.3	90	100	90.9
27-Aug-01	13:50	-0.2	-0.7	-0.9	-0.9	1.6	-0.7	100	91	82.3	90	100	93.2
27-Aug-01	14:00	0.1	-0.2	-0.7	-0.9	1.8	-0.4	97.8	90.4	81.7	90	100	90.4
27-Aug-01	14:10	0.1	0.6	-0.7	-0.9	2.3	-0.7	100	91	81.7	90	100	92.6
27-Aug-01	14:20	-0.2	1.1	-0.9	-0.9	2.3	-0.7	99.5	93.2	81.7	90	100	93.7
27-Aug-01	14:30	-0.2	1.3	-0.9	-0.9	1.3	-0.7	100	87.7	81.2	90	100	93.2
27-Aug-01	14:40	0.1	0.3	-0.9	-1.2	0.6	-0.4	100	85.5	83.8	89.5	100	91.5
27-Aug-01	14:50	0.1	-0.4	-0.7	-0.7	0.1	-0.4	98.4	85.5	82.3	90	100	92.6
27-Aug-01	15:00	0.1	-0.9	-0.9	-0.7	-0.2	-0.9	100	86.1	81.7	90	100	93.2
27-Aug-01	15:10	-0.2	-1.2	-0.9	-0.7	0.1	-0.7	100	91.6	81.7	90	100	93.2
27-Aug-01	15:20	-0.2	-1.2	-0.9	-0.9	-0.2	-0.2	100	87.2	83.3	89.5	100	93.7
27-Aug-01	15:30	0.1	-1.4	-0.7	-1.2	-0.4	-0.4	100	91	83.3	89.5	100	90.4
27-Aug-01	15:40	0.1	-1.4	-0.4	-1.2	-0.2	-0.2	100	89.3	83.3	89.5	100	92.6
27-Aug-01	15:50	-0.2	-1.7	-0.7	-1.2	0.3	0.3	98.9	87.2	83.3	89.5	100	96
27-Aug-01	16:00	0.1	-1.7	-0.2	-0.9	-0.2	0.8	100	91	83.3	89.5	100	93.7
27-Aug-01	16:10	0.6	-1.2	-0.2	-0.9	-0.4	1.8	100	91	83.3	89.5	100	92
27-Aug-01	16:20	1.3	-1.2	-0.2	-0.9	0.1	2.6	100	91.6	83.3	89	100	94.3
27-Aug-01	16:30	2.8	-0.9	0.1	-0.9	-0.2	2.3	100	91.6	85.4	89	100	88.2

27-Aug-01	16:40	2.3	-0.9	0.1	-1.2	-0.4	1.1	97.3	91.6	83.8	89	100	88.2
27-Aug-01	16:50	0.6	-1.2	0.1	-1.2	-0.2	0.1	96.7	88.8	83.3	90	100	89.8
27-Aug-01	17:00	0.3	-1.4	-0.2	-1.2	0.1	-0.4	100	90.4	83.3	90	100	92
27-Aug-01	17:10	0.6	-1.2	-0.7	-0.9	-0.2	-0.4	97.3	92.7	83.3	90	100	90.9
27-Aug-01	17:20	0.1	-0.9	-0.7	-0.7	0.3	-0.4	100	91.6	83.3	90	100	93.7
27-Aug-01	17:30	0.1	-0.9	-0.7	-0.7	0.6	-0.7	100	88.8	82.8	90	100	93.2
27-Aug-01	17:40	-0.4	-0.9	-0.7	-0.4	0.8	-0.7	99.5	92.1	82.8	90	100	92
27-Aug-01	17:50	-0.2	-0.9	-0.9	-0.4	0.8	-0.7	100	93.2	82.3	89.5	100	94.8
27-Aug-01	18:00	-0.2	-0.7	-0.7	-0.4	0.8	-0.4	100	87.7	82.8	89.5	100	93.7
27-Aug-01	18:10	-0.7	-1.2	-0.7	-0.4	0.8	-0.7	99.5	91	82.8	89.5	100	92
27-Aug-01	18:20	-0.4	-0.9	-0.9	-0.4	0.8	-0.4	100	93.2	82.8	89.5	100	93.2
27-Aug-01	18:30	-0.4	-0.7	-0.9	-0.4	1.3	-0.7	100	93.2	83.3	90	100	94.8
27-Aug-01	18:40	-0.4	-0.7	-0.7	-0.4	1.1	-0.4	100	88.8	84.3	90	100	93.7
27-Aug-01	18:50	-0.2	-0.9	-0.9	-0.4	1.3	-0.7	100	91.6	83.3	90	100	93.2
27-Aug-01	19:00	-0.4	-0.9	-0.7	-0.4	1.3	-0.7	100	93.2	83.8	90	100	94.8
27-Aug-01	19:10	-0.2	-0.7	-0.7	-0.4	1.6	-0.7	100	93.2	82.8	90	100	94.3
27-Aug-01	19:20	-0.4	-0.4	-0.7	-0.4	1.6	-0.4	100	91.6	85.4	90	100	93.2
27-Aug-01	19:30	-0.4	-0.7	-0.9	-0.4	1.6	-0.7	100	88.8	83.3	90	100	95.4
27-Aug-01	19:40	-0.4	-0.9	-0.9	-0.4	1.8	-0.7	100	92.7	85.9	90	100	93.7
27-Aug-01	19:50	-0.4	-0.7	-0.7	-0.4	1.8	-0.4	100	93.2	83.3	90	100	93.2
27-Aug-01	20:00	-0.4	-0.7	-0.7	-0.4	2.6	-0.7	100	93.2	85.4	89.5	100	95.4
27-Aug-01	20:10	-0.4	-0.4	-0.7	-0.4	2.8	-0.4	100	90.4	83.3	89	100	93.7
27-Aug-01	20:20	-0.4	-0.7	-0.7	-0.7	2.3	-0.7	100	89.3	83.8	89	100	93.2
27-Aug-01	20:30	-0.4	-0.9	-0.9	-0.9	1.3	-0.7	100	93.2	84.3	89	97.8	95.4
27-Aug-01	20:40	-0.4	-0.7	-0.7	-1.2	0.1	-0.4	100	93.8	83.3	89	97.8	93.7
27-Aug-01	20:50	-0.7	-0.9	-0.7	-0.9	-0.4	-0.4	100	93.8	84.9	91.1	97.8	93.2
27-Aug-01	21:00	-0.4	-0.7	-0.9	-0.9	-0.7	-0.4	100	93.2	83.8	92.2	100	95.4
27-Aug-01	21:10	-0.4	-0.4	-0.7	-0.7	-0.4	-0.7	100	87.7	83.3	90	100	95.4
27-Aug-01	21:20	-0.2	-0.9	-0.7	-1.2	-0.7	-0.7	100	92.1	84.9	89.5	100	92.6
27-Aug-01	21:30	-0.4	-0.9	-0.7	-1.2	-0.7	-0.4	100	92.1	84.3	89.5	100	93.7
27-Aug-01	21:40	-0.4	-0.9	-0.7	-1.2	-0.4	-0.4	100	92.1	83.8	91.7	100	95.4
27-Aug-01	21:50	-0.4	-0.7	-0.2	-0.9	-0.2	-0.7	100	91.6	83.3	92.2	100	93.2
27-Aug-01	22:00	-0.4	-0.4	-0.2	-0.7	-0.7	-0.4	100	91.6	83.3	90	100	93.7
27-Aug-01	22:10	-0.2	-0.2	-0.2	-1.2	-0.4	-0.4	100	91	83.3	89.5	100	95.4
27-Aug-01	22:20	0.8	0.3	0.1	-1.2	-0.2	-0.7	100	91.6	83.3	90.6	100	93.7
27-Aug-01	22:30	1.3	0.3	-0.2	-0.9	-0.4	-0.4	98.9	92.7	85.9	92.2	100	93.7
27-Aug-01	22:40	-0.2	0.3	-0.2	-0.9	-0.7	-0.4	97.3	91.6	84.3	91.1	100	95.4
27-Aug-01	22:50	-0.2	0.1	-0.7	-0.7	-0.4	-0.4	100	88.8	83.8	90.6	100	93.2
27-Aug-01	23:00	-0.4	-0.7	-0.9	-0.4	-0.2	-0.4	100	88.8	83.3	90	100	95.4
27-Aug-01	23:10	-0.4	-0.9	-0.7	-0.9	-0.2	-0.7	100	92.7	85.9	89.5	100	95.4
27-Aug-01	23:20	-0.4	-0.7	-0.7	-0.9	-0.7	-0.4	100	94.3	83.3	90.6	100	93.2
27-Aug-01	23:30	-0.4	-0.7	-0.7	-0.9	-0.4	-0.4	100	93.2	86.5	92.2	100	95.4
27-Aug-01	23:40	-0.4	-0.4	-0.7	-0.7	-0.2	-0.7	100	91.6	83.8	92.2	100	95.4
27-Aug-01	23:50	-0.4	-0.9	-0.7	-0.7	-0.4	-0.4	100	88.3	85.9	90	100	94.3
28-Aug-01	00:00	-0.4	-1.2	-0.7	-0.9	-0.4	-0.4	100	92.7	83.8	90	100	94.3
28-Aug-01	00:10	-0.7	-0.7	-0.7	-0.9	-0.4	0.3	100	93.8	85.9	92.2	100	93.7
28-Aug-01	00:20	-0.7	-0.7	-0.7	-0.7	-0.2	0.8	100	93.2	83.8	91.7	100	92.6
28-Aug-01	00:30	-0.7	-0.2	-0.7	-0.7	-0.4	1.3	100	92.1	85.9	90	100	90.4
28-Aug-01	00:40	-0.4	-0.2	-0.4	-0.7	-0.7	0.3	100	91.6	83.8	90	100	90.4

28-Aug-01	00:50	-0.4	-0.7	-0.7	-0.9	-0.4	-0.4	100	87.7	86.5	92.2	100	93.7
28-Aug-01	01:00	-0.4	-0.9	-0.4	-0.7	-0.2	-0.7	100	92.7	84.9	91.1	100	94.8
28-Aug-01	01:10	-0.4	-0.7	-0.9	-0.7	-0.7	-0.4	100	93.8	86.5	90	100	92.6
28-Aug-01	01:20	-0.4	-0.4	-0.9	-0.7	-0.7	-0.7	100	93.2	85.4	90	100	96
28-Aug-01	01:30	-0.4	-0.4	-0.7	-1.2	-0.7	-0.7	100	92.1	85.4	92.2	100	95.4
28-Aug-01	01:40	-0.7	-0.2	-0.7	-0.7	-0.2	-0.4	100	89.3	85.9	91.1	100	93.2
28-Aug-01	01:50	-0.4	-0.7	-0.7	-0.9	0.1	-0.7	100	90.4	85.9	89.5	100	96
28-Aug-01	02:00	-0.4	-0.7	-0.9	-0.9	0.8	-0.7	100	93.2	85.9	90	100	94.8
28-Aug-01	02:10	-0.7	-0.7	-0.7	-0.9	1.3	-0.4	100	93.2	84.3	92.2	100	93.7
28-Aug-01	02:20	-0.4	-0.7	-0.7	-0.7	0.8	-0.7	100	92.1	85.9	91.1	100	96
28-Aug-01	02:30	-0.4	-0.4	-0.7	-0.7	0.1	-0.7	100	91.6	83.3	90	100	93.2
28-Aug-01	02:40	-0.4	-0.2	-0.7	-0.9	-0.7	-0.7	100	89.3	85.9	90	100	96
28-Aug-01	02:50	-0.4	-0.9	-0.7	-0.7	-0.7	-0.4	100	89.3	83.3	90	100	95.4
28-Aug-01	03:00	-0.4	-0.9	-0.9	-0.9	-0.2	-0.7	100	93.2	85.9	90	100	93.2
28-Aug-01	03:10	-0.4	-0.7	-0.7	-0.9	-0.4	-0.4	100	93.2	83.3	91.7	100	95.4
28-Aug-01	03:20	-0.4	-0.7	-0.7	-0.9	-0.9	-0.4	100	92.1	85.9	91.7	100	95.4
28-Aug-01	03:30	-0.4	-0.4	-0.4	-0.7	-0.7	-0.7	100	91.6	85.9	91.1	100	94.3
28-Aug-01	03:40	-0.4	-0.2	-0.4	-0.7	-0.2	-0.4	100	91.6	84.9	90	100	94.8
28-Aug-01	03:50	-0.7	-0.4	-0.4	-0.7	-0.4	-0.7	100	87.2	84.3	90.6	100	96
28-Aug-01	04:00	-0.7	-0.7	-0.4	-0.9	-0.7	-0.4	100	92.1	84.3	92.2	100	93.7
28-Aug-01	04:10	-0.4	-0.7	-0.4	-0.7	-0.4	-0.4	100	93.2	84.3	91.1	100	93.7
28-Aug-01	04:20	0.8	-0.7	-0.2	-0.9	-0.2	-0.7	100	92.7	84.3	89.5	100	96
28-Aug-01	04:30	0.6	-0.4	-0.2	-0.9	-0.2	-0.7	98.9	92.1	85.4	89.5	100	94.3
28-Aug-01	04:40	-0.4	-0.2	-0.4	-1.2	-0.7	-0.7	100	91.6	83.8	92.2	100	94.3
28-Aug-01	04:50	-0.4	-0.2	-0.7	-0.7	-0.4	-0.7	100	87.7	83.3	91.1	100	96
28-Aug-01	05:00	-0.4	-0.9	-0.9	-0.4	-0.2	-0.7	100	91	85.9	90	100	94.8
28-Aug-01	05:10	-0.4	-0.7	-0.7	-0.9	0.1	-0.7	100	93.2	85.4	89.5	100	93.2
28-Aug-01	05:20	-0.4	-0.4	-0.9	-1.2	-0.7	-0.7	100	93.2	85.9	92.2	100	96
28-Aug-01	05:30	-0.7	-0.4	-0.7	-0.7	-0.4	-0.4	100	92.1	85.4	91.7	100	95.4
28-Aug-01	05:40	-0.7	-0.2	-0.9	-0.4	-0.2	-0.7	100	91.6	85.9	90	100	93.2
28-Aug-01	05:50	-0.4	-0.2	-0.7	-0.9	-0.2	-0.7	100	91.6	85.9	90	100	96
28-Aug-01	06:00	-0.7	-0.2	-0.7	-0.9	-0.7	-0.7	100	91	85.4	92.2	100	94.8
28-Aug-01	06:10	-0.7	0.1	-0.7	-0.7	-0.7	-0.4	100	91	85.9	91.7	100	93.2
28-Aug-01	06:20	-0.4	0.3	-0.7	-0.4	-0.4	-0.7	100	91.6	85.4	90.6	100	96
28-Aug-01	06:30	-0.4	0.3	-0.7	-0.7	-0.4	-0.7	100	88.8	85.9	90	100	94.3
28-Aug-01	06:40	-0.4	-0.4	-0.9	-1.2	0.1	-0.4	100	87.7	85.4	91.7	100	94.3
28-Aug-01	06:50	-0.4	-0.7	-0.9	-0.7	0.1	-0.7	100	92.1	85.9	91.7	100	95.4
28-Aug-01	07:00	-0.4	-0.7	-0.9	-0.7	0.3	-0.7	100	93.2	85.4	91.1	100	93.2
28-Aug-01	07:10	-0.4	-0.7	-0.7	-0.7	0.3	-0.7	100	92.7	86.5	90	100	95.4
28-Aug-01	07:20	-0.7	-0.4	-0.7	-0.9	0.3	-0.7	100	91.6	84.3	90	100	96
28-Aug-01	07:30	-0.4	-0.4	-0.7	-0.7	0.3	-0.7	100	87.7	86.5	92.2	100	93.2
28-Aug-01	07:40	0.1	-0.7	-0.9	-0.4	0.8	-0.4	100	92.1	83.8	91.1	100	93.2
28-Aug-01	07:50	-0.2	-0.7	-0.7	-0.7	1.3	-0.4	100	93.2	86.5	90	100	93.2
28-Aug-01	08:00	-0.4	-0.4	-0.9	-0.7	1.8	-0.2	100	92.1	83.8	90	100	93.7
28-Aug-01	08:10	-0.2	-0.4	-0.9	-0.7	2.3	0.6	100	88.8	85.9	92.2	100	93.7
28-Aug-01	08:20	-0.2	-0.7	-0.7	-0.7	1.8	1.6	100	91	84.3	91.1	100	93.2
28-Aug-01	08:30	-0.4	-0.9	-0.4	-0.7	0.8	1.8	100	93.8	85.9	90	100	89.3
28-Aug-01	08:40	-0.4	-0.7	-0.7	-0.9	-0.2	0.6	99.5	93.2	83.8	90	99.5	89.3
28-Aug-01	08:50	-0.2	-0.4	-0.7	-0.7	-0.4	0.1	100	89.3	85.9	90	100	90.9

28-Aug-01	09:00	-0.2	-0.9	-0.9	-0.9	-0.2	-0.2	100	90.4	83.8	90	100	90.4
28-Aug-01	09:10	-0.2	-0.9	-0.7	-0.9	-0.2	-0.4	100	93.2	85.9	89.5	100	92
28-Aug-01	09:20	-0.4	-0.7	-0.9	-0.7	-0.7	-0.4	100	93.8	83.8	90	100	93.7
28-Aug-01	09:30	-0.2	-0.4	-0.7	-0.7	-0.2	-0.4	100	88.8	84.3	90	100	92
28-Aug-01	09:40	-0.4	-0.7	-0.7	-0.7	0.1	-0.4	100	92.1	84.3	90	100	92
28-Aug-01	09:50	-0.2	-0.4	-0.7	-0.7	-0.2	-0.4	100	93.8	84.3	90	100	92.6
28-Aug-01	10:00	-0.2	-0.4	-0.2	-0.7	-0.2	-0.7	100	88.8	83.8	90	100	93.2
28-Aug-01	10:10	0.1	-0.9	-0.2	-0.4	-0.2	-0.7	100	91	83.8	90	100	92
28-Aug-01	10:20	1.3	-0.9	0.1	-0.2	-0.2	-0.7	100	91	83.8	90	100	93.7
28-Aug-01	10:30	1.3	-0.7	0.1	-0.2	-0.7	-0.7	98.9	91.6	85.4	90	100	93.2
28-Aug-01	10:40	0.3	-0.7	-0.2	-0.2	0.1	-0.4	97.8	91.6	84.3	89.5	100	92
28-Aug-01	10:50	-0.2	-0.7	-0.2	-0.2	0.1	-0.7	100	88.8	83.3	89.5	100	93.7
28-Aug-01	11:00	-0.2	-0.9	-0.4	0.6	-0.4	-0.4	100	89.9	83.3	100	100	93.2
28-Aug-01	11:10	-0.4	-0.9	-0.7	-0.2	-0.2	-0.7	100	93.2	83.3	100	100	93.2
28-Aug-01	11:20	-0.4	-0.7	-0.9	-0.2	0.1	-0.7	100	88.8	83.8	100	100	93.2
28-Aug-01	11:30	-0.4	-0.9	-0.9	-0.7	-0.4	-0.7	100	91	83.3	100	100	92.6
28-Aug-01	11:40	-0.4	-1.2	-0.9	-0.4	-0.4	-0.7	100	93.8	83.3	100	100	95.4
28-Aug-01	11:50	-0.7	-0.9	-0.9	-0.9	0.1	-0.7	100	88.3	83.3	100	100	93.7
28-Aug-01	12:00	-0.7	-1.2	-0.9	-0.9	-0.2	-0.7	100	89.9	85.4	93.3	100	92
28-Aug-01	12:10	-0.2	-0.9	-0.7	-0.9	-0.4	-0.7	100	93.2	83.3	92.2	100	94.8
28-Aug-01	12:20	-0.4	-0.9	-1.2	-1.2	-0.2	-0.7	100	88.3	84.3	91.7	100	92.6
28-Aug-01	12:30	-0.2	-1.2	-0.9	-1.2	-0.2	-0.7	100	91.6	83.3	93.3	100	93.2
28-Aug-01	12:40	-0.4	-0.9	-0.7	-0.7	-0.7	-0.9	100	89.9	83.3	92.8	100	93.2
28-Aug-01	12:50	-0.7	-1.4	-1.2	-0.9	-0.2	-0.7	100	87.7	85.9	91.7	100	92
28-Aug-01	13:00	-0.2	-1.4	-0.9	-0.7	-0.2	-0.9	100	91.6	83.8	91.1	100	94.3
28-Aug-01	13:10	-0.4	-1.2	-1.2	-0.9	-0.2	-0.7	98.9	91	83.3	91.1	100	92.6
28-Aug-01	13:20	-0.2	-1.4	-0.9	-0.9	-0.4	-0.7	100	88.3	84.3	91.1	100	93.7
28-Aug-01	13:30	-0.2	-1.4	-1.2	-0.9	0.3	-0.7	100	91	83.8	91.1	100	92.6
28-Aug-01	13:40	0.1	-1.2	-0.9	-0.9	0.8	-0.9	99.5	91	83.3	91.1	100	94.3
28-Aug-01	13:50	-0.2	-0.4	-0.9	-1.2	1.3	-0.9	99.5	91	83.3	91.1	100	94.3
28-Aug-01	14:00	0.1	0.1	-0.9	-1.2	2.1	-0.7	100	91.6	84.3	91.1	100	92
28-Aug-01	14:10	-0.2	0.8	-0.9	-1.4	2.6	-0.9	100	92.1	83.3	91.1	100	92.6
28-Aug-01	14:20	0.1	1.3	-0.9	-1.4	1.8	-0.9	100	91.6	83.3	91.1	100	92.6
28-Aug-01	14:30	0.1	1.6	-0.9	-1.2	1.3	-0.7	100	87.7	82.8	91.1	100	92.6
28-Aug-01	14:40	-0.2	0.8	-0.9	-1.4	0.3	-0.7	100	86.1	83.8	91.1	100	93.7
28-Aug-01	14:50	-0.2	0.1	-1.2	-0.9	0.1	-0.9	100	86.1	82.8	91.1	100	94.8
28-Aug-01	15:00	-0.2	-0.4	-0.9	-0.9	-0.2	-0.9	100	87.2	82.8	91.1	100	92
28-Aug-01	15:10	0.3	-0.7	-1.2	-0.7	-0.4	-0.7	98.4	87.2	83.3	90.6	100	92.6
28-Aug-01	15:20	-0.2	-0.9	-1.2	-0.9	0.1	-0.9	100	87.7	82.8	90.6	100	93.2
28-Aug-01	15:30	-0.2	-1.2	-0.7	-0.9	-0.2	-0.4	100	86.1	83.3	90.6	100	93.7
28-Aug-01	15:40	-0.2	-1.4	-0.7	-0.9	-0.2	-0.7	100	91.6	83.8	90.6	100	94.8
28-Aug-01	15:50	-0.2	-1.2	-0.4	-1.2	-0.2	-0.4	99.5	89.9	83.3	90.6	100	93.7
28-Aug-01	16:00	-0.2	-1.7	-0.2	-1.2	-0.2	0.1	100	88.8	83.3	90.6	100	94.3
28-Aug-01	16:10	0.6	-1.4	-0.2	-1.2	-0.7	0.8	100	92.7	83.3	90.6	100	95.4
28-Aug-01	16:20	1.6	-0.9	-0.2	-1.4	0.1	2.1	100	91.6	83.8	90	100	96.5
28-Aug-01	16:30	2.6	-1.2	0.1	-1.4	0.1	1.3	100	91	85.4	90	100	90.9
28-Aug-01	16:40	2.3	-1.2	-0.2	-1.4	-0.2	0.1	97.3	85.5	83.8	90	100	92
28-Aug-01	16:50	0.8	-1.4	-0.2	-1.2	-0.2	-0.4	97.8	91.6	83.3	93.3	100	92
28-Aug-01	17:00	0.6	-1.2	-0.4	-0.7	-0.2	-0.7	100	87.7	83.3	92.2	100	92.6

28-Aug-01	17:10	0.6	-1.7	-0.7	-0.7	-0.4	-0.4	100	91	83.3	91.7	100	93.2
28-Aug-01	17:20	0.3	-1.7	-0.7	-0.7	0.1	-0.4	100	90.4	83.3	91.7	100	93.2
28-Aug-01	17:30	0.1	-1.7	-0.7	-0.4	0.3	-0.7	100	89.3	83.3	91.1	100	96
28-Aug-01	17:40	0.1	-1.4	-1.2	-0.4	0.6	-0.7	100	93.2	83.3	91.1	100	95.4
28-Aug-01	17:50	-0.2	-1.2	-0.9	-0.7	0.6	-0.7	100	88.8	85.9	91.1	100	93.2
28-Aug-01	18:00	0.1	-1.4	-0.7	-0.7	0.8	-0.7	100	91	83.3	91.1	100	93.7
28-Aug-01	18:10	-0.2	-1.4	-1.2	-0.7	1.1	-0.7	100	93.8	85.4	91.1	100	96
28-Aug-01	18:20	-0.2	-0.7	-0.9	-0.7	1.1	-0.7	100	93.8	83.8	90.6	100	95.4
28-Aug-01	18:30	-0.2	-0.9	-0.9	-0.4	1.3	-0.7	100	87.7	85.4	90.6	100	93.7
28-Aug-01	18:40	-0.4	-1.2	-0.7	-0.4	1.3	-0.4	100	92.1	83.3	90.6	100	93.7
28-Aug-01	18:50	-0.2	-1.2	-0.7	-0.4	1.6	-0.7	100	93.8	85.9	90.6	100	95.4
28-Aug-01	19:00	-0.2	-0.4	-0.9	-0.4	1.6	-0.7	100	93.8	83.8	90.6	100	95.4
28-Aug-01	19:10	-0.2	-0.7	-0.9	-0.4	1.8	-0.9	100	88.3	85.4	90.6	100	95.4
28-Aug-01	19:20	-0.2	-0.9	-0.7	-0.4	2.1	-0.4	100	92.1	83.3	90.6	100	93.7
28-Aug-01	19:30	-0.4	-0.7	-0.7	-0.4	2.1	-0.4	100	93.8	84.9	90.6	100	95.4
28-Aug-01	19:40	-0.2	-0.4	-0.9	-0.4	2.3	-0.7	100	93.8	83.8	90.6	100	96
28-Aug-01	19:50	-0.2	-0.7	-0.9	-0.4	2.3	-0.7	100	88.3	83.8	90.6	100	95.4
28-Aug-01	20:00	-0.2	-1.2	-0.7	-0.4	3.1	-0.7	100	92.7	84.3	90	100	93.2
28-Aug-01	20:10	-0.2	-0.9	-0.9	-0.7	3.4	-0.7	100	93.8	83.8	89.5	100	96
28-Aug-01	20:20	-0.4	-0.9	-0.9	-0.9	2.8	-0.7	100	93.8	83.3	89.5	98.9	96
28-Aug-01	20:30	-0.4	-0.7	-0.7	-1.2	1.3	-0.7	100	94.3	85.9	89.5	97.8	95.4
28-Aug-01	20:40	-0.2	-0.2	-0.9	-1.2	0.6	-0.4	100	93.8	83.8	89.5	97.8	93.7
28-Aug-01	20:50	-0.2	-0.7	-0.7	-1.4	-0.4	-0.7	100	88.3	84.9	91.7	97.8	95.4
28-Aug-01	21:00	-0.4	-0.9	-0.7	-1.2	-0.7	-0.7	100	93.2	83.8	92.8	100	96
28-Aug-01	21:10	-0.4	-0.9	-0.9	-0.7	-0.7	-0.7	100	94.3	83.8	91.7	100	95.4
28-Aug-01	21:20	-0.4	-0.7	-0.9	-0.9	-0.2	-0.4	100	94.3	84.3	90	100	93.2
28-Aug-01	21:30	-0.4	-0.4	-0.9	-1.2	-0.7	-0.7	99.5	93.2	84.3	90	100	94.8
28-Aug-01	21:40	-0.2	-0.4	-0.4	-1.2	-0.7	-0.7	100	92.1	83.8	92.8	100	96
28-Aug-01	21:50	-0.4	-0.4	-0.4	-1.2	-0.2	-0.7	100	92.1	83.8	92.8	100	95.4
28-Aug-01	22:00	-0.4	-0.2	-0.2	-0.7	-0.4	-0.7	100	91.6	83.3	92.8	100	93.7
28-Aug-01	22:10	-0.2	0.1	-0.2	-0.9	-0.7	-0.7	100	91.6	83.3	90	100	96
28-Aug-01	22:20	0.8	0.3	0.1	-0.9	-0.4	-0.7	100	91	83.3	90	100	96
28-Aug-01	22:30	1.3	0.6	0.1	-1.4	-0.2	-0.4	97.8	93.2	85.4	92.8	100	94.3
28-Aug-01	22:40	-0.2	0.3	-0.4	-0.9	-0.7	-0.4	97.8	92.1	83.8	92.2	100	93.7
28-Aug-01	22:50	-0.2	0.1	-0.4	-1.2	-0.4	-0.7	100	88.8	83.3	91.7	100	96
28-Aug-01	23:00	-0.4	-0.4	-0.7	-0.7	-0.2	-0.7	100	88.8	83.3	91.1	100	96
28-Aug-01	23:10	-0.4	-0.9	-0.9	-1.2	-0.4	-0.4	100	93.2	85.9	90	100	93.7
28-Aug-01	23:20	-0.7	-0.9	-0.9	-1.2	-0.7	-0.4	100	94.3	83.8	90	100	95.4
28-Aug-01	23:30	-0.4	-0.7	-0.9	-0.9	-0.2	-0.7	100	93.8	85.9	92.8	100	96
28-Aug-01	23:40	-0.4	-0.2	-0.9	-0.9	-0.2	-0.4	100	91	83.8	92.8	100	95.4
28-Aug-01	23:50	-0.4	-0.7	-0.9	-0.7	-0.7	-0.7	100	90.4	85.9	90.6	100	94.8
29-Aug-01	00:00	-0.4	-0.7	-0.7	-1.2	-0.4	-0.2	100	93.8	83.8	90	100	94.3
29-Aug-01	00:10	-0.7	-0.7	-0.9	-1.2	-0.4	0.1	100	94.3	85.9	92.8	100	93.2
29-Aug-01	00:20	-0.4	-0.7	-0.7	-0.7	-0.2	0.8	100	93.2	83.8	92.2	100	92.6
29-Aug-01	00:30	-0.4	-0.4	-0.9	-0.7	-0.9	0.8	100	92.7	85.9	90.6	100	90.9
29-Aug-01	00:40	-0.7	-0.7	-0.7	-0.9	-0.4	-0.4	100	88.3	84.3	90	100	91.5
29-Aug-01	00:50	-0.2	-0.9	-0.9	-1.2	-0.2	-0.4	100	93.2	83.8	92.8	100	93.7
29-Aug-01	01:00	-0.2	-0.9	-0.7	-1.2	-0.7	-0.7	100	94.3	85.9	92.8	100	96
29-Aug-01	01:10	-0.2	-0.7	-0.7	-0.7	-0.7	-0.7	100	93.2	83.8	91.7	100	96

29-Aug-01	01:20	-0.2	-0.4	-0.9	-0.9	-0.4	-0.7	100	92.7	85.9	90	100	93.2
29-Aug-01	01:30	-0.4	-0.7	-0.7	-1.2	-0.2	-0.7	100	88.3	83.3	92.2	100	96
29-Aug-01	01:40	-0.4	-0.9	-0.7	-1.2	0.3	-0.4	100	93.2	85.9	92.8	100	96.5
29-Aug-01	01:50	-0.4	-0.9	-0.7	-0.7	0.6	-0.7	100	94.3	83.3	92.2	100	94.3
29-Aug-01	02:00	-0.4	-0.7	-0.7	-0.7	1.1	-0.4	100	93.2	85.9	90	100	94.3
29-Aug-01	02:10	-0.4	-0.4	-0.9	-1.2	1.6	-0.4	100	91.6	83.8	90.6	100	96
29-Aug-01	02:20	-0.4	-0.7	-0.7	-1.2	1.1	-0.7	100	88.3	85.9	92.8	100	96
29-Aug-01	02:30	-0.4	-0.9	-0.7	-0.7	0.1	-0.4	100	93.2	83.3	92.2	100	93.7
29-Aug-01	02:40	-0.4	-0.7	-0.9	-0.7	-0.7	-0.7	100	94.3	85.9	91.1	100	94.8
29-Aug-01	02:50	-0.4	-0.7	-0.7	-0.4	-0.4	-0.4	100	93.2	83.3	91.1	100	96
29-Aug-01	03:00	-0.4	-0.4	-0.7	-0.7	-0.4	-0.7	100	89.9	85.9	90.6	100	96
29-Aug-01	03:10	-0.4	-0.7	-0.7	-1.2	-0.7	-0.7	100	91	83.3	90	100	93.2
29-Aug-01	03:20	-0.2	-0.7	-0.9	-1.2	-0.9	-0.4	100	93.8	85.9	92.2	100	95.4
29-Aug-01	03:30	-0.4	-0.7	-0.7	-0.9	-0.4	-0.4	100	93.8	85.4	92.8	100	96
29-Aug-01	03:40	-0.4	-0.4	-0.7	-0.9	-0.2	-0.7	100	93.2	85.4	92.8	100	95.4
29-Aug-01	03:50	-0.2	-0.7	-0.4	-0.7	-0.7	-0.7	100	88.3	84.9	90.6	100	93.7
29-Aug-01	04:00	-0.4	-0.9	-0.4	-1.2	-0.7	-0.7	100	92.1	84.3	90	100	96
29-Aug-01	04:10	-0.2	-0.9	-0.2	-0.9	-0.4	-0.4	100	94.3	84.3	92.8	100	96
29-Aug-01	04:20	1.1	-0.4	-0.2	-0.9	-0.2	-0.7	100	93.8	84.3	92.8	100	96
29-Aug-01	04:30	0.8	-0.4	-0.2	-0.7	-0.7	-0.7	97.8	91.6	85.4	91.1	100	93.2
29-Aug-01	04:40	-0.4	-0.7	-0.4	-0.9	-0.4	-0.7	100	91	83.8	90	100	94.3
29-Aug-01	04:50	-0.4	-0.7	-0.4	-1.2	-0.2	-0.4	100	88.3	83.3	92.8	100	96
29-Aug-01	05:00	-0.4	-0.9	-0.9	-0.9	-0.4	-0.4	100	92.1	83.8	92.8	100	96
29-Aug-01	05:10	-0.7	-0.9	-0.9	-0.7	-0.7	-0.4	100	94.3	85.9	92.2	100	94.3
29-Aug-01	05:20	-0.4	-0.4	-0.9	-0.9	-0.7	-0.7	100	93.8	83.8	90	100	93.7
29-Aug-01	05:30	-0.7	-0.7	-0.9	-1.2	-0.2	-0.7	100	92.7	85.9	91.7	100	96
29-Aug-01	05:40	-0.4	-0.2	-0.7	-1.2	-0.4	-0.4	100	92.1	83.8	92.8	100	96
29-Aug-01	05:50	-0.7	-0.2	-0.9	-0.7	-0.7	-0.7	100	91.6	85.9	92.2	100	93.2
29-Aug-01	06:00	-0.4	0.1	-0.7	-0.9	-0.7	-0.4	100	91.6	83.8	90	100	95.4
29-Aug-01	06:10	-0.4	0.3	-0.7	-1.2	-0.2	-0.7	100	92.7	85.9	90	100	96
29-Aug-01	06:20	-0.4	0.8	-0.9	-0.9	-0.7	-0.7	100	93.2	83.8	92.8	100	96
29-Aug-01	06:30	-0.4	0.8	-0.7	-0.9	-0.4	-0.7	100	88.8	86.5	92.2	100	93.2
29-Aug-01	06:40	-0.4	0.1	-0.9	-0.7	-0.2	-0.4	100	85.5	83.8	91.1	100	95.4
29-Aug-01	06:50	-0.7	-0.4	-0.9	-0.9	-0.2	-0.4	100	91	85.9	90	100	96
29-Aug-01	07:00	-0.4	-0.7	-0.7	-1.2	0.1	-0.4	100	93.8	84.3	90	100	96
29-Aug-01	07:10	-0.4	-0.7	-0.9	-0.9	0.1	-0.7	100	88.8	85.9	92.8	100	94.8
29-Aug-01	07:20	-0.4	-0.9	-0.7	-0.9	0.3	-0.4	100	91.6	83.8	91.7	100	93.7
29-Aug-01	07:30	-0.4	-0.7	-0.7	-0.7	0.6	-0.4	100	93.8	85.9	90	100	95.4
29-Aug-01	07:40	-0.2	-0.4	-0.7	-1.2	0.8	-0.4	100	92.7	83.3	90	100	96
29-Aug-01	07:50	-0.4	-0.9	-0.7	-1.2	1.6	-0.7	100	88.3	86.5	92.8	100	94.3
29-Aug-01	08:00	-0.2	-0.9	-0.7	-0.7	2.1	0.1	100	93.2	83.8	92.8	100	95.4
29-Aug-01	08:10	-0.4	-0.7	-0.9	-0.4	2.3	0.6	100	94.3	85.9	90.6	100	96.5
29-Aug-01	08:20	-0.4	-0.4	-0.4	-0.7	1.8	1.8	100	87.7	84.3	90	100	94.8
29-Aug-01	08:30	-0.4	-1.2	-0.9	-0.9	1.1	1.3	100	91.6	85.9	90	100	90.9
29-Aug-01	08:40	-0.4	-0.9	-0.9	-0.9	0.1	0.3	100	94.3	83.8	90	100	91.5
29-Aug-01	08:50	-0.2	-0.7	-0.7	-1.2	-0.4	-0.4	100	91	85.4	90.6	100	92.6
29-Aug-01	09:00	-0.2	-0.9	-0.7	-0.7	-0.4	-0.9	100	89.3	83.3	90.6	100	92.6
29-Aug-01	09:10	-0.2	-0.9	-0.7	-0.9	0.1	-0.7	100	93.8	85.4	90	100	93.2
29-Aug-01	09:20	-0.2	-0.7	-0.7	-0.9	-0.2	-0.7	100	93.8	83.8	90	100	96

29-Aug-01	09:30	-0.2	-0.7	-0.7	-0.9	-0.7	-0.7	100	88.3	84.3	92.8	100	93.2
29-Aug-01	09:40	0.1	-0.9	-0.7	-0.4	-0.2	-0.7	100	92.1	84.3	92.2	100	93.7
29-Aug-01	09:50	-0.2	-0.7	-0.4	-0.9	-0.2	-0.7	100	93.8	84.9	90	100	95.4
29-Aug-01	10:00	-0.4	-0.7	-0.4	-0.9	-0.4	-0.9	100	88.8	85.4	89.5	100	92.6
29-Aug-01	10:10	0.3	-0.9	-0.2	-1.2	-0.2	-0.7	100	91.6	84.9	89.5	100	94.3
29-Aug-01	10:20	1.3	-0.9	-0.2	-0.7	-0.2	-0.9	100	91	84.9	92.2	100	94.8
29-Aug-01	10:30	1.8	-0.7	-0.2	-0.7	-0.4	-0.7	99.5	89.9	85.9	92.8	100	93.2
29-Aug-01	10:40	0.6	-1.4	-0.2	-0.4	-0.2	-0.9	100	90.4	84.3	90.6	100	96
29-Aug-01	10:50	0.1	-0.9	-0.7	-0.7	-0.2	-0.7	100	93.8	83.8	90	100	93.2
29-Aug-01	11:00	0.1	-0.9	-0.7	-0.9	-0.2	-0.7	100	90.4	83.3	90	100	93.2
29-Aug-01	11:10	0.1	-1.2	-0.7	-0.9	-0.4	-0.4	100	89.3	83.3	91.1	100	93.2
29-Aug-01	11:20	0.1	-1.2	-0.7	-0.7	-0.2	-0.7	100	93.8	83.3	92.2	100	94.3
29-Aug-01	11:30	-0.2	-0.7	-0.7	-0.7	-0.2	-0.7	100	91	85.4	91.1	100	94.3
29-Aug-01	11:40	-0.2	-0.9	-0.9	-0.9	-0.7	-0.9	100	88.3	83.3	90	100	92.6
29-Aug-01	11:50	0.1	-1.4	-0.9	-0.7	-0.2	-0.9	100	92.1	84.3	90	100	93.2
29-Aug-01	12:00	0.1	-0.9	-0.9	-1.2	-0.2	-1.2	100	93.8	83.8	90.6	100	92.6
29-Aug-01	12:10	0.3	-0.9	-0.9	-0.7	-0.7	-0.9	100	88.8	84.3	92.2	100	93.2
29-Aug-01	12:20	0.3	-1.2	-0.7	-0.4	-0.4	-1.2	100	89.9	83.8	91.1	100	92.6
29-Aug-01	12:30	0.3	-1.2	-0.7	-0.7	0.1	-1.2	100	93.8	84.3	90	100	94.3
29-Aug-01	12:40	0.1	-0.7	-0.7	-0.7	-0.4	-1.2	100	91	83.3	90	100	94.8
29-Aug-01	12:50	0.1	-1.2	-0.7	-0.7	-0.7	0.1	100	88.8	83.3	90	100	98.8
29-Aug-01	13:00	0.1	-1.2	-0.7	-0.9	-0.4	-0.4	100	92.7	84.3	92.8	100	93.2
29-Aug-01	13:10	0.3	-0.9	-0.7	-0.7	0.1	-0.4	100	91.6	83.3	92.2	100	93.2
29-Aug-01	13:20	0.1	-1.2	-0.9	-0.4	-0.2	-0.9	100	88.3	84.3	90.6	100	93.2
29-Aug-01	13:30	0.1	-1.2	-0.7	-0.9	0.3	-1.2	100	89.9	83.3	90	100	92.6
29-Aug-01	13:40	0.1	-1.2	-0.7	-0.9	0.8	-0.9	99.5	90.4	85.4	90	100	93.2
29-Aug-01	13:50	0.3	-0.7	-0.7	-0.9	1.1	-0.7	100	91.6	83.3	90	100	93.2
29-Aug-01	14:00	0.3	0.1	-0.7	-0.9	1.8	-0.7	100	90.4	84.9	92.8	100	93.2
29-Aug-01	14:10	0.3	0.3	-0.7	-0.4	2.1	-0.7	100	90.4	83.3	92.8	100	92
29-Aug-01	14:20	0.3	0.8	-0.7	-0.4	1.8	-0.7	99.5	91.6	84.3	90.6	100	93.2
29-Aug-01	14:30	0.6	1.1	-0.9	-0.9	0.8	-0.7	100	88.3	83.3	90	100	92.6
29-Aug-01	14:40	0.1	0.3	-0.7	-0.9	0.6	-0.4	100	86.1	84.9	90	100	92
29-Aug-01	14:50	0.3	-0.2	-0.9	-0.9	0.1	-0.4	100	86.1	83.3	90.6	100	92.6
29-Aug-01	15:00	0.1	-0.7	-0.9	-0.7	-0.2	-0.9	99.5	91	83.8	90.6	100	93.7
29-Aug-01	15:10	0.3	-0.7	-0.9	-0.7	-0.4	-0.7	100	89.9	83.8	90	100	93.2
29-Aug-01	15:20	0.1	-0.9	-0.9	-0.7	0.1	-0.9	100	88.3	83.3	89.5	100	93.7
29-Aug-01	15:30	0.1	-0.9	-0.7	-0.9	-0.4	-0.7	99.5	92.1	83.3	90	100	91.5
29-Aug-01	15:40	0.1	-0.7	-0.9	-0.9	-0.4	-1.2	100	91.6	83.8	90	100	93.2
29-Aug-01	15:50	0.1	-0.9	-0.7	-0.9	-0.2	-0.9	99.5	87.7	83.8	90	100	93.2
29-Aug-01	16:00	0.1	-1.4	-0.4	-1.2	-0.2	-0.2	100	91.6	83.8	90	100	96
29-Aug-01	16:10	0.6	-0.9	-0.7	-0.9	-0.7	0.3	100	93.8	83.8	90	100	97.1
29-Aug-01	16:20	1.3	-0.7	-0.4	-1.2	-0.4	1.6	100	91.6	84.3	92.8	100	96.5
29-Aug-01	16:30	2.8	-0.7	-0.2	-0.9	0.1	1.3	100	91.6	85.9	91.7	100	91.5
29-Aug-01	16:40	1.8	-0.9	-0.4	-0.9	0.1	0.3	98.4	87.2	84.3	90	100	91.5
29-Aug-01	16:50	0.8	-0.9	-0.7	-0.7	-0.4	-0.4	100	91.6	83.8	90	100	92.6
29-Aug-01	17:00	0.6	-0.7	-0.7	-0.9	-0.2	-0.7	100	93.2	83.3	90	100	92.6
29-Aug-01	17:10	0.3	-0.9	-0.7	-0.9	0.1	-0.7	100	89.3	83.3	90.6	100	94.3
29-Aug-01	17:20	0.3	-0.9	-0.7	-0.7	0.1	-0.4	100	88.3	83.3	90.6	100	95.4
29-Aug-01	17:30	0.1	-1.2	-0.7	-0.7	0.6	-0.7	100	92.7	85.9	90.6	100	95.4

29-Aug-01	17:40	0.1	-0.9	-0.9	-0.4	0.8	-0.7	100	93.8	83.3	90.6	100	95.4
29-Aug-01	17:50	-0.2	-0.7	-0.7	-0.4	0.8	-0.7	100	89.3	84.9	90.6	100	94.8
29-Aug-01	18:00	-0.2	-0.9	-0.7	-0.4	1.1	-0.7	100	89.9	83.3	90.6	100	94.3
29-Aug-01	18:10	-0.2	-1.2	-0.9	-0.4	1.1	-0.7	100	93.2	84.3	90.6	100	94.3
29-Aug-01	18:20	-0.2	-0.9	-0.9	-0.4	1.6	-0.7	100	94.3	83.8	90.6	100	93.2
29-Aug-01	18:30	0.1	-0.7	-0.7	-0.4	1.6	-0.9	100	91.6	85.4	90.6	100	93.7
29-Aug-01	18:40	-0.2	-0.9	-0.7	-0.4	1.6	-0.7	100	89.9	83.3	90.6	100	94.3
29-Aug-01	18:50	-0.2	-1.2	-0.9	-0.4	1.8	-0.4	100	93.2	84.3	90.6	100	93.7
29-Aug-01	19:00	-0.2	-0.9	-0.7	-0.4	2.1	-0.4	100	94.3	83.3	90.6	100	93.7
29-Aug-01	19:10	0.1	-0.7	-0.7	-0.4	1.8	-0.4	100	92.7	84.3	90.6	100	94.3
29-Aug-01	19:20	-0.2	-0.9	-0.7	-0.4	2.1	-0.7	100	88.3	83.3	90.6	100	94.8
29-Aug-01	19:30	-0.2	-1.2	-0.7	-0.4	2.1	-0.4	100	92.7	84.3	90.6	100	94.8
29-Aug-01	19:40	0.1	-1.2	-0.7	-0.4	2.3	-0.7	100	94.3	83.3	90.6	100	96
29-Aug-01	19:50	-0.2	-0.9	-0.9	-0.4	3.1	-0.7	100	94.3	84.3	90.6	100	96
29-Aug-01	20:00	-0.4	-0.7	-0.7	-0.2	3.4	-0.9	100	89.3	83.3	90	100	95.4
29-Aug-01	20:10	0.1	-0.9	-0.7	-0.4	3.9	-0.7	100	91.6	83.3	90	100	93.7
29-Aug-01	20:20	-0.2	-0.9	-0.7	-0.9	3.1	-0.7	100	93.8	84.9	89.5	100	93.2
29-Aug-01	20:30	-0.4	-0.9	-0.7	-0.7	1.8	-0.7	100	94.3	83.3	89.5	98.3	94.8
29-Aug-01	20:40	-0.2	-0.4	-0.7	-0.9	0.8	-0.4	100	92.1	84.9	89.5	97.8	95.4
29-Aug-01	20:50	-0.4	-0.9	-0.7	-0.9	0.3	-0.7	99.5	88.3	83.3	89.5	97.8	96
29-Aug-01	21:00	-0.2	-0.9	-0.7	-1.2	-0.4	-0.7	100	93.2	84.9	91.1	97.8	95.4
29-Aug-01	21:10	-0.2	-1.2	-0.7	-0.9	-0.9	-0.7	100	93.8	83.3	92.8	98.3	95.4
29-Aug-01	21:20	-0.4	-0.7	-0.7	-0.7	-0.7	-0.7	99.5	94.3	84.9	90.6	100	96
29-Aug-01	21:30	-0.4	-0.7	-0.7	-0.7	-0.2	-0.7	100	91.6	84.3	90	100	94.8
29-Aug-01	21:40	-0.4	-0.7	-0.4	-0.9	-0.7	-0.7	100	91.6	84.3	90	100	93.2
29-Aug-01	21:50	-0.4	-0.7	-0.4	-0.9	-0.7	-0.7	99.5	91	84.3	91.7	100	93.2
29-Aug-01	22:00	-0.4	-0.4	-0.4	-0.9	-0.4	-0.9	100	91	83.8	92.8	100	96
29-Aug-01	22:10	0.1	-0.2	-0.4	-0.7	-0.2	-0.7	100	91	83.8	90.6	100	95.4
29-Aug-01	22:20	0.8	0.3	-0.2	-0.9	-0.7	-0.7	100	93.8	84.3	89.5	100	95.4
29-Aug-01	22:30	1.6	0.6	-0.2	-0.9	-0.4	-0.9	100	93.2	85.9	90	100	95.4
29-Aug-01	22:40	0.6	0.6	-0.2	-1.2	-0.2	-0.7	98.4	92.1	84.3	90.6	100	93.2
29-Aug-01	22:50	-0.2	0.3	-0.2	-1.2	-0.7	-0.7	100	88.8	83.3	90.6	100	93.2
29-Aug-01	23:00	-0.2	-0.7	-0.7	-0.7	-0.7	-0.7	100	86.1	83.3	91.1	100	93.2
29-Aug-01	23:10	-0.4	-0.9	-0.7	-0.9	-0.7	-0.7	100	91.6	83.3	90	100	93.7
29-Aug-01	23:20	-0.2	-0.9	-0.7	-0.9	-0.2	-0.7	100	94.3	85.4	90	100	96
29-Aug-01	23:30	-0.4	-0.7	-0.7	-1.2	-0.7	-0.7	100	91	83.3	90.6	100	96
29-Aug-01	23:40	-0.4	-0.9	-0.7	-0.9	-0.7	-0.7	100	88.3	85.9	92.8	100	95.4
29-Aug-01	23:50	-0.4	-1.2	-0.7	-0.9	-0.2	-0.7	100	93.2	83.3	92.8	100	95.4
30-Aug-01	00:00	-0.4	-0.9	-0.7	-0.9	-0.2	-0.2	100	93.8	85.9	90	100	94.8
30-Aug-01	00:10	-0.4	-0.7	-0.7	-0.9	-0.7	0.3	100	91.6	83.3	89.5	100	93.7
30-Aug-01	00:20	-0.2	-1.2	-0.7	-0.9	-0.7	1.1	100	88.8	85.4	91.1	100	93.2
30-Aug-01	00:30	-0.2	-1.4	-0.9	-1.2	-0.4	1.1	100	93.8	83.8	92.8	100	92.6
30-Aug-01	00:40	-0.2	-0.9	-0.7	-0.7	-0.4	0.1	100	93.8	85.4	91.1	100	92
30-Aug-01	00:50	-0.4	-0.9	-0.7	-0.7	-0.7	-0.4	100	94.3	83.8	89.5	100	93.2
30-Aug-01	01:00	-0.2	-0.9	-0.7	-0.9	-0.4	-0.7	100	88.3	84.3	90	100	93.7
30-Aug-01	01:10	-0.4	-1.2	-0.9	-0.9	-0.2	-0.4	100	93.2	84.3	92.2	100	96
30-Aug-01	01:20	-0.4	-1.2	-0.7	-0.9	-0.4	-0.7	100	94.3	83.8	92.8	100	96
30-Aug-01	01:30	-0.4	-0.7	-0.9	-0.7	-0.2	-0.4	100	93.8	84.3	90.6	100	95.4
30-Aug-01	01:40	-0.4	-0.9	-0.7	-0.9	0.3	-0.4	100	88.8	83.8	90	100	96

30-Aug-01	01:50	-0.2	-1.2	-0.7	-0.9	0.3	-0.7	100	93.8	84.3	90.6	100	96
30-Aug-01	02:00	-0.2	-0.9	-0.7	-0.9	0.8	-0.7	100	93.8	83.3	92.2	100	96
30-Aug-01	02:10	-0.2	-0.7	-0.9	-0.7	1.6	-0.7	100	91	85.4	92.2	100	96
30-Aug-01	02:20	-0.2	-1.2	-0.7	-0.7	0.8	-0.7	100	88.8	83.3	90	100	96
30-Aug-01	02:30	-0.2	-1.2	-0.7	-0.9	0.1	-0.4	100	93.8	84.9	90	100	95.4
30-Aug-01	02:40	-0.4	-0.9	-0.7	-1.2	-0.9	-0.7	100	93.8	83.3	91.1	99.5	96
30-Aug-01	02:50	-0.2	-0.7	-0.7	-1.2	-1.2	-0.7	100	93.2	85.4	91.1	100	94.8
30-Aug-01	03:00	-0.4	-0.9	-0.7	-0.7	-0.7	-0.7	100	88.3	83.3	91.1	100	93.7
30-Aug-01	03:10	-0.2	-1.2	-0.9	-0.9	-0.4	-0.4	100	93.2	85.4	89.5	100	94.3
30-Aug-01	03:20	-0.4	-0.9	-0.7	-0.9	-0.7	-0.7	100	94.3	83.3	90	100	95.4
30-Aug-01	03:30	-0.4	-0.9	-0.7	-1.2	-0.7	-0.4	100	94.3	83.8	91.7	100	96
30-Aug-01	03:40	-0.2	-0.7	-0.7	-1.2	-0.4	-0.7	100	89.3	84.3	92.8	100	96
30-Aug-01	03:50	-0.7	-1.2	-0.7	-0.7	-0.2	-0.7	100	91	84.3	92.2	100	96
30-Aug-01	04:00	-0.4	-1.2	-0.4	-0.7	-0.9	-0.4	100	94.3	84.3	90	100	95.4
30-Aug-01	04:10	0.1	-0.9	-0.4	-0.9	-0.7	-0.7	100	93.8	83.8	90	100	95.4
30-Aug-01	04:20	0.8	-0.4	-0.2	-0.9	-0.4	-0.4	100	92.1	84.3	92.2	100	93.7
30-Aug-01	04:30	0.8	-0.7	-0.4	-0.9	-0.2	-0.4	97.3	91	85.9	92.2	100	93.7
30-Aug-01	04:40	-0.2	-0.9	-0.2	-0.9	-0.9	-0.4	98.9	91.6	84.3	91.1	100	93.7
30-Aug-01	04:50	-0.4	-1.2	-0.7	-0.9	-0.7	-0.4	100	91.6	83.8	90	100	93.7
30-Aug-01	05:00	-0.4	-1.2	-0.7	-0.9	-0.4	-0.7	100	94.3	83.3	90.6	100	93.7
30-Aug-01	05:10	-0.4	-0.9	-0.9	-1.2	-0.2	-0.7	100	94.3	84.3	92.2	100	95.4
30-Aug-01	05:20	-0.4	-0.7	-0.7	-0.9	-0.9	-0.7	100	88.8	83.8	92.8	100	96
30-Aug-01	05:30	-0.4	-0.9	-0.9	-0.7	-0.9	-0.7	100	91	85.4	90	100	96
30-Aug-01	05:40	-0.4	-0.9	-0.7	-0.9	-0.2	-0.4	100	91.6	83.8	90	100	96
30-Aug-01	05:50	-0.4	-0.7	-0.9	-1.2	-0.4	-0.7	100	91.6	85.4	91.7	100	96
30-Aug-01	06:00	-0.4	-0.7	-0.7	-0.9	-0.9	-0.4	100	91	83.3	92.8	100	95.4
30-Aug-01	06:10	-0.4	-0.2	-0.9	-0.7	-0.7	-0.7	100	91.6	85.4	91.1	100	95.4
30-Aug-01	06:20	-0.4	0.1	-0.7	-0.7	-0.2	-0.7	100	92.7	83.3	90	100	93.7
30-Aug-01	06:30	-0.4	0.6	-0.7	-1.2	-0.2	-0.4	100	91	85.4	90	100	93.7
30-Aug-01	06:40	-0.4	-0.2	-0.7	-0.9	0.3	-0.4	100	87.2	83.3	92.2	100	93.7
30-Aug-01	06:50	-0.4	-0.9	-0.9	-0.7	0.3	-0.7	100	91	85.4	92.2	100	93.7
30-Aug-01	07:00	-0.2	-0.9	-0.7	-0.7	0.3	-0.4	100	93.8	84.9	90	100	93.7
30-Aug-01	07:10	-0.4	-0.7	-0.9	-0.9	0.3	-0.4	100	93.8	84.3	89.5	100	94.3
30-Aug-01	07:20	-0.2	-0.7	-0.7	-0.9	1.1	-0.7	100	88.8	84.9	92.2	100	96
30-Aug-01	07:30	-0.4	-1.4	-0.9	-0.7	1.3	-0.4	100	91	83.8	92.2	100	95.4
30-Aug-01	07:40	0.1	-1.2	-0.7	-0.4	1.6	-0.4	100	94.3	84.9	90.6	100	95.4
30-Aug-01	07:50	-0.2	-0.7	-0.7	-0.7	2.3	-0.4	100	93.8	83.8	89.5	100	93.7
30-Aug-01	08:00	-0.2	-0.7	-0.9	-1.2	2.3	-0.2	100	88.8	85.4	90	100	94.8
30-Aug-01	08:10	-0.2	-0.9	-0.7	-0.9	3.1	0.8	100	92.1	83.3	90	100	94.8
30-Aug-01	08:20	-0.2	-0.9	-0.7	-0.9	2.6	1.6	100	93.8	84.9	92.2	100	93.7
30-Aug-01	08:30	0.1	-0.4	-0.7	-0.9	1.6	1.6	100	93.2	83.3	92.8	100	91.5
30-Aug-01	08:40	-0.2	-0.9	-0.7	-0.7	0.6	0.1	100	88.8	83.8	92.2	100	90.9
30-Aug-01	08:50	-0.2	-0.9	-0.9	-0.7	0.1	-0.4	100	92.1	85.4	93.9	100	93.7
30-Aug-01	09:00	-0.4	-0.7	-0.7	-0.4	-0.7	-0.4	100	93.8	83.3	90.6	100	92.6
30-Aug-01	09:10	-0.2	-0.7	-0.9	-0.9	-0.4	-0.4	100	92.1	84.3	89.5	100	93.2
30-Aug-01	09:20	-0.4	-0.9	-0.9	-0.7	-0.2	-0.4	99.5	88.3	83.8	90	100	93.2
30-Aug-01	09:30	-0.4	-0.9	-0.9	-0.9	-0.4	-0.7	100	93.2	84.3	91.1	100	93.7
30-Aug-01	09:40	-0.2	-0.7	-0.7	-0.7	-0.7	-0.4	100	94.3	84.3	92.8	100	94.8
30-Aug-01	09:50	-0.2	-0.4	-0.4	-0.9	-0.2	-0.7	100	89.9	84.3	90	100	95.4

30-Aug-01	10:00	-0.2	-0.9	-0.2	-0.9	-0.4	-0.7	100	89.3	84.3	89.5	100	94.8
30-Aug-01	10:10	0.1	-0.9	-0.2	-1.2	-0.4	-0.7	100	93.2	84.3	92.8	100	94.8
30-Aug-01	10:20	1.3	-0.9	-0.4	-0.7	-0.4	-0.4	100	93.8	84.3	92.8	100	95.4
30-Aug-01	10:30	1.6	-0.7	-0.2	-0.7	-0.2	-0.7	100	91.6	85.9	90	100	94.8
30-Aug-01	10:40	0.8	-0.7	-0.4	-0.9	-0.4	-0.4	98.4	91	84.3	89.5	100	95.4
30-Aug-01	10:50	0.3	-0.7	-0.7	-0.9	-0.4	-0.7	100	88.3	83.8	90	100	95.4
30-Aug-01	11:00	-0.2	-0.9	-0.4	-0.9	-0.2	-0.7	99.5	92.1	83.3	92.8	100	94.8
30-Aug-01	11:10	-0.2	-0.7	-0.7	-0.4	0.1	-0.7	100	93.8	83.3	92.2	100	94.3
30-Aug-01	11:20	-0.2	-0.7	-0.7	-0.7	-0.7	-0.7	100	88.8	83.3	90	100	94.3
30-Aug-01	11:30	0.1	-0.9	-0.9	-0.9	-0.4	-0.7	100	91.6	84.3	89.5	100	94.8
30-Aug-01	11:40	-0.2	-0.7	-0.9	-1.2	0.1	-0.7	100	93.8	83.8	90.6	100	93.2
30-Aug-01	11:50	0.1	-0.9	-0.9	-0.7	-0.4	-0.4	100	89.3	84.3	92.8	100	93.7
30-Aug-01	12:00	0.1	-1.2	-0.7	-0.7	-0.7	-0.7	100	88.8	83.8	91.1	100	93.2
30-Aug-01	12:10	-0.2	-1.2	-0.7	-0.7	-0.2	-0.7	100	93.2	83.3	89.5	100	93.2
30-Aug-01	12:20	-0.2	-0.7	-0.9	-1.2	0.1	-0.4	100	93.8	85.4	90	100	93.2
30-Aug-01	12:30	0.1	-0.9	-0.9	-0.9	-0.4	-0.4	99.5	88.8	83.8	92.8	100	93.7
30-Aug-01	12:40	-0.4	-1.2	-0.9	-0.9	-0.4	-0.4	100	92.1	85.9	93.3	100	93.2
30-Aug-01	12:50	-0.2	-0.9	-0.7	-0.4	-0.2	-0.4	100	93.8	83.3	90.6	100	93.2
30-Aug-01	13:00	-0.2	-0.7	-0.9	-0.7	-0.2	-0.4	100	90.4	85.9	90	100	93.2
30-Aug-01	13:10	-0.2	-0.9	-0.7	-0.9	-0.7	-0.7	100	88.3	83.3	90	100	93.2
30-Aug-01	13:20	-0.2	-0.9	-0.9	-0.7	-0.2	-0.4	100	93.2	83.3	92.8	100	93.2
30-Aug-01	13:30	-0.2	-0.9	-0.7	-0.7	0.1	-0.7	98.9	93.2	84.9	92.2	100	93.2
30-Aug-01	13:40	0.1	-0.4	-0.7	-0.7	0.6	-0.7	100	92.1	83.3	90	100	93.2
30-Aug-01	13:50	-0.4	-0.2	-0.9	-0.9	1.1	-0.7	100	91.6	84.3	89.5	100	92.6
30-Aug-01	14:00	-0.2	0.3	-0.7	-0.9	2.1	-0.7	99.5	91	83.3	91.1	100	92.6
30-Aug-01	14:10	0.1	0.6	-0.7	-0.7	2.6	-0.4	100	93.8	83.3	92.8	100	93.2
30-Aug-01	14:20	-0.2	0.8	-0.9	-0.7	2.1	-0.7	100	94.3	84.9	91.1	100	92.6
30-Aug-01	14:30	0.1	1.3	-0.7	-0.7	1.1	-0.7	100	89.3	83.3	90	100	93.2
30-Aug-01	14:40	-0.2	0.6	-0.9	-0.7	0.6	-0.7	100	86.6	83.3	90.6	100	92.6
30-Aug-01	14:50	-0.2	-0.4	-0.9	-0.9	-0.2	-0.7	97.8	88.3	84.3	92.8	100	93.2
30-Aug-01	15:00	-0.2	-0.7	-0.9	-0.4	-0.7	-0.4	100	92.1	83.3	90	100	92.6
30-Aug-01	15:10	-0.2	-0.7	-0.9	-0.9	-0.4	-0.4	98.4	88.8	83.8	89.5	100	93.2
30-Aug-01	15:20	-0.2	-0.9	-0.9	-0.9	-0.2	-0.4	100	91.6	83.8	90	100	93.2
30-Aug-01	15:30	-0.4	-0.7	-0.7	-0.9	-0.4	-0.7	97.3	92.1	84.3	92.2	100	93.2
30-Aug-01	15:40	-0.4	-0.9	-0.4	-0.9	-0.7	-0.7	100	88.3	84.3	92.8	100	93.7
30-Aug-01	15:50	-0.4	-1.2	-0.4	-0.7	0.1	-0.4	100	91	83.8	90	100	93.7
30-Aug-01	16:00	-0.2	-1.2	-0.4	-0.7	-0.2	-0.2	100	93.8	83.8	90	100	96
30-Aug-01	16:10	0.6	-0.7	-0.4	-0.9	-0.4	0.6	100	92.7	84.3	90	100	97.1
30-Aug-01	16:20	1.3	-0.9	-0.4	-0.9	-0.2	1.6	100	91	84.3	92.8	100	98.2
30-Aug-01	16:30	2.1	-0.7	-0.2	-0.7	0.1	1.8	100	91	85.9	92.8	100	89.8
30-Aug-01	16:40	2.8	-0.9	-0.4	-0.7	0.1	0.6	98.4	88.3	84.3	89.5	100	90.4
30-Aug-01	16:50	1.6	-0.9	-0.4	-0.9	-0.4	0.1	97.8	93.2	83.8	90	100	92
30-Aug-01	17:00	0.6	-0.7	-0.4	-1.2	0.1	-0.2	99.5	93.8	83.3	90.6	100	93.2
30-Aug-01	17:10	0.6	-0.7	-0.7	-1.2	0.1	-0.4	100	88.8	83.8	91.1	100	94.8
30-Aug-01	17:20	0.6	-1.2	-0.7	-0.9	0.3	-0.7	100	91.6	83.3	91.1	100	94.8
30-Aug-01	17:30	0.3	-1.2	-0.7	-0.7	0.6	-0.7	97.8	93.8	83.3	90.6	100	94.3
30-Aug-01	17:40	0.1	-0.9	-0.9	-0.7	0.8	-0.7	100	92.7	83.8	90.6	100	93.7
30-Aug-01	17:50	-0.2	-0.9	-0.9	-0.4	0.8	-0.7	100	88.8	84.3	90.6	100	93.2
30-Aug-01	18:00	-0.4	-1.2	-0.7	-0.4	1.3	-0.4	100	92.7	83.3	90.6	100	94.3

30-Aug-01	18:10	-0.2	-0.7	-0.7	-0.4	1.3	-0.7	100	93.8	85.4	90.6	100	94.8
30-Aug-01	18:20	-0.2	-0.9	-0.9	-0.4	1.3	-0.7	100	88.8	83.3	90.6	100	94.8
30-Aug-01	18:30	-0.2	-1.2	-0.9	-0.4	1.6	-0.7	99.5	91	84.3	90.6	100	93.2
30-Aug-01	18:40	-0.4	-0.9	-0.7	-0.4	1.6	-0.4	100	93.8	83.8	90.6	100	93.2
30-Aug-01	18:50	-0.2	-0.7	-0.7	-0.4	1.6	-0.9	100	91.6	83.3	90.6	100	94.3
30-Aug-01	19:00	-0.2	-0.9	-0.9	-0.4	1.6	-0.7	100	88.3	85.4	90.6	100	94.3
30-Aug-01	19:10	-0.4	-1.2	-0.7	-0.2	1.8	-0.7	100	92.7	83.3	90.6	100	94.8
30-Aug-01	19:20	-0.4	-0.7	-0.9	-0.4	1.8	-0.7	100	93.8	83.3	90.6	100	95.4
30-Aug-01	19:30	-0.4	-0.4	-0.9	-0.2	2.3	-0.4	100	90.4	84.3	90.6	100	93.7
30-Aug-01	19:40	-0.4	-0.9	-0.9	-0.2	2.6	-0.7	100	89.9	83.3	90.6	100	93.7
30-Aug-01	19:50	-0.4	-1.2	-0.9	-0.2	3.1	-0.7	100	93.8	83.8	90.6	100	93.7
30-Aug-01	20:00	-0.2	-1.2	-0.7	-0.4	3.4	-0.4	100	94.3	83.8	90	100	94.3
30-Aug-01	20:10	-0.4	-0.7	-0.7	-0.7	3.9	-0.9	100	91.6	83.3	89.5	100	95.4
30-Aug-01	20:20	-0.4	-1.2	-0.7	-0.7	3.1	-0.4	100	90.4	84.3	89.5	100	95.4
30-Aug-01	20:30	-0.7	-0.9	-0.7	-0.9	1.8	-0.4	100	93.8	83.8	89.5	98.9	93.7
30-Aug-01	20:40	-0.4	-0.9	-0.7	-1.2	1.1	-0.7	100	93.8	83.3	90	98.3	93.7
30-Aug-01	20:50	-0.7	-0.7	-0.7	-0.9	0.3	-0.7	99.5	91.6	83.3	92.8	98.3	94.3
30-Aug-01	21:00	-0.7	-1.2	-0.9	-0.7	-0.4	-0.7	100	89.3	84.9	92.8	98.3	95.4
30-Aug-01	21:10	-0.7	-1.2	-0.7	-0.7	-0.4	-0.4	99.5	93.8	83.3	90	100	95.4
30-Aug-01	21:20	-0.4	-0.9	-0.7	-0.9	-0.4	-0.4	100	93.8	83.3	90	100	95.4
30-Aug-01	21:30	-0.7	-0.7	-0.7	-0.9	0.1	-0.4	100	93.8	83.3	92.2	100	94.3
30-Aug-01	21:40	-0.4	-0.7	-0.9	-0.9	-0.7	-0.4	100	92.7	83.8	92.8	100	93.7
30-Aug-01	21:50	-0.7	-0.2	-0.7	-0.7	-0.7	-0.7	100	92.1	83.8	91.7	100	93.2
30-Aug-01	22:00	-0.4	-0.2	-0.7	-0.9	-0.2	-0.4	100	92.1	83.8	89.5	100	93.7
30-Aug-01	22:10	-0.2	0.3	-0.4	-1.2	-0.4	-0.7	100	93.8	83.8	89.5	100	93.7
30-Aug-01	22:20	0.6	0.3	-0.4	-1.2	-0.7	-0.7	100	94.3	83.8	92.8	100	93.7
30-Aug-01	22:30	1.8	0.6	-0.2	-0.9	-0.4	-0.7	100	93.2	85.9	92.8	100	94.3
30-Aug-01	22:40	1.3	0.6	-0.4	-0.7	-0.2	-0.9	97.3	91.6	84.3	91.1	100	95.4
30-Aug-01	22:50	0.3	0.3	-0.4	-0.4	-0.7	-0.4	100	88.8	83.8	92.8	100	95.4
30-Aug-01	23:00	0.1	-0.4	-0.7	-0.7	-0.4	-0.4	100	86.1	83.3	90	100	95.4
30-Aug-01	23:10	0.1	-0.9	-0.4	-0.9	0.1	-0.4	100	92.1	83.3	89.5	100	95.4
30-Aug-01	23:20	-0.2	-0.9	-0.7	-1.2	-0.4	-0.4	100	93.8	83.3	90.6	100	95.4
30-Aug-01	23:30	-0.4	-0.9	-0.9	-0.7	-0.4	-0.4	100	90.4	83.3	92.8	100	95.4
30-Aug-01	23:40	-0.2	-1.2	-0.9	-0.7	-0.4	-0.7	100	89.3	83.3	92.8	100	94.3
30-Aug-01	23:50	-0.2	-1.4	-0.7	-0.7	0.1	-0.7	100	93.8	84.3	90	100	94.8
31-Aug-01	00:00	-0.2	-0.9	-0.7	-0.9	-0.7	-0.4	100	93.8	83.3	90	100	95.4
31-Aug-01	00:10	-0.2	-0.7	-0.9	-0.9	-0.7	0.3	100	92.1	83.3	92.8	100	93.7
31-Aug-01	00:20	-0.2	-0.9	-0.7	-0.9	-0.2	1.1	100	88.3	85.4	92.8	100	93.2
31-Aug-01	00:30	-0.2	-1.2	-0.4	-0.4	-0.2	1.1	100	93.8	83.3	91.1	100	90.9
31-Aug-01	00:40	-0.4	-1.2	-0.9	-0.9	-0.7	0.1	100	93.8	83.3	90	100	90.4
31-Aug-01	00:50	-0.2	-0.7	-0.7	-1.2	-0.7	-0.2	100	93.8	83.8	91.1	100	93.2
31-Aug-01	01:00	-0.2	-0.9	-0.7	-0.9	-0.2	-0.7	100	88.8	84.3	92.8	100	93.2
31-Aug-01	01:10	-0.2	-1.2	-0.7	-0.7	-0.4	-0.7	100	92.7	83.3	92.8	100	93.7
31-Aug-01	01:20	-0.4	-0.9	-0.9	-0.7	-0.9	-0.4	100	93.8	83.3	90	100	94.3
31-Aug-01	01:30	-0.2	-0.7	-0.9	-1.2	-0.4	-0.7	100	93.8	83.8	90	100	95.4
31-Aug-01	01:40	-0.2	-0.7	-0.9	-0.9	-0.2	-0.7	100	90.4	83.8	92.8	100	94.8
31-Aug-01	01:50	-0.2	-0.9	-0.7	-0.9	0.3	-0.7	100	91	83.3	92.8	100	95.4
31-Aug-01	02:00	-0.4	-1.2	-0.9	-0.9	0.8	-0.7	99.5	94.3	84.3	90	100	95.4
31-Aug-01	02:10	-0.2	-0.9	-0.7	-1.2	1.6	-0.7	100	94.3	83.8	89.5	100	94.8

31-Aug-01	02:20	-0.2	-0.7	-0.7	-0.9	1.1	-0.7	100	94.3	83.3	92.2	100	95.4
31-Aug-01	02:30	-0.4	-0.9	-0.7	-0.9	-0.2	-0.7	99.5	88.8	83.8	92.8	100	94.8
31-Aug-01	02:40	-0.4	-0.9	-0.7	-0.9	-0.4	-0.7	100	93.8	83.3	91.7	99.5	93.7
31-Aug-01	02:50	-0.4	-0.7	-0.7	-0.7	-0.7	-0.7	100	93.8	82.8	92.8	100	94.8
31-Aug-01	03:00	-0.7	-0.7	-0.9	-0.7	-0.2	-0.4	98.9	94.3	83.8	90.6	100	95.4
31-Aug-01	03:10	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	88.3	83.8	90	100	94.8
31-Aug-01	03:20	-0.4	-1.2	-0.4	-0.9	-0.7	-0.7	100	92.7	82.8	92.2	100	95.4
31-Aug-01	03:30	-0.4	-0.9	-0.7	-0.9	-0.7	-0.4	100	93.8	83.8	92.8	100	95.4
31-Aug-01	03:40	-0.7	-0.7	-0.4	-0.7	-0.2	-0.7	100	93.8	83.3	92.8	100	96
31-Aug-01	03:50	-0.2	-0.4	-0.4	-0.9	-0.4	-0.7	100	90.4	83.3	90	100	95.4
31-Aug-01	04:00	-0.4	-0.9	-0.4	-0.9	-0.7	-0.7	100	91.6	83.3	89.5	100	95.4
31-Aug-01	04:10	-0.2	-0.9	-0.4	-1.2	-0.7	-0.7	100	93.8	83.3	92.8	100	95.4
31-Aug-01	04:20	1.1	-0.7	-0.4	-0.7	-0.4	-0.7	100	94.3	83.3	92.8	100	96
31-Aug-01	04:30	1.3	-0.4	-0.2	-0.4	-0.4	-0.4	99.5	92.1	85.9	91.1	100	95.4
31-Aug-01	04:40	0.6	-0.4	-0.4	-0.7	-0.9	-0.7	97.3	91.6	83.8	90	100	93.7
31-Aug-01	04:50	0.1	-0.7	-0.7	-0.9	-0.4	-0.4	100	89.3	83.8	92.2	100	93.7
31-Aug-01	05:00	-0.2	-1.2	-0.4	-0.9	0.1	-0.4	100	92.7	83.3	92.8	100	94.3
31-Aug-01	05:10	-0.2	-0.9	-0.7	-0.7	-0.7	-0.7	100	94.3	83.3	92.8	100	94.3
31-Aug-01	05:20	-0.4	-0.9	-0.7	-0.7	-0.7	-0.7	100	94.3	82.8	90	100	94.3
31-Aug-01	05:30	-0.4	-0.4	-0.7	-0.9	-0.2	-0.7	100	93.2	84.3	89.5	100	94.8
31-Aug-01	05:40	-0.4	-0.4	-0.7	-0.9	-0.2	-0.7	100	92.1	83.3	92.8	100	94.8
31-Aug-01	05:50	-0.4	-0.2	-0.7	-0.7	-0.4	-0.4	100	92.1	83.3	92.2	100	95.4
31-Aug-01	06:00	-0.7	0.1	-0.7	-0.4	-0.7	-0.4	100	92.1	83.8	90.6	100	95.4
31-Aug-01	06:10	-0.4	0.3	-0.4	-0.9	-0.4	-0.4	100	93.2	83.3	89.5	100	95.4
31-Aug-01	06:20	-0.4	0.3	-0.7	-0.9	0.1	-0.4	100	94.3	83.3	92.8	100	95.4
31-Aug-01	06:30	-0.4	0.6	-0.7	-0.7	0.1	-0.7	100	89.3	84.9	92.8	100	96
31-Aug-01	06:40	-0.4	-0.2	-0.4	-0.9	0.1	-0.7	100	87.7	83.3	91.1	100	95.4
31-Aug-01	06:50	-0.4	-0.9	-0.9	-0.7	0.3	-0.7	100	91	83.3	90	100	96
31-Aug-01	07:00	-0.4	-0.9	-0.7	-0.9	0.6	-0.7	100	94.3	83.3	92.2	100	96
31-Aug-01	07:10	-0.4	-0.7	-0.9	-0.9	0.3	-0.7	100	93.8	83.8	92.8	100	96
31-Aug-01	07:20	-0.4	-0.7	-0.9	-0.7	0.8	-0.7	100	91.6	83.3	91.1	100	95.4
31-Aug-01	07:30	-0.4	-0.9	-0.9	-0.7	1.1	-0.7	100	88.8	84.3	90	100	95.4
31-Aug-01	07:40	-0.2	-0.9	-0.4	-0.9	1.3	-0.4	100	93.8	83.3	90	100	93.7
31-Aug-01	07:50	-0.2	-1.2	-0.4	-0.9	1.8	-0.4	99.5	93.8	82.8	93.3	100	93.7
31-Aug-01	08:00	-0.2	-0.4	-0.7	-0.7	2.3	-0.2	100	91.6	83.8	92.2	100	94.8
31-Aug-01	08:10	0.1	-0.7	-0.7	-0.7	2.8	0.6	100	88.8	83.3	90	100	95.4
31-Aug-01	08:20	-0.2	-1.2	-0.9	-0.9	2.3	1.6	100	93.8	83.3	90	100	93.2
31-Aug-01	08:30	-0.2	-0.7	-0.9	-0.9	1.3	1.8	98.9	93.8	83.8	92.2	100	90.4
31-Aug-01	08:40	-0.4	-0.7	-0.9	-0.9	0.6	0.6	100	90.4	83.8	91.7	98.9	89.8
31-Aug-01	08:50	-0.4	-0.9	-0.9	-0.7	0.1	0.1	100	91.6	83.3	93.3	98.9	93.7
31-Aug-01	09:00	-0.4	-0.9	-0.9	-0.4	-0.7	-0.2	99.5	94.3	84.3	90.6	98.9	93.7
31-Aug-01	09:10	-0.4	-0.7	-0.7	-0.9	-0.4	-0.4	100	91.6	83.3	90	100	94.3
31-Aug-01	09:20	-0.7	-0.9	-0.9	-0.7	-0.2	-0.7	97.3	88.8	83.3	90	100	94.3
31-Aug-01	09:30	-0.4	-1.2	-0.9	-0.9	-0.2	-0.4	100	93.8	83.3	92.8	100	93.7
31-Aug-01	09:40	-0.4	-0.9	-0.7	-0.7	-0.4	-0.4	98.4	94.3	83.3	93.3	100	94.3
31-Aug-01	09:50	-0.4	-0.7	-0.4	-0.4	-0.2	-0.4	100	88.3	83.3	90.6	100	94.8
31-Aug-01	10:00	-0.7	-1.2	-0.7	-0.7	0.1	-0.4	100	92.7	83.8	89.5	100	94.3
31-Aug-01	10:10	0.3	-0.9	-0.4	-0.9	-0.7	-0.4	100	94.3	83.8	89.5	100	93.7
31-Aug-01	10:20	1.1	-0.7	-0.4	-0.9	-0.4	-0.4	100	91.6	83.8	92.8	100	93.2

31-Aug-01	10:30	2.6	-0.7	-0.2	-0.7	0.1	-0.4	100	91.6	85.4	92.8	100	96
31-Aug-01	10:40	1.8	-0.9	-0.4	-0.7	-0.2	-0.2	96.7	88.8	83.8	90	100	94.8
31-Aug-01	10:50	0.6	-0.9	-0.7	-0.9	-0.4	-0.4	97.3	92.7	83.3	89.5	100	94.8
31-Aug-01	11:00	-0.2	-0.9	-0.7	-0.9	-0.2	-0.4	98.4	93.8	83.3	92.2	100	93.7
31-Aug-01	11:10	0.1	-0.7	-0.7	-0.7	0.1	-0.4	100	88.8	83.3	92.8	100	93.2
31-Aug-01	11:20	-0.2	-1.2	-0.7	-0.4	-0.2	-0.4	100	91.6	83.3	90.6	100	92.6
31-Aug-01	11:30	-0.2	-0.9	-0.9	-0.9	-0.4	-0.4	98.9	94.3	83.3	90	100	93.2
31-Aug-01	11:40	-0.2	-0.9	-0.7	-0.9	-0.4	-0.4	100	88.8	84.9	90	100	93.2
31-Aug-01	11:50	-0.2	-0.9	-0.7	-0.9	0.1	-0.4	100	93.2	83.3	90	100	93.2
31-Aug-01	12:00	0.1	-0.7	-0.9	-1.2	-0.4	-0.4	100	92.7	84.3	90	100	94.8
31-Aug-01	12:10	-0.2	-0.9	-0.7	-0.9	-0.4	-0.4	100	91	83.3	93.3	100	95.4
31-Aug-01	12:20	-0.2	-0.7	-0.7	-0.7	-0.2	-0.4	99.5	92.7	83.3	93.3	100	94.3
31-Aug-01	12:30	-0.2	-0.7	-0.9	-0.7	0.1	-0.7	100	88.8	84.9	90	100	94.3
31-Aug-01	12:40	-0.2	-0.7	-0.9	-0.7	-0.4	-0.4	100	93.2	83.8	90	100	93.7
31-Aug-01	12:50	-0.2	-0.7	-0.7	-0.9	-0.4	-0.7	100	90.4	83.3	90	100	93.2
31-Aug-01	13:00	0.3	-0.9	-0.9	-1.2	-0.2	-0.4	100	91.6	83.3	89.5	100	93.7
31-Aug-01	13:10	0.3	-0.4	-0.7	-0.9	0.1	-0.7	100	93.8	84.3	92.8	100	96
31-Aug-01	13:20	-0.2	-0.7	-0.9	-0.7	-0.2	-0.7	100	88.8	83.8	93.3	100	95.4
31-Aug-01	13:30	0.1	-0.9	-0.7	-0.4	0.1	-0.4	100	91.6	84.3	90.6	100	94.3
31-Aug-01	13:40	0.1	-0.7	-0.7	-0.7	0.6	-0.7	100	92.1	83.3	89.5	100	93.7
31-Aug-01	13:50	0.1	-0.2	-0.7	-0.9	0.8	-0.7	100	91.6	83.3	90	100	93.7
31-Aug-01	14:00	-0.2	0.3	-0.9	-0.9	1.3	-0.4	99.5	91	84.3	90	100	96
31-Aug-01	14:10	-0.2	0.6	-0.9	-1.2	1.8	-0.7	99.5	91.6	83.3	90	100	94.8
31-Aug-01	14:20	-0.2	1.3	-0.7	-1.2	1.3	-0.7	100	94.3	83.8	92.8	100	94.3
31-Aug-01	14:30	-0.2	1.6	-0.7	-0.9	0.8	-0.4	100	88.3	84.3	92.8	100	93.7
31-Aug-01	14:40	0.1	0.6	-0.9	-0.9	0.1	-0.7	100	86.6	83.3	91.1	100	93.2
31-Aug-01	14:50	-0.2	0.1	-0.7	-0.4	0.1	-0.7	100	86.6	83.8	92.2	100	93.2
31-Aug-01	15:00	0.1	-0.4	-0.7	-0.7	-0.4	-0.7	100	91.6	83.3	91.1	100	93.2
31-Aug-01	15:10	-0.4	-0.4	-0.9	-0.4	0.1	-0.4	100	87.7	83.8	89.5	100	94.3
31-Aug-01	15:20	0.1	-0.7	-0.7	-0.4	-0.2	-0.7	100	91.6	83.3	90	100	96
31-Aug-01	15:30	-0.2	-0.4	-0.7	-0.9	-0.4	-0.7	100	93.2	83.8	89.5	100	95.4
31-Aug-01	15:40	-0.2	-0.9	-0.7	-1.2	-0.2	-0.7	100	89.3	83.8	89.5	100	94.8
31-Aug-01	15:50	-0.2	-0.7	-0.4	-0.9	0.1	-0.4	98.4	93.2	83.3	90.6	100	95.4
31-Aug-01	16:00	-0.2	-0.4	-0.7	-0.7	-0.2	-0.4	100	91.6	83.8	92.2	100	94.8
31-Aug-01	16:10	0.6	-0.7	-0.7	-0.4	-0.2	0.3	100	91.6	83.8	90.6	100	93.7
31-Aug-01	16:20	1.3	-0.7	-0.4	-0.9	0.3	0.8	100	91.6	83.8	90	100	93.2
31-Aug-01	16:30	2.6	-0.9	-0.2	-0.7	0.1	1.3	100	88.8	85.9	90	100	91.5
31-Aug-01	16:40	2.3	-0.7	-0.4	-0.9	-0.2	0.3	99.5	92.1	84.3	92.2	100	90.9
31-Aug-01	16:50	0.8	-0.9	-0.4	-0.9	0.3	-0.4	99.5	93.8	83.8	92.8	100	93.2
31-Aug-01	17:00	0.1	-0.7	-0.7	-0.9	-0.2	-0.2	100	88.3	83.3	92.8	100	95.4
31-Aug-01	17:10	0.3	-0.9	-0.7	-0.4	-0.2	-0.4	100	93.2	83.3	92.2	100	94.8
31-Aug-01	17:20	-0.2	-0.9	-0.9	-0.7	-0.4	-0.4	100	94.3	83.3	91.7	100	93.2
31-Aug-01	17:30	-0.2	-0.7	-0.7	-0.4	0.3	-0.4	100	89.3	85.4	91.1	100	93.7
31-Aug-01	17:40	-0.2	-0.9	-0.7	-0.4	0.3	-0.4	100	93.2	83.3	91.1	100	95.4
31-Aug-01	17:50	-0.2	-0.9	-0.7	-0.4	0.8	-0.4	98.9	94.3	84.9	91.1	100	96
31-Aug-01	18:00	-0.2	-0.4	-0.7	-0.4	0.8	-0.4	100	89.3	83.3	91.1	100	95.4
31-Aug-01	18:10	-0.2	-0.9	-0.7	-0.7	0.8	-0.7	100	93.2	84.3	91.1	100	93.7
31-Aug-01	18:20	-0.2	-0.9	-0.7	-0.7	1.1	-0.4	100	94.3	83.8	91.1	100	93.7
31-Aug-01	18:30	-0.2	-0.7	-0.7	-0.7	1.3	-0.4	100	91	83.3	91.1	100	93.7

31-Aug-01	18:40	-0.2	-0.7	-0.7	-0.7	1.6	-0.7	100	92.1	84.9	91.1	100	94.8
31-Aug-01	18:50	-0.4	-0.7	-0.7	-0.7	1.6	-0.7	100	94.3	83.3	91.1	100	96
31-Aug-01	19:00	-0.2	-0.7	-0.9	-0.7	1.6	-0.7	100	91	84.3	91.1	100	95.4
31-Aug-01	19:10	-0.4	-0.9	-0.7	-0.4	1.6	-0.4	100	92.1	83.3	91.1	100	93.7
31-Aug-01	19:20	-0.4	-0.9	-0.9	-0.4	1.8	-0.4	100	94.3	84.3	91.1	100	93.7
31-Aug-01	19:30	-0.2	-0.4	-0.7	-0.4	2.3	-0.7	100	92.1	83.8	91.1	100	96
31-Aug-01	19:40	-0.4	-0.7	-0.7	-0.4	2.3	-0.7	100	91.6	83.3	91.1	100	96
31-Aug-01	19:50	-0.2	-0.9	-0.9	-0.4	2.8	-0.4	100	94.3	83.8	91.1	100	95.4
31-Aug-01	20:00	-0.4	-0.7	-0.9	-0.2	3.6	-0.4	100	94.3	84.3	90.6	100	94.3
31-Aug-01	20:10	-0.4	-0.9	-0.9	-0.4	3.6	-0.7	100	89.3	83.3	90	100	93.2
31-Aug-01	20:20	-0.4	-0.9	-0.7	-0.4	3.1	-0.7	100	93.8	84.3	89.5	100	94.3
31-Aug-01	20:30	-0.4	-0.7	-0.7	-0.9	2.1	-0.4	100	93.8	83.8	90	99.5	96
31-Aug-01	20:40	-0.2	-0.4	-0.7	-1.2	1.1	-0.7	100	89.9	83.3	89.5	98.9	95.4
31-Aug-01	20:50	-0.2	-0.7	-0.9	-1.2	0.3	-0.7	100	93.2	84.3	90	98.3	94.8
31-Aug-01	21:00	-0.4	-0.7	-0.9	-1.2	-0.2	-0.4	100	93.8	83.3	92.8	98.9	93.7
31-Aug-01	21:10	-0.4	-0.4	-0.7	-0.7	-0.7	-0.4	100	91	83.8	92.8	99.5	93.7
31-Aug-01	21:20	-0.2	-0.9	-0.7	-0.9	-0.2	-0.4	100	92.1	83.3	90	100	96
31-Aug-01	21:30	-0.4	-0.7	-0.7	-0.9	0.1	-0.7	100	93.2	83.3	90	100	96
31-Aug-01	21:40	-0.7	-0.7	-0.7	-0.9	-0.4	-0.4	99.5	92.7	83.8	92.2	100	95.4
31-Aug-01	21:50	-0.7	-0.2	-0.7	-1.2	-0.4	-0.7	100	92.1	83.8	92.8	100	93.7
31-Aug-01	22:00	-0.4	0.1	-0.4	-0.7	-0.4	-0.4	100	92.1	83.8	92.8	100	94.3
31-Aug-01	22:10	-0.2	0.3	-0.7	-0.9	0.1	-0.4	100	92.7	83.8	90	100	96
31-Aug-01	22:20	0.8	0.6	-0.7	-0.9	-0.4	-0.7	100	93.8	83.8	90	100	96
31-Aug-01	22:30	1.8	0.6	-0.4	-0.9	-0.4	-0.7	100	93.8	85.9	92.8	100	95.4
31-Aug-01	22:40	1.3	0.6	-0.4	-0.7	-0.4	-0.4	98.4	91.6	83.8	92.2	100	93.7
31-Aug-01	22:50	0.3	0.3	-0.4	-0.7	-0.2	-0.4	100	88.8	83.3	92.8	100	93.7
31-Aug-01	23:00	-0.2	-0.2	-0.7	-0.7	-0.7	-0.4	100	89.3	83.8	91.1	100	96
31-Aug-01	23:10	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	93.2	83.3	90.6	100	96
31-Aug-01	23:20	-0.4	-0.4	-0.9	-1.2	0.1	-0.4	100	93.8	84.3	91.1	100	95.4
31-Aug-01	23:30	-0.7	-0.9	-0.7	-0.9	-0.2	-0.4	100	91	83.8	92.8	100	94.3
31-Aug-01	23:40	-0.7	-0.7	-0.9	-0.9	-0.4	-0.7	100	94.3	83.3	92.8	100	93.2
31-Aug-01	23:50	-0.4	-0.4	-0.7	-0.9	-0.7	-0.7	100	93.8	84.3	90.6	100	94.8
01-Sep-01	00:00	-0.4	-0.7	-0.9	-0.9	-0.2	-0.2	100	89.3	83.8	90	100	94.8
01-Sep-01	00:10	-0.4	-0.7	-0.9	-1.2	-0.2	0.3	100	93.2	85.4	92.2	100	93.7
01-Sep-01	00:20	-0.4	-0.4	-0.9	-1.2	-0.7	0.8	100	93.8	83.8	92.8	100	92.6
01-Sep-01	00:30	-0.7	-0.7	-0.7	-0.7	-0.4	1.3	100	91	84.9	92.2	100	90.9
01-Sep-01	00:40	-0.7	-0.9	-0.9	-0.7	-0.2	0.3	100	91.6	83.8	90.6	100	90.9
01-Sep-01	00:50	-0.4	-0.9	-0.9	-0.9	-0.4	-0.2	100	94.3	85.4	90	100	92.6
01-Sep-01	01:00	-0.7	-0.7	-0.9	-1.2	-0.4	-0.2	100	94.3	83.8	92.8	100	93.2
01-Sep-01	01:10	-0.4	-0.7	-0.7	-1.2	-0.2	-0.7	100	89.9	84.9	92.8	100	93.2
01-Sep-01	01:20	-0.7	-0.7	-0.7	-0.7	0.1	-0.4	100	93.8	83.8	91.7	100	95.4
01-Sep-01	01:30	-0.4	-0.7	-0.7	-0.9	0.1	-0.7	100	94.3	83.3	90	100	96
01-Sep-01	01:40	-0.4	-0.7	-0.7	-1.2	0.3	-0.7	100	90.4	85.4	90.6	100	94.3
01-Sep-01	01:50	-0.4	-0.7	-0.7	-0.9	0.8	-0.7	100	92.7	83.3	92.8	100	93.2
01-Sep-01	02:00	-0.4	-0.7	-0.9	-0.7	1.3	-0.7	100	93.8	85.4	92.8	100	95.4
01-Sep-01	02:10	-0.7	-0.4	-0.7	-0.7	1.8	-0.4	100	93.8	83.3	90.6	100	96
01-Sep-01	02:20	-0.4	-0.7	-0.9	-0.9	1.3	-0.7	100	89.3	83.3	90	100	96
01-Sep-01	02:30	-0.2	-0.7	-0.9	-0.9	0.3	-0.7	100	93.8	84.3	92.8	100	94.3
01-Sep-01	02:40	-0.4	-0.7	-0.9	-0.7	-0.4	-0.4	100	94.3	83.3	92.2	100	93.7

01-Sep-01	02:50	-0.4	-0.4	-0.7	-0.7	-0.7	-0.4	100	91.6	84.3	92.8	100	96
01-Sep-01	03:00	-0.4	-0.7	-0.7	-0.9	-0.7	-0.7	100	91.6	83.3	91.1	100	96
01-Sep-01	03:10	-0.2	-0.7	-0.7	-1.2	-0.2	-0.4	100	93.8	84.9	90	100	94.3
01-Sep-01	03:20	-0.4	-0.7	-0.7	-1.2	-0.7	-0.4	100	94.3	83.3	91.7	100	93.7
01-Sep-01	03:30	-0.7	-0.4	-0.9	-0.9	-0.7	-0.4	100	89.3	83.8	92.8	100	96
01-Sep-01	03:40	-0.4	-0.9	-0.4	-0.9	-0.4	-0.7	100	93.8	83.8	92.8	100	96
01-Sep-01	03:50	-0.7	-0.7	-0.7	-0.4	0.1	-0.4	100	93.8	83.8	91.1	100	95.4
01-Sep-01	04:00	-0.4	-0.4	-0.7	-0.7	-0.4	-0.7	100	91.6	83.8	90	100	94.3
01-Sep-01	04:10	0.1	-0.7	-0.4	-1.2	-0.4	-0.4	100	91	83.8	91.7	100	93.7
01-Sep-01	04:20	1.1	-0.7	-0.4	-1.2	-0.4	-0.7	100	91.6	83.8	92.8	100	94.8
01-Sep-01	04:30	1.6	-0.9	-0.2	-0.7	-0.2	-0.4	100	93.8	85.9	92.8	100	96
01-Sep-01	04:40	0.3	-0.4	-0.4	-0.7	-0.4	-0.7	100	93.8	83.8	90.6	100	96
01-Sep-01	04:50	-0.2	-0.4	-0.4	-0.9	-0.7	-0.4	100	91	83.3	90	100	95.4
01-Sep-01	05:00	-0.2	-0.7	-0.7	-1.2	-0.4	-0.7	100	93.2	83.8	92.8	100	93.7
01-Sep-01	05:10	-0.4	-0.9	-0.7	-1.2	0.1	-0.7	100	94.3	83.3	92.8	100	94.3
01-Sep-01	05:20	-0.7	-0.4	-0.9	-0.7	-0.2	-0.4	100	91	83.8	92.2	100	96
01-Sep-01	05:30	-0.4	-0.9	-0.7	-0.7	-0.7	-0.7	100	91.6	84.3	90.6	100	96
01-Sep-01	05:40	-0.4	-0.7	-0.7	-0.9	-0.2	-0.4	100	91.6	83.3	90	100	95.4
01-Sep-01	05:50	-0.4	-0.2	-0.7	-0.9	-0.2	-0.7	100	91.6	84.9	92.2	100	94.8
01-Sep-01	06:00	-0.4	-0.2	-0.7	-0.9	-0.4	-0.7	100	92.1	83.3	92.8	100	93.2
01-Sep-01	06:10	-0.4	0.3	-0.7	-0.7	-0.7	-0.7	100	92.1	84.9	92.8	100	95.4
01-Sep-01	06:20	-0.7	0.8	-0.7	-0.7	-0.2	-0.4	100	93.8	83.3	90.6	100	96
01-Sep-01	06:30	-0.4	0.8	-0.7	-0.9	-0.2	-0.7	100	88.8	84.9	90	100	96
01-Sep-01	06:40	-0.7	0.1	-0.7	-1.2	0.1	-0.7	100	87.7	83.3	92.8	100	95.4
01-Sep-01	06:50	-0.4	-0.4	-0.7	-0.9	0.3	-0.7	100	91.6	84.3	92.8	100	94.8
01-Sep-01	07:00	-0.7	-0.4	-0.7	-0.7	0.3	-0.4	100	93.8	84.3	92.2	100	93.7
01-Sep-01	07:10	-0.7	-0.2	-0.7	-0.7	0.6	-0.4	100	89.3	83.3	90.6	100	93.7
01-Sep-01	07:20	-0.7	-0.4	-0.7	-0.9	0.8	-0.7	100	93.2	84.9	90	100	96
01-Sep-01	07:30	-0.4	-0.7	-0.9	-1.2	1.1	-0.4	100	94.3	83.3	92.8	100	96
01-Sep-01	07:40	-0.4	-0.7	-0.9	-1.2	1.3	-0.7	100	89.3	83.3	92.8	100	94.8
01-Sep-01	07:50	-0.4	-0.9	-0.7	-0.7	1.8	-0.7	100	93.8	84.3	92.2	100	96
01-Sep-01	08:00	-0.2	-0.4	-0.7	-0.7	2.3	-0.2	100	93.8	83.3	90.6	100	95.4
01-Sep-01	08:10	-0.4	-0.7	-0.7	-0.7	2.8	0.1	100	89.3	84.3	91.1	100	94.3
01-Sep-01	08:20	-0.7	-0.7	-0.7	-0.7	2.1	0.8	100	92.7	83.3	91.1	100	93.2
01-Sep-01	08:30	-0.4	-0.7	-0.9	-0.7	1.3	1.3	99.5	93.8	83.3	91.1	100	90.4
01-Sep-01	08:40	-0.4	-0.7	-0.9	-0.7	0.6	0.6	100	93.2	84.3	91.1	100	90.4
01-Sep-01	08:50	-0.4	-0.7	-0.7	-0.4	-0.2	0.1	100	91.6	83.3	91.1	100	92.6
01-Sep-01	09:00	-0.4	-0.9	-0.7	-0.7	-0.7	-0.2	100	94.3	84.3	91.1	100	94.3
01-Sep-01	09:10	-0.4	-0.4	-0.9	-0.7	-0.4	-0.2	100	93.8	83.8	91.1	100	94.3
01-Sep-01	09:20	-0.4	-0.7	-0.7	-0.7	0.1	-0.7	100	89.3	83.3	91.1	100	93.7
01-Sep-01	09:30	-0.2	-0.9	-0.7	-0.7	-0.4	-0.7	100	93.8	83.3	91.1	100	93.7
01-Sep-01	09:40	-0.2	-0.7	-0.7	-0.7	-0.7	-0.2	100	93.8	83.8	91.1	100	93.2
01-Sep-01	09:50	-0.4	-0.4	-0.7	-0.7	-0.4	-0.4	100	91	83.8	91.1	100	93.7
01-Sep-01	10:00	-0.7	-0.7	-0.7	-0.7	-0.2	-0.4	100	93.2	83.8	91.1	100	93.2
01-Sep-01	10:10	0.1	-0.7	-0.7	-0.4	-0.4	-0.4	100	93.8	83.8	91.1	100	93.7
01-Sep-01	10:20	0.8	-0.7	-0.4	-0.7	-0.7	-0.4	100	92.7	83.8	91.1	100	96
01-Sep-01	10:30	2.1	-0.4	-0.2	-0.4	-0.4	-0.7	100	91.6	85.9	91.1	100	96
01-Sep-01	10:40	0.8	-0.4	-0.4	-0.4	-0.2	-0.4	98.9	91.6	84.3	91.1	100	94.3
01-Sep-01	10:50	0.1	-0.9	-0.4	-0.4	-0.4	-0.7	100	93.2	83.3	91.1	100	93.2

01-Sep-01	11:00	-0.2	-0.7	-0.7	-0.2	-0.7	-0.4	100	93.8	83.8	90.6	100	93.7
01-Sep-01	11:10	-0.7	-0.7	-0.7	-0.4	-0.2	-0.7	100	91	83.3	90	100	94.3
01-Sep-01	11:20	-0.7	-0.7	-0.7	-0.7	-0.4	-0.4	100	92.1	83.3	89.5	100	94.8
01-Sep-01	11:30	-0.4	-0.7	-0.7	-0.9	-0.7	-0.7	100	93.8	84.3	90	100	96
01-Sep-01	11:40	-0.4	-0.7	-0.7	-1.2	-0.2	-0.7	100	91.6	83.8	90	100	96
01-Sep-01	11:50	-0.7	-0.9	-0.7	-1.2	-0.4	-0.7	100	92.1	85.4	90.6	100	94.8
01-Sep-01	12:00	-0.2	-0.7	-0.7	-0.9	-0.4	-0.7	100	93.8	83.8	92.8	100	93.2
01-Sep-01	12:10	-0.4	-0.4	-0.9	-0.7	-0.4	-0.4	100	91	83.3	92.8	100	93.2
01-Sep-01	12:20	-0.2	-0.9	-0.9	-0.7	0.1	-0.7	100	92.7	84.3	90.6	100	93.7
01-Sep-01	12:30	-0.2	-0.7	-0.9	-0.9	-0.4	-0.4	100	93.8	83.3	90	100	95.4
01-Sep-01	12:40	-0.2	-0.7	-0.9	-1.2	-0.7	-0.7	100	90.4	84.3	92.8	100	96
01-Sep-01	12:50	-0.4	-0.9	-0.7	-1.2	-0.2	-0.7	100	92.7	83.8	92.8	100	93.7
01-Sep-01	13:00	-0.2	-0.7	-0.9	-0.7	-0.4	-0.4	100	93.8	83.8	92.8	100	93.2
01-Sep-01	13:10	-0.4	-0.7	-0.9	-0.7	-0.7	-0.4	100	91	84.3	90.6	100	94.3
01-Sep-01	13:20	-0.7	-1.2	-0.9	-0.9	-0.2	-0.4	100	92.7	83.3	90	100	96
01-Sep-01	13:30	-0.2	-0.9	-0.7	-1.2	0.3	-0.7	100	93.8	84.3	92.2	100	95.4
01-Sep-01	13:40	-0.4	-0.4	-0.9	-0.9	0.8	-0.7	100	93.2	83.3	92.8	100	93.7
01-Sep-01	13:50	-0.4	-0.4	-0.7	-0.7	1.1	-0.7	100	92.7	84.9	92.8	100	93.2
01-Sep-01	14:00	-0.4	0.1	-0.7	-0.7	1.6	-0.4	99.5	92.7	83.8	90.6	100	93.2
01-Sep-01	14:10	-0.2	0.3	-0.7	-0.9	2.1	-0.7	100	93.2	83.3	90	100	94.3
01-Sep-01	14:20	-0.2	0.6	-0.7	-1.2	1.8	-0.4	100	94.3	83.8	92.2	100	95.4
01-Sep-01	14:30	-0.4	0.8	-0.9	-0.9	1.1	-0.7	100	88.3	83.3	92.8	100	95.4
01-Sep-01	14:40	-0.2	0.1	-0.9	-0.7	0.1	-0.7	100	87.2	83.3	92.2	100	94.8
01-Sep-01	14:50	-0.2	-0.7	-0.7	-0.7	-0.2	-0.7	100	91.6	84.3	92.8	100	93.2
01-Sep-01	15:00	-0.2	-0.7	-0.7	-0.7	-0.4	-0.4	98.4	92.7	83.3	91.1	100	93.7
01-Sep-01	15:10	-0.2	-0.7	-0.9	-0.9	-0.9	-0.4	100	90.4	83.8	90	100	93.7
01-Sep-01	15:20	-0.4	-0.7	-0.9	-0.9	-0.2	-0.7	100	93.8	83.3	90	100	93.2
01-Sep-01	15:30	-0.4	-0.7	-0.7	-1.2	-0.2	-0.4	99.5	91.6	83.8	92.8	100	93.7
01-Sep-01	15:40	-0.4	-0.9	-0.7	-0.7	-0.7	-0.4	100	91.6	83.8	92.8	100	95.4
01-Sep-01	15:50	-0.4	-0.9	-0.7	-0.7	-0.4	-0.7	100	94.3	83.8	91.7	100	93.7
01-Sep-01	16:00	-0.4	-0.7	-0.7	-0.9	0.1	0.1	100	91	83.8	90	100	94.8
01-Sep-01	16:10	-0.2	-0.7	-0.7	-0.9	-0.4	0.8	100	91.6	83.8	90.6	100	95.4
01-Sep-01	16:20	0.6	-0.9	-0.7	-1.2	-0.7	1.6	100	92.1	83.8	92.8	100	94.3
01-Sep-01	16:30	1.6	-0.9	-0.4	-0.7	-0.2	1.3	100	90.4	85.9	92.8	100	92
01-Sep-01	16:40	1.1	-0.9	-0.4	-0.7	-0.2	0.1	100	93.8	83.8	90.6	100	92
01-Sep-01	16:50	0.1	-0.7	-0.4	-1.2	-0.4	-0.4	100	93.8	83.3	90	100	96
01-Sep-01	17:00	-0.2	-0.9	-0.7	-1.2	-0.7	-0.7	100	89.3	83.8	91.1	100	96
01-Sep-01	17:10	-0.4	-0.9	-0.7	-0.9	-0.2	-0.7	100	94.3	84.3	91.1	100	95.4
01-Sep-01	17:20	-0.4	-0.7	-0.7	-0.9	0.1	-0.7	100	93.8	84.3	91.1	100	93.2
01-Sep-01	17:30	-0.7	-0.7	-0.9	-0.9	0.3	-0.7	100	90.4	83.3	91.1	100	94.8
01-Sep-01	17:40	-0.4	-0.9	-0.9	-0.9	0.3	-0.4	100	93.2	85.4	91.1	100	96
01-Sep-01	17:50	-0.4	-0.7	-0.7	-0.9	0.3	-0.7	100	93.8	83.3	91.1	100	96
01-Sep-01	18:00	-0.4	-0.4	-0.7	-0.7	0.6	-0.4	100	91	84.9	91.1	100	96
01-Sep-01	18:10	-0.4	-0.9	-0.7	-0.7	0.8	-0.7	100	93.2	83.3	91.1	100	93.7
01-Sep-01	18:20	-0.7	-0.7	-0.7	-0.7	0.8	-0.7	100	93.8	84.9	91.1	100	94.8
01-Sep-01	18:30	-0.4	-0.4	-0.9	-0.7	1.1	-0.7	100	92.1	83.8	91.1	100	96
01-Sep-01	18:40	-0.4	-0.9	-0.7	-0.7	0.8	-0.7	100	91	84.9	91.1	100	96.5
01-Sep-01	18:50	-0.4	-0.7	-0.9	-0.7	1.1	-0.7	100	93.8	84.3	91.1	100	94.8
01-Sep-01	19:00	-0.4	-0.4	-0.7	-0.7	1.3	-0.7	100	93.8	83.3	91.1	100	94.3

01-Sep-01	19:10	-0.4	-0.7	-0.7	-0.7	1.3	-0.7	100	89.9	85.4	91.1	100	96
01-Sep-01	19:20	-0.2	-0.7	-0.9	-0.7	1.1	-0.7	100	93.8	83.8	91.1	100	96.5
01-Sep-01	19:30	-0.2	-0.7	-0.7	-0.4	1.6	-0.7	100	93.8	84.9	90.6	100	96
01-Sep-01	19:40	-0.4	-0.7	-0.9	-0.4	1.8	-0.7	100	91.6	83.3	90.6	100	95.4
01-Sep-01	19:50	-0.4	-0.7	-0.7	-0.4	2.1	-0.4	100	92.1	84.9	90.6	100	94.3
01-Sep-01	20:00	-0.4	-0.7	-0.7	-0.4	2.3	-0.7	100	93.8	84.3	90	100	96
01-Sep-01	20:10	-0.2	-0.4	-0.9	-0.7	2.8	-0.7	100	93.8	83.8	90	100	96
01-Sep-01	20:20	-0.4	-0.7	-0.7	-0.9	2.1	-0.7	100	89.3	84.9	89.5	100	94.8
01-Sep-01	20:30	-0.4	-0.9	-0.7	-0.9	0.8	-0.7	100	93.8	83.3	89.5	98.3	93.7
01-Sep-01	20:40	-0.2	-0.7	-0.7	-1.2	0.6	-0.7	100	93.8	85.4	90	97.8	96
01-Sep-01	20:50	-0.4	-0.4	-0.7	-1.2	-0.2	-0.7	100	91	83.8	92.8	97.8	96
01-Sep-01	21:00	-0.7	-0.7	-0.7	-0.9	-0.7	-0.7	100	92.1	85.9	92.8	98.3	96
01-Sep-01	21:10	-0.4	-0.7	-0.7	-0.9	-0.7	-0.7	100	93.8	83.8	90	100	96
01-Sep-01	21:20	-0.4	-0.4	-0.7	-0.9	-0.4	-0.4	100	94.3	83.3	89.5	100	93.7
01-Sep-01	21:30	-0.7	-0.7	-0.9	-1.2	-0.7	-0.4	100	91	83.8	90.6	100	96
01-Sep-01	21:40	-0.2	-0.7	-0.7	-1.2	-0.9	-0.7	100	91	84.3	92.8	100	96
01-Sep-01	21:50	-0.4	-0.2	-0.4	-0.9	-0.7	-0.7	100	91.6	83.8	92.8	100	96
01-Sep-01	22:00	-0.4	-0.2	-0.4	-0.7	-0.4	-0.4	100	92.1	83.8	90.6	100	93.7
01-Sep-01	22:10	-0.4	0.1	-0.4	-0.9	-0.7	-0.7	100	92.1	83.8	90	100	95.4
01-Sep-01	22:20	0.8	0.6	-0.2	-1.4	-0.7	-0.7	100	92.1	84.3	91.7	100	96.5
01-Sep-01	22:30	1.6	0.8	-0.4	-0.9	-0.4	-0.7	100	93.2	85.9	92.8	100	96
01-Sep-01	22:40	0.3	0.3	-0.4	-0.7	-0.4	-0.4	99.5	92.1	84.3	92.2	100	94.3
01-Sep-01	22:50	-0.4	0.3	-0.7	-0.9	-0.7	-0.7	100	89.3	83.8	92.8	100	94.3
01-Sep-01	23:00	-0.7	-0.2	-0.7	-0.9	-0.4	-0.7	100	89.3	83.3	91.1	100	96.5
01-Sep-01	23:10	-0.7	-0.4	-0.9	-0.9	-0.2	-0.7	100	93.8	85.4	90	100	96.5
01-Sep-01	23:20	-0.7	-0.4	-0.7	-1.2	-0.2	-0.7	100	92.1	83.8	92.8	100	95.4
01-Sep-01	23:30	-0.4	-0.9	-0.9	-0.9	-0.7	-0.4	100	91	83.8	92.8	100	94.8
01-Sep-01	23:40	-0.7	-0.7	-0.9	-0.7	-0.7	-0.7	100	93.8	85.4	92.8	100	96
01-Sep-01	23:50	-0.7	-0.4	-0.7	-0.7	-0.4	-0.7	100	93.8	83.3	90.6	100	94.8
02-Sep-01	00:00	-0.4	-0.4	-0.7	-0.9	-0.2	-0.2	100	89.9	85.4	90	100	94.8
02-Sep-01	00:10	-0.4	-0.9	-0.7	-1.2	-0.7	0.3	100	93.8	83.3	92.8	100	93.7
02-Sep-01	00:20	-0.7	-0.4	-0.7	-0.7	-0.7	1.1	100	93.8	84.9	92.8	100	93.2
02-Sep-01	00:30	-0.4	-0.4	-0.9	-0.7	-0.2	0.8	100	91	83.8	90.6	100	92.6
02-Sep-01	00:40	-0.4	-0.7	-0.7	-0.9	-0.2	-0.2	100	92.1	85.9	90	100	92.6
02-Sep-01	00:50	-0.7	-0.7	-0.9	-0.9	-0.7	-0.4	100	93.8	84.3	92.2	100	93.2
02-Sep-01	01:00	-0.7	-0.7	-0.9	-0.9	-0.4	-0.7	100	94.3	83.3	92.8	100	94.8
02-Sep-01	01:10	-0.4	-0.4	-0.7	-0.7	-0.2	-0.4	100	88.8	85.4	92.2	100	96
02-Sep-01	01:20	-0.4	-0.7	-0.7	-0.9	-0.2	-0.7	100	93.8	83.3	90	100	96
02-Sep-01	01:30	-0.4	-0.7	-0.7	-0.9	0.1	-0.7	100	94.3	85.4	90	100	94.8
02-Sep-01	01:40	-0.7	-0.4	-0.7	-1.2	0.3	-0.7	100	93.2	83.3	92.8	100	94.3
02-Sep-01	01:50	-0.4	-0.7	-0.7	-0.7	0.6	-0.4	100	91	85.4	92.2	100	96
02-Sep-01	02:00	-0.7	-0.7	-0.7	-0.9	1.1	-0.4	100	93.8	83.3	91.1	100	96
02-Sep-01	02:10	-0.4	-0.4	-0.9	-0.7	1.6	-0.7	100	93.8	85.4	90	100	96
02-Sep-01	02:20	-0.4	-0.7	-0.7	-0.9	0.8	-0.4	100	90.4	83.3	92.2	100	94.3
02-Sep-01	02:30	-0.4	-0.7	-0.7	-0.9	0.1	-0.7	100	93.2	85.4	92.8	100	95.4
02-Sep-01	02:40	-0.4	-0.4	-0.7	-0.9	-0.4	-0.4	100	93.8	83.8	92.2	100	96
02-Sep-01	02:50	-0.4	-0.7	-0.9	-0.9	-0.9	-0.7	100	93.8	85.4	92.8	100	96
02-Sep-01	03:00	-0.4	-0.4	-0.4	-0.9	-0.7	-0.7	100	89.9	83.8	91.1	100	94.8
02-Sep-01	03:10	-0.4	-0.7	-0.9	-1.2	-0.2	-0.4	100	94.3	85.9	90	100	94.3

02-Sep-01	03:20	-0.4	-0.4	-0.7	-1.2	-0.7	-0.4	100	93.8	84.3	92.2	100	96
02-Sep-01	03:30	-0.4	-0.4	-0.7	-0.9	-0.9	-0.4	100	91.6	84.3	92.8	100	96.5
02-Sep-01	03:40	-0.7	-0.9	-0.7	-0.9	-0.2	-0.7	100	92.1	84.3	92.8	100	95.4
02-Sep-01	03:50	-0.4	-0.7	-0.7	-0.7	-0.2	-0.7	100	93.8	84.3	90.6	100	94.3
02-Sep-01	04:00	-0.4	-0.7	-0.4	-0.9	-0.7	-0.7	100	94.3	84.3	90	100	96
02-Sep-01	04:10	-0.2	-0.4	-0.4	-0.9	-0.7	-0.4	100	91.6	84.3	92.8	100	96
02-Sep-01	04:20	0.8	-0.4	-0.4	-0.7	-0.4	-0.7	100	91.6	84.3	92.2	100	96
02-Sep-01	04:30	1.6	-0.7	-0.4	-0.7	-0.2	-0.7	100	93.8	85.9	91.7	100	96
02-Sep-01	04:40	0.1	-0.4	-0.4	-0.7	-0.7	-0.7	100	93.8	83.8	90	100	94.3
02-Sep-01	04:50	-0.4	-0.7	-0.4	-1.2	-0.7	-0.4	100	90.4	83.3	91.7	100	96.5
02-Sep-01	05:00	-0.4	-0.7	-0.7	-0.9	-0.7	-0.4	100	92.1	83.3	92.8	100	96
02-Sep-01	05:10	-0.7	-0.7	-0.9	-0.7	-0.2	-0.7	100	93.8	85.9	92.8	100	96
02-Sep-01	05:20	-0.7	-0.4	-0.7	-0.7	-0.4	-0.4	100	93.8	83.3	90.6	100	95.4
02-Sep-01	05:30	-0.7	-0.4	-0.7	-0.7	-0.7	-0.4	100	91.6	85.9	90	100	94.3
02-Sep-01	05:40	-0.7	-0.4	-0.7	-0.9	-0.4	-0.7	100	91.6	84.3	92.8	100	96.5
02-Sep-01	05:50	-0.7	-0.2	-0.7	-1.2	-0.2	-0.7	100	91.6	85.9	92.8	100	96
02-Sep-01	06:00	-0.4	-0.4	-0.9	-0.7	-0.2	-0.7	100	92.1	84.3	92.8	100	94.8
02-Sep-01	06:10	-0.4	0.1	-0.9	-0.7	-0.9	-0.4	100	92.1	85.4	90.6	100	94.3
02-Sep-01	06:20	-0.4	0.3	-0.7	-0.9	-0.4	-0.7	100	93.8	85.4	90	100	96.5
02-Sep-01	06:30	-0.4	0.3	-0.9	-0.9	-0.4	-0.7	100	90.4	83.8	92.8	100	96
02-Sep-01	06:40	-0.7	0.1	-0.9	-0.9	0.1	-0.4	100	88.3	85.4	92.8	100	96
02-Sep-01	06:50	-0.4	-0.4	-0.7	-0.4	0.1	-0.7	100	93.2	83.3	91.1	100	93.7
02-Sep-01	07:00	-0.7	-0.7	-0.9	-0.9	0.3	-0.7	100	94.3	85.4	90	100	94.8
02-Sep-01	07:10	-0.4	-0.7	-0.7	-1.2	0.3	-0.4	100	90.4	83.3	92.8	100	96
02-Sep-01	07:20	-0.7	-0.7	-0.9	-0.9	0.3	-0.7	100	93.2	85.4	92.8	100	96
02-Sep-01	07:30	-0.4	-0.4	-0.7	-0.7	0.6	-0.4	100	93.8	83.8	92.2	100	95.4
02-Sep-01	07:40	-0.7	-0.4	-0.7	-0.9	0.8	-0.7	100	91.6	85.4	90	100	94.3
02-Sep-01	07:50	-0.4	-0.7	-0.7	-0.9	1.3	-0.7	100	92.1	84.3	91.1	100	94.8
02-Sep-01	08:00	-0.4	-0.7	-0.7	-1.2	1.8	-0.2	100	93.8	83.3	92.8	100	94.3
02-Sep-01	08:10	-0.7	-0.4	-0.9	-0.9	2.1	0.3	100	93.2	85.4	92.2	100	93.7
02-Sep-01	08:20	-0.7	-0.7	-0.7	-0.9	1.6	0.8	100	91.6	83.3	91.7	100	92.6
02-Sep-01	08:30	-0.7	-0.7	-0.7	-0.7	0.6	1.1	100	93.8	85.4	91.7	100	93.2
02-Sep-01	08:40	-0.7	-0.7	-0.7	-0.7	0.1	-0.2	99.5	92.7	83.8	91.7	100	92.6
02-Sep-01	08:50	-0.4	-0.7	-0.9	-0.4	-0.7	-0.4	100	91	85.4	91.1	98.9	93.7
02-Sep-01	09:00	-0.4	-0.7	-0.7	-0.4	-0.7	-0.4	100	93.8	83.8	91.1	100	95.4
02-Sep-01	09:10	-0.7	-0.4	-0.9	-0.4	-0.2	-0.4	100	91.6	84.3	91.1	100	96
02-Sep-01	09:20	-0.4	-0.7	-0.9	-0.4	-0.4	-0.4	100	91.6	85.4	91.1	100	96.5
02-Sep-01	09:30	-0.4	-0.7	-0.4	-0.4	-0.7	-0.7	100	93.8	84.9	91.1	100	95.4
02-Sep-01	09:40	-0.4	-0.7	-0.4	-0.4	-0.7	-0.4	100	91	84.9	91.1	100	93.7
02-Sep-01	09:50	-0.7	-0.9	-0.7	-0.4	-0.2	-0.4	100	91.6	84.3	91.1	100	96
02-Sep-01	10:00	-0.4	-0.7	-0.7	-0.4	-0.4	-0.7	100	93.8	84.3	91.1	100	96
02-Sep-01	10:10	0.1	-0.7	-0.4	-0.4	-0.9	-0.7	100	92.7	84.3	91.1	100	96
02-Sep-01	10:20	0.8	-0.7	-0.4	-0.4	-0.7	-0.4	100	92.1	84.3	91.1	100	93.7
02-Sep-01	10:30	1.6	-0.7	-0.2	-0.4	-0.2	-0.4	100	92.1	85.9	91.1	100	94.8
02-Sep-01	10:40	0.6	-0.9	-0.2	-0.4	-0.7	-0.7	100	91.6	84.3	91.1	100	96
02-Sep-01	10:50	-0.2	-0.7	-0.4	-0.4	-0.7	-0.7	100	93.8	83.3	91.1	100	96.5
02-Sep-01	11:00	-0.4	-0.9	-0.9	-0.4	-0.4	-0.7	100	89.3	83.3	90.6	100	96
02-Sep-01	11:10	-0.4	-0.9	-0.9	-0.4	-0.2	-0.7	100	94.3	83.8	90	100	95.4
02-Sep-01	11:20	-0.7	-0.7	-0.9	-0.7	-0.4	-0.7	100	90.4	83.3	90	100	93.2

02-Sep-01	11:30	-0.7	-0.9	-0.7	-0.9	-0.7	-0.7	100	92.1	84.9	89.5	100	94.8
02-Sep-01	11:40	-0.7	-0.9	-0.9	-0.9	-0.2	-0.7	100	93.8	83.3	90	100	96.5
02-Sep-01	11:50	-0.7	-1.2	-0.9	-1.2	0.1	-0.7	100	89.3	84.3	89.5	100	96
02-Sep-01	12:00	-0.2	-1.2	-0.9	-1.2	-0.7	-0.9	100	93.8	83.3	90.6	100	93.7
02-Sep-01	12:10	-0.7	-0.9	-0.9	-1.2	-0.4	-0.9	100	89.9	83.3	92.8	100	93.7
02-Sep-01	12:20	-0.4	-1.2	-1.2	-0.7	-0.2	-0.7	100	91.6	84.3	92.8	100	94.3
02-Sep-01	12:30	-0.4	-0.9	-0.9	-0.7	-0.2	-0.4	100	91.6	83.3	90.6	100	96.5
02-Sep-01	12:40	-0.4	-1.2	-1.2	-0.9	-0.9	-0.7	100	89.3	83.3	90	100	96
02-Sep-01	12:50	-0.7	-1.2	-0.9	-0.9	-0.7	-0.7	100	93.8	84.3	90	100	96
02-Sep-01	13:00	-0.4	-1.2	-0.9	-1.2	0.1	-0.7	100	89.3	83.3	91.7	100	93.7
02-Sep-01	13:10	-0.4	-1.2	-0.9	-0.9	-0.4	-0.9	100	93.2	84.3	92.8	100	93.7
02-Sep-01	13:20	-0.2	-1.2	-0.9	-0.9	-0.4	-0.9	100	91.6	83.8	92.8	100	94.3
02-Sep-01	13:30	-0.7	-1.2	-0.7	-0.9	-0.4	-0.7	100	91	83.3	90.6	100	95.4
02-Sep-01	13:40	-0.4	-0.9	-0.9	-0.9	0.1	-0.7	100	91.6	83.8	90	100	96.5
02-Sep-01	13:50	-0.4	-0.7	-0.7	-1.2	0.6	-0.7	100	91	83.3	90	100	96
02-Sep-01	14:00	-0.2	-0.2	-0.9	-1.4	1.3	-0.9	100	91	84.3	91.7	100	96
02-Sep-01	14:10	-0.7	0.3	-0.9	-1.2	1.6	-0.7	100	91.6	83.3	92.8	100	93.2
02-Sep-01	14:20	-0.2	0.6	-0.9	-0.9	1.3	-0.7	100	93.8	83.3	92.8	100	93.7
02-Sep-01	14:30	-0.2	0.8	-1.2	-0.9	0.6	-0.7	100	88.8	83.8	90.6	100	93.7
02-Sep-01	14:40	-0.4	0.3	-0.7	-0.9	-0.4	-0.9	100	87.7	83.3	90.6	99.5	94.3
02-Sep-01	14:50	-0.2	-0.7	-0.9	-0.7	-0.7	-0.7	100	86.6	83.8	92.2	98.9	96
02-Sep-01	15:00	-0.4	-1.2	-0.9	-0.9	-0.7	-0.7	100	90.4	83.3	91.1	100	96
02-Sep-01	15:10	-0.4	-0.9	-0.9	-1.2	-0.4	-0.9	100	88.8	83.8	90	100	94.3
02-Sep-01	15:20	-0.4	-1.4	-0.9	-0.9	-0.4	-0.9	98.4	90.4	83.3	89.5	100	93.7
02-Sep-01	15:30	-0.4	-1.2	-0.7	-1.2	-0.9	-0.7	100	91	83.3	90	100	96
02-Sep-01	15:40	-0.4	-1.4	-0.7	-0.9	-0.4	-0.9	100	88.8	83.8	92.2	100	96.5
02-Sep-01	15:50	-0.4	-1.4	-0.7	-0.9	-0.2	-0.7	99.5	93.2	83.8	92.2	100	96
02-Sep-01	16:00	-0.4	-1.4	-0.7	-0.9	-0.7	-0.4	100	88.8	83.3	90	100	94.8
02-Sep-01	16:10	0.1	-1.4	-0.7	-0.9	-0.7	0.6	100	93.2	83.8	90	100	93.7
02-Sep-01	16:20	0.8	-1.2	-0.7	-1.2	-0.4	1.1	100	91.6	83.8	90	100	93.2
02-Sep-01	16:30	2.1	-1.2	-0.7	-1.2	-0.2	1.1	100	91.6	85.4	92.2	100	93.2
02-Sep-01	16:40	0.8	-1.2	-0.4	-1.2	-0.7	-0.2	99.5	89.3	83.8	92.8	100	92.6
02-Sep-01	16:50	-0.2	-1.2	-0.7	-0.7	-0.9	-0.7	100	93.8	83.3	91.1	100	96
02-Sep-01	17:00	-0.2	-1.2	-0.7	-0.9	-0.4	-0.9	100	91	83.3	90.6	100	95.4
02-Sep-01	17:10	-0.2	-1.2	-0.7	-0.9	-0.4	-0.7	100	91	83.3	90.6	100	93.2
02-Sep-01	17:20	-0.2	-1.2	-0.9	-0.7	0.1	-0.4	100	94.3	83.3	90.6	100	96.5
02-Sep-01	17:30	-0.2	-0.9	-1.2	-0.7	0.1	-0.7	100	92.1	84.3	90.6	100	96
02-Sep-01	17:40	-0.4	-1.2	-0.9	-0.7	0.1	-0.7	100	91	83.8	90.6	100	95.4
02-Sep-01	17:50	-0.4	-0.9	-1.2	-0.7	0.3	-0.9	100	93.8	84.3	90.6	100	93.7
02-Sep-01	18:00	-0.7	-0.7	-0.9	-0.7	0.6	-0.7	100	92.7	83.8	90.6	100	94.8
02-Sep-01	18:10	-0.4	-0.9	-0.7	-0.4	0.6	-0.9	100	91.6	84.3	90.6	100	96
02-Sep-01	18:20	-0.7	-0.9	-0.7	-0.4	0.6	-0.9	100	93.8	84.3	90.6	100	95.4
02-Sep-01	18:30	-0.7	-0.7	-0.7	-0.4	1.1	-0.7	100	94.3	83.3	90.6	100	94.3
02-Sep-01	18:40	-0.4	-0.7	-0.7	-0.4	0.8	-0.7	100	89.9	84.9	90.6	100	96
02-Sep-01	18:50	-0.4	-0.9	-0.7	-0.4	1.1	-0.9	100	93.8	83.3	90.6	100	96
02-Sep-01	19:00	-0.4	-0.7	-0.9	-0.4	1.1	-0.7	100	93.8	84.3	90.6	100	96
02-Sep-01	19:10	-0.4	-0.7	-0.7	-0.4	1.3	-0.4	100	89.3	83.3	90.6	100	93.7
02-Sep-01	19:20	-0.4	-1.2	-0.9	-0.4	1.3	-0.4	100	93.8	84.3	90.6	100	95.4
02-Sep-01	19:30	-0.2	-0.9	-0.7	-0.4	1.6	-0.7	100	94.3	83.3	90.6	100	96.5

02-Sep-01	19:40	-0.7	-0.7	-0.7	-0.4	1.3	-0.7	100	90.4	85.4	90.6	100	96
02-Sep-01	19:50	-0.4	-0.9	-0.7	-0.4	1.8	-0.7	100	93.2	83.8	90.6	100	96
02-Sep-01	20:00	-0.7	-0.9	-0.7	-0.2	2.6	-0.4	100	94.3	83.3	90	100	93.7
02-Sep-01	20:10	-0.2	-0.4	-0.7	-0.7	2.6	-0.4	100	93.8	84.3	90	100	94.3
02-Sep-01	20:20	-0.4	-0.7	-0.7	-0.7	2.1	-0.7	100	89.9	83.3	90	100	96.5
02-Sep-01	20:30	-0.4	-0.7	-0.7	-0.7	0.8	-0.7	100	93.8	83.3	90	97.8	96
02-Sep-01	20:40	-0.7	-0.7	-0.9	-0.9	0.3	-0.7	100	94.3	84.3	90	97.8	94.8
02-Sep-01	20:50	-0.4	-0.7	-0.7	-1.2	-0.4	-0.4	100	94.3	83.3	90	97.8	94.3
02-Sep-01	21:00	-0.4	-0.4	-0.9	-1.2	-0.7	-0.7	100	88.8	84.3	92.8	100	96
02-Sep-01	21:10	-0.4	-0.7	-0.9	-0.7	-0.7	-0.9	100	93.2	83.8	92.2	100	96
02-Sep-01	21:20	-0.4	-0.7	-0.7	-0.7	-0.4	-0.7	100	93.8	84.9	90.6	100	96
02-Sep-01	21:30	-0.7	-0.4	-0.9	-0.9	-0.9	-0.4	100	93.8	84.3	89.5	100	94.3
02-Sep-01	21:40	-0.4	-0.4	-0.7	-1.2	-0.7	-0.7	100	93.2	84.3	90	100	96
02-Sep-01	21:50	-0.4	-0.2	-0.4	-0.9	-0.4	-0.7	100	92.1	84.3	92.2	100	96
02-Sep-01	22:00	-0.4	-0.2	-0.4	-0.9	-0.4	-0.7	100	92.1	83.8	92.8	100	94.3
02-Sep-01	22:10	-0.4	-0.2	-0.4	-0.7	-0.7	-0.4	100	92.1	83.8	90.6	100	96
02-Sep-01	22:20	0.8	0.3	-0.4	-0.9	-0.9	-0.7	100	91.6	83.8	89.5	100	96
02-Sep-01	22:30	1.6	0.3	-0.4	-1.4	-0.4	-0.4	100	93.8	85.4	91.7	100	95.4
02-Sep-01	22:40	0.6	0.6	-0.7	-0.9	0.1	-0.4	100	92.1	83.8	91.1	100	94.8
02-Sep-01	22:50	-0.2	0.1	-0.4	-0.9	-0.7	-0.4	100	89.3	83.3	92.8	100	96
02-Sep-01	23:00	-0.4	-0.4	-0.7	-0.9	-0.7	-0.7	100	91	83.3	91.1	100	96
02-Sep-01	23:10	-0.4	-0.4	-0.7	-0.9	-0.4	-0.4	100	93.8	84.9	90	100	93.7
02-Sep-01	23:20	-0.4	-0.4	-0.9	-1.2	-0.2	-0.4	100	94.3	83.8	92.2	100	96
02-Sep-01	23:30	-0.7	-0.2	-0.7	-1.2	-0.4	-0.7	100	89.9	85.9	92.8	100	96.5
02-Sep-01	23:40	-0.4	-0.7	-0.7	-0.7	-0.7	-0.4	100	93.2	85.4	92.8	100	93.7
02-Sep-01	23:50	-0.2	-0.7	-0.7	-0.7	-0.4	-0.4	100	94.3	83.3	90	100	95.4
03-Sep-01	00:00	-0.4	-0.7	-0.7	-0.9	-0.2	-0.7	100	93.8	85.4	90	100	95.4
03-Sep-01	00:10	-0.7	-0.4	-0.7	-0.9	-0.4	0.3	100	89.3	83.3	92.2	100	93.7
03-Sep-01	00:20	-0.4	-0.7	-0.7	-0.9	-0.7	0.8	100	93.2	85.4	92.8	100	93.2
03-Sep-01	00:30	-0.7	-0.7	-0.7	-0.9	-0.4	0.8	100	94.3	83.8	90	100	93.2
03-Sep-01	00:40	-0.4	-0.4	-0.9	-0.9	-0.2	-0.4	100	93.8	85.4	90	100	93.2
03-Sep-01	00:50	-0.4	-0.2	-0.4	-0.9	-0.4	-0.4	100	89.3	84.9	92.8	100	93.7
03-Sep-01	01:00	-0.7	-0.4	-0.7	-0.9	-0.9	-0.7	100	92.1	84.3	92.8	100	96.5
03-Sep-01	01:10	-0.4	-0.9	-0.7	-0.9	-0.4	-0.7	100	94.3	85.4	91.1	100	96
03-Sep-01	01:20	-0.4	-0.4	-0.9	-0.9	-0.4	-0.4	100	93.8	83.8	90	100	96
03-Sep-01	01:30	-0.4	-0.2	-0.7	-1.2	0.1	-0.7	100	93.2	85.4	92.2	100	94.8
03-Sep-01	01:40	-0.4	-0.4	-0.7	-0.9	0.3	-0.4	100	89.3	83.3	92.8	100	96
03-Sep-01	01:50	-0.7	-0.7	-0.9	-0.9	0.8	-0.7	100	93.8	85.4	92.8	100	96
03-Sep-01	02:00	-0.7	-0.7	-0.7	-0.9	1.1	-0.7	100	94.3	83.8	90	100	94.3
03-Sep-01	02:10	-0.4	-0.2	-0.7	-0.9	1.6	-0.4	100	93.2	85.4	90	100	96
03-Sep-01	02:20	-0.4	-0.4	-0.7	-1.2	0.8	-0.4	100	89.3	85.4	92.8	100	96
03-Sep-01	02:30	-0.7	-0.9	-0.7	-0.7	0.1	-0.7	100	93.8	83.3	92.2	100	96
03-Sep-01	02:40	-0.4	-0.7	-0.9	-0.7	-0.7	-0.4	100	94.3	85.4	92.2	100	94.3
03-Sep-01	02:50	-0.7	-0.4	-0.9	-0.7	-0.9	-0.4	100	93.2	83.3	92.8	100	96
03-Sep-01	03:00	-0.7	-0.4	-0.7	-0.7	-0.7	-0.4	100	88.8	85.9	90.6	100	96
03-Sep-01	03:10	-0.4	-0.7	-0.7	-0.7	-0.2	-0.7	100	93.8	83.3	90	100	96
03-Sep-01	03:20	-0.4	-0.7	-0.7	-1.2	-0.9	-0.7	100	94.3	85.4	92.8	100	94.3
03-Sep-01	03:30	-0.7	-0.4	-0.7	-0.9	-0.7	-0.7	100	91	84.9	92.8	100	95.4
03-Sep-01	03:40	-0.4	-0.7	-0.7	-0.9	-0.4	-0.4	100	91	84.9	92.8	100	96

03-Sep-01	03:50	-0.7	-0.7	-0.7	-0.7	-0.2	-0.7	100	94.3	84.3	90	100	96.5
03-Sep-01	04:00	-0.4	-0.4	-0.4	-0.9	-0.7	-0.7	100	93.8	84.3	90.6	100	96
03-Sep-01	04:10	-0.4	-0.2	-0.4	-1.2	-0.7	-0.7	100	91.6	84.3	92.8	100	94.3
03-Sep-01	04:20	0.8	-0.7	-0.4	-0.9	-0.4	-0.7	100	91	84.3	92.8	100	96
03-Sep-01	04:30	1.3	-0.7	-0.2	-0.7	-0.4	-0.4	100	93.2	85.9	90.6	100	96
03-Sep-01	04:40	0.1	-0.7	-0.4	-0.7	-0.4	-0.4	99.5	93.8	83.8	90	100	96
03-Sep-01	04:50	-0.4	-0.4	-0.4	-1.2	-0.9	-0.4	100	91.6	83.3	92.8	100	94.3
03-Sep-01	05:00	-0.7	-0.9	-0.9	-0.9	-0.7	-0.4	100	91	83.8	92.8	100	96
03-Sep-01	05:10	-0.4	-0.9	-0.7	-0.9	-0.2	-0.9	100	93.8	86.5	92.8	100	96
03-Sep-01	05:20	-0.4	-0.4	-0.7	-0.9	-0.2	-0.7	100	93.8	84.3	90.6	100	94.3
03-Sep-01	05:30	-0.7	-0.4	-0.7	-0.9	-0.7	-0.7	100	92.7	85.9	90	100	96
03-Sep-01	05:40	-0.4	-0.2	-0.9	-1.2	-0.7	-0.7	100	92.1	85.4	92.8	100	96.5
03-Sep-01	05:50	-0.7	-0.2	-0.7	-0.9	-0.4	-0.7	100	92.1	83.3	92.8	100	94.3
03-Sep-01	06:00	-0.7	0.1	-0.9	-0.7	-0.2	-0.7	100	92.1	85.4	92.2	100	96.5
03-Sep-01	06:10	-0.4	0.1	-0.9	-0.7	-0.4	-0.4	100	91.6	83.8	90	100	96
03-Sep-01	06:20	-0.4	0.3	-0.9	-0.9	-0.9	-0.4	100	91.6	85.4	90	100	93.7
03-Sep-01	06:30	-0.7	0.3	-0.7	-0.9	-0.7	-0.7	100	88.8	85.4	92.8	100	96
03-Sep-01	06:40	-0.7	-0.2	-0.7	-0.9	-0.4	-0.7	100	89.3	83.8	92.8	100	96.5
03-Sep-01	06:50	-0.7	-0.2	-0.9	-0.7	-0.2	-0.4	100	93.2	85.4	92.2	100	94.3
03-Sep-01	07:00	-0.4	-0.4	-0.9	-0.7	0.1	-0.7	100	93.8	83.8	90	100	96.5
03-Sep-01	07:10	-0.7	-0.2	-0.9	-1.2	0.1	-0.4	100	91	85.9	90	100	96
03-Sep-01	07:20	-0.4	-0.4	-0.7	-1.2	0.3	-0.7	100	91	85.4	92.8	100	93.7
03-Sep-01	07:30	-0.4	-0.4	-0.7	-0.9	0.6	-0.4	100	93.8	84.9	92.8	100	96
03-Sep-01	07:40	-0.4	-0.7	-0.7	-0.7	0.6	-0.4	100	93.8	85.4	91.1	100	96
03-Sep-01	07:50	-0.2	-0.2	-0.4	-0.7	1.1	-0.2	100	90.4	83.3	90	100	95.4
03-Sep-01	08:00	-0.2	-0.4	-0.7	-0.9	1.6	-0.2	100	92.1	85.9	90.6	100	95.4
03-Sep-01	08:10	-0.2	-0.7	-0.7	-0.9	2.1	0.6	100	94.3	83.8	92.8	100	93.7
03-Sep-01	08:20	0.1	-0.4	-0.9	-0.9	1.8	1.6	100	91	85.4	92.2	100	93.7
03-Sep-01	08:30	-0.2	-0.7	-0.7	-0.9	0.6	1.6	100	91	84.9	90.6	100	91.5
03-Sep-01	08:40	0.1	-0.7	-0.7	-0.7	-0.2	0.1	100	93.8	85.9	90.6	100	92
03-Sep-01	08:50	0.1	-0.4	-0.7	-0.7	-0.7	-0.7	100	89.9	85.4	92.8	99.5	93.2
03-Sep-01	09:00	-0.2	-0.7	-0.7	-0.7	-0.4	-0.4	100	91.6	83.3	90.6	100	93.2
03-Sep-01	09:10	0.1	-0.7	-0.7	-0.7	-0.2	-0.7	100	94.3	85.4	90	100	93.2
03-Sep-01	09:20	0.1	-0.4	-0.7	-0.9	-0.7	-0.7	100	91	83.8	90	100	94.8
03-Sep-01	09:30	-0.2	-0.4	-0.7	-0.9	-0.4	-0.7	100	92.1	84.3	90	100	96.5
03-Sep-01	09:40	0.1	-0.7	-0.4	-0.9	-0.2	-0.9	100	94.3	84.9	90	100	96
03-Sep-01	09:50	-0.2	-0.4	-0.7	-1.2	-0.2	-0.7	100	88.8	84.3	90	100	94.3
03-Sep-01	10:00	0.1	-0.7	-0.7	-1.4	-0.7	-0.7	100	93.2	84.3	90.6	100	94.8
03-Sep-01	10:10	0.3	-0.4	-0.4	-1.2	-0.4	-0.7	100	93.8	84.3	92.8	100	93.7
03-Sep-01	10:20	1.3	-0.2	-0.4	-0.7	-0.2	-0.7	100	91.6	84.9	92.8	100	93.7
03-Sep-01	10:30	2.3	-0.4	-0.4	-0.7	-0.4	-0.7	100	91.6	85.9	91.7	100	93.7
03-Sep-01	10:40	1.1	-0.7	-0.4	-0.9	-0.4	-0.4	99.5	88.3	84.3	90	100	93.7
03-Sep-01	10:50	0.3	-0.7	-0.7	-0.7	-0.2	-0.7	100	93.2	83.8	90	100	93.2
03-Sep-01	11:00	0.3	-0.4	-0.4	-0.9	-0.2	-0.7	100	89.3	83.3	90	100	94.3
03-Sep-01	11:10	0.1	-0.7	-0.7	-0.9	-0.4	-0.7	100	92.1	83.3	92.2	100	96
03-Sep-01	11:20	-0.2	-0.7	-0.9	-0.9	-0.2	-0.7	100	91.6	83.3	92.8	100	94.3
03-Sep-01	11:30	0.3	-0.9	-0.7	-0.7	-0.4	-0.7	100	90.4	84.9	91.1	100	94.3
03-Sep-01	11:40	0.3	-0.9	-0.9	-0.7	-0.7	-0.7	100	93.8	83.8	90	100	93.2
03-Sep-01	11:50	0.1	-0.9	-0.9	-0.7	-0.4	-0.4	100	88.8	83.8	90	100	93.7

03-Sep-01	12:00	0.3	-0.7	-1.2	-0.7	-0.2	-0.7	100	92.1	84.3	90	100	93.2
03-Sep-01	12:10	0.3	-0.9	-0.9	-1.2	-0.4	-0.9	100	89.9	83.8	92.8	100	94.8
03-Sep-01	12:20	0.1	-1.2	-0.9	-0.7	-0.2	-0.7	100	91	83.3	92.8	100	96
03-Sep-01	12:30	0.1	-0.7	-0.9	-0.7	-0.2	-0.7	100	93.2	84.3	90.6	100	94.8
03-Sep-01	12:40	-0.2	-0.9	-0.7	-0.9	-0.2	-0.9	100	88.8	83.3	90	100	94.3
03-Sep-01	12:50	-0.2	-1.2	-0.9	-0.9	-0.4	-0.7	100	92.7	83.3	90	100	94.3
03-Sep-01	13:00	0.1	-0.7	-0.7	-0.9	-0.2	-0.7	100	89.3	85.4	90	100	93.7
03-Sep-01	13:10	-0.2	-1.2	-0.9	-0.9	-0.2	-0.7	100	91.6	83.3	92.8	100	93.2
03-Sep-01	13:20	-0.2	-0.9	-0.9	-0.7	-0.4	-0.7	100	91.6	83.8	92.8	100	93.2
03-Sep-01	13:30	0.3	-0.9	-0.7	-0.7	-0.2	-0.9	100	90.4	84.3	90.6	100	93.7
03-Sep-01	13:40	0.3	-0.4	-0.9	-0.7	0.3	-0.4	100	91	83.3	90	100	93.2
03-Sep-01	13:50	0.3	-0.4	-0.9	-0.7	0.8	-0.9	100	91	84.3	90	100	96
03-Sep-01	14:00	0.1	0.6	-0.7	-0.9	1.8	-0.9	100	91	83.3	92.2	100	93.7
03-Sep-01	14:10	0.1	0.6	-0.9	-0.7	2.3	-0.7	100	92.1	84.3	92.8	100	93.7
03-Sep-01	14:20	0.1	1.6	-0.7	-0.7	2.1	-0.9	100	93.8	83.8	91.7	100	93.7
03-Sep-01	14:30	0.3	1.3	-0.9	-0.9	1.1	-0.7	100	88.3	83.3	90	100	94.8
03-Sep-01	14:40	0.1	0.8	-0.7	-0.7	0.3	-0.7	100	86.1	84.3	90.6	100	95.4
03-Sep-01	14:50	0.1	0.1	-0.9	-0.7	0.1	-0.9	100	86.1	83.8	92.2	98.9	93.2
03-Sep-01	15:00	0.1	-0.7	-0.9	-0.7	-0.4	-0.7	99.5	91	83.8	90.6	98.3	93.7
03-Sep-01	15:10	-0.2	-0.7	-0.7	-0.7	-0.4	-0.9	98.4	88.8	83.8	90	100	95.4
03-Sep-01	15:20	0.1	-0.9	-0.9	-1.2	0.1	-1.2	100	89.3	83.3	90	100	94.8
03-Sep-01	15:30	-0.2	-0.7	-0.7	-1.2	-0.2	-0.9	99.5	92.7	83.3	89.5	100	93.2
03-Sep-01	15:40	0.1	-0.7	-0.7	-1.2	-0.4	-0.7	100	88.3	83.8	90	100	93.2
03-Sep-01	15:50	-0.2	-0.9	-0.7	-0.9	-0.2	-0.9	100	91	83.8	92.2	100	93.7
03-Sep-01	16:00	0.3	-0.9	-0.7	-0.7	-0.4	-0.2	100	89.9	83.8	92.8	100	94.3
03-Sep-01	16:10	0.6	-0.9	-0.7	-0.7	-0.7	0.6	100	91	83.8	91.1	100	95.4
03-Sep-01	16:20	1.6	-0.9	-0.4	-0.7	-0.4	1.8	100	91	84.3	90	100	99.4
03-Sep-01	16:30	2.3	-0.9	-0.4	-0.7	-0.2	1.3	100	88.8	85.9	90	100	92
03-Sep-01	16:40	2.3	-0.9	-0.4	-0.9	-0.4	0.1	99.5	91.6	84.3	90	100	92
03-Sep-01	16:50	0.8	-0.9	-0.4	-0.9	-0.2	-0.7	98.9	93.8	83.8	92.2	100	92.6
03-Sep-01	17:00	0.1	-0.9	-0.4	-0.9	0.1	-0.9	100	88.3	83.3	92.2	100	92.6
03-Sep-01	17:10	0.1	-0.9	-0.9	-0.7	-0.2	-0.7	100	92.7	83.8	91.7	100	93.7
03-Sep-01	17:20	0.1	-0.9	-0.9	-0.4	-0.2	-1.2	100	93.8	83.3	91.1	100	93.2
03-Sep-01	17:30	-0.2	-0.7	-0.7	-0.7	0.3	-0.9	100	88.8	84.9	91.1	100	93.2
03-Sep-01	17:40	-0.2	-0.7	-0.7	-0.7	0.8	-0.9	100	92.7	83.3	91.1	100	93.2
03-Sep-01	17:50	0.1	-0.4	-0.7	-0.7	0.8	-1.2	100	93.8	83.3	90.6	100	96
03-Sep-01	18:00	0.1	-0.7	-0.7	-0.7	1.1	-0.9	100	88.8	84.9	90.6	100	94.3
03-Sep-01	18:10	-0.2	-0.7	-0.7	-0.7	1.3	-1.2	100	92.7	83.3	90.6	100	93.2
03-Sep-01	18:20	-0.2	-0.4	-0.9	-0.7	1.3	-0.9	100	93.8	84.3	90.6	100	93.2
03-Sep-01	18:30	-0.2	-0.7	-0.7	-0.4	1.6	-0.9	100	89.3	83.8	90.6	100	93.2
03-Sep-01	18:40	-0.4	-0.9	-0.7	-0.4	1.6	-0.9	100	91.6	84.9	90.6	100	93.2
03-Sep-01	18:50	-0.2	-0.7	-0.7	-0.4	1.6	-1.2	100	93.8	84.3	90.6	100	96
03-Sep-01	19:00	0.1	-0.4	-0.9	-0.4	2.1	-0.9	100	91.6	83.8	90.6	100	95.4
03-Sep-01	19:10	0.1	-0.7	-0.7	-0.4	1.8	-0.7	100	91	84.9	90.6	100	93.7
03-Sep-01	19:20	0.1	-0.9	-0.7	-0.4	2.1	-0.9	100	93.8	83.3	90.6	100	96.5
03-Sep-01	19:30	0.1	-0.4	-0.7	-0.2	2.3	-0.9	100	93.8	84.3	90.6	100	96
03-Sep-01	19:40	-0.2	-0.2	-0.7	-0.2	2.1	-0.7	100	93.8	83.8	90.6	100	95.4
03-Sep-01	19:50	0.1	-0.4	-0.7	-0.2	2.8	-0.9	100	89.9	83.3	90.6	100	96
03-Sep-01	20:00	-0.2	-0.9	-0.7	-0.2	3.1	-0.7	100	93.8	84.9	90	100	96

03-Sep-01	20:10	-0.2	-0.7	-0.7	-0.4	3.4	-0.9	100	94.3	83.8	90	100	93.7
03-Sep-01	20:20	-0.2	-0.4	-0.9	-0.7	2.8	-0.4	100	94.3	85.4	90	99.5	96
03-Sep-01	20:30	-0.2	-0.4	-0.7	-0.9	1.6	-0.7	100	89.3	85.4	90	97.8	96
03-Sep-01	20:40	-0.2	-0.7	-0.9	-1.2	0.3	-0.4	100	93.2	83.3	89.5	97.2	93.7
03-Sep-01	20:50	-0.4	-0.7	-0.7	-0.9	-0.2	-0.7	100	94.3	84.9	90	96.6	96
03-Sep-01	21:00	-0.2	-0.4	-0.7	-0.9	-0.7	-0.7	100	92.7	83.3	92.2	97.8	96
03-Sep-01	21:10	-0.2	-0.7	-0.7	-0.9	-0.4	-0.7	100	91.6	84.9	92.8	100	95.4
03-Sep-01	21:20	-0.4	-0.7	-0.7	-0.9	-0.2	-0.4	100	93.8	83.8	91.1	100	95.4
03-Sep-01	21:30	-0.4	-0.7	-0.4	-0.9	-0.7	-0.7	100	93.2	84.3	90	100	96
03-Sep-01	21:40	-0.4	-0.7	-0.7	-0.9	-0.9	-0.7	100	92.7	84.3	90	100	96
03-Sep-01	21:50	-0.4	-0.2	-0.7	-1.2	-0.4	-0.7	100	92.1	84.3	92.2	100	95.4
03-Sep-01	22:00	-0.2	-0.2	-0.7	-1.2	-0.2	-0.7	100	92.1	84.3	92.8	100	96
03-Sep-01	22:10	-0.2	0.1	-0.7	-0.9	-0.7	-0.4	100	91.6	84.3	92.8	100	96
03-Sep-01	22:20	0.8	0.3	-0.7	-0.7	-0.4	-0.4	100	91.6	84.3	90.6	100	93.7
03-Sep-01	22:30	1.6	0.6	-0.4	-0.9	-0.2	-0.7	100	93.2	86.5	90	100	95.4
03-Sep-01	22:40	0.6	0.6	-0.4	-1.2	-0.4	-0.7	99.5	91.6	85.4	90.6	100	96
03-Sep-01	22:50	0.1	0.3	-0.4	-0.9	-0.7	-0.7	100	88.8	83.8	92.8	100	96
03-Sep-01	23:00	-0.2	-0.4	-0.7	-0.9	-0.2	-0.7	100	88.8	83.8	90	100	94.3
03-Sep-01	23:10	-0.2	-0.4	-0.9	-1.2	-0.2	-0.4	100	93.2	83.8	90	100	95.4
03-Sep-01	23:20	-0.4	-0.7	-0.9	-1.2	-0.7	-0.7	100	94.3	85.9	92.8	100	96
03-Sep-01	23:30	-0.4	-0.7	-0.7	-0.7	-0.4	-0.7	100	90.4	83.8	92.8	100	96
03-Sep-01	23:40	-0.4	-0.7	-0.7	-0.7	-0.2	-0.4	100	93.8	85.4	92.2	100	93.7
03-Sep-01	23:50	-0.4	-0.4	-0.7	-0.7	-0.2	-0.7	100	93.8	83.8	90	100	95.4
04-Sep-01	00:00	-0.4	-0.4	-0.7	-1.2	-0.7	-0.2	100	91	85.4	89.5	100	95.4
04-Sep-01	00:10	-0.4	-0.9	-0.7	-1.2	-0.4	0.3	100	92.1	83.8	92.8	100	93.7
04-Sep-01	00:20	-0.4	-0.9	-0.7	-0.7	-0.2	0.8	100	93.8	85.4	92.2	100	93.2
04-Sep-01	00:30	-0.4	-0.7	-0.7	-0.7	-0.4	0.8	100	93.8	84.3	92.2	100	93.2
04-Sep-01	00:40	-0.4	-0.7	-0.9	-0.9	-0.7	-0.4	100	89.3	85.4	90	100	92.6
04-Sep-01	00:50	-0.7	-0.7	-0.9	-0.9	-0.4	-0.7	100	93.8	85.4	90	100	95.4
04-Sep-01	01:00	-0.7	-0.7	-0.9	-1.2	0.1	-0.4	100	94.3	84.3	92.2	100	96
04-Sep-01	01:10	-0.4	-0.7	-0.7	-1.2	-0.4	-0.7	100	91.6	85.9	92.8	100	96.5
04-Sep-01	01:20	-0.4	-0.4	-0.7	-0.9	-0.7	-0.7	100	91.6	83.8	92.8	100	94.8
04-Sep-01	01:30	-0.4	-0.7	-0.7	-0.4	-0.4	-0.7	100	94.3	85.4	90.6	100	94.3
04-Sep-01	01:40	-0.4	-0.4	-0.9	-0.9	-0.2	-0.4	100	93.8	83.8	90	100	96
04-Sep-01	01:50	-0.7	-0.7	-0.7	-1.2	0.3	-0.4	100	89.3	85.9	91.1	100	96
04-Sep-01	02:00	-0.7	-0.7	-0.7	-0.9	1.1	-0.7	100	93.2	84.3	92.8	100	96
04-Sep-01	02:10	-0.7	-0.7	-0.7	-0.7	1.6	-0.4	100	94.3	84.9	92.2	100	94.3
04-Sep-01	02:20	-0.4	-0.4	-0.7	-0.7	1.1	-0.4	100	91.6	85.9	91.1	100	94.3
04-Sep-01	02:30	-0.7	-0.7	-0.7	-0.7	0.1	-0.4	100	91	83.8	89.5	100	96
04-Sep-01	02:40	-0.4	-0.7	-0.7	-0.9	-0.9	-0.7	100	94.3	85.4	90.6	98.3	96
04-Sep-01	02:50	-0.4	-0.4	-0.7	-0.9	-0.9	-0.7	100	93.8	84.3	92.8	100	96.5
04-Sep-01	03:00	-0.2	-0.4	-0.7	-0.9	-0.4	-0.4	100	89.3	85.9	90.6	100	94.8
04-Sep-01	03:10	-0.4	-0.7	-0.7	-0.9	-0.2	-0.4	100	93.2	85.4	90	100	94.3
04-Sep-01	03:20	-0.2	-0.7	-0.9	-0.9	-0.7	-0.7	100	94.3	84.3	92.2	100	96
04-Sep-01	03:30	-0.4	-0.7	-0.9	-0.7	-0.7	-0.7	100	91	84.3	92.2	100	96
04-Sep-01	03:40	-0.4	-0.9	-0.7	-0.9	-0.2	-0.7	100	91	84.9	92.2	100	96
04-Sep-01	03:50	-0.4	-0.7	-0.7	-0.7	-0.4	-0.4	100	94.3	84.3	90	100	93.7
04-Sep-01	04:00	-0.4	-0.7	-0.7	-0.9	-0.7	-0.7	100	94.3	84.3	90	100	96
04-Sep-01	04:10	-0.2	-0.4	-0.7	-0.9	-0.4	-0.7	100	91.6	84.3	92.8	100	96

04-Sep-01	04:20	0.6	-0.4	-0.4	-0.9	-0.2	-0.7	100	91.6	84.9	92.8	100	96
04-Sep-01	04:30	0.8	-0.7	-0.2	-0.7	-0.2	-0.7	100	91.6	86.5	92.2	100	95.4
04-Sep-01	04:40	-0.2	-0.9	-0.4	-0.9	-0.9	-0.7	100	92.1	84.3	90	100	94.3
04-Sep-01	04:50	-0.4	-0.9	-0.4	-0.9	-0.4	-0.4	100	94.3	84.3	90	100	95.4
04-Sep-01	05:00	-0.4	-0.4	-0.7	-1.2	0.1	-0.7	100	93.8	83.8	92.8	100	96.5
04-Sep-01	05:10	-0.4	-0.7	-0.7	-0.7	-0.7	-0.7	100	89.3	85.4	92.2	100	96
04-Sep-01	05:20	-0.4	-0.9	-0.7	-0.7	-0.9	-0.7	100	93.8	85.4	92.2	100	96
04-Sep-01	05:30	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	93.2	84.9	90	100	94.3
04-Sep-01	05:40	-0.4	-0.7	-0.7	-0.9	0.1	-0.4	100	92.7	85.4	90	100	96
04-Sep-01	05:50	-0.4	-0.4	-0.7	-1.2	-0.7	-0.7	100	92.1	83.3	92.8	100	96
04-Sep-01	06:00	-0.4	0.1	-0.7	-1.2	-0.7	-0.7	100	92.1	85.4	92.8	100	96.5
04-Sep-01	06:10	-0.7	0.1	-0.9	-0.9	-0.2	-0.4	100	92.7	83.8	92.8	100	94.3
04-Sep-01	06:20	-0.7	0.3	-0.9	-0.4	-0.2	-0.7	100	94.3	85.4	90.6	100	95.4
04-Sep-01	06:30	-0.4	0.6	-0.7	-0.7	0.1	-0.7	100	89.9	84.3	90	100	96.5
04-Sep-01	06:40	-0.7	0.1	-0.9	-0.9	0.3	-0.7	100	88.3	85.4	92.2	100	96.5
04-Sep-01	06:50	-0.4	-0.7	-0.7	-1.2	0.6	-0.4	100	92.7	85.4	92.8	100	95.4
04-Sep-01	07:00	-0.7	-0.4	-0.7	-0.9	0.6	-0.7	100	94.3	84.9	92.8	100	94.3
04-Sep-01	07:10	-0.7	-0.7	-0.7	-0.7	0.8	-0.7	100	89.3	85.9	90.6	100	95.4
04-Sep-01	07:20	-0.7	-0.7	-0.9	-0.7	1.1	-0.7	100	93.8	83.8	90	100	96.5
04-Sep-01	07:30	-0.7	-0.4	-0.7	-0.9	1.1	-0.7	100	93.8	85.4	90	100	96.5
04-Sep-01	07:40	-0.7	-0.4	-0.7	-0.7	1.3	-0.7	100	89.9	83.8	92.8	100	96
04-Sep-01	07:50	-0.4	-0.7	-0.7	-0.4	1.8	-0.4	100	93.2	85.4	92.8	100	96
04-Sep-01	08:00	-0.2	-0.4	-0.7	-0.7	2.3	-0.2	100	93.8	84.3	91.1	100	96.5
04-Sep-01	08:10	-0.2	-0.7	-0.7	-0.7	2.8	0.8	100	89.3	84.9	90.6	100	97.1
04-Sep-01	08:20	-0.2	-0.7	-0.7	-1.2	2.3	1.8	100	93.2	85.4	92.2	100	96
04-Sep-01	08:30	-0.2	-0.7	-0.7	-0.7	1.3	1.3	100	94.3	83.8	93.3	100	92
04-Sep-01	08:40	-0.2	-0.4	-0.7	-0.9	0.6	0.3	100	88.3	85.4	92.8	98.9	92
04-Sep-01	08:50	-0.2	-0.7	-0.7	-0.7	-0.4	-0.4	100	93.2	84.3	93.3	97.8	92.6
04-Sep-01	09:00	-0.4	-0.4	-0.9	-0.4	-0.7	-0.4	100	94.3	83.8	92.2	100	93.7
04-Sep-01	09:10	0.1	-0.7	-0.7	-0.4	-0.2	-0.9	100	89.3	85.4	90.6	100	95.4
04-Sep-01	09:20	-0.2	-0.9	-0.7	-0.9	-0.4	-0.9	100	93.8	83.8	90	100	93.2
04-Sep-01	09:30	-0.2	-0.7	-0.7	-0.7	-0.7	-0.9	100	91	84.3	90	100	93.7
04-Sep-01	09:40	-0.2	-0.7	-0.9	-0.7	-0.4	-0.9	99.5	91	84.3	91.1	100	95.4
04-Sep-01	09:50	-0.2	-0.7	-0.7	-0.9	-0.2	-0.7	100	93.8	84.3	93.3	100	93.7
04-Sep-01	10:00	-0.4	-0.7	-0.7	-0.4	-0.4	-0.9	100	91	84.3	92.2	100	94.3
04-Sep-01	10:10	0.1	-0.7	-0.4	-0.7	-0.4	-0.9	100	91.6	84.9	90	100	93.7
04-Sep-01	10:20	1.3	-0.4	-0.4	-0.9	-0.2	-0.9	100	91.6	84.9	90	100	96
04-Sep-01	10:30	1.8	-0.4	-0.4	-1.2	-0.7	-0.9	100	90.4	85.9	90.6	100	93.2
04-Sep-01	10:40	0.3	-0.7	-0.4	-1.2	-0.4	-0.7	99.5	92.1	84.9	92.8	100	93.2
04-Sep-01	10:50	-0.2	-0.7	-0.4	-0.9	0.1	-0.9	100	93.8	84.3	93.9	100	96
04-Sep-01	11:00	-0.4	-0.7	-0.7	-0.7	-0.4	-1.2	100	88.8	83.8	92.8	100	93.2
04-Sep-01	11:10	0.1	-0.7	-0.9	-0.7	-0.4	-0.9	100	93.2	83.8	90.6	100	93.2
04-Sep-01	11:20	-0.4	-0.7	-0.7	-0.7	0.1	-1.2	100	94.3	83.3	90.6	100	96
04-Sep-01	11:30	-0.4	-0.4	-0.9	-1.2	-0.2	-0.9	100	89.3	85.4	90	100	94.3
04-Sep-01	11:40	-0.4	-0.7	-0.7	-0.9	-0.4	-0.9	100	93.2	83.8	90.6	100	93.2
04-Sep-01	11:50	-0.4	-0.4	-1.2	-1.4	-0.2	-0.9	100	91.6	83.3	90	100	96
04-Sep-01	12:00	-0.4	-0.9	-0.9	-1.2	-0.2	-0.9	100	91	85.4	91.1	100	93.2
04-Sep-01	12:10	-0.2	-0.4	-0.7	-0.9	-0.4	-0.2	100	93.8	83.8	93.9	100	94.3
04-Sep-01	12:20	-0.2	-0.4	-0.9	-0.7	-0.2	-0.4	100	90.4	84.9	93.3	100	93.2

04-Sep-01	12:30	-0.2	-0.7	-0.7	-0.7	0.1	-0.7	100	91.6	84.3	90.6	100	93.2
04-Sep-01	12:40	-0.2	-0.4	-0.9	-0.9	-0.4	-0.4	100	93.8	83.8	90	100	93.2
04-Sep-01	12:50	-0.2	-0.4	-0.9	-0.9	-0.2	-0.7	100	88.8	84.9	90	100	93.2
04-Sep-01	13:00	-0.2	-0.7	-0.7	-1.2	-0.2	-0.7	100	92.7	83.3	90	100	93.2
04-Sep-01	13:10	-0.2	-0.7	-0.9	-1.2	-0.7	-0.7	99.5	93.8	83.3	92.8	100	93.7
04-Sep-01	13:20	-0.2	-0.7	-0.9	-0.9	-0.2	-0.4	100	89.9	84.9	93.3	100	93.7
04-Sep-01	13:30	-0.2	-0.7	-0.9	-0.7	0.1	-0.7	100	91.6	83.3	91.1	100	93.2
04-Sep-01	13:40	-0.4	-0.4	-0.7	-0.9	0.6	-0.7	100	91.6	84.9	90	100	93.2
04-Sep-01	13:50	-0.2	0.1	-0.7	-1.2	1.3	-0.7	100	91.6	83.3	90	100	93.2
04-Sep-01	14:00	0.1	0.3	-0.9	-1.2	1.6	-0.7	100	91.6	83.3	90	100	93.7
04-Sep-01	14:10	-0.2	0.6	-0.9	-1.2	2.1	-0.2	100	92.1	84.3	93.3	100	93.7
04-Sep-01	14:20	-0.2	1.1	-0.7	-0.7	1.8	0.1	100	93.8	83.3	92.8	100	93.7
04-Sep-01	14:30	-0.2	1.3	-0.9	-0.9	1.1	-0.2	100	89.9	84.3	90.6	100	92.6
04-Sep-01	14:40	-0.4	0.6	-0.9	-0.7	0.3	-0.9	100	86.6	84.3	90.6	100	93.7
04-Sep-01	14:50	-0.2	-0.2	-0.9	-0.7	-0.4	-0.7	100	87.7	83.3	92.8	98.9	93.2
04-Sep-01	15:00	0.1	-0.4	-0.9	-0.7	-0.4	-0.7	100	89.9	84.3	91.1	100	96.5
04-Sep-01	15:10	-0.2	-0.4	-0.9	-0.9	0.1	-0.7	100	93.2	83.3	90	100	95.4
04-Sep-01	15:20	-0.2	-0.4	-0.9	-0.9	-0.2	-0.9	99.5	89.3	83.3	90	100	93.2
04-Sep-01	15:30	-0.2	-0.7	-0.9	-1.2	-0.4	-0.7	100	92.7	83.8	91.1	100	93.2
04-Sep-01	15:40	-0.2	-0.4	-0.7	-0.9	-0.2	-0.9	100	93.8	83.8	93.3	100	95.4
04-Sep-01	15:50	-0.4	-0.4	-0.7	-0.7	0.1	-0.7	100	88.8	83.8	92.8	100	96
04-Sep-01	16:00	-0.4	-0.7	-0.4	-0.7	-0.7	0.1	100	93.2	83.8	90.6	100	96
04-Sep-01	16:10	0.1	-0.4	-0.4	-0.9	-0.4	0.6	100	91.6	84.3	90	100	97.7
04-Sep-01	16:20	0.8	-0.4	-0.4	-1.2	0.1	1.6	100	91.6	84.3	90	100	99.4
04-Sep-01	16:30	2.3	-0.4	-0.4	-0.9	-0.4	1.1	100	91	85.9	93.3	100	92.6
04-Sep-01	16:40	1.3	-0.7	-0.7	-0.4	-0.4	0.1	98.4	88.8	84.3	93.9	100	92.6
04-Sep-01	16:50	0.1	-0.9	-0.7	-0.7	0.1	-0.4	100	93.2	83.8	91.1	100	93.2
04-Sep-01	17:00	0.1	-0.7	-0.7	-0.7	-0.2	-0.7	100	94.3	83.3	90	100	96
04-Sep-01	17:10	-0.2	-0.7	-0.9	-0.7	-0.4	-0.9	100	89.3	83.3	91.1	100	95.4
04-Sep-01	17:20	0.1	-0.7	-0.7	-0.4	0.3	-0.9	100	93.2	84.9	91.1	100	93.2
04-Sep-01	17:30	-0.2	-0.9	-0.7	-0.4	0.3	-0.7	100	94.3	83.3	91.1	100	93.7
04-Sep-01	17:40	0.1	-0.7	-0.9	-0.4	0.8	-0.7	100	89.3	85.4	91.1	100	94.8
04-Sep-01	17:50	-0.2	-0.9	-0.7	-0.4	0.8	-0.7	100	93.8	84.3	91.1	100	95.4
04-Sep-01	18:00	-0.2	-0.4	-0.9	-0.4	1.1	-0.9	100	93.8	83.8	91.1	100	96
04-Sep-01	18:10	-0.2	-0.7	-0.9	-0.7	1.1	-0.7	100	89.3	84.9	91.1	100	96
04-Sep-01	18:20	-0.2	-0.9	-0.7	-0.7	1.3	-0.9	100	93.2	83.3	91.1	100	95.4
04-Sep-01	18:30	0.1	-0.7	-0.7	-0.7	1.3	-0.9	100	93.8	84.9	91.1	100	95.4
04-Sep-01	18:40	-0.4	-0.7	-0.7	-0.4	1.6	-0.9	100	88.8	83.8	91.1	100	93.2
04-Sep-01	18:50	0.1	-0.9	-0.7	-0.4	1.6	-0.7	100	93.2	84.9	91.1	100	94.8
04-Sep-01	19:00	-0.2	-0.7	-0.7	-0.4	1.6	-0.9	100	93.8	83.8	91.1	100	96
04-Sep-01	19:10	0.1	-0.4	-0.7	-0.4	1.8	-0.7	100	91	84.9	91.1	100	96
04-Sep-01	19:20	0.1	-0.7	-0.7	-0.4	1.8	-0.7	100	92.1	84.9	91.1	100	96
04-Sep-01	19:30	0.1	-0.9	-0.9	-0.4	1.8	-0.9	100	94.3	83.3	91.1	100	95.4
04-Sep-01	19:40	-0.2	-0.7	-0.7	-0.4	2.1	-0.9	100	91	84.9	91.1	100	93.7
04-Sep-01	19:50	0.1	-0.9	-0.7	-0.4	2.3	-0.7	100	91.6	83.3	91.1	100	96
04-Sep-01	20:00	-0.2	-0.9	-0.9	-0.2	2.8	-0.9	100	94.3	84.3	90.6	100	96.5
04-Sep-01	20:10	-0.2	-0.7	-0.7	-0.4	3.4	-0.7	100	92.7	85.4	90	100	95.4
04-Sep-01	20:20	-0.2	-0.7	-0.9	-0.7	2.8	-0.7	100	91.6	83.8	90	100	93.7
04-Sep-01	20:30	0.1	-0.9	-0.7	-0.9	1.6	-0.7	100	94.3	84.9	90	97.8	94.3

04-Sep-01	20:40	-0.4	-0.4	-0.9	-1.2	0.8	-0.7	100	93.8	83.8	90	97.2	94.3
04-Sep-01	20:50	-0.2	-0.7	-0.9	-1.2	0.1	-0.9	100	89.3	83.8	89.5	97.2	95.4
04-Sep-01	21:00	-0.2	-0.7	-0.7	-1.2	-0.7	-0.9	100	93.8	84.9	92.8	97.8	96
04-Sep-01	21:10	-0.2	-0.7	-0.7	-1.2	-0.2	-0.7	100	93.8	83.3	93.9	100	96
04-Sep-01	21:20	-0.2	-0.4	-0.9	-0.7	-0.2	-0.9	100	89.3	84.3	91.1	100	96
04-Sep-01	21:30	-0.4	-0.7	-0.9	-0.7	-0.7	-0.7	100	91.6	84.3	93.3	100	95.4
04-Sep-01	21:40	-0.4	-0.7	-0.7	-0.4	-0.4	-0.7	100	91.6	84.3	93.3	100	94.3
04-Sep-01	21:50	-0.2	-0.4	-0.7	-0.4	-0.2	-0.9	100	91.6	84.3	90.6	100	94.3
04-Sep-01	22:00	-0.2	-0.2	-0.4	-0.7	-0.4	-0.7	100	91.6	84.3	90	100	93.7
04-Sep-01	22:10	0.1	0.1	-0.7	-0.9	-0.7	-0.9	100	91.6	84.3	90	100	94.3
04-Sep-01	22:20	1.1	0.3	-0.7	-1.2	-0.2	-0.7	100	91.6	84.3	90	100	94.3
04-Sep-01	22:30	1.3	0.6	-0.4	-1.4	-0.4	-0.7	99.5	93.8	85.9	93.9	100	95.4
04-Sep-01	22:40	0.1	0.6	-0.4	-0.7	-0.7	-0.9	100	92.1	84.3	92.2	100	96
04-Sep-01	22:50	-0.2	0.3	-0.7	-0.7	-0.4	-0.7	100	89.3	83.8	93.3	100	96
04-Sep-01	23:00	-0.4	-0.4	-0.7	-0.9	-0.2	-0.7	100	88.3	83.3	91.1	100	95.4
04-Sep-01	23:10	-0.4	-0.4	-0.7	-1.2	-0.7	-0.7	100	93.2	83.3	90	100	93.7
04-Sep-01	23:20	-0.2	-0.7	-0.9	-1.2	-0.4	-0.9	100	93.2	86.5	90	100	95.4
04-Sep-01	23:30	-0.2	-0.7	-0.7	-1.2	-0.2	-0.7	100	89.9	83.8	93.9	100	96
04-Sep-01	23:40	-0.2	-0.7	-0.9	-0.9	-0.7	-0.7	100	93.8	84.3	93.9	100	96
04-Sep-01	23:50	-0.4	-0.7	-0.9	-0.7	-0.4	-0.7	100	93.8	85.4	92.8	100	95.4
05-Sep-01	00:00	-0.2	-0.7	-0.9	-0.9	-0.4	-0.2	100	88.8	83.3	90.6	100	95.4
05-Sep-01	00:10	-0.2	-0.9	-0.9	-1.2	-0.4	0.3	100	93.8	85.4	90	100	93.7
05-Sep-01	00:20	-0.4	-0.7	-0.7	-1.2	-0.7	0.8	100	93.8	83.3	93.3	100	93.2
05-Sep-01	00:30	-0.4	-0.4	-0.9	-0.7	-0.7	0.8	100	90.4	85.4	94.4	100	93.2
05-Sep-01	00:40	-0.2	-0.9	-0.7	-0.9	0.1	-0.2	100	92.7	83.8	92.8	100	93.2
05-Sep-01	00:50	-0.4	-0.7	-0.9	-0.9	-0.7	-0.7	100	93.8	85.4	90.6	100	95.4
05-Sep-01	01:00	-0.2	-0.4	-0.9	-1.2	-0.7	-0.7	100	91.6	83.8	90	100	93.7
05-Sep-01	01:10	-0.2	-0.9	-0.7	-1.2	-0.2	-0.7	100	92.1	84.9	93.3	100	94.8
05-Sep-01	01:20	-0.2	-0.7	-0.9	-0.9	0.1	-0.7	100	93.8	85.4	93.9	100	96
05-Sep-01	01:30	-0.2	-0.4	-0.7	-0.7	0.3	-0.9	100	92.1	83.3	92.8	100	93.7
05-Sep-01	01:40	-0.2	-0.9	-0.9	-0.7	0.6	-0.7	100	91.6	85.4	90.6	100	93.7
05-Sep-01	01:50	-0.4	-0.9	-0.9	-1.2	0.8	-0.7	100	93.8	83.8	90	100	95.4
05-Sep-01	02:00	-0.2	-0.4	-0.9	-1.4	1.1	-0.4	100	93.8	83.3	92.8	100	96
05-Sep-01	02:10	-0.2	-0.7	-0.9	-0.9	1.6	-0.7	100	89.9	85.4	93.9	100	96
05-Sep-01	02:20	-0.4	-0.7	-0.7	-0.7	1.1	-0.7	100	93.8	83.3	92.8	100	96
05-Sep-01	02:30	-0.4	-0.4	-0.9	-0.7	0.3	-0.9	100	93.8	85.4	90.6	100	96
05-Sep-01	02:40	-0.4	-0.7	-0.9	-0.9	-0.7	-0.9	100	89.3	83.8	91.1	98.9	96.5
05-Sep-01	02:50	-0.2	-0.9	-0.9	-0.7	-0.4	-0.9	100	93.2	85.4	92.8	100	96.5
05-Sep-01	03:00	-0.4	-0.7	-0.7	-0.7	-0.4	-0.7	100	93.8	84.3	91.1	100	95.4
05-Sep-01	03:10	-0.2	-0.4	-0.9	-1.2	-0.4	-0.7	100	91.6	83.3	90.6	100	95.4
05-Sep-01	03:20	-0.4	-0.7	-0.9	-1.4	-0.7	-0.7	100	91.6	85.4	92.8	100	93.7
05-Sep-01	03:30	-0.4	-0.7	-0.7	-1.2	-0.7	-0.7	100	93.8	84.9	93.9	100	94.8
05-Sep-01	03:40	-0.4	-0.4	-0.4	-0.7	-0.2	-0.7	100	93.8	84.9	93.3	100	96
05-Sep-01	03:50	-0.2	-0.9	-0.7	-0.7	-0.7	-0.7	100	90.4	84.3	91.1	100	96
05-Sep-01	04:00	-0.4	-0.7	-0.7	-0.9	-0.7	-0.9	100	94.3	84.3	90.6	100	96
05-Sep-01	04:10	0.1	-0.4	-0.7	-1.2	-0.2	-0.9	100	93.8	84.3	92.2	100	96
05-Sep-01	04:20	1.3	-0.7	-0.7	-1.2	-0.7	-0.7	100	91.6	84.3	93.9	100	96
05-Sep-01	04:30	1.6	-0.9	-0.4	-0.7	-0.7	-0.7	100	91.6	85.9	92.8	100	94.8
05-Sep-01	04:40	0.6	-0.7	-0.7	-0.7	-0.4	-0.7	100	94.3	84.3	90.6	100	94.3

05-Sep-01	04:50	0.1	-0.7	-0.4	-1.2	-0.2	-0.4	100	94.3	83.8	90	100	94.3
05-Sep-01	05:00	-0.4	-0.7	-0.7	-1.2	-0.7	-0.7	100	91	83.3	92.8	100	94.8
05-Sep-01	05:10	-0.2	-0.9	-0.7	-0.9	-0.7	-0.7	100	94.3	83.3	93.3	100	96
05-Sep-01	05:20	-0.4	-0.4	-0.7	-0.7	-0.2	-0.9	100	93.8	85.4	92.8	100	96
05-Sep-01	05:30	-0.2	-0.4	-0.9	-0.7	-0.4	-0.7	100	92.7	83.8	90.6	100	96
05-Sep-01	05:40	-0.4	-0.4	-0.9	-1.2	-0.9	-0.7	100	92.1	85.4	90	100	94.8
05-Sep-01	05:50	-0.4	-0.2	-0.9	-1.4	-0.7	-0.4	100	92.1	83.8	92.8	100	94.3
05-Sep-01	06:00	-0.4	0.1	-0.7	-0.9	-0.2	-0.7	100	92.1	85.9	93.9	100	95.4
05-Sep-01	06:10	-0.4	0.3	-0.7	-0.7	-0.4	-0.4	100	93.8	83.8	92.8	100	96
05-Sep-01	06:20	-0.4	0.6	-0.7	-0.7	-0.7	-0.7	100	94.3	85.9	90.6	100	96
05-Sep-01	06:30	-0.7	0.6	-0.7	-1.2	-0.2	-0.7	100	90.4	83.8	90	100	96
05-Sep-01	06:40	-0.7	-0.2	-0.7	-1.2	-0.2	-0.7	100	87.7	85.4	92.2	100	95.4
05-Sep-01	06:50	-0.4	-0.7	-0.7	-0.9	0.1	-0.7	100	92.1	83.8	93.9	100	94.3
05-Sep-01	07:00	-0.4	-0.7	-0.9	-0.7	0.3	-0.7	100	94.3	85.4	93.3	100	96
05-Sep-01	07:10	-0.4	-0.7	-0.7	-0.7	0.3	-0.9	100	89.3	84.3	90.6	100	96
05-Sep-01	07:20	-0.4	-0.7	-0.9	-0.9	0.6	-0.9	100	93.2	85.4	90.6	100	96
05-Sep-01	07:30	-0.2	-0.4	-0.7	-1.2	0.8	-0.7	100	93.8	85.9	90.6	100	93.7
05-Sep-01	07:40	-0.4	-0.4	-0.7	-0.9	0.8	-0.4	100	91.6	83.8	93.9	100	94.8
05-Sep-01	07:50	-0.2	-0.7	-0.7	-0.7	1.8	-0.9	100	89.3	85.9	92.2	100	94.3
05-Sep-01	08:00	-0.4	-0.7	-0.7	-0.9	2.3	-0.4	100	94.3	83.8	91.1	100	95.4
05-Sep-01	08:10	-0.4	-0.4	-0.7	-0.9	2.6	0.6	100	93.8	85.4	90.6	100	96
05-Sep-01	08:20	-0.2	-0.4	-0.9	-1.2	2.3	1.6	100	89.9	84.3	90.6	100	94.8
05-Sep-01	08:30	-0.2	-0.7	-0.7	-1.2	1.1	1.3	100	94.3	86.5	90.6	100	90.9
05-Sep-01	08:40	-0.4	-0.7	-0.7	-1.4	0.3	0.1	100	93.8	84.9	91.1	100	92.6
05-Sep-01	08:50	-0.4	-0.4	-0.7	-1.2	-0.2	-0.4	100	89.9	83.3	93.9	98.9	93.2
05-Sep-01	09:00	-0.7	-0.7	-0.7	-0.7	-0.4	-0.7	100	94.3	85.9	91.1	100	93.7
05-Sep-01	09:10	-0.4	-0.4	-0.9	-0.9	0.1	-0.7	100	92.1	83.8	90.6	100	95.4
05-Sep-01	09:20	-0.4	-0.7	-0.9	-0.9	-0.4	-0.7	100	91	86.5	90.6	100	96
05-Sep-01	09:30	-0.7	-0.4	-0.7	-1.2	-0.7	-0.9	100	93.8	85.4	90.6	100	95.4
05-Sep-01	09:40	-0.4	-0.4	-0.7	-1.2	-0.2	-0.9	100	89.9	85.4	92.2	100	94.3
05-Sep-01	09:50	0.3	-0.7	-0.4	-1.2	-0.2	-0.7	100	89.3	84.9	93.9	100	93.2
05-Sep-01	10:00	0.8	-0.9	-0.4	-0.7	-0.7	-0.7	100	89.9	84.3	92.2	100	94.8
05-Sep-01	10:10	1.1	-1.2	-0.2	-0.9	-0.4	-0.9	100	91.6	84.3	92.8	100	95.4
05-Sep-01	10:20	1.1	-1.2	-0.2	-0.4	-0.2	-0.7	100	92.7	83.8	92.2	100	96
05-Sep-01	10:30	1.3	-0.9	-0.2	-0.4	-0.4	-1.2	100	92.7	85.9	92.2	100	93.2
05-Sep-01	10:40	1.6	-0.7	-0.2	-0.4	-0.2	-0.7	100	92.1	84.9	92.2	100	93.7
05-Sep-01	10:50	1.8	-0.4	-0.7	-0.2	-0.2	-1.2	100	91	84.3	92.2	100	96
05-Sep-01	11:00	1.6	-0.7	-0.7	-0.4	-0.2	-1.2	97.3	92.1	84.3	92.8	100	93.2
05-Sep-01	11:10	0.3	-0.4	-0.7	-0.4	-0.2	-0.9	99.5	91.6	84.3	90.6	100	93.7
05-Sep-01	11:20	-0.2	-0.9	-1.2	-0.4	0.1	-0.9	100	89.3	83.8	90	100	93.2
05-Sep-01	11:30	0.1	-0.9	-0.9	-0.2	-0.2	-0.7	100	90.4	83.8	90	100	93.2
05-Sep-01	11:40	0.1	-0.9	-1.2	-0.4	-0.4	-0.9	100	92.7	83.8	90	100	93.2
05-Sep-01	11:50	0.1	-0.9	-1.2	-0.4	0.1	-0.9	100	89.3	83.3	90	100	93.7
05-Sep-01	12:00	0.1	-1.2	-1.2	-0.7	0.1	-0.4	100	88.8	85.9	90	100	93.7
05-Sep-01	12:10	0.1	-1.2	-1.2	-0.9	-0.2	-0.4	100	88.3	83.8	89.5	100	94.3
05-Sep-01	12:20	0.1	-1.7	-0.9	-0.9	-0.2	-0.7	100	88.8	83.3	89.5	100	95.4
05-Sep-01	12:30	0.3	-1.4	-1.2	-0.9	-0.2	-0.9	100	93.8	83.3	90	100	94.3
05-Sep-01	12:40	0.3	-1.2	-1.2	-0.9	-0.2	-0.7	100	91	85.4	90	100	93.2
05-Sep-01	12:50	0.1	-1.2	-1.2	-0.4	-0.4	-0.7	100	89.3	83.3	90	100	93.7

05-Sep-01	13:00	0.3	-1.2	-1.2	-0.4	0.1	-0.7	99.5	93.2	83.3	90	100	93.2
05-Sep-01	13:10	0.1	-0.9	-1.2	-0.7	-0.2	-0.9	100	89.3	83.3	89.5	100	93.2
05-Sep-01	13:20	0.1	-1.2	-1.2	-0.4	-0.2	-0.9	100	92.1	84.3	91.1	100	93.2
05-Sep-01	13:30	0.1	-1.2	-1.2	-0.2	-0.2	-0.7	100	91	83.8	92.2	100	93.2
05-Sep-01	13:40	0.3	-0.9	-1.2	-0.2	0.6	-0.7	100	91	83.3	91.7	100	94.8
05-Sep-01	13:50	0.3	-0.2	-1.2	-0.2	1.3	-0.7	100	91.6	83.8	90	100	94.8
05-Sep-01	14:00	0.6	0.3	-1.2	-0.2	2.1	-0.7	100	91.6	83.3	90	100	93.2
05-Sep-01	14:10	0.6	0.8	-1.2	-0.4	2.6	-0.9	100	92.7	84.3	90	100	93.2
05-Sep-01	14:20	0.8	1.3	-0.9	-0.4	2.3	-0.9	100	94.3	83.3	90	100	93.2
05-Sep-01	14:30	1.3	1.6	-1.2	-0.4	1.6	-0.7	100	89.3	83.3	90	100	93.7
05-Sep-01	14:40	1.3	0.6	-0.9	-0.9	0.6	-0.7	100	86.6	84.9	89.5	100	93.7
05-Sep-01	14:50	1.3	-0.2	-0.9	-0.4	0.1	-0.9	100	87.2	83.3	91.1	99.5	93.7
05-Sep-01	15:00	1.6	-0.7	-1.2	-0.4	-0.4	-0.9	100	88.3	83.3	90.6	98.3	93.7
05-Sep-01	15:10	1.3	-0.9	-0.9	-0.4	-0.2	-0.7	100	88.3	83.3	90	100	95.4
05-Sep-01	15:20	1.3	-1.2	-0.9	-0.4	0.1	-0.7	100	88.8	83.3	89.5	100	94.8
05-Sep-01	15:30	1.3	-1.4	-0.9	-0.4	-0.2	-0.7	100	88.3	83.3	89.5	100	93.2
05-Sep-01	15:40	1.3	-1.7	-0.9	-0.4	-0.2	-0.7	100	87.7	83.3	89.5	100	94.3
05-Sep-01	15:50	1.6	-1.7	-0.7	-0.4	0.1	-0.4	100	87.7	83.3	89.5	100	96
05-Sep-01	16:00	1.3	-1.9	-0.7	-0.7	0.1	0.1	100	91.6	83.3	89.5	100	98.8
05-Sep-01	16:10	1.8	-1.9	-0.4	-0.7	-0.4	0.8	100	91	83.3	90	100	100
05-Sep-01	16:20	2.3	-1.4	-0.4	-0.7	-0.2	2.1	100	91.6	83.3	90	100	100
05-Sep-01	16:30	3.1	-1.4	-0.2	-0.7	-0.2	1.8	100	87.2	86.5	89.5	100	92.6
05-Sep-01	16:40	4.6	-1.7	-0.2	-0.7	-0.2	0.6	100	90.4	84.9	90	100	92.6
05-Sep-01	16:50	3.1	-1.7	-0.4	-0.9	-0.2	-0.4	97.8	89.3	83.8	89.5	100	92.6
05-Sep-01	17:00	1.3	-1.7	-0.7	-0.7	0.1	-0.4	100	88.8	83.8	89.5	100	93.7
05-Sep-01	17:10	0.3	-1.7	-0.7	-0.7	-0.2	-0.9	99.5	92.1	83.3	89.5	100	93.7
05-Sep-01	17:20	0.1	-1.4	-0.9	-0.4	0.1	-0.9	100	88.3	83.3	90	100	94.8
05-Sep-01	17:30	-0.2	-1.9	-1.2	-0.4	0.6	-0.7	100	92.1	83.3	90	100	94.8
05-Sep-01	17:40	0.1	-1.4	-1.2	-0.4	0.8	-0.7	100	93.8	85.9	90	100	96
05-Sep-01	17:50	-0.4	-1.4	-0.9	-0.2	0.8	-0.7	100	88.3	83.8	90	100	96
05-Sep-01	18:00	-0.4	-1.7	-0.9	-0.4	1.1	-0.7	100	92.7	85.9	90	100	96
05-Sep-01	18:10	-0.4	-1.2	-1.2	-0.2	1.3	-0.7	100	94.3	84.3	90	100	96
05-Sep-01	18:20	-0.4	-0.9	-1.2	-0.2	1.1	-0.7	100	91	83.3	90	100	96
05-Sep-01	18:30	-0.4	-1.2	-1.2	-0.2	1.3	-0.7	100	90.4	86.5	90	100	96.5
05-Sep-01	18:40	-0.2	-1.2	-0.9	-0.2	1.3	-0.7	100	93.2	83.3	90	100	96
05-Sep-01	18:50	-0.7	-0.9	-0.9	-0.2	1.6	-0.7	100	94.3	85.9	90	100	96.5
05-Sep-01	19:00	-0.7	-0.7	-0.9	-0.2	1.6	-0.9	100	90.4	83.8	90	100	96
05-Sep-01	19:10	-0.4	-1.2	-0.9	-0.2	1.8	-0.9	100	91.6	84.3	90	100	96
05-Sep-01	19:20	-0.4	-1.2	-0.9	0.1	1.8	-0.7	100	93.8	85.4	90	100	96.5
05-Sep-01	19:30	-0.2	-0.7	-1.2	0.1	1.8	-0.7	100	94.3	83.8	90	100	96.5
05-Sep-01	19:40	-0.4	-0.7	-0.9	0.1	2.1	-0.7	100	88.3	85.9	90	100	96
05-Sep-01	19:50	-0.7	-1.2	-0.9	0.1	2.6	-0.7	100	92.7	84.3	90	100	95.4
05-Sep-01	20:00	-0.2	-0.9	-0.9	-0.2	2.8	-0.4	100	94.3	85.4	90	100	94.8
05-Sep-01	20:10	-0.2	-0.9	-0.7	-0.2	3.1	-0.7	100	91	84.9	89.5	100	94.8
05-Sep-01	20:20	-0.4	-1.2	-0.9	-0.4	2.8	-0.4	100	90.4	83.8	89	100	93.7
05-Sep-01	20:30	-0.4	-1.2	-1.2	-0.4	1.3	-0.7	100	93.8	85.9	89	97.8	94.3
05-Sep-01	20:40	-0.7	-0.7	-0.9	-0.4	0.8	-0.4	100	93.8	83.8	89	97.2	94.3
05-Sep-01	20:50	-0.7	-0.9	-1.2	-0.7	0.3	-0.7	99.5	88.8	83.8	89	97.8	95.4
05-Sep-01	21:00	-0.4	-1.2	-1.2	-0.9	-0.4	-0.9	100	93.2	85.4	89	97.8	96

05-Sep-01	21:10	-0.7	-0.9	-1.2	-1.2	-0.2	-0.7	100	93.8	83.8	89	100	96
05-Sep-01	21:20	-0.7	-0.7	-1.2	-1.2	0.1	-0.7	100	94.3	85.4	90	100	96
05-Sep-01	21:30	-0.4	-0.9	-0.9	-0.9	-0.4	-0.9	100	91	84.3	91.7	100	96
05-Sep-01	21:40	-0.4	-0.7	-0.7	-0.4	-0.4	-0.7	100	91	84.9	92.2	100	96.5
05-Sep-01	21:50	-0.4	-0.7	-0.4	-0.7	0.1	-0.7	100	91.6	84.3	90	100	96
05-Sep-01	22:00	-0.2	-0.4	-0.4	-0.7	-0.4	-0.7	100	91.6	83.8	89.5	100	96
05-Sep-01	22:10	-0.2	0.1	-0.4	-0.7	-0.7	-0.4	100	91.6	83.8	89	100	96
05-Sep-01	22:20	0.8	0.3	-0.4	-1.2	-0.4	-0.4	100	91.6	83.8	90	100	95.4
05-Sep-01	22:30	2.3	0.3	-0.2	-0.9	-0.4	-0.7	100	93.2	87	91.7	100	95.4
05-Sep-01	22:40	2.1	0.3	-0.2	-0.7	-0.7	-0.4	98.9	92.7	85.4	91.1	100	94.3
05-Sep-01	22:50	0.6	0.3	-0.7	-0.4	-0.2	-0.4	99.5	88.3	84.3	92.2	100	94.3
05-Sep-01	23:00	-0.4	-0.4	-0.9	-0.4	-0.2	-0.7	100	86.6	84.3	90	100	94.8
05-Sep-01	23:10	-0.2	-0.9	-0.9	-0.7	-0.4	-0.9	100	92.1	84.3	89.5	100	94.3
05-Sep-01	23:20	-0.2	-0.9	-0.9	-0.7	-0.7	-0.7	100	94.3	86.5	89.5	100	94.3
05-Sep-01	23:30	-0.4	-0.9	-1.2	-0.9	-0.2	-0.7	100	88.3	84.3	89.5	100	94.3
05-Sep-01	23:40	-0.7	-1.2	-1.2	-0.9	-0.2	-0.9	100	93.2	85.9	91.7	100	95.4
05-Sep-01	23:50	-0.7	-0.9	-0.7	-0.7	-0.7	-0.7	100	93.8	84.9	92.2	100	96
06-Sep-01	00:00	-0.7	-0.9	-1.2	-0.4	-0.4	-0.4	100	90.4	83.8	90.6	100	96
06-Sep-01	00:10	-0.4	-1.2	-0.9	-0.4	-0.2	0.1	100	91.6	85.9	90	100	94.3
06-Sep-01	00:20	-0.4	-1.2	-0.9	-0.7	-0.4	0.8	100	94.3	83.8	89.5	100	93.2
06-Sep-01	00:30	-0.4	-0.7	-1.2	-1.2	-0.4	1.1	100	93.8	85.9	90	100	93.2
06-Sep-01	00:40	-0.7	-0.9	-0.9	-0.7	-0.2	-0.2	100	88.8	84.9	91.1	100	92.6
06-Sep-01	00:50	-0.7	-1.4	-0.9	-0.4	-0.2	-0.7	100	92.7	86.5	92.2	100	93.2
06-Sep-01	01:00	-0.4	-0.9	-0.9	-0.4	-0.7	-0.7	100	93.8	85.4	90.6	100	94.3
06-Sep-01	01:10	-0.2	-0.9	-0.9	-0.7	-0.4	-0.4	100	92.1	85.9	90	100	93.7
06-Sep-01	01:20	-0.2	-0.9	-0.7	-0.7	0.1	-0.4	100	89.9	86.5	89.5	100	94.8
06-Sep-01	01:30	-0.4	-1.2	-0.9	-0.9	0.3	-0.4	100	94.3	83.8	90	100	94.3
06-Sep-01	01:40	-0.2	-0.9	-0.7	-0.7	0.3	-0.4	100	93.8	85.9	91.1	100	94.3
06-Sep-01	01:50	-0.4	-0.7	-0.9	-0.9	0.8	-0.7	100	91	83.8	91.7	100	94.8
06-Sep-01	02:00	-0.4	-0.9	-0.9	-0.7	1.6	-0.4	100	91.6	86.5	90	100	95.4
06-Sep-01	02:10	-0.4	-1.2	-0.9	-0.7	1.8	-0.7	100	94.3	84.3	89.5	100	96
06-Sep-01	02:20	-0.2	-0.9	-0.9	-0.7	1.3	-0.7	100	93.8	86.5	89.5	100	96
06-Sep-01	02:30	-0.4	-0.9	-0.7	-0.9	0.3	-0.7	100	88.8	84.3	90	100	96
06-Sep-01	02:40	-0.4	-1.2	-0.9	-0.7	-0.2	-0.7	100	93.2	85.9	90.6	100	96
06-Sep-01	02:50	-0.7	-0.9	-0.7	-0.7	-0.7	-0.7	100	93.8	85.9	92.8	100	96
06-Sep-01	03:00	-0.7	-0.7	-0.9	-0.4	-0.2	-0.7	100	91.6	85.4	92.2	100	96
06-Sep-01	03:10	-0.4	-0.9	-0.7	-0.7	-0.2	-0.7	100	91	85.9	90	100	96
06-Sep-01	03:20	-0.7	-1.2	-0.9	-0.9	-0.7	-0.7	100	94.3	83.8	89.5	100	96
06-Sep-01	03:30	-0.7	-0.9	-0.9	-0.9	-0.7	-0.7	99.5	94.3	85.4	89.5	100	96
06-Sep-01	03:40	-0.4	-0.7	-0.9	-0.9	-0.2	-0.4	100	91	85.4	91.7	100	96.5
06-Sep-01	03:50	-0.4	-0.9	-0.7	-0.7	-0.4	-0.7	100	91	84.9	92.2	100	96.5
06-Sep-01	04:00	-0.4	-1.2	-0.4	-0.4	-0.4	-0.7	100	94.3	84.9	91.1	100	96
06-Sep-01	04:10	-0.2	-0.9	-0.7	-0.7	-0.2	-0.7	100	93.8	84.3	89.5	100	95.4
06-Sep-01	04:20	0.8	-0.4	-0.4	-0.9	-0.2	-0.7	100	93.2	84.3	89.5	100	94.8
06-Sep-01	04:30	2.3	-0.4	-0.4	-0.9	-0.7	-0.4	100	91.6	85.9	90	100	94.3
06-Sep-01	04:40	1.1	-0.9	-0.7	-0.9	-0.7	-0.4	97.3	91	85.4	92.2	100	94.3
06-Sep-01	04:50	-0.2	-1.2	-0.7	-0.7	-0.2	-0.4	100	93.8	84.9	92.2	100	94.3
06-Sep-01	05:00	-0.4	-0.9	-1.2	-0.7	-0.4	-0.7	99.5	93.8	84.3	90.6	100	94.8
06-Sep-01	05:10	-0.4	-0.4	-0.9	-0.4	-0.7	-0.7	100	91.6	86.5	90	100	96

06-Sep-01	05:20	-0.4	-1.2	-0.9	-0.9	-0.4	-0.4	100	88.8	84.9	89.5	100	96
06-Sep-01	05:30	-0.4	-1.2	-1.2	-0.9	-0.2	-0.7	100	92.1	86.5	90	100	96
06-Sep-01	05:40	-0.4	-1.2	-0.9	-1.2	-0.7	-0.7	100	92.1	84.3	91.7	100	96
06-Sep-01	05:50	-0.7	-0.7	-1.2	-0.7	-0.7	-0.7	100	91.6	85.9	92.2	100	96
06-Sep-01	06:00	-0.7	-0.7	-0.9	-0.4	-0.2	-0.7	100	92.1	84.3	90.6	100	96
06-Sep-01	06:10	-0.7	0.1	-1.2	-0.7	0.1	-0.7	100	91.6	85.9	90	100	96.5
06-Sep-01	06:20	-0.7	0.1	-0.9	-0.9	-0.7	-0.7	100	93.8	85.9	89.5	100	96.5
06-Sep-01	06:30	-0.7	0.3	-0.9	-1.2	-0.4	-0.7	100	91	86.5	90.6	100	96
06-Sep-01	06:40	-0.4	-0.2	-0.9	-0.9	-0.2	-0.7	100	87.2	85.9	92.2	100	96
06-Sep-01	06:50	-0.4	-0.9	-0.9	-0.7	-0.2	-0.7	100	91	85.9	92.2	100	96
06-Sep-01	07:00	-0.7	-0.7	-0.7	-0.7	0.3	-0.7	100	93.8	85.9	90	100	96
06-Sep-01	07:10	-0.4	-0.7	-0.9	-0.7	0.3	-0.7	100	89.3	84.3	89.5	100	96.5
06-Sep-01	07:20	-0.7	-1.2	-0.9	-0.7	0.6	-0.7	100	91.6	86.5	90	100	96
06-Sep-01	07:30	-0.7	-1.2	-0.7	-1.2	0.8	-0.7	100	93.8	84.3	90	100	95.4
06-Sep-01	07:40	-0.4	-0.7	-0.7	-0.9	1.1	-0.7	100	92.1	85.9	92.8	100	94.8
06-Sep-01	07:50	-0.4	-0.9	-0.7	-0.4	1.3	-0.7	100	88.3	84.3	92.2	100	94.8
06-Sep-01	08:00	-0.4	-0.9	-0.9	-0.4	2.3	0.1	100	93.2	85.9	90.6	100	95.4
06-Sep-01	08:10	-0.7	-0.9	-0.7	-0.7	2.6	0.6	100	94.3	83.8	91.1	100	96
06-Sep-01	08:20	-0.4	-0.9	-0.9	-0.4	2.3	1.6	100	89.3	85.9	91.1	100	96.5
06-Sep-01	08:30	-0.4	-1.2	-0.7	-0.4	1.3	1.6	100	89.3	84.3	91.1	100	92.6
06-Sep-01	08:40	-0.4	-1.2	-0.9	-0.2	0.3	0.3	100	93.8	85.9	91.1	100	92
06-Sep-01	08:50	-0.4	-0.9	-0.7	-0.2	0.1	-0.4	100	91	84.9	91.1	100	93.2
06-Sep-01	09:00	-0.9	-0.9	-1.2	-0.2	-0.4	-0.4	100	89.3	83.8	91.7	100	93.7
06-Sep-01	09:10	-0.4	-1.2	-0.9	0.1	0.1	-0.4	100	93.8	86.5	92.2	100	93.2
06-Sep-01	09:20	-0.4	-0.9	-0.9	0.1	0.1	-0.4	100	91	84.3	92.2	100	95.4
06-Sep-01	09:30	-0.7	-0.9	-0.7	0.1	-0.4	-0.4	100	88.8	84.9	92.2	100	94.8
06-Sep-01	09:40	-0.7	-1.2	-0.7	0.1	-0.2	-0.7	100	93.8	85.4	92.2	100	95.4
06-Sep-01	09:50	-0.7	-0.9	-0.4	0.1	0.1	-0.7	100	91	84.9	92.2	100	94.8
06-Sep-01	10:00	-0.2	-1.2	-0.4	0.1	-0.2	-0.2	100	89.3	84.3	92.2	100	97.7
06-Sep-01	10:10	0.3	-1.2	-0.4	0.1	-0.2	-0.2	100	94.3	84.3	92.2	100	96
06-Sep-01	10:20	1.3	-0.7	-0.2	0.1	0.1	-0.4	100	92.1	84.3	91.7	100	96
06-Sep-01	10:30	3.1	-0.7	-0.4	0.1	0.1	-0.7	100	92.1	85.9	91.1	100	95.4
06-Sep-01	10:40	1.6	-0.7	-0.4	0.1	-0.2	-0.4	98.9	89.9	85.4	90.6	100	96.5
06-Sep-01	10:50	0.3	-1.2	-0.7	-0.4	0.1	-0.2	100	88.8	84.3	90	100	94.3
06-Sep-01	11:00	-0.2	-1.4	-0.9	-0.7	-0.2	-0.2	100	88.8	84.3	90	100	95.4
06-Sep-01	11:10	-0.2	-1.4	-0.9	-0.7	-0.2	-0.7	100	93.2	83.8	90	100	96
06-Sep-01	11:20	-0.4	-1.2	-1.2	-0.7	-0.2	-0.7	100	90.4	83.8	90	100	95.4
06-Sep-01	11:30	-0.4	-1.4	-1.2	-0.7	0.3	-0.4	100	88.8	83.8	90	100	95.4
06-Sep-01	11:40	-0.4	-1.7	-1.4	-0.4	-0.2	-0.4	100	88.8	83.8	90.6	100	94.3
06-Sep-01	11:50	-0.2	-1.7	-1.2	-0.4	-0.4	-0.4	100	94.3	83.8	90.6	100	93.7
06-Sep-01	12:00	-0.2	-1.4	-1.2	-0.7	-0.2	-0.7	100	88.8	85.9	90	100	93.2
06-Sep-01	12:10	-0.2	-1.4	-0.9	-0.4	0.1	-0.7	100	89.3	84.3	90	100	93.2
06-Sep-01	12:20	-0.2	-1.4	-1.2	-0.7	-0.2	-0.7	100	93.8	83.8	89.5	100	93.2
06-Sep-01	12:30	-0.2	-1.4	-1.2	-0.7	-0.2	-0.7	99.5	88.8	83.3	90	100	93.2
06-Sep-01	12:40	0.1	-1.7	-1.2	-0.9	0.1	-0.9	100	90.4	83.3	89.5	100	93.7
06-Sep-01	12:50	-0.4	-1.2	-1.2	-0.9	-0.2	-0.4	100	91	84.3	89.5	100	93.2
06-Sep-01	13:00	-0.2	-1.7	-1.2	-0.7	-0.4	-0.7	100	88.8	83.8	90	100	94.3
06-Sep-01	13:10	0.1	-1.7	-1.2	-0.7	0.1	-0.7	100	93.8	83.3	90	100	94.8
06-Sep-01	13:20	-0.2	-1.7	-1.2	-0.7	0.3	-0.7	100	88.8	83.8	90	100	95.4

06-Sep-01	13:30	-0.2	-1.4	-1.2	-0.9	0.8	-0.7	100	90.4	83.3	90	100	96
06-Sep-01	13:40	-0.2	-0.9	-1.2	-0.9	1.3	-0.7	100	91	83.3	90	100	95.4
06-Sep-01	13:50	-0.4	-0.7	-1.2	-0.7	2.1	-0.7	100	91	85.9	90	100	96
06-Sep-01	14:00	-0.2	-0.2	-1.2	-0.9	2.6	-0.7	100	91	83.8	89.5	100	96.5
06-Sep-01	14:10	-0.2	0.3	-1.2	-0.9	3.1	-0.7	100	91	83.3	90	100	95.4
06-Sep-01	14:20	0.1	1.1	-0.9	-0.9	2.3	-0.7	100	93.8	83.3	90	100	95.4
06-Sep-01	14:30	-0.2	1.1	-1.2	-0.9	1.6	-0.9	100	88.8	83.3	90	100	96
06-Sep-01	14:40	0.1	0.6	-1.4	-0.7	1.1	-0.4	100	86.6	83.3	90	100	95.4
06-Sep-01	14:50	-0.4	-0.2	-1.4	-0.7	0.3	-0.7	100	87.2	83.8	91.1	100	94.8
06-Sep-01	15:00	-0.2	-0.7	-1.2	-0.7	0.1	-0.7	100	87.7	83.3	90	100	94.3
06-Sep-01	15:10	0.1	-0.9	-1.2	-0.4	-0.2	-0.7	100	87.2	83.8	90	100	93.7
06-Sep-01	15:20	0.1	-0.9	-0.9	-0.7	-0.7	-0.7	100	88.8	83.8	90	98.3	93.2
06-Sep-01	15:30	0.1	-1.2	-0.9	-0.9	-0.4	-0.7	99.5	87.7	83.3	89.5	100	96
06-Sep-01	15:40	-0.2	-1.4	-0.9	-0.9	-0.2	-0.7	100	92.7	83.8	90	100	96
06-Sep-01	15:50	0.1	-1.2	-0.7	-0.9	-0.4	-0.4	100	88.8	83.8	90	100	94.3
06-Sep-01	16:00	0.6	-1.4	-0.7	-0.9	-0.4	0.1	100	91.6	83.8	90	100	94.8
06-Sep-01	16:10	1.1	-1.2	-0.4	-0.9	-0.2	0.8	100	91.6	83.3	90	100	96.5
06-Sep-01	16:20	1.6	-1.2	-0.4	-0.9	0.1	1.8	100	91	83.3	89.5	100	98.8
06-Sep-01	16:30	1.1	-1.2	-0.2	-1.2	0.1	1.6	100	91	85.9	89.5	100	92.6
06-Sep-01	16:40	0.6	-0.7	-0.4	-1.2	0.1	0.6	98.4	91.6	84.3	89.5	100	92
06-Sep-01	16:50	0.3	-0.9	-0.4	-0.9	-0.4	-0.2	100	89.9	83.8	90	100	92.6
06-Sep-01	17:00	-0.4	-1.2	-0.9	-0.9	0.1	-0.4	100	88.3	83.8	90	100	92
06-Sep-01	17:10	0.1	-1.7	-0.9	-1.2	0.1	-0.7	100	88.8	83.8	90	100	93.7
06-Sep-01	17:20	-0.2	-1.4	-1.2	-0.7	0.3	-0.9	100	93.8	83.3	90.6	100	93.7
06-Sep-01	17:30	-0.2	-1.4	-1.2	-0.7	0.6	-1.2	99.5	88.8	83.3	90	100	93.2
06-Sep-01	17:40	-0.4	-1.2	-0.9	-0.7	0.8	-0.9	100	92.1	85.9	91.1	100	94.3
06-Sep-01	17:50	-0.4	-0.9	-0.9	-0.4	0.6	-0.9	100	93.8	83.8	90	100	94.3
06-Sep-01	18:00	-0.2	-0.9	-1.2	-0.7	1.1	-0.9	100	88.3	85.4	89.5	100	95.4
06-Sep-01	18:10	-0.7	-1.2	-1.2	-0.9	1.3	-0.9	100	92.7	85.4	89.5	100	95.4
06-Sep-01	18:20	-0.4	-0.9	-0.9	-1.2	1.3	-0.9	99.5	94.3	83.3	89.5	100	96
06-Sep-01	18:30	-0.2	-1.2	-0.9	-1.2	1.6	-0.9	100	88.3	85.9	91.7	100	96.5
06-Sep-01	18:40	-0.4	-1.2	-0.9	-0.7	1.8	-0.9	100	93.2	83.3	92.2	100	96
06-Sep-01	18:50	-0.4	-0.9	-0.9	-0.4	1.8	-0.7	100	94.3	85.9	90	100	96
06-Sep-01	19:00	-0.4	-0.9	-0.9	-0.7	1.6	-0.9	99.5	88.8	83.8	90	100	96
06-Sep-01	19:10	-0.2	-1.2	-1.2	-1.2	1.8	-0.9	100	92.1	85.9	91.1	100	96
06-Sep-01	19:20	-0.2	-0.9	-0.9	-0.7	1.8	-0.9	100	94.3	83.3	92.2	100	96.5
06-Sep-01	19:30	-0.2	-0.7	-1.2	-0.4	1.8	-0.7	100	89.3	85.9	92.2	100	96
06-Sep-01	19:40	-0.4	-1.2	-0.9	-0.7	2.3	-0.7	100	92.1	83.8	89.5	100	96
06-Sep-01	19:50	-0.4	-0.9	-0.9	-0.9	2.6	-0.7	100	94.3	83.3	90	100	95.4
06-Sep-01	20:00	-0.4	-0.9	-0.9	-1.2	2.8	-0.9	98.9	88.8	85.4	92.8	100	94.8
06-Sep-01	20:10	-0.4	-0.9	-0.9	-0.9	3.4	-0.7	100	93.2	83.8	92.8	100	94.8
06-Sep-01	20:20	-0.4	-0.9	-0.9	-0.7	2.6	-0.7	100	93.8	84.3	90	98.3	93.7
06-Sep-01	20:30	-0.7	-0.9	-0.7	-0.9	1.6	-0.7	100	88.3	84.3	89.5	97.2	95.4
06-Sep-01	20:40	-0.4	-0.9	-0.7	-0.9	0.6	-0.7	100	93.2	83.3	92.2	97.2	96
06-Sep-01	20:50	-0.4	-0.9	-0.7	-0.7	-0.2	-0.7	100	93.8	84.3	92.8	97.2	96
06-Sep-01	21:00	-0.4	-1.2	-0.9	-0.4	-0.7	-0.9	99.5	88.3	83.3	91.1	97.8	96.5
06-Sep-01	21:10	-0.4	-1.4	-0.7	-0.7	-0.4	-0.9	100	92.7	83.3	89.5	100	96.5
06-Sep-01	21:20	-0.7	-1.2	-0.7	-1.2	-0.2	-0.9	99.5	93.8	84.9	89.5	100	96
06-Sep-01	21:30	-0.7	-0.9	-0.7	-0.9	-0.4	-0.9	98.9	93.8	84.3	92.8	100	96

06-Sep-01	21:40	-0.4	-0.4	-0.4	-0.9	-0.7	-0.7	100	92.1	83.8	92.8	100	95.4
06-Sep-01	21:50	-0.4	-0.4	-0.4	-0.7	-0.2	-0.9	99.5	91.6	83.8	90.6	100	94.3
06-Sep-01	22:00	-0.2	-0.2	-0.2	-0.9	-0.4	-0.9	99.5	91	83.8	90	100	94.3
06-Sep-01	22:10	0.1	0.1	0.1	-0.9	-0.4	-0.9	100	91	83.3	92.2	100	94.3
06-Sep-01	22:20	0.8	0.6	0.1	-0.7	-0.2	-0.9	100	93.2	83.3	92.8	100	96
06-Sep-01	22:30	1.8	0.6	-0.2	-0.7	-0.2	-0.7	100	93.8	85.4	91.1	100	96
06-Sep-01	22:40	2.6	0.3	0.1	-0.7	-0.7	-0.9	99.5	92.1	83.8	90.6	100	96
06-Sep-01	22:50	1.1	0.1	-0.2	-0.7	-0.4	-0.9	97.8	88.8	83.3	92.2	100	96
06-Sep-01	23:00	0.1	-0.4	-0.7	-0.7	0.1	-0.7	99.5	87.2	83.3	90	100	96
06-Sep-01	23:10	-0.4	-0.9	-0.7	-0.9	-0.4	-0.7	100	91.6	83.3	90	100	96
06-Sep-01	23:20	-0.4	-0.9	-0.9	-0.9	-0.7	-0.9	100	94.3	83.3	92.2	100	96
06-Sep-01	23:30	-0.7	-0.9	-0.9	-0.7	-0.2	-0.7	100	88.3	85.4	92.8	100	95.4
06-Sep-01	23:40	-0.7	-1.2	-0.9	-0.4	-0.2	-0.7	100	93.2	83.3	91.1	100	94.8
06-Sep-01	23:50	-0.7	-0.9	-0.7	-0.7	-0.7	-0.7	100	93.8	84.9	90	100	94.3
07-Sep-01	00:00	-0.7	-0.9	-0.9	-1.2	-0.4	-0.4	100	89.9	83.8	91.1	100	94.3
07-Sep-01	00:10	-0.4	-1.4	-0.9	-0.7	-0.2	0.1	100	91.6	84.3	92.2	100	94.3
07-Sep-01	00:20	-0.4	-0.9	-0.7	-0.7	-0.4	0.6	100	93.8	85.9	92.8	100	94.3
07-Sep-01	00:30	-0.4	-0.9	-0.9	-0.7	-0.7	0.8	100	91	83.8	90	100	93.2
07-Sep-01	00:40	-0.7	-1.2	-0.7	-0.9	-0.2	-0.2	100	91.6	85.9	90	100	92.6
07-Sep-01	00:50	-0.4	-1.2	-0.7	-0.9	-0.4	-0.7	100	94.3	83.3	92.8	100	95.4
07-Sep-01	01:00	-0.4	-1.2	-0.9	-0.7	-0.7	-0.9	100	94.3	85.4	92.8	100	95.4
07-Sep-01	01:10	-0.4	-0.9	-0.9	-0.7	-0.4	-0.9	100	88.8	83.8	90.6	100	94.3
07-Sep-01	01:20	-0.4	-1.2	-0.9	-0.7	-0.2	-0.7	100	93.2	85.4	89.5	100	95.4
07-Sep-01	01:30	-0.7	-1.2	-0.7	-0.9	0.1	-0.9	100	93.8	85.4	92.2	100	96
07-Sep-01	01:40	-0.7	-0.7	-0.9	-0.9	0.6	-0.7	100	91.6	83.8	92.8	100	96
07-Sep-01	01:50	-0.4	-1.2	-0.7	-0.4	0.8	-0.9	100	90.4	85.9	92.2	100	96.5
07-Sep-01	02:00	-0.4	-1.2	-0.7	-0.7	1.3	-0.7	100	94.3	83.8	90	100	96
07-Sep-01	02:10	-0.4	-0.7	-0.9	-0.9	2.1	-0.7	100	93.8	85.4	89.5	100	96
07-Sep-01	02:20	-0.4	-0.9	-0.7	-0.7	1.3	-0.7	100	88.8	84.3	92.8	100	96
07-Sep-01	02:30	-0.9	-1.4	-0.7	-0.7	0.6	-0.9	100	93.8	83.3	92.2	100	95.4
07-Sep-01	02:40	-0.4	-1.2	-0.7	-0.7	-0.4	-0.7	100	94.3	85.9	91.7	98.9	94.3
07-Sep-01	02:50	-0.4	-0.9	-0.7	-0.4	-0.7	-0.7	100	91.6	83.3	92.2	100	94.3
07-Sep-01	03:00	-0.7	-0.9	-0.9	-0.7	-0.4	-0.7	100	91	85.4	90.6	100	94.3
07-Sep-01	03:10	-0.9	-1.2	-0.9	-0.7	-0.2	-0.7	100	94.3	84.3	90	100	96
07-Sep-01	03:20	-0.4	-0.9	-0.9	-0.9	-0.7	-0.7	100	93.8	83.3	91.1	100	95.4
07-Sep-01	03:30	-0.4	-0.7	-0.7	-0.9	-0.4	-0.9	100	89.3	84.3	92.8	100	96
07-Sep-01	03:40	-0.7	-1.2	-0.7	-0.4	0.1	-0.9	99.5	92.1	84.9	92.2	100	96.5
07-Sep-01	03:50	-0.4	-1.2	-0.7	-0.9	-0.7	-0.7	100	94.3	84.3	90.6	100	96
07-Sep-01	04:00	-0.7	-0.9	-0.4	-0.9	-0.9	-0.9	100	93.8	84.3	90	100	96
07-Sep-01	04:10	-0.4	-0.7	-0.4	-0.7	-0.2	-0.9	100	91.6	83.8	92.2	100	95.4
07-Sep-01	04:20	0.8	-0.9	-0.4	-0.7	-0.4	-0.7	100	91.6	83.8	92.2	100	94.3
07-Sep-01	04:30	1.3	-1.4	-0.2	-0.4	-0.7	-0.7	97.8	91.6	85.9	90.6	100	95.4
07-Sep-01	04:40	0.1	-0.9	-0.4	-0.7	-0.4	-0.7	99.5	93.8	83.8	90	100	96
07-Sep-01	04:50	-0.4	-0.7	-0.7	-1.2	0.1	-0.9	99.5	93.8	83.8	92.8	100	96
07-Sep-01	05:00	-0.4	-1.2	-0.7	-0.7	-0.4	-0.9	100	88.8	83.3	92.8	100	96
07-Sep-01	05:10	-0.7	-1.2	-0.9	-0.4	-0.7	-0.7	100	93.8	83.3	91.1	100	96.5
07-Sep-01	05:20	-0.7	-1.2	-0.9	-0.7	-0.2	-0.7	100	94.3	85.9	90	100	94.8
07-Sep-01	05:30	-0.4	-0.7	-0.7	-0.9	-0.4	-0.7	100	92.7	83.3	92.2	100	95.4
07-Sep-01	05:40	-0.7	-0.7	-0.9	-0.7	-0.9	-0.7	100	92.1	85.4	92.8	100	96

07-Sep-01	05:50	-0.7	-0.7	-0.7	-0.4	-0.4	-0.9	100	91.6	83.8	92.2	100	96
07-Sep-01	06:00	-0.7	-0.2	-0.9	-0.7	0.1	-0.7	100	91.6	85.4	90	100	96
07-Sep-01	06:10	-0.7	0.1	-0.9	-0.7	-0.7	-0.7	100	93.2	84.3	90.6	100	96
07-Sep-01	06:20	-0.9	0.3	-0.7	-0.7	-0.9	-0.7	100	93.8	83.3	92.2	100	95.4
07-Sep-01	06:30	-0.7	0.6	-0.9	-0.7	-0.4	-0.7	100	90.4	85.9	92.2	100	94.3
07-Sep-01	06:40	-0.7	-0.2	-0.9	-0.7	-0.2	-0.9	100	87.7	83.8	90.6	100	94.8
07-Sep-01	06:50	-0.4	-0.9	-0.9	-0.9	0.3	-0.7	100	90.4	85.4	89.5	100	96
07-Sep-01	07:00	-0.7	-0.7	-0.7	-0.9	0.3	-0.9	100	93.8	85.4	92.2	100	96.5
07-Sep-01	07:10	-0.7	-0.7	-0.9	-0.7	0.6	-0.9	100	91.6	83.3	92.8	100	96
07-Sep-01	07:20	-0.2	-0.9	-0.7	-0.7	0.8	-0.7	100	89.9	85.9	90.6	100	96
07-Sep-01	07:30	-0.4	-1.2	-0.7	-0.7	1.1	-0.7	100	94.3	83.8	90.6	100	95.4
07-Sep-01	07:40	-0.4	-1.2	-0.9	-0.7	1.3	-0.7	100	94.3	83.3	90	100	93.7
07-Sep-01	07:50	-0.4	-0.9	-0.9	-1.2	1.6	-0.7	100	88.8	85.4	92.8	100	96
07-Sep-01	08:00	-0.4	-0.9	-0.7	-0.9	2.6	-0.2	100	93.2	83.8	93.3	100	96
07-Sep-01	08:10	-0.7	-0.7	-0.7	-0.7	3.1	0.8	100	94.3	85.9	90.6	100	96.5
07-Sep-01	08:20	-0.7	-0.7	-0.7	-0.7	2.6	1.8	100	89.3	84.3	90.6	100	96
07-Sep-01	08:30	-0.4	-0.7	-0.7	-1.2	1.3	1.8	100	93.2	85.4	90	100	90.9
07-Sep-01	08:40	-0.7	-0.4	-0.7	-0.9	0.6	0.3	100	91.6	85.4	92.8	100	90.9
07-Sep-01	08:50	-0.7	-0.9	-0.7	-0.7	-0.2	-0.2	100	88.8	83.8	92.8	98.9	91.5
07-Sep-01	09:00	-0.4	-0.9	-0.9	-0.7	-0.7	-0.4	100	93.2	85.4	91.1	100	93.2
07-Sep-01	09:10	-0.4	-0.9	-0.7	-0.7	0.1	-0.7	100	94.3	83.8	90	100	93.2
07-Sep-01	09:20	-0.2	-0.7	-0.9	-0.7	-0.4	-0.4	100	88.3	85.4	89.5	100	93.7
07-Sep-01	09:30	-0.2	-0.9	-0.7	-0.7	-0.4	-0.7	100	93.2	84.9	90.6	100	93.2
07-Sep-01	09:40	-0.2	-0.7	-0.4	-0.4	-0.4	-0.9	100	94.3	84.9	91.1	100	94.3
07-Sep-01	09:50	-0.4	-0.7	-0.7	-0.4	-0.2	-0.9	100	88.8	84.3	91.7	100	93.7
07-Sep-01	10:00	-0.2	-0.7	-0.2	-0.4	-0.4	-0.7	100	93.2	84.3	91.7	100	94.3
07-Sep-01	10:10	0.3	-0.7	-0.2	-0.2	0.1	-0.7	100	94.3	83.8	91.1	100	95.4
07-Sep-01	10:20	1.1	-0.4	0.1	-0.2	-0.4	-0.7	100	91.6	84.3	91.1	100	96
07-Sep-01	10:30	2.3	-0.4	-0.2	-0.2	-0.2	-0.9	100	88.3	85.9	91.1	100	96
07-Sep-01	10:40	0.8	-0.9	-0.2	-0.2	-0.2	-0.7	99.5	92.1	84.9	91.1	100	96
07-Sep-01	10:50	-0.2	-0.7	-0.7	0.1	-0.4	-0.7	100	93.8	84.3	92.2	100	96
07-Sep-01	11:00	-0.4	-0.7	-0.7	-0.2	-0.2	-0.7	100	88.3	83.8	92.8	100	95.4
07-Sep-01	11:10	-0.4	-0.9	-0.9	-0.2	-0.2	-0.7	100	93.2	83.8	90	100	94.3
07-Sep-01	11:20	-0.2	-0.9	-0.7	-0.2	-0.7	-0.4	100	90.4	83.3	90	100	94.3
07-Sep-01	11:30	-0.2	-0.9	-1.2	-0.4	0.1	-0.7	100	91.6	85.4	90	100	94.3
07-Sep-01	11:40	-0.4	-0.9	-0.7	-0.4	-0.4	-0.7	100	93.8	84.3	90	100	93.7
07-Sep-01	11:50	-0.2	-0.9	-0.7	-0.7	-0.4	-0.7	100	88.3	83.3	90	100	93.7
07-Sep-01	12:00	-0.2	-1.2	-1.2	-0.9	0.1	-0.7	100	92.7	84.3	90	100	95.4
07-Sep-01	12:10	-0.2	-0.7	-0.9	-1.2	-0.2	-0.9	100	91.6	84.3	89.5	100	95.4
07-Sep-01	12:20	-0.4	-1.2	-0.9	-1.2	-0.7	-0.7	100	88.8	83.3	90	100	96
07-Sep-01	12:30	-0.2	-1.2	-0.9	-1.2	-0.2	-0.4	100	92.7	84.9	92.8	100	95.4
07-Sep-01	12:40	-0.4	-0.9	-0.9	-0.7	-0.2	-0.4	100	91.6	84.3	93.9	100	94.3
07-Sep-01	12:50	-0.4	-0.9	-0.7	-0.7	-0.4	-0.7	100	88.8	83.3	90.6	100	93.7
07-Sep-01	13:00	-0.2	-0.9	-0.9	-0.7	-0.2	-0.7	100	93.2	85.4	90	100	95.4
07-Sep-01	13:10	0.1	-0.7	-0.9	-0.7	-0.4	-0.4	100	89.9	83.8	90	100	95.4
07-Sep-01	13:20	-0.4	-0.9	-0.7	-0.7	-0.4	-0.7	100	91.6	84.3	90	100	96
07-Sep-01	13:30	-0.4	-0.9	-0.9	-1.2	-0.4	-0.9	100	92.1	85.9	90	100	96
07-Sep-01	13:40	-0.4	-0.4	-0.7	-0.9	0.6	-0.9	100	91.6	83.3	90	100	96
07-Sep-01	13:50	-0.7	-0.2	-0.9	-0.9	1.1	-0.7	100	91.6	84.9	92.2	100	94.3

07-Sep-01	14:00	-0.4	0.3	-0.9	-0.9	1.8	-0.4	100	91.6	83.8	93.9	100	94.3
07-Sep-01	14:10	-0.7	0.8	-1.2	-0.4	2.1	-0.7	97.3	92.1	83.8	91.1	100	93.7
07-Sep-01	14:20	-0.9	1.1	-0.9	-0.7	1.8	-0.7	99.5	94.3	85.4	90.6	100	93.7
07-Sep-01	14:30	-0.9	1.3	-0.7	-0.7	1.1	-0.7	98.4	88.8	83.3	90	100	93.7
07-Sep-01	14:40	-0.9	0.6	-0.7	-0.7	0.3	-0.7	100	86.6	83.3	90	100	94.8
07-Sep-01	14:50	-0.7	-0.2	-0.9	-0.7	-0.2	-0.7	98.9	86.6	85.4	92.2	100	95.4
07-Sep-01	15:00	-0.7	-0.7	-0.9	-0.7	-0.7	-0.7	98.9	91.6	83.3	90.6	100	96
07-Sep-01	15:10	-0.9	-0.4	-0.9	-0.7	-0.7	-0.7	100	89.9	84.3	90	100	96
07-Sep-01	15:20	-0.9	-0.9	-0.9	-0.9	-0.2	-0.7	99.5	90.4	83.8	89.5	100	94.3
07-Sep-01	15:30	-0.7	-0.9	-0.7	-0.9	-0.2	-0.7	100	93.2	84.3	90	100	94.3
07-Sep-01	15:40	-0.4	-0.9	-0.7	-0.9	-0.7	-0.7	100	88.8	84.3	92.8	100	93.2
07-Sep-01	15:50	-0.2	-1.2	-0.4	-0.4	-0.2	-0.7	100	91.6	84.3	93.3	100	96
07-Sep-01	16:00	-0.2	-0.7	-0.4	-0.4	-0.2	0.1	100	93.8	83.8	90.6	100	96
07-Sep-01	16:10	0.3	-0.7	-0.4	-0.7	-0.7	0.8	100	91	83.8	90	100	96.5
07-Sep-01	16:20	1.3	-0.7	-0.2	-0.7	-0.4	1.8	100	91.6	83.8	90	100	98.8
07-Sep-01	16:30	2.6	-0.9	-0.2	-0.9	0.1	1.6	100	88.3	85.9	90	100	92.6
07-Sep-01	16:40	4.1	-1.2	-0.2	-1.2	-0.2	0.8	100	92.7	84.9	90	100	95.4
07-Sep-01	16:50	2.6	-0.9	-0.4	-0.7	-0.7	0.3	98.4	94.3	83.8	93.3	100	93.7
07-Sep-01	17:00	1.1	-0.9	-0.7	-0.7	-0.2	-0.4	100	88.3	83.8	91.7	100	93.2
07-Sep-01	17:10	0.3	-1.2	-0.7	-0.7	-0.2	-0.4	100	92.7	83.3	90	100	93.7
07-Sep-01	17:20	0.3	-1.2	-0.9	-0.9	0.1	-0.4	100	94.3	83.3	90	100	93.2
07-Sep-01	17:30	0.1	-0.7	-1.2	-0.9	0.3	-0.4	100	89.3	84.3	92.8	100	94.3
07-Sep-01	17:40	-0.2	-1.2	-0.9	-0.7	0.6	-0.7	100	92.7	83.8	93.3	100	96.5
07-Sep-01	17:50	-0.4	-0.9	-1.2	-0.7	0.6	-0.7	100	94.3	83.3	90.6	100	96
07-Sep-01	18:00	-0.4	-0.7	-0.7	-0.7	0.6	-0.9	100	90.4	85.9	90	100	95.4
07-Sep-01	18:10	-0.4	-1.2	-0.9	-0.7	0.8	-0.7	100	91	83.3	90.6	100	94.3
07-Sep-01	18:20	-0.4	-0.9	-0.9	-0.9	1.1	-0.9	100	94.3	84.3	90.6	100	94.3
07-Sep-01	18:30	-0.2	-0.7	-0.7	-0.7	1.1	-0.7	100	94.3	84.9	90.6	100	95.4
07-Sep-01	18:40	-0.7	-0.9	-0.9	-0.7	1.6	-0.4	100	89.3	83.3	90.6	100	96
07-Sep-01	18:50	-0.7	-1.2	-0.9	-0.7	1.6	-0.7	100	93.2	85.4	90.6	100	96.5
07-Sep-01	19:00	-0.7	-0.7	-0.7	-0.7	1.8	-0.4	100	93.8	83.3	90.6	100	96.5
07-Sep-01	19:10	-0.4	-0.7	-0.9	-0.7	1.6	-0.7	100	90.4	84.3	91.1	100	96.5
07-Sep-01	19:20	-0.4	-0.9	-0.7	-0.4	2.1	-0.7	100	92.1	85.9	91.1	100	96
07-Sep-01	19:30	-0.7	-0.9	-0.9	-0.4	2.1	-0.7	100	93.8	83.3	91.1	100	94.8
07-Sep-01	19:40	-0.7	-0.7	-0.9	-0.4	2.1	-0.7	99.5	92.1	84.3	91.1	100	94.8
07-Sep-01	19:50	-0.4	-1.2	-0.9	-0.4	2.6	-0.7	100	90.4	83.8	91.1	100	97.1
07-Sep-01	20:00	-0.4	-1.2	-0.9	-0.2	3.1	-0.9	100	93.8	83.8	90	100	96.5
07-Sep-01	20:10	-0.4	-0.9	-0.9	-0.7	3.4	-0.9	100	94.3	85.4	90	100	96.5
07-Sep-01	20:20	-0.2	-0.7	-0.7	-0.7	2.8	-0.7	100	90.4	83.3	90	100	96.5
07-Sep-01	20:30	-0.4	-1.2	-0.9	-0.9	1.6	-0.9	100	92.1	83.8	90	97.8	94.3
07-Sep-01	20:40	-0.7	-0.9	-0.7	-0.9	0.8	-0.7	100	93.8	85.4	90	97.8	94.8
07-Sep-01	20:50	-0.4	-0.9	-0.9	-1.2	0.1	-0.7	100	93.8	83.8	92.8	97.8	96
07-Sep-01	21:00	-0.4	-0.9	-0.7	-0.9	-0.7	-0.7	100	88.8	84.9	92.8	97.8	96.5
07-Sep-01	21:10	-0.2	-1.2	-0.7	-0.7	-0.7	-0.7	100	93.2	83.3	90.6	100	96.5
07-Sep-01	21:20	-0.4	-0.9	-0.9	-1.2	-0.2	-0.9	100	93.8	83.3	90	100	96.5
07-Sep-01	21:30	-0.4	-0.7	-1.2	-1.2	-0.4	-0.7	99.5	93.8	83.8	91.1	100	96
07-Sep-01	21:40	-0.4	-0.7	-0.7	-1.2	-0.7	-0.7	100	92.7	84.3	92.8	100	96.5
07-Sep-01	21:50	-0.4	-0.2	-0.7	-0.4	-0.4	-0.9	100	92.1	83.8	92.8	100	96
07-Sep-01	22:00	-0.7	0.1	-0.7	-0.7	-0.7	-0.7	100	92.1	83.8	90	100	94.3

07-Sep-01	22:10	0.1	0.3	-0.4	-0.9	-1.2	-0.7	100	92.1	83.8	89.5	100	95.4
07-Sep-01	22:20	1.1	0.3	-0.4	-0.9	-0.7	-0.7	100	94.3	83.8	92.8	100	96
07-Sep-01	22:30	1.6	0.6	-0.4	-0.7	-0.7	-0.7	100	93.8	85.9	92.8	100	96.5
07-Sep-01	22:40	0.1	0.6	-0.4	-0.7	-0.9	-0.9	98.9	92.1	84.3	92.2	100	96.5
07-Sep-01	22:50	-0.2	0.3	-0.7	-0.4	-0.7	-0.9	100	89.3	83.8	92.8	100	96
07-Sep-01	23:00	-0.4	-0.4	-0.7	-0.7	-0.4	-0.7	100	87.2	83.3	91.1	100	96
07-Sep-01	23:10	-0.4	-0.7	-0.9	-0.7	-0.9	-0.7	100	92.1	83.3	90	100	95.4
07-Sep-01	23:20	-0.4	-0.7	-0.9	-0.9	-0.7	-0.7	100	93.2	85.9	90.6	100	94.3
07-Sep-01	23:30	-0.4	-0.9	-0.9	-0.7	-0.2	-0.7	100	89.3	83.8	93.9	100	95.4
07-Sep-01	23:40	-0.4	-0.9	-0.9	-0.7	-0.7	-0.7	100	93.8	85.4	92.8	100	96
07-Sep-01	23:50	-0.4	-0.9	-0.7	-0.7	-0.9	-0.7	100	93.8	84.3	90.6	100	94.8
08-Sep-01	00:00	-0.7	-0.7	-0.9	-0.9	-0.4	-0.7	100	89.3	83.8	90	100	94.8
08-Sep-01	00:10	-0.4	-0.9	-0.9	-0.9	-0.4	0.1	100	93.2	85.9	92.8	100	96.5
08-Sep-01	00:20	-0.7	-0.9	-0.9	-0.9	-0.9	0.8	100	93.8	83.8	92.8	100	93.7
08-Sep-01	00:30	-0.7	-0.7	-0.9	-0.7	-0.4	0.8	100	91.6	85.4	90.6	100	93.2
08-Sep-01	00:40	-0.7	-1.2	-0.7	-0.9	-0.7	-0.2	100	91	84.3	90	100	93.2
08-Sep-01	00:50	-0.7	-0.9	-0.9	-1.2	-0.9	-0.7	100	93.8	84.3	92.2	100	96
08-Sep-01	01:00	-0.9	-0.7	-0.9	-0.9	-0.4	-0.7	100	93.8	85.9	93.3	100	97.1
08-Sep-01	01:10	-0.7	-0.7	-0.7	-0.7	-0.4	-0.7	100	89.3	83.3	92.8	100	96.5
08-Sep-01	01:20	-0.7	-1.2	-0.9	-0.9	-0.7	-0.7	100	93.2	85.9	90	100	96
08-Sep-01	01:30	-0.4	-0.9	-0.9	-0.9	-0.4	-0.7	100	93.8	83.8	90.6	100	94.3
08-Sep-01	01:40	-0.7	-0.7	-0.9	-0.9	-0.2	-0.7	100	90.4	85.4	92.8	100	96
08-Sep-01	01:50	-0.4	-1.2	-0.7	-0.7	0.6	-0.7	100	92.1	84.9	92.8	100	97.1
08-Sep-01	02:00	-0.4	-0.7	-0.7	-0.9	0.8	-0.7	100	93.8	84.3	90	100	97.1
08-Sep-01	02:10	-0.4	-0.7	-0.9	-0.9	1.3	-0.7	100	93.8	85.9	90	100	97.1
08-Sep-01	02:20	-0.4	-0.9	-0.7	-0.9	1.1	-0.7	100	89.3	83.3	92.8	100	96
08-Sep-01	02:30	-0.7	-1.2	-0.9	-0.9	0.3	-0.7	100	93.2	85.4	92.8	100	96
08-Sep-01	02:40	-0.7	-0.9	-0.9	-0.7	-0.7	-0.4	100	93.8	84.3	91.7	98.3	95.4
08-Sep-01	02:50	-0.7	-0.4	-0.9	-0.7	-0.7	-0.4	100	93.2	84.3	92.8	100	94.3
08-Sep-01	03:00	-0.4	-0.9	-0.9	-0.4	-0.2	-0.7	100	89.9	85.9	91.1	100	94.8
08-Sep-01	03:10	-0.7	-1.2	-0.7	-0.7	-0.7	-0.4	100	93.8	83.3	90.6	100	95.4
08-Sep-01	03:20	-0.4	-0.9	-0.9	-0.9	-0.9	-0.4	99.5	93.8	85.4	92.2	100	96
08-Sep-01	03:30	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	90.4	85.4	92.8	100	96.5
08-Sep-01	03:40	-0.7	-0.9	-0.7	-0.7	-0.4	-0.9	100	92.1	84.9	92.8	100	96.5
08-Sep-01	03:50	-0.7	-0.9	-0.4	-0.7	-1.2	-0.7	100	93.8	84.9	90.6	100	96.5
08-Sep-01	04:00	-0.4	-0.9	-0.7	-0.9	-0.4	-0.7	100	94.3	84.3	90.6	100	96
08-Sep-01	04:10	-0.2	-0.7	-0.4	-1.2	-0.4	-0.7	100	91.6	84.3	92.8	100	96
08-Sep-01	04:20	0.8	-0.7	-0.4	-0.9	-0.9	-0.7	100	91.6	84.3	92.8	100	94.8
08-Sep-01	04:30	1.6	-0.9	-0.4	-0.7	-0.7	-0.7	100	90.4	85.9	90.6	100	94.8
08-Sep-01	04:40	-0.2	-0.9	-0.4	-0.9	-0.2	-0.4	99.5	93.8	84.3	90	100	95.4
08-Sep-01	04:50	-0.4	-0.9	-0.4	-1.2	-0.9	-0.7	100	94.3	84.3	92.8	100	96
08-Sep-01	05:00	-0.7	-0.7	-0.7	-0.7	-0.7	-0.4	100	89.3	83.8	92.8	100	96.5
08-Sep-01	05:10	-0.4	-0.9	-0.9	-0.7	-0.4	-0.7	100	91.6	84.9	91.1	100	96.5
08-Sep-01	05:20	-0.4	-0.9	-0.9	-0.9	-0.7	-0.9	100	94.3	85.4	90	100	96.5
08-Sep-01	05:30	-0.4	-0.7	-0.9	-1.2	-0.9	-0.7	100	93.8	83.8	92.8	100	96.5
08-Sep-01	05:40	-0.7	-0.4	-0.7	-0.9	-0.7	-0.7	100	93.2	85.9	92.8	100	96
08-Sep-01	05:50	-0.7	-0.4	-0.9	-0.7	-0.4	-0.7	100	92.7	84.3	91.7	100	96
08-Sep-01	06:00	-0.9	-0.2	-0.9	-0.9	-1.2	-0.4	100	92.7	84.9	90	100	94.8
08-Sep-01	06:10	-0.9	0.3	-0.9	-0.9	-0.9	-0.4	100	92.1	85.9	92.2	100	96

08-Sep-01	06:20	-0.7	0.1	-0.9	-0.9	-0.4	-0.7	100	93.8	83.8	92.8	100	96.5
08-Sep-01	06:30	-0.9	0.3	-0.7	-0.4	-0.2	-0.7	100	90.4	85.9	92.8	100	96.5
08-Sep-01	06:40	-0.7	-0.2	-0.7	-0.7	0.3	-0.7	100	87.7	84.3	90.6	100	96.5
08-Sep-01	06:50	-0.7	-0.4	-0.9	-0.9	0.6	-0.4	100	92.1	85.4	90	100	96
08-Sep-01	07:00	-0.7	-0.7	-0.7	-0.9	0.6	-0.7	100	94.3	85.9	93.3	100	94.3
08-Sep-01	07:10	-0.7	-0.4	-0.7	-0.7	0.8	-0.7	100	91.6	83.8	92.8	100	95.4
08-Sep-01	07:20	-0.7	-0.7	-0.9	-0.7	0.8	-0.7	100	91	85.9	90.6	100	96.5
08-Sep-01	07:30	-0.7	-0.9	-0.9	-0.9	1.1	-0.7	100	93.8	85.4	90	100	96.5
08-Sep-01	07:40	-0.4	-0.7	-0.9	-1.2	1.3	-0.7	100	93.8	84.3	92.8	100	96.5
08-Sep-01	07:50	-0.4	-0.4	-0.9	-0.7	1.6	-0.7	100	90.4	86.5	93.3	100	96
08-Sep-01	08:00	-0.4	-0.9	-0.7	-0.4	2.1	-0.2	100	92.1	83.8	91.1	100	96.5
08-Sep-01	08:10	-0.4	-0.9	-0.7	-0.7	2.3	0.3	100	94.3	85.4	91.7	100	96
08-Sep-01	08:20	-0.4	-0.4	-0.7	-0.7	1.8	1.3	100	93.8	85.9	91.7	100	94.3
08-Sep-01	08:30	-0.4	-0.7	-0.7	-0.4	0.8	1.3	100	88.8	84.9	91.7	98.9	92.6
08-Sep-01	08:40	-0.7	-0.9	-0.7	-0.4	0.1	0.3	100	93.2	86.5	91.7	98.3	92
08-Sep-01	08:50	-0.7	-0.9	-0.7	-0.4	-0.9	-0.4	100	94.3	83.8	91.7	97.8	92.6
08-Sep-01	09:00	-0.7	-0.7	-0.7	-0.2	-0.9	-0.9	100	91.6	85.4	91.7	100	93.2
08-Sep-01	09:10	-0.4	-1.2	-0.7	-0.2	-0.4	-0.7	100	91	84.3	91.1	100	93.7
08-Sep-01	09:20	-0.7	-0.9	-0.7	-0.2	-0.7	-0.7	100	93.8	84.9	91.1	100	94.3
08-Sep-01	09:30	-0.4	-0.7	-0.9	-0.2	-0.9	-0.7	100	94.3	85.4	91.1	100	96
08-Sep-01	09:40	-0.7	-0.7	-0.9	-0.2	-0.4	-0.9	100	89.3	85.4	91.1	100	95.4
08-Sep-01	09:50	-0.2	-0.9	-0.4	-0.2	-0.7	-0.7	100	93.8	84.9	91.1	100	93.2
08-Sep-01	10:00	-0.4	-0.9	-0.4	-0.2	-0.7	-0.7	100	93.8	84.3	91.1	100	93.7
08-Sep-01	10:10	0.3	-0.7	-0.4	-0.2	-0.4	-0.9	100	92.1	84.3	91.1	100	94.3
08-Sep-01	10:20	1.8	-0.9	-0.4	0.1	-0.4	-0.7	100	92.1	84.3	91.1	100	94.8
08-Sep-01	10:30	1.3	-0.9	-0.2	0.1	-0.9	-0.7	99.5	89.9	85.9	91.1	100	95.4
08-Sep-01	10:40	0.3	-1.2	-0.2	0.1	-0.7	-0.7	100	93.8	84.9	91.1	100	94.8
08-Sep-01	10:50	-0.4	-0.9	-0.7	0.1	-0.4	-0.7	100	91	84.3	91.1	100	93.2
08-Sep-01	11:00	-0.4	-1.2	-0.7	0.1	-0.9	-0.7	100	91.6	84.3	92.2	100	94.8
08-Sep-01	11:10	-0.4	-1.2	-0.9	-0.2	-0.7	-0.7	100	93.8	83.8	90	100	96
08-Sep-01	11:20	-0.4	-0.9	-0.9	-0.2	-0.2	-0.7	100	89.3	83.8	89.5	100	93.2
08-Sep-01	11:30	-0.2	-1.4	-0.9	-0.4	-0.7	-0.7	100	92.1	84.9	89.5	100	93.7
08-Sep-01	11:40	-0.2	-1.2	-0.9	-0.7	-0.7	-0.7	100	91	84.3	90	100	94.3
08-Sep-01	11:50	-0.2	-1.2	-0.9	-0.7	-0.4	-0.7	100	88.8	83.8	89.5	100	94.8
08-Sep-01	12:00	-0.4	-1.4	-0.9	-0.7	-0.7	-0.7	100	93.2	84.9	90	100	93.7
08-Sep-01	12:10	-0.2	-1.2	-0.9	-0.7	-0.7	-0.7	100	90.4	83.8	89.5	100	93.2
08-Sep-01	12:20	-0.2	-1.7	-0.9	-0.7	-0.4	-0.7	100	88.8	83.3	90	100	93.7
08-Sep-01	12:30	0.1	-1.4	-0.9	-0.7	-0.2	-0.7	100	93.8	85.4	90	100	94.8
08-Sep-01	12:40	0.1	-1.7	-1.2	-0.7	-0.7	-0.9	100	88.3	83.8	89.5	100	94.3
08-Sep-01	12:50	-0.2	-1.7	-0.9	-0.9	-0.4	-0.7	98.9	91	83.3	90	100	93.2
08-Sep-01	13:00	-0.2	-1.7	-1.2	-0.7	-0.2	-0.7	97.8	90.4	84.3	90	100	93.2
08-Sep-01	13:10	-0.2	-1.7	-1.2	-0.9	-0.7	-0.7	100	88.3	83.8	90	100	93.7
08-Sep-01	13:20	-0.2	-1.7	-0.9	-0.9	-0.7	-0.9	100	93.2	83.3	90	100	93.2
08-Sep-01	13:30	-0.2	-1.7	-0.9	-0.9	-0.4	-0.4	100	91	84.3	92.8	100	92.6
08-Sep-01	13:40	-0.2	-1.2	-1.2	-0.7	0.3	-0.7	100	91.6	83.3	91.1	100	93.2
08-Sep-01	13:50	-0.4	-0.7	-0.9	-0.7	0.8	-0.4	97.3	91.6	84.3	90	100	93.2
08-Sep-01	14:00	-0.2	-0.2	-0.9	-1.2	1.3	-0.7	100	91.6	83.3	89.5	100	93.7
08-Sep-01	14:10	-0.2	0.1	-0.9	-1.2	1.8	-0.7	100	91	83.8	89.5	100	94.3
08-Sep-01	14:20	-0.2	0.6	-1.2	-1.2	1.3	-0.7	97.3	93.2	83.8	90	100	93.7

08-Sep-01	14:30	-0.2	0.8	-1.2	-1.2	0.6	-0.7	100	89.3	83.8	90	100	93.2
08-Sep-01	14:40	-0.4	0.1	-0.9	-1.2	-0.4	-0.7	100	86.6	84.9	90	98.9	92.6
08-Sep-01	14:50	-0.2	-0.4	-1.2	-1.2	-0.9	-0.7	100	86.1	83.8	92.8	100	93.2
08-Sep-01	15:00	-0.4	-1.2	-1.2	-0.7	-0.4	-0.7	100	87.2	83.8	90.6	100	92.6
08-Sep-01	15:10	-0.2	-1.4	-0.9	-0.9	-0.4	-0.7	97.8	92.1	83.3	90	100	92.6
08-Sep-01	15:20	-0.2	-1.2	-1.2	-0.9	-0.7	-0.7	100	88.8	83.3	90	100	93.2
08-Sep-01	15:30	0.1	-1.4	-0.9	-0.9	-0.4	-0.7	97.8	87.7	83.8	90	100	92.6
08-Sep-01	15:40	-0.2	-1.7	-0.7	-1.2	-0.2	-0.7	100	92.7	84.3	90	100	93.2
08-Sep-01	15:50	-0.2	-1.7	-0.9	-1.4	-0.7	-0.4	97.3	88.8	83.8	92.2	100	93.7
08-Sep-01	16:00	-0.2	-1.7	-0.7	-0.7	-0.7	0.1	100	91.6	83.8	92.2	100	95.4
08-Sep-01	16:10	0.3	-1.4	-0.7	-0.7	-0.4	0.6	100	93.2	83.8	90	100	96.5
08-Sep-01	16:20	1.8	-1.2	-0.7	-1.2	-0.4	1.6	100	91.6	83.8	89.5	100	98.8
08-Sep-01	16:30	2.8	-1.4	-0.4	-1.2	-0.9	1.3	100	87.7	86.5	90	100	92
08-Sep-01	16:40	1.3	-1.9	-0.7	-1.4	-0.4	0.3	96.7	91	84.3	90	100	92
08-Sep-01	16:50	-0.2	-1.4	-0.4	-0.9	-0.4	-0.4	98.4	90.4	84.3	92.2	100	94.3
08-Sep-01	17:00	-0.4	-1.7	-0.9	-0.7	-0.7	-0.4	100	88.8	83.8	92.2	100	95.4
08-Sep-01	17:10	-0.2	-1.7	-0.7	-0.7	-0.7	-0.7	100	93.2	83.3	91.7	100	96
08-Sep-01	17:20	-0.2	-1.4	-0.9	-0.4	-0.2	-0.4	100	93.8	84.9	91.1	100	96
08-Sep-01	17:30	-0.4	-1.7	-1.2	-0.4	-0.2	-0.7	100	89.3	84.3	91.1	100	95.4
08-Sep-01	17:40	-0.4	-1.7	-1.2	-0.7	0.3	-0.7	100	93.8	84.3	91.1	100	96
08-Sep-01	17:50	0.1	-1.4	-0.9	-0.7	0.6	-0.7	100	94.3	85.4	90.6	100	94.8
08-Sep-01	18:00	-0.2	-1.2	-0.7	-0.4	0.8	-0.4	100	88.8	83.3	90.6	100	94.8
08-Sep-01	18:10	-0.2	-1.4	-0.9	-0.4	0.8	-0.7	100	92.1	85.4	90.6	100	93.2
08-Sep-01	18:20	-0.4	-1.2	-0.9	-0.4	0.8	-0.4	100	94.3	83.8	90.6	100	93.7
08-Sep-01	18:30	-0.4	-0.9	-0.9	-0.2	0.8	-0.7	100	93.8	85.4	90.6	100	94.3
08-Sep-01	18:40	-0.4	-0.9	-0.9	-0.2	1.1	-0.7	100	88.8	83.8	90.6	100	94.3
08-Sep-01	18:50	-0.4	-1.4	-0.9	-0.2	1.3	-0.4	100	92.7	85.4	90.6	100	94.8
08-Sep-01	19:00	-0.4	-1.2	-0.9	-0.2	1.1	-0.4	100	94.3	84.3	90.6	100	96
08-Sep-01	19:10	-0.7	-0.9	-1.2	-0.2	1.3	-0.7	100	93.8	84.3	90.6	100	96
08-Sep-01	19:20	-0.4	-0.7	-0.9	-0.2	1.3	-0.4	100	89.9	85.9	90.6	100	96.5
08-Sep-01	19:30	-0.4	-1.2	-0.7	-0.2	1.3	-0.7	100	91.6	83.3	90.6	100	96
08-Sep-01	19:40	-0.2	-0.9	-0.9	-0.2	1.8	-0.4	100	94.3	85.4	90.6	100	96
08-Sep-01	19:50	-0.7	-0.9	-0.9	-0.2	2.1	-0.4	100	94.3	83.8	90.6	100	96.5
08-Sep-01	20:00	-0.4	-0.9	-1.2	-0.4	2.3	-0.7	100	90.4	84.3	90	100	96
08-Sep-01	20:10	-0.4	-1.2	-0.9	-0.4	2.8	-0.7	100	92.1	85.9	90	100	96
08-Sep-01	20:20	-0.4	-0.9	-0.7	-0.9	2.3	-0.4	100	94.3	83.3	89.5	99.5	95.4
08-Sep-01	20:30	-0.7	-0.7	-0.9	-0.9	1.1	-0.7	99.5	94.3	85.4	89.5	97.8	95.4
08-Sep-01	20:40	-0.4	-0.7	-0.7	-1.2	0.1	-0.7	100	94.3	83.8	89.5	97.8	94.3
08-Sep-01	20:50	-0.4	-0.7	-0.7	-1.2	-0.7	-0.7	100	88.3	85.4	89.5	97.8	94.3
08-Sep-01	21:00	-0.4	-0.9	-0.7	-1.2	-0.9	-0.7	100	93.2	83.8	92.2	100	95.4
08-Sep-01	21:10	-0.7	-0.9	-0.9	-0.7	-0.4	-0.4	100	94.3	84.3	92.2	100	96
08-Sep-01	21:20	-0.4	-0.9	-0.7	-0.9	-0.7	-0.7	100	94.3	85.9	90	100	96
08-Sep-01	21:30	-0.7	-0.7	-0.9	-0.9	-1.2	-0.7	100	93.2	85.4	90	100	96
08-Sep-01	21:40	-0.7	-0.4	-0.7	-1.2	-0.7	-0.7	100	92.7	85.4	90.6	100	96
08-Sep-01	21:50	-0.4	-0.2	-0.4	-0.9	-0.4	-0.4	100	92.1	84.9	92.2	100	96.5
08-Sep-01	22:00	-0.4	-0.2	-0.7	-0.7	-1.2	-0.7	100	92.1	84.3	91.1	100	96
08-Sep-01	22:10	0.1	0.1	-0.4	-0.9	-0.7	-0.4	100	91.6	84.3	89.5	100	94.3
08-Sep-01	22:20	1.1	0.6	-0.4	-0.9	-0.4	-0.7	100	93.2	84.3	90	100	94.3
08-Sep-01	22:30	0.8	0.8	-0.2	-1.2	-0.9	-0.7	100	93.2	85.9	92.8	100	96

08-Sep-01	22:40	-0.2	0.3	-0.7	-0.9	-0.9	-0.7	100	91.6	84.3	92.2	100	96
08-Sep-01	22:50	-0.2	0.3	-0.4	-0.7	-0.2	-0.7	100	89.3	84.3	92.2	100	96
08-Sep-01	23:00	-0.4	-0.4	-0.9	-0.9	-0.7	-0.7	100	88.3	83.8	90.6	100	96
08-Sep-01	23:10	-0.4	-0.9	-0.7	-0.9	-0.9	-0.4	100	92.7	84.9	89.5	100	96
08-Sep-01	23:20	-0.7	-0.9	-0.7	-1.4	-0.4	-0.7	100	94.3	84.9	91.1	100	95.4
08-Sep-01	23:30	-0.4	-0.7	-0.9	-1.2	-0.7	-0.7	100	93.8	84.3	92.8	100	94.8
08-Sep-01	23:40	-0.4	-0.9	-0.9	-0.7	-1.2	-0.4	100	88.8	85.9	92.2	100	93.7
08-Sep-01	23:50	-0.4	-1.2	-0.9	-0.9	-0.7	-0.7	100	93.8	83.8	89.5	100	95.4
09-Sep-01	00:00	-0.2	-0.7	-0.9	-1.2	-0.4	-0.4	100	93.8	85.4	89.5	100	95.4
09-Sep-01	00:10	-0.4	-0.7	-0.7	-0.9	-0.9	0.3	100	92.1	84.3	92.2	100	94.3
09-Sep-01	00:20	-0.4	-0.9	-0.7	-0.7	-0.9	0.8	100	90.4	84.9	92.8	100	93.2
09-Sep-01	00:30	-0.4	-0.9	-0.9	-0.7	-0.7	1.3	100	94.3	85.9	90	100	92.6
09-Sep-01	00:40	-0.4	-0.9	-0.9	-0.9	-0.7	0.1	100	94.3	83.8	90	100	92
09-Sep-01	00:50	-0.4	-0.7	-0.7	-1.2	-0.9	-0.4	100	91	85.9	92.8	100	93.7
09-Sep-01	01:00	-0.4	-0.9	-0.7	-1.2	-0.4	-0.7	100	91	84.3	92.8	100	94.3
09-Sep-01	01:10	-0.4	-0.9	-0.9	-0.7	-0.4	-0.4	100	93.8	85.4	90.6	100	96
09-Sep-01	01:20	-0.7	-0.9	-0.9	-0.9	-0.7	-0.4	100	94.3	85.4	90	100	96
09-Sep-01	01:30	-0.4	-0.7	-0.9	-1.2	-0.4	-0.7	100	93.2	84.3	92.2	100	96
09-Sep-01	01:40	-0.4	-0.4	-0.9	-0.9	-0.2	-0.7	100	88.8	85.9	92.2	100	96
09-Sep-01	01:50	-0.7	-1.2	-0.9	-0.7	0.1	-0.7	100	92.7	83.8	91.1	100	96
09-Sep-01	02:00	-0.2	-0.9	-0.9	-0.9	0.6	-0.4	100	94.3	85.4	90	100	95.4
09-Sep-01	02:10	-0.4	-0.7	-0.9	-1.2	1.3	-0.4	100	93.8	85.9	91.7	100	94.8
09-Sep-01	02:20	-0.4	-0.4	-0.7	-0.9	0.8	-0.7	100	92.7	84.9	92.2	100	94.3
09-Sep-01	02:30	-0.7	-0.4	-0.7	-0.7	-0.4	-0.7	100	89.3	86.5	91.7	100	94.8
09-Sep-01	02:40	-0.7	-0.9	-0.9	-0.9	-0.9	-0.4	100	93.8	83.8	90.6	100	96
09-Sep-01	02:50	-0.4	-0.7	-0.7	-0.7	-0.7	-0.7	100	93.8	85.9	92.2	100	96
09-Sep-01	03:00	-0.7	-0.4	-0.7	-0.7	-0.4	-0.7	100	92.1	84.3	90	100	96
09-Sep-01	03:10	-0.4	-0.7	-0.9	-1.2	-0.9	-0.7	100	89.9	85.4	89.5	100	96.5
09-Sep-01	03:20	-0.7	-0.9	-0.7	-0.9	-0.9	-0.7	100	93.8	85.9	92.8	100	96.5
09-Sep-01	03:30	-0.4	-0.7	-0.7	-0.7	-0.4	-0.7	100	94.3	85.4	92.2	100	96
09-Sep-01	03:40	-0.4	-0.4	-0.7	-0.7	-0.4	-0.4	100	91.6	85.4	90.6	100	94.3
09-Sep-01	03:50	-0.4	-0.9	-0.4	-0.9	-0.9	-0.4	100	90.4	85.4	90	100	94.8
09-Sep-01	04:00	-0.9	-0.9	-0.4	-0.9	-0.7	-0.7	100	93.8	84.9	92.2	100	96
09-Sep-01	04:10	-0.4	-0.7	-0.4	-0.9	-0.2	-0.7	100	94.3	84.9	92.8	100	96
09-Sep-01	04:20	0.8	-0.4	-0.2	-0.9	-0.9	-0.7	100	92.1	84.9	91.7	100	96
09-Sep-01	04:30	0.8	-0.7	-0.2	-0.9	-0.9	-0.7	100	91	85.9	89.5	100	96
09-Sep-01	04:40	-0.4	-0.9	-0.4	-1.2	-0.7	-0.7	100	91	84.3	91.7	100	96
09-Sep-01	04:50	-0.2	-0.7	-0.4	-1.2	-0.4	-0.4	100	93.8	83.8	92.8	100	96
09-Sep-01	05:00	-0.7	-0.7	-0.9	-0.7	-0.9	-0.4	100	93.8	83.8	92.2	100	95.4
09-Sep-01	05:10	-0.4	-0.4	-1.2	-0.9	-0.9	-0.7	100	89.9	85.4	89.5	100	93.7
09-Sep-01	05:20	-0.4	-0.9	-0.9	-1.2	-0.4	-0.7	100	91.6	85.4	91.1	100	94.8
09-Sep-01	05:30	-0.7	-0.7	-0.9	-0.9	-0.4	-0.7	100	93.2	84.9	92.8	100	96
09-Sep-01	05:40	-0.7	-0.7	-0.9	-0.9	-0.9	-0.7	100	92.7	85.9	92.8	100	96
09-Sep-01	05:50	-0.7	-0.4	-0.9	-0.7	-0.7	-0.7	100	92.1	83.8	90	100	96
09-Sep-01	06:00	-0.4	-0.2	-0.9	-0.9	-0.4	-0.7	100	92.1	85.9	90	100	96
09-Sep-01	06:10	-0.4	0.1	-0.7	-0.9	-0.9	-0.7	100	92.1	84.3	92.8	100	96
09-Sep-01	06:20	-0.7	0.3	-0.9	-0.7	-0.9	-0.7	100	93.2	86.5	92.2	100	96
09-Sep-01	06:30	-0.4	0.3	-0.9	-0.9	-0.4	-0.7	100	88.8	84.3	90	100	95.4
09-Sep-01	06:40	-0.2	-0.2	-0.9	-1.2	-0.4	-0.7	100	87.7	85.4	89.5	100	94.3

09-Sep-01	06:50	-0.4	-0.9	-0.9	-0.9	0.1	-0.4	100	92.1	85.9	92.2	100	95.4
09-Sep-01	07:00	-0.4	-0.7	-0.7	-0.7	0.3	-0.7	100	93.8	84.9	92.2	100	96
09-Sep-01	07:10	-0.7	-0.4	-0.7	-0.7	0.3	-0.4	100	93.8	85.9	90.6	100	96
09-Sep-01	07:20	-0.7	-0.7	-0.7	-1.2	0.3	-0.7	100	89.3	84.3	89.5	100	96
09-Sep-01	07:30	-0.7	-0.9	-0.9	-1.2	0.6	-0.4	100	93.8	85.9	92.8	100	96
09-Sep-01	07:40	-0.4	-0.7	-0.7	-0.7	0.8	-0.4	100	93.8	84.3	92.2	100	94.3
09-Sep-01	07:50	-0.4	-0.7	-0.7	-0.9	1.1	-0.4	100	93.8	85.9	91.1	100	96
09-Sep-01	08:00	-0.4	-0.4	-0.7	-0.9	1.8	-0.2	100	89.3	85.9	90	100	96
09-Sep-01	08:10	-0.4	-0.9	-0.7	-0.9	2.1	0.3	100	93.8	84.9	90.6	100	95.4
09-Sep-01	08:20	-0.4	-0.9	-0.7	-0.7	1.3	1.1	100	94.3	85.9	90.6	100	93.7
09-Sep-01	08:30	-0.7	-0.7	-0.7	-0.7	0.3	1.3	100	91	84.3	90.6	100	92.6
09-Sep-01	08:40	-0.7	-0.7	-0.7	-0.7	-0.7	0.3	100	90.4	85.9	90.6	99.5	91.5
09-Sep-01	08:50	-0.4	-0.9	-0.7	-0.7	-0.9	-0.4	100	94.3	84.3	90.6	100	96
09-Sep-01	09:00	-0.4	-0.7	-0.9	-0.7	-0.7	-0.7	100	94.3	85.4	90.6	100	96
09-Sep-01	09:10	-0.4	-0.4	-0.7	-0.7	-0.4	-0.7	100	88.3	85.9	90.6	100	96
09-Sep-01	09:20	-0.4	-1.2	-0.7	-0.7	-0.9	-0.4	100	92.7	84.3	91.1	100	96.5
09-Sep-01	09:30	-0.4	-0.7	-0.9	-0.7	-0.4	-0.4	100	93.8	85.4	91.1	100	96.5
09-Sep-01	09:40	-0.4	-0.4	-0.9	-0.7	-0.4	-0.7	100	91	85.4	91.1	100	95.4
09-Sep-01	09:50	-0.7	-0.9	-0.4	-0.7	-0.9	-0.7	100	91	85.4	91.1	100	94.8
09-Sep-01	10:00	-0.7	-0.9	-0.4	-0.4	-0.7	-0.7	100	93.8	84.9	91.1	100	96
09-Sep-01	10:10	0.1	-0.7	-0.4	-0.4	-0.4	-0.9	100	93.8	84.9	91.1	100	95.4
09-Sep-01	10:20	1.3	-0.7	-0.2	-0.4	-0.9	-0.4	100	92.1	84.9	90.6	100	94.3
09-Sep-01	10:30	1.1	-0.7	-0.2	-0.4	-0.9	-0.7	100	88.8	85.9	90.6	100	94.3
09-Sep-01	10:40	-0.2	-1.2	-0.4	-0.4	-0.4	-0.4	100	92.7	84.9	90.6	100	93.7
09-Sep-01	10:50	-0.4	-0.9	-0.7	-0.4	-0.4	-0.4	100	93.8	84.3	91.1	100	93.7
09-Sep-01	11:00	-0.4	-1.2	-0.7	-0.4	-0.9	-0.9	100	88.8	83.8	90.6	100	94.3
09-Sep-01	11:10	-0.4	-1.2	-0.9	-0.7	-0.4	-0.4	100	93.2	83.8	89.5	100	93.7
09-Sep-01	11:20	-0.7	-0.9	-0.9	-0.7	-0.2	-0.7	100	93.8	83.8	90	100	93.2
09-Sep-01	11:30	-0.4	-1.2	-0.9	-0.9	-0.7	-0.4	100	88.8	84.9	90	100	93.7
09-Sep-01	11:40	-0.4	-1.2	-0.7	-0.9	-0.4	-0.7	100	93.8	84.3	90	100	96
09-Sep-01	11:50	-0.7	-1.2	-0.9	-1.2	-0.2	-0.7	100	90.4	83.8	90	100	96
09-Sep-01	12:00	-0.4	-1.4	-0.9	-1.2	-0.7	-0.7	100	90.4	85.9	92.2	100	96.5
09-Sep-01	12:10	-0.4	-1.4	-1.2	-0.9	-0.7	-0.7	100	94.3	83.8	92.8	100	96
09-Sep-01	12:20	-0.2	-1.2	-1.2	-0.7	-0.2	-0.7	100	89.9	84.3	90.6	100	96
09-Sep-01	12:30	-0.4	-1.7	-1.2	-0.9	-0.4	-0.7	100	91	84.3	90	100	96
09-Sep-01	12:40	-0.4	-1.2	-0.9	-1.2	-0.9	-0.7	100	93.2	83.3	89.5	100	96
09-Sep-01	12:50	-0.4	-1.4	-0.9	-1.2	-0.4	-0.7	100	88.3	84.9	92.2	100	96
09-Sep-01	13:00	-0.2	-1.4	-1.2	-1.2	-0.4	-0.9	100	93.2	83.8	92.8	100	96
09-Sep-01	13:10	-0.4	-1.4	-0.9	-0.9	-0.9	-0.7	100	89.9	83.8	91.1	100	94.8
09-Sep-01	13:20	-0.4	-1.4	-1.2	-0.9	-0.4	-0.7	100	88.3	84.3	89.5	100	93.7
09-Sep-01	13:30	-0.4	-1.4	-0.9	-1.2	-0.2	-0.9	100	91.6	83.3	90	100	93.7
09-Sep-01	13:40	-0.2	-1.2	-0.9	-1.2	0.3	-0.9	100	91.6	84.9	90.6	100	93.7
09-Sep-01	13:50	-0.4	-0.7	-0.9	-1.2	0.8	-0.4	100	91.6	83.3	92.8	100	93.7
09-Sep-01	14:00	-0.2	-0.4	-1.2	-0.7	1.3	-0.4	100	91	83.8	92.2	100	93.7
09-Sep-01	14:10	-0.4	0.1	-0.9	-0.7	2.1	-0.7	100	91	83.8	90	100	93.7
09-Sep-01	14:20	-0.2	0.6	-1.2	-1.2	1.6	-0.7	100	93.8	83.3	90	100	93.2
09-Sep-01	14:30	-0.2	1.1	-0.9	-1.4	0.3	-0.4	100	89.3	85.4	89.5	100	93.7
09-Sep-01	14:40	-0.7	0.3	-1.2	-1.4	-0.7	-0.7	100	86.6	83.8	90	99.5	94.3
09-Sep-01	14:50	-0.4	-0.7	-1.2	-1.2	-0.7	-0.4	100	86.1	83.8	92.8	100	94.3

09-Sep-01	15:00	-0.4	-1.2	-1.2	-0.9	-0.4	-0.7	100	86.6	83.8	91.1	100	94.3
09-Sep-01	15:10	-0.4	-1.7	-0.9	-0.9	-0.4	-0.7	100	86.6	83.3	90	100	94.3
09-Sep-01	15:20	-0.7	-1.9	-1.2	-0.9	-0.9	-0.7	99.5	91.6	84.3	90	100	94.3
09-Sep-01	15:30	-0.2	-1.7	-0.9	-1.2	-0.7	-0.4	100	88.3	84.3	90	100	94.3
09-Sep-01	15:40	-0.4	-2.2	-0.9	-1.4	-0.4	-0.7	100	90.4	84.3	89.5	100	96
09-Sep-01	15:50	-0.4	-1.7	-0.4	-1.4	-0.7	-0.7	100	91.6	84.3	91.1	100	94.3
09-Sep-01	16:00	-0.4	-2.2	-0.4	-0.9	-0.9	-0.4	100	88.8	83.8	92.2	100	94.3
09-Sep-01	16:10	-0.2	-1.9	-0.7	-0.9	-0.2	0.3	100	93.2	83.8	91.7	100	96
09-Sep-01	16:20	1.3	-1.7	-0.4	-0.9	-0.7	1.1	100	92.1	83.8	90	100	93.2
09-Sep-01	16:30	0.8	-1.4	-0.4	-0.9	-0.9	1.1	97.8	88.8	85.9	90	100	93.2
09-Sep-01	16:40	-0.2	-1.7	-0.4	-1.2	-0.4	0.1	100	91	84.3	89.5	100	92.6
09-Sep-01	16:50	-0.4	-1.7	-0.4	-1.2	-0.4	-0.4	100	92.1	83.8	90.6	100	94.8
09-Sep-01	17:00	-0.4	-1.9	-0.7	-0.9	-1.2	-0.7	100	88.8	83.8	92.2	100	94.8
09-Sep-01	17:10	-0.7	-1.7	-0.7	-0.7	-0.9	-0.7	100	93.2	83.3	91.1	100	96
09-Sep-01	17:20	-0.7	-1.7	-0.9	-0.9	-0.2	-0.7	100	88.8	83.3	91.1	100	96
09-Sep-01	17:30	-0.4	-1.9	-0.9	-0.7	0.1	-0.7	100	91.6	84.9	91.1	100	96.5
09-Sep-01	17:40	-0.7	-1.9	-1.2	-0.7	0.3	-0.7	100	93.8	83.8	90.6	100	96
09-Sep-01	17:50	-0.7	-1.4	-0.9	-0.4	0.3	-0.9	100	91.6	84.3	90.6	100	96
09-Sep-01	18:00	-0.4	-1.7	-0.9	-0.4	0.3	-0.4	100	91	84.3	90.6	100	94.3
09-Sep-01	18:10	-0.4	-1.7	-1.2	-0.4	0.8	-0.7	100	93.8	84.3	90.6	100	94.3
09-Sep-01	18:20	-0.4	-1.2	-0.9	-0.4	0.8	-0.7	100	93.8	85.9	90.6	100	94.8
09-Sep-01	18:30	-0.4	-0.9	-0.9	-0.4	0.8	-0.7	100	93.8	83.8	90.6	100	96.5
09-Sep-01	18:40	-0.4	-0.7	-0.9	-0.7	0.8	-0.4	100	93.8	85.9	90	100	96
09-Sep-01	18:50	-0.4	-0.9	-0.9	-0.7	1.1	-0.9	100	89.3	83.8	90	100	96
09-Sep-01	19:00	-0.7	-1.2	-0.9	-0.7	1.3	-0.7	100	93.8	85.4	90	100	96
09-Sep-01	19:10	-0.4	-1.2	-0.7	-0.7	0.8	-0.7	100	94.3	84.3	90	100	96
09-Sep-01	19:20	-0.4	-0.7	-0.9	-0.4	1.1	-0.9	100	93.8	85.4	90	100	95.4
09-Sep-01	19:30	-0.7	-0.7	-0.7	-0.4	1.3	-0.4	100	90.4	84.3	90	100	94.3
09-Sep-01	19:40	-0.4	-0.9	-0.9	-0.4	1.3	-0.4	100	91.6	84.9	90	100	96
09-Sep-01	19:50	-0.4	-1.2	-0.9	-0.4	1.6	-0.4	100	93.8	85.9	90	100	96
09-Sep-01	20:00	-0.4	-0.9	-0.7	-0.4	1.8	-0.4	100	94.3	83.3	90	100	96
09-Sep-01	20:10	-0.4	-0.4	-0.9	-0.4	2.6	-0.7	100	93.8	85.4	89.5	100	96
09-Sep-01	20:20	-0.4	-0.7	-0.9	-0.7	2.1	-0.4	100	92.7	84.3	89	100	96
09-Sep-01	20:30	-0.7	-0.9	-0.9	-0.9	0.8	-0.4	100	90.4	84.3	89	97.8	94.3
09-Sep-01	20:40	-0.4	-0.9	-0.9	-1.4	-0.2	-0.7	100	93.8	85.9	90	97.8	94.3
09-Sep-01	20:50	-0.4	-0.9	-0.7	-0.9	-0.7	-0.4	100	94.3	83.8	92.8	98.9	95.4
09-Sep-01	21:00	-0.7	-0.7	-0.9	-0.7	-0.7	-0.4	100	94.3	85.4	91.1	100	96
09-Sep-01	21:10	-0.7	-0.7	-0.7	-0.9	-0.7	-0.7	100	94.3	84.9	90	100	96
09-Sep-01	21:20	-0.2	-0.4	-0.9	-1.2	-0.9	-0.4	100	90.4	85.4	90	100	96
09-Sep-01	21:30	-0.4	-0.7	-0.7	-1.2	-0.9	-0.7	100	90.4	85.4	92.8	100	96
09-Sep-01	21:40	-0.4	-0.7	-0.9	-0.9	-0.4	-0.4	100	91	85.4	92.8	100	95.4
09-Sep-01	21:50	-0.7	-0.4	-0.4	-0.9	-0.7	-0.7	100	91.6	84.9	89.5	100	94.8
09-Sep-01	22:00	-0.7	-0.7	-0.4	-1.2	-1.2	-0.4	100	91.6	84.9	90	100	96
09-Sep-01	22:10	-0.2	-0.4	-0.4	-1.2	-0.4	-0.4	100	91	84.9	92.8	100	96
09-Sep-01	22:20	1.1	-0.2	-0.2	-0.9	-0.4	-0.7	100	91	84.9	92.8	100	96
09-Sep-01	22:30	0.6	0.3	-0.4	-0.7	-0.9	-0.4	100	93.8	85.9	89.5	100	96
09-Sep-01	22:40	-0.2	0.1	-0.7	-0.9	-0.7	-0.4	100	93.2	84.3	90	100	94.8
09-Sep-01	22:50	-0.2	-0.2	-0.7	-0.9	-0.4	-0.7	100	89.3	83.8	92.2	100	94.8
09-Sep-01	23:00	-0.4	-0.7	-0.9	-0.9	-0.7	-0.4	100	90.4	83.8	90	100	96.5

09-Sep-01	23:10	-0.4	-0.9	-0.7	-1.2	-0.9	-0.4	100	93.8	85.9	91.7	100	96
09-Sep-01	23:20	-0.4	-0.7	-0.7	-1.2	-0.7	-0.4	100	94.3	84.3	92.8	100	96
09-Sep-01	23:30	-0.7	-0.7	-0.9	-0.7	-0.2	-0.7	100	93.8	85.9	92.2	100	96.5
09-Sep-01	23:40	-0.4	-0.2	-0.7	-0.7	-0.9	-0.7	100	92.1	85.4	89.5	100	96
09-Sep-01	23:50	-0.4	-0.7	-0.9	-1.2	-0.9	-0.4	100	89.3	85.4	90	100	96
10-Sep-01	00:00	-0.4	-0.9	-0.9	-0.9	-0.7	-0.4	100	93.2	85.9	92.8	100	96
10-Sep-01	00:10	-0.4	-0.7	-0.9	-0.9	-0.4	0.3	100	93.8	83.8	92.2	100	94.3
10-Sep-01	00:20	-0.7	-0.4	-0.9	-0.7	-1.2	0.8	100	93.2	85.9	90	100	93.2
10-Sep-01	00:30	-0.4	-0.2	-0.7	-0.9	-0.9	1.3	100	92.1	84.3	90	100	92.6
10-Sep-01	00:40	-0.7	-0.4	-0.7	-1.2	-0.4	-0.2	100	89.3	85.9	92.8	100	92
10-Sep-01	00:50	-0.7	-0.7	-0.9	-0.7	-0.4	-0.4	100	93.2	85.9	92.2	100	93.7
10-Sep-01	01:00	-0.4	-0.7	-0.7	-0.9	-0.9	-0.7	100	93.8	84.3	90	100	94.3
10-Sep-01	01:10	-0.7	-0.4	-0.7	-0.9	-0.7	-0.4	100	93.2	85.9	90	100	95.4
10-Sep-01	01:20	-0.4	-0.2	-0.7	-1.2	-0.7	-0.4	100	92.1	84.3	92.8	100	96
10-Sep-01	01:30	-0.4	-0.7	-0.7	-0.9	-0.2	-0.7	100	88.3	85.9	92.8	100	96.5
10-Sep-01	01:40	-0.4	-0.9	-0.7	-0.7	0.1	-0.7	100	92.7	85.4	90.6	100	96
10-Sep-01	01:50	-0.4	-0.7	-0.7	-0.7	0.6	-0.7	100	93.8	85.4	90	100	96
10-Sep-01	02:00	-0.4	-0.4	-0.7	-0.9	1.1	-0.4	100	93.2	85.9	92.2	100	96.5
10-Sep-01	02:10	-0.7	-0.2	-0.7	-0.9	1.3	-0.7	100	92.1	83.8	92.8	100	96
10-Sep-01	02:20	-0.4	-0.2	-0.7	-0.7	1.1	-0.7	100	89.3	86.5	91.1	100	94.8
10-Sep-01	02:30	-0.7	-0.7	-0.7	-1.2	-0.2	-0.7	100	91	84.3	90	100	96
10-Sep-01	02:40	-0.4	-0.7	-0.7	-1.2	-0.9	-0.7	100	93.8	85.9	90	100	96.5
10-Sep-01	02:50	-0.4	-0.7	-0.9	-0.9	-0.7	-0.4	100	93.8	85.9	92.8	100	96
10-Sep-01	03:00	-0.4	-0.4	-0.7	-0.9	-0.4	-0.4	100	92.7	85.4	92.2	100	96
10-Sep-01	03:10	-0.7	-0.2	-0.7	-0.9	-0.9	-0.7	100	92.1	85.9	89.5	100	96.5
10-Sep-01	03:20	-0.4	-0.4	-0.7	-1.2	-0.9	-0.7	100	88.8	84.3	92.2	100	95.4
10-Sep-01	03:30	-0.7	-0.7	-0.7	-0.9	-0.7	-0.7	100	93.2	85.4	92.2	100	94.8
10-Sep-01	03:40	-0.4	-0.7	-0.9	-0.9	-0.4	-0.7	100	93.8	85.4	92.8	100	96
10-Sep-01	03:50	-0.4	-0.7	-0.7	-0.9	-1.2	-0.7	100	92.7	85.4	90	100	96.5
10-Sep-01	04:00	-0.7	-0.2	-0.4	-1.2	-1.2	-0.7	100	92.1	84.9	89.5	100	96
10-Sep-01	04:10	-0.2	-0.2	-0.4	-0.9	-0.4	-0.7	100	91	85.4	92.8	100	96
10-Sep-01	04:20	0.8	-0.7	-0.4	-0.7	-0.4	-0.4	100	91	85.4	92.2	100	94.3
10-Sep-01	04:30	0.1	-0.7	-0.2	-0.7	-0.9	-0.4	100	92.7	85.9	90.6	100	96.5
10-Sep-01	04:40	-0.4	-0.4	-0.4	-0.9	-0.7	-0.4	100	92.1	84.3	90	100	96
10-Sep-01	04:50	-0.7	-0.4	-0.9	-1.2	-0.7	-0.4	100	92.1	83.8	92.8	100	96
10-Sep-01	05:00	-0.7	-0.2	-0.9	-0.7	-0.4	-0.4	100	91.6	85.4	92.2	100	96
10-Sep-01	05:10	-0.7	-0.4	-0.7	-0.9	-0.9	-0.7	100	88.3	86.5	90.6	100	96
10-Sep-01	05:20	-0.7	-0.7	-0.9	-0.9	-0.7	-0.4	100	92.7	85.4	89.5	100	94.8
10-Sep-01	05:30	-0.7	-0.7	-0.7	-1.2	-0.7	-0.7	100	92.7	85.9	92.2	100	96
10-Sep-01	05:40	-0.4	-0.4	-0.7	-0.9	-0.4	-0.7	100	92.1	84.3	92.8	100	96.5
10-Sep-01	05:50	-0.7	-0.4	-0.7	-0.7	-1.2	-0.4	100	92.1	85.9	91.1	100	96
10-Sep-01	06:00	-0.7	-0.4	-0.9	-0.9	-0.7	-0.4	100	92.1	85.4	90	100	96.5
10-Sep-01	06:10	-0.7	-0.2	-0.7	-0.9	-0.7	-0.7	100	92.1	85.9	92.2	100	94.8
10-Sep-01	06:20	-0.7	0.1	-0.7	-0.9	-0.7	-0.7	100	91.6	85.9	92.8	100	95.4
10-Sep-01	06:30	-0.4	0.3	-0.7	-0.7	-0.4	-0.4	100	89.3	83.8	92.2	100	96
10-Sep-01	06:40	-0.7	-0.2	-0.7	-0.7	-0.2	-0.4	100	88.3	85.9	89.5	100	96
10-Sep-01	06:50	-0.4	-0.4	-0.7	-1.2	-0.2	-0.7	100	92.1	85.9	91.7	100	96
10-Sep-01	07:00	-0.7	-0.4	-0.9	-0.9	0.1	-0.7	100	93.8	85.4	92.2	100	96
10-Sep-01	07:10	-0.4	-0.2	-0.9	-0.7	0.3	-0.4	100	92.7	85.9	91.7	100	95.4

10-Sep-01	07:20	-0.4	-0.4	-0.7	-0.7	0.3	-0.4	100	88.8	84.3	90	100	94.8
10-Sep-01	07:30	-0.7	-0.7	-0.7	-0.9	0.6	-0.7	100	92.7	86.5	89.5	100	96
10-Sep-01	07:40	-0.7	-0.7	-0.7	-1.2	0.8	-0.4	100	93.8	85.4	92.8	100	95.4
10-Sep-01	07:50	-0.7	-0.2	-0.7	-0.7	1.3	-0.4	100	92.1	85.9	92.2	100	94.3
10-Sep-01	08:00	-0.7	-0.4	-0.9	-0.7	1.8	0.1	100	88.3	85.9	90	100	94.3
10-Sep-01	08:10	-0.7	-0.7	-0.7	-0.9	2.1	0.6	100	92.7	83.8	90	100	96
10-Sep-01	08:20	-0.7	-0.7	-0.7	-0.9	1.6	1.3	100	93.8	86.5	92.2	100	94.8
10-Sep-01	08:30	-0.4	-0.4	-0.9	-0.7	0.8	1.3	100	89.3	84.3	92.8	100	92
10-Sep-01	08:40	-0.4	-0.9	-0.7	-0.7	-0.2	0.3	100	91	85.9	91.1	99.5	91.5
10-Sep-01	08:50	-0.4	-0.4	-0.7	-0.7	-0.7	-0.2	100	93.8	85.4	91.1	100	94.8
10-Sep-01	09:00	-0.4	-0.4	-0.7	-0.4	-0.4	-0.2	100	92.7	85.9	91.1	100	96
10-Sep-01	09:10	-0.7	-0.4	-0.9	-0.4	-0.2	0.1	100	88.3	85.9	91.1	100	93.7
10-Sep-01	09:20	-0.4	-0.9	-0.7	-0.4	-0.4	-0.4	100	93.2	84.9	91.1	100	93.7
10-Sep-01	09:30	-0.4	-0.7	-0.7	-0.2	-0.7	-0.2	100	93.8	85.9	91.1	100	94.3
10-Sep-01	09:40	-0.4	-0.4	-0.7	-0.2	0.1	-0.4	100	88.3	85.4	91.1	100	94.8
10-Sep-01	09:50	-0.4	-0.9	-0.7	-0.2	-0.7	-0.7	100	92.1	85.4	91.7	100	95.4
10-Sep-01	10:00	-0.4	-0.7	-0.7	-0.4	-0.7	-0.7	100	94.3	85.4	91.1	100	94.8
10-Sep-01	10:10	0.3	-0.4	-0.4	-0.2	-0.2	-0.7	100	91.6	85.4	91.1	100	93.7
10-Sep-01	10:20	1.6	-0.4	-0.4	-0.2	-0.2	-0.7	100	91	85.4	90.6	100	93.2
10-Sep-01	10:30	0.6	-0.7	-0.2	-0.2	-0.7	-0.4	98.4	88.8	85.9	90.6	100	93.7
10-Sep-01	10:40	-0.2	-0.7	-0.4	-0.2	-0.2	-0.7	100	93.2	84.9	90.6	100	94.8
10-Sep-01	10:50	-0.4	-0.7	-0.4	-0.2	-0.4	-0.9	100	90.4	84.3	90.6	100	96
10-Sep-01	11:00	-0.4	-0.9	-0.7	0.1	-0.7	-0.7	99.5	89.9	83.8	90.6	100	93.2
10-Sep-01	11:10	-0.4	-0.9	-0.9	-0.2	-0.4	-0.9	100	93.8	83.8	90	100	94.3
10-Sep-01	11:20	-0.4	-0.7	-0.9	-0.7	0.1	-0.7	100	88.3	83.8	89.5	100	93.2
10-Sep-01	11:30	-0.2	-1.2	-1.2	-0.7	-0.4	-0.7	100	91	83.8	90	100	96
10-Sep-01	11:40	-0.4	-0.9	-1.2	-0.4	-0.7	-0.9	100	91.6	85.4	89.5	100	93.2
10-Sep-01	11:50	-0.4	-1.2	-0.9	-0.9	0.1	-0.7	100	88.3	84.3	89.5	100	93.2
10-Sep-01	12:00	-0.2	-1.4	-0.9	-0.9	-0.2	-0.9	100	91	83.8	90	100	94.8
10-Sep-01	12:10	0.1	-1.2	-1.2	-0.9	-0.4	-0.9	100	91	85.4	89.5	100	95.4
10-Sep-01	12:20	-0.2	-1.4	-0.9	-0.7	0.1	-0.7	100	87.7	84.3	90	100	94.8
10-Sep-01	12:30	-0.2	-1.4	-0.9	-0.9	-0.2	-0.9	100	91	83.8	90	100	92.6
10-Sep-01	12:40	0.1	-0.9	-0.9	-1.2	-0.7	-0.7	100	91.6	85.9	89.5	100	93.7
10-Sep-01	12:50	-0.4	-1.2	-0.9	-1.2	-0.4	-0.7	100	88.3	83.8	89.5	100	94.8
10-Sep-01	13:00	-0.2	-1.2	-0.9	-0.9	0.1	-0.9	100	91.6	84.9	90	100	95.4
10-Sep-01	13:10	-0.2	-1.2	-0.9	-0.9	-0.7	-0.9	100	89.3	84.3	89.5	100	92.6
10-Sep-01	13:20	-0.2	-1.4	-0.9	-1.2	-0.4	-0.7	100	88.3	83.8	89.5	100	93.2
10-Sep-01	13:30	-0.2	-1.4	-0.7	-1.2	0.1	-0.9	100	91	85.9	89.5	100	93.7
10-Sep-01	13:40	-0.2	-1.2	-0.9	-1.2	0.6	-0.9	100	91	83.8	89.5	100	93.2
10-Sep-01	13:50	0.1	-0.7	-0.9	-0.9	1.1	-0.7	100	91	84.9	91.1	100	95.4
10-Sep-01	14:00	-0.4	0.1	-0.9	-0.7	1.6	-0.9	100	90.4	83.8	90	100	93.2
10-Sep-01	14:10	-0.4	0.3	-0.9	-0.9	2.3	-0.7	98.9	91	83.8	89.5	100	93.2
10-Sep-01	14:20	-0.2	0.8	-0.7	-1.2	2.1	-0.9	100	92.7	85.9	89.5	100	93.2
10-Sep-01	14:30	-0.2	1.3	-0.9	-0.9	0.8	-0.7	100	89.9	83.3	90	99.5	93.2
10-Sep-01	14:40	-0.4	0.6	-0.9	-1.2	0.1	-0.9	100	86.1	85.4	89.5	97.8	93.7
10-Sep-01	14:50	-0.2	-0.4	-1.2	-1.2	-0.4	-0.4	100	85	83.8	92.8	97.8	93.7
10-Sep-01	15:00	-0.4	-0.7	-0.9	-0.7	-0.7	-0.7	100	91	83.3	90.6	100	93.7
10-Sep-01	15:10	-0.2	-0.7	-0.9	-1.2	-0.4	-0.7	100	91	85.4	90	100	94.8
10-Sep-01	15:20	-0.4	-0.9	-0.9	-0.9	-0.2	-0.7	100	87.7	83.8	90	100	95.4

10-Sep-01	15:30	-0.4	-0.9	-1.2	-1.2	-0.7	-0.7	98.9	91.6	84.3	89.5	100	96
10-Sep-01	15:40	-0.4	-0.7	-0.9	-1.2	-0.4	-0.7	100	93.2	84.3	89.5	100	95.4
10-Sep-01	15:50	-0.7	-0.7	-0.7	-1.2	-0.2	-0.7	98.9	87.7	84.3	90	100	95.4
10-Sep-01	16:00	-0.4	-0.9	-0.4	-1.4	-0.7	-0.2	100	91.6	84.3	89.5	100	95.4
10-Sep-01	16:10	0.3	-0.9	-0.4	-1.4	-0.4	0.6	100	93.2	84.3	89.5	100	98.2
10-Sep-01	16:20	1.6	-0.4	-0.4	-1.4	-0.2	1.6	100	91.6	84.3	89.5	100	97.7
10-Sep-01	16:30	2.3	-0.7	-0.2	-1.4	-0.4	1.3	100	88.3	85.9	89.5	100	92
10-Sep-01	16:40	1.1	-1.2	-0.4	-1.2	-0.7	0.3	97.3	91	84.3	90	100	91.5
10-Sep-01	16:50	0.3	-1.2	-0.4	-1.4	-0.2	-0.7	100	92.7	83.8	92.8	100	92
10-Sep-01	17:00	-0.2	-0.9	-0.4	-0.9	-0.2	-0.7	100	89.3	83.3	92.2	100	93.2
10-Sep-01	17:10	0.1	-1.2	-0.7	-0.9	-0.7	-0.9	100	91	83.3	91.1	100	94.3
10-Sep-01	17:20	-0.2	-0.9	-0.9	-0.9	-0.2	-0.9	100	93.2	83.3	91.1	100	95.4
10-Sep-01	17:30	-0.4	-0.7	-1.2	-0.9	0.3	-0.7	100	93.2	83.8	90.6	100	94.8
10-Sep-01	17:40	-0.2	-0.7	-0.9	-0.4	0.6	-0.9	100	88.8	84.9	90.6	100	94.8
10-Sep-01	17:50	-0.2	-1.2	-0.7	-0.4	0.6	-0.9	100	92.7	84.9	90.6	100	95.4
10-Sep-01	18:00	-0.2	-0.7	-1.2	-0.7	0.8	-0.7	100	93.8	83.3	90	100	96.5
10-Sep-01	18:10	-0.4	-0.9	-0.9	-0.7	1.1	-0.9	100	88.8	84.9	90	100	96
10-Sep-01	18:20	-0.4	-0.9	-0.9	-0.7	1.1	-0.7	100	91.6	85.9	90	100	96.5
10-Sep-01	18:30	-0.7	-0.9	-0.7	-0.7	1.3	-0.7	100	93.8	83.3	90	100	96.5
10-Sep-01	18:40	-0.7	-0.7	-0.7	-0.4	1.6	-0.9	100	93.8	84.9	90	100	96
10-Sep-01	18:50	-0.2	-0.9	-0.9	-0.4	1.3	-0.9	100	88.8	85.9	90	100	96
10-Sep-01	19:00	-0.7	-1.2	-0.9	-0.4	1.8	-0.4	100	92.7	83.8	90	100	95.4
10-Sep-01	19:10	-0.4	-0.7	-1.2	-0.4	1.8	-0.4	100	93.8	84.3	90	100	94.3
10-Sep-01	19:20	-0.7	-0.4	-0.7	-0.4	1.8	-0.7	100	91.6	85.9	90	100	94.8
10-Sep-01	19:30	-0.4	-1.2	-0.9	-0.4	2.1	-0.9	100	89.3	83.8	90	100	95.4
10-Sep-01	19:40	-0.4	-1.2	-1.2	-0.4	2.1	-0.7	100	93.2	84.3	90	100	95.4
10-Sep-01	19:50	-0.4	-0.7	-0.9	-0.4	2.8	-0.9	100	93.8	85.9	90	100	96
10-Sep-01	20:00	-0.4	-0.4	-0.7	-0.4	3.1	-0.7	100	91.6	83.8	89.5	100	96
10-Sep-01	20:10	-0.4	-0.9	-0.9	-0.7	3.6	-0.7	100	91	84.9	89.5	100	96.5
10-Sep-01	20:20	-0.4	-1.2	-0.7	-0.9	3.1	-0.7	100	93.8	85.4	89.5	98.3	96.5
10-Sep-01	20:30	-0.4	-0.7	-0.9	-0.9	1.8	-0.7	100	93.8	83.8	89.5	96.6	96
10-Sep-01	20:40	-0.7	-0.7	-0.9	-1.2	0.8	-0.7	100	89.3	85.4	89.5	96.6	96
10-Sep-01	20:50	-0.4	-0.9	-0.7	-1.2	0.1	-0.9	100	92.1	84.3	89.5	96.6	96
10-Sep-01	21:00	-0.7	-0.9	-0.9	-1.4	-0.4	-0.7	100	94.3	83.3	89.5	96.6	96
10-Sep-01	21:10	-0.7	-0.7	-1.2	-1.4	-0.4	-0.4	100	93.8	85.4	92.2	100	94.3
10-Sep-01	21:20	-0.4	-0.4	-0.9	-1.2	-0.4	-0.7	100	89.3	84.3	92.8	100	94.3
10-Sep-01	21:30	-0.4	-1.2	-0.9	-0.9	-0.4	-0.7	100	91	85.4	90.6	100	94.3
10-Sep-01	21:40	-0.4	-0.7	-0.7	-0.7	-0.7	-0.4	100	91.6	84.9	90.6	100	95.4
10-Sep-01	21:50	-0.7	-0.7	-0.4	-0.7	-0.4	-0.9	100	91.6	84.9	90	100	95.4
10-Sep-01	22:00	-0.4	-0.7	-0.7	-1.2	-0.4	-0.7	100	91	84.3	90	100	96
10-Sep-01	22:10	-0.2	-0.2	-0.4	-1.4	-0.7	-0.7	100	91	84.3	89.5	100	96
10-Sep-01	22:20	1.1	0.1	-0.4	-1.7	-0.4	-0.7	100	91	84.9	91.1	100	96
10-Sep-01	22:30	0.6	0.3	-0.4	-1.4	-0.2	-0.9	97.8	93.2	85.9	92.8	100	96
10-Sep-01	22:40	-0.4	0.3	-0.4	-0.9	-0.4	-0.7	99.5	92.1	84.9	91.1	100	96
10-Sep-01	22:50	-0.4	0.3	-0.4	-1.2	-0.7	-0.4	100	89.3	84.3	89.5	100	96
10-Sep-01	23:00	-0.4	-0.4	-0.7	-1.2	-0.7	-0.4	100	88.3	83.8	90	100	95.4
10-Sep-01	23:10	-0.4	-0.7	-1.2	-1.4	-0.4	-0.4	100	92.7	83.8	92.2	100	94.3
10-Sep-01	23:20	-0.4	-0.7	-0.9	-1.2	-0.9	-0.4	100	93.8	85.9	92.8	100	94.3
10-Sep-01	23:30	-0.4	-0.7	-0.7	-0.9	-0.7	-0.4	100	90.4	85.9	90.6	100	95.4

10-Sep-01	23:40	-0.4	-0.9	-0.9	-1.2	-0.2	-0.7	100	91	83.8	89.5	100	96
10-Sep-01	23:50	-0.4	-0.7	-0.9	-1.4	-0.4	-0.4	100	93.8	85.4	90	100	96
11-Sep-01	00:00	-0.4	-0.7	-0.7	-1.2	-0.7	-0.2	100	93.8	85.9	92.2	100	96
11-Sep-01	00:10	-0.4	-0.7	-0.9	-0.9	-0.7	0.3	100	89.3	83.8	92.2	100	94.3
11-Sep-01	00:20	-0.4	-0.9	-0.9	-0.9	-0.2	0.8	100	92.1	85.9	90	100	93.2
11-Sep-01	00:30	-0.7	-0.7	-0.7	-1.2	-0.7	1.1	100	94.3	85.9	90	100	92.6
11-Sep-01	00:40	-0.4	-0.7	-0.9	-1.4	-0.7	-0.2	100	93.8	83.8	92.2	100	92
11-Sep-01	00:50	-0.7	-0.7	-0.9	-1.2	-0.7	-0.4	100	92.7	85.9	92.2	100	93.2
11-Sep-01	01:00	-0.4	-0.4	-0.9	-0.9	-0.4	-0.4	100	88.3	85.9	91.1	100	93.7
11-Sep-01	01:10	-0.4	-0.7	-0.9	-1.2	-0.9	-0.4	100	92.7	83.8	89.5	100	94.3
11-Sep-01	01:20	-0.7	-0.7	-0.9	-1.4	-0.9	-0.7	100	93.8	85.9	90	100	96
11-Sep-01	01:30	-0.4	-0.4	-0.7	-1.2	-0.2	-0.4	100	93.2	85.9	91.1	100	96
11-Sep-01	01:40	-0.7	-0.2	-0.7	-1.2	0.1	-0.7	100	92.1	83.8	91.1	100	96
11-Sep-01	01:50	-0.7	-0.2	-0.7	-0.9	0.6	-0.7	100	89.3	85.9	91.7	100	96.5
11-Sep-01	02:00	-0.4	-0.7	-0.7	-1.2	0.8	-0.4	100	91.6	85.9	90	100	96
11-Sep-01	02:10	-0.7	-0.7	-0.7	-1.2	1.3	-0.4	100	93.8	84.3	90	100	96
11-Sep-01	02:20	-0.4	-0.7	-0.7	-1.4	1.1	-0.4	100	93.8	85.4	92.8	100	96
11-Sep-01	02:30	-0.4	-0.4	-0.7	-1.2	0.1	-0.4	100	92.7	85.9	92.8	100	95.4
11-Sep-01	02:40	-0.7	-0.2	-0.9	-0.7	-0.7	-0.4	100	91.6	85.4	91.1	98.3	95.4
11-Sep-01	02:50	-0.4	-0.4	-0.7	-1.2	-0.9	-0.4	100	89.3	83.8	89.5	100	96.5
11-Sep-01	03:00	-0.4	-0.7	-0.9	-1.2	-0.7	-0.7	100	93.2	86.5	91.1	100	96.5
11-Sep-01	03:10	-0.9	-0.7	-0.9	-1.2	-0.4	-0.7	100	93.2	85.9	92.8	100	96.5
11-Sep-01	03:20	-0.7	-0.7	-0.7	-0.9	-1.2	-0.7	100	92.1	83.8	92.8	100	96
11-Sep-01	03:30	-0.7	-0.4	-0.7	-0.9	-0.7	-0.7	100	91.6	84.9	90	100	96
11-Sep-01	03:40	-0.4	-0.4	-0.9	-1.2	-0.2	-0.7	100	88.3	85.4	90	100	96.5
11-Sep-01	03:50	-0.4	-0.9	-0.7	-1.2	-0.7	-0.7	100	92.7	85.4	92.2	100	96
11-Sep-01	04:00	-0.7	-0.7	-0.4	-1.2	-0.9	-0.4	100	93.2	84.9	92.8	100	96
11-Sep-01	04:10	-0.2	-0.7	-0.4	-0.9	-0.4	-0.4	100	92.1	85.4	92.8	100	96
11-Sep-01	04:20	0.8	-0.2	-0.4	-0.7	-0.4	-0.7	100	91.6	85.4	90	100	96.5
11-Sep-01	04:30	0.3	-0.2	-0.4	-0.9	-0.9	-0.7	98.4	91	85.9	90	100	96.5
11-Sep-01	04:40	-0.4	-0.7	-0.7	-1.2	-0.9	-0.7	100	90.4	84.3	92.2	100	96.5
11-Sep-01	04:50	-0.4	-0.7	-0.7	-0.9	-0.4	-0.7	100	93.2	83.8	92.2	100	96.5
11-Sep-01	05:00	-0.4	-0.7	-0.9	-0.7	-0.4	-0.7	100	92.7	85.4	92.2	100	96.5
11-Sep-01	05:10	-0.7	-0.4	-0.9	-0.9	-0.7	-0.7	100	92.1	85.9	90	100	96.5
11-Sep-01	05:20	-0.7	-0.2	-0.7	-1.2	-0.9	-0.4	100	89.3	85.9	90	100	96
11-Sep-01	05:30	-0.4	-0.7	-0.7	-1.4	-0.7	-0.7	100	90.4	83.8	92.8	100	96
11-Sep-01	05:40	-0.7	-0.7	-0.9	-0.9	-0.2	-0.4	100	91	85.9	92.2	100	96
11-Sep-01	05:50	-0.4	-0.7	-0.9	-0.7	-0.7	-0.4	100	91.6	85.9	92.2	100	96
11-Sep-01	06:00	-0.4	-0.2	-0.7	-1.2	-0.9	-0.7	100	91.6	83.8	89.5	100	96
11-Sep-01	06:10	-0.7	-0.2	-0.7	-1.2	-0.4	-0.7	100	91	85.9	90	100	96
11-Sep-01	06:20	-0.7	0.1	-0.7	-1.2	-0.4	-0.4	100	91.6	86.5	92.8	100	96
11-Sep-01	06:30	-0.7	0.3	-0.4	-0.9	0.1	-0.7	100	90.4	84.9	92.8	100	95.4
11-Sep-01	06:40	-0.4	-0.4	-0.7	-0.9	0.1	-0.4	100	89.3	84.3	91.1	100	95.4
11-Sep-01	06:50	-0.7	-0.4	-0.7	-1.2	0.3	-0.4	100	93.2	85.9	89.5	100	94.8
11-Sep-01	07:00	-0.4	-0.4	-0.7	-1.4	0.6	-0.7	100	93.8	86.5	91.7	100	95.4
11-Sep-01	07:10	-0.7	-0.2	-0.4	-1.2	0.3	-0.4	100	93.2	84.9	93.3	100	95.4
11-Sep-01	07:20	-0.7	-0.2	-0.7	-0.7	0.6	-0.4	100	91	85.9	92.2	100	96
11-Sep-01	07:30	-0.4	-0.4	-0.7	-0.7	0.8	-0.7	100	89.9	85.9	90.6	100	96.5
11-Sep-01	07:40	-0.7	-0.7	-0.7	-0.7	0.8	-0.4	100	93.2	85.4	90.6	100	94.3

11-Sep-01	07:50	-0.7	-0.7	-0.7	-0.7	1.3	-0.7	100	93.2	83.8	90.6	100	96
11-Sep-01	08:00	-0.9	-0.4	-0.7	-0.9	1.8	-0.2	100	91	85.9	90	100	96
11-Sep-01	08:10	-0.7	-0.4	-0.7	-0.9	2.3	0.6	100	88.8	85.9	90	100	96
11-Sep-01	08:20	-0.7	-0.7	-0.7	-1.2	2.1	1.6	100	93.2	83.8	90	100	95.4
11-Sep-01	08:30	-0.4	-0.4	-0.7	-1.4	0.8	1.6	99.5	93.8	86.5	92.8	98.3	91.5
11-Sep-01	08:40	-0.7	-0.2	-0.4	-0.9	0.1	0.3	100	90.4	84.9	92.8	97.8	90.9
11-Sep-01	08:50	-0.9	-0.4	-0.7	-1.2	-0.7	-0.4	100	90.4	86.5	90.6	97.8	92
11-Sep-01	09:00	-0.7	-0.7	-0.9	-1.2	-0.4	-0.4	100	93.8	84.3	90	100	93.2
11-Sep-01	09:10	-0.4	-0.2	-0.9	-0.9	-0.4	-0.4	100	93.2	85.4	92.8	100	93.2
11-Sep-01	09:20	-0.4	-0.4	-0.7	-0.7	-0.7	-0.9	100	89.3	85.9	92.8	100	93.7
11-Sep-01	09:30	-0.7	-0.7	-0.4	-0.7	-0.7	-0.7	100	93.2	85.9	90.6	100	93.2
11-Sep-01	09:40	-0.7	-0.7	-0.4	-0.9	-0.2	-0.7	100	92.7	85.9	90	100	94.3
11-Sep-01	09:50	-0.4	-0.7	-0.4	-0.9	-0.4	-0.7	100	88.8	85.4	91.1	100	94.3
11-Sep-01	10:00	-0.4	-0.7	-0.7	-0.9	-0.7	-0.9	100	93.2	85.4	93.3	100	94.3
11-Sep-01	10:10	0.1	-0.4	-0.4	-0.7	-0.2	-0.7	100	93.2	85.4	92.8	100	93.7
11-Sep-01	10:20	1.3	-0.4	-0.4	-0.7	-0.4	-0.7	100	91.6	85.4	90	100	93.7
11-Sep-01	10:30	0.8	-0.4	-0.2	-1.2	-0.4	-0.9	99.5	91.6	85.9	89.5	100	93.2
11-Sep-01	10:40	-0.2	-0.4	-0.2	-0.9	-0.2	-0.9	99.5	91.6	84.9	92.2	100	93.2
11-Sep-01	10:50	-0.2	-0.4	-0.2	-1.2	-0.4	-0.7	100	89.9	84.3	92.8	100	93.2
11-Sep-01	11:00	-0.4	-0.7	-0.7	-0.4	-0.4	-0.7	100	87.7	83.8	91.1	100	93.7
11-Sep-01	11:10	-0.4	-0.9	-0.7	-0.7	-0.2	-0.7	100	93.2	83.8	89.5	100	93.2
11-Sep-01	11:20	-0.2	-0.7	-0.7	-0.9	-0.2	-0.9	100	91	83.3	89.5	100	93.7
11-Sep-01	11:30	-0.2	-1.2	-0.7	-1.2	-0.7	-0.9	100	88.8	84.9	92.2	100	94.3
11-Sep-01	11:40	-0.2	-0.9	-0.7	-1.2	-0.2	-0.7	100	93.2	84.3	92.8	100	93.2
11-Sep-01	11:50	-0.2	-0.7	-0.7	-0.9	0.1	-0.9	100	91	83.3	91.1	100	93.2
11-Sep-01	12:00	-0.4	-1.2	-0.9	-0.9	-0.4	-0.9	100	88.3	84.3	89.5	100	93.2
11-Sep-01	12:10	-0.2	-1.2	-0.9	-1.2	-0.2	-0.9	99.5	93.2	84.3	90	100	93.7
11-Sep-01	12:20	-0.2	-0.9	-0.7	-1.2	-0.2	-0.7	100	88.3	83.3	90.6	100	93.2
11-Sep-01	12:30	-0.2	-1.2	-0.7	-0.9	-0.7	-0.7	100	89.9	84.9	92.8	100	93.7
11-Sep-01	12:40	-0.2	-0.9	-0.7	-0.7	-0.7	-0.7	100	93.2	83.8	92.2	100	93.7
11-Sep-01	12:50	-0.2	-0.9	-0.9	-0.7	-0.2	-0.9	100	88.3	83.3	90	100	92.6
11-Sep-01	13:00	-0.4	-1.2	-0.7	-1.2	-0.4	-0.9	100	91.6	84.9	90	100	93.2
11-Sep-01	13:10	-0.2	-0.9	-0.7	-1.4	-0.4	-0.9	100	91.6	83.3	89.5	100	95.4
11-Sep-01	13:20	0.1	-1.2	-0.9	-1.2	-0.2	-0.9	100	88.8	83.8	92.8	100	92.6
11-Sep-01	13:30	-0.4	-1.2	-0.7	-0.9	0.3	-0.7	100	91	83.8	92.2	100	93.2
11-Sep-01	13:40	0.1	-1.2	-0.9	-0.7	0.8	-0.7	100	91.6	83.3	91.7	100	93.7
11-Sep-01	13:50	-0.2	-0.7	-0.9	-0.4	1.3	-0.9	100	91	84.9	91.1	100	92.6
11-Sep-01	14:00	-0.2	-0.2	-0.7	-0.7	2.1	-0.7	98.9	91	83.3	90	100	93.2
11-Sep-01	14:10	-0.2	0.6	-0.9	-0.9	2.6	-0.9	100	90.4	83.3	90	100	93.2
11-Sep-01	14:20	-0.2	1.1	-0.9	-0.9	2.1	-0.9	97.8	93.2	84.3	90	100	93.2
11-Sep-01	14:30	0.1	1.6	-0.9	-1.2	1.1	-0.7	100	88.3	83.3	90	99.5	93.7
11-Sep-01	14:40	-0.4	0.8	-0.7	-1.2	0.6	-0.9	100	86.1	84.3	90	98.9	93.7
11-Sep-01	14:50	-0.2	0.1	-0.9	-1.2	0.1	-0.9	99.5	86.1	83.3	89.5	98.3	92.6
11-Sep-01	15:00	-0.2	-0.4	-0.7	-1.4	-0.7	-0.9	100	87.7	83.3	91.1	97.8	93.2
11-Sep-01	15:10	-0.4	-1.2	-0.7	-1.2	-0.7	-0.9	98.9	87.2	84.3	92.8	100	94.8
11-Sep-01	15:20	-0.2	-1.4	-0.9	-0.9	0.1	-0.7	100	88.3	83.3	90.6	100	92.6
11-Sep-01	15:30	-0.4	-1.7	-0.9	-1.2	-0.4	-0.9	98.4	88.3	83.8	89.5	100	94.8
11-Sep-01	15:40	-0.4	-1.9	-0.7	-1.2	-0.7	-0.9	100	91	83.8	89.5	100	92
11-Sep-01	15:50	-0.7	-1.7	-0.4	-1.4	-0.2	-0.9	100	88.8	83.8	90	100	92.6

11-Sep-01	16:00	-0.2	-1.9	-0.4	-1.4	-0.4	-0.4	100	88.8	83.8	89.5	100	93.7
11-Sep-01	16:10	0.8	-1.7	-0.4	-1.4	-0.9	0.6	100	91.6	84.3	92.8	100	94.3
11-Sep-01	16:20	1.8	-1.2	-0.4	-0.9	-0.4	1.3	100	91.6	84.3	91.7	100	93.7
11-Sep-01	16:30	1.8	-1.2	-0.4	-0.9	-0.2	0.8	99.5	91.6	85.9	90	100	92
11-Sep-01	16:40	0.8	-0.9	-0.4	-1.2	-0.9	0.1	99.5	88.8	84.3	89.5	100	91.5
11-Sep-01	16:50	0.3	-1.4	-0.7	-1.2	-0.4	-0.4	100	88.3	83.8	90	100	95.4
11-Sep-01	17:00	0.1	-1.9	-0.4	-1.4	-0.2	-0.7	99.5	87.7	83.3	91.7	100	92.6
11-Sep-01	17:10	0.1	-1.9	-0.9	-0.9	-0.7	-0.7	100	88.3	83.3	91.7	100	94.3
11-Sep-01	17:20	-0.2	-1.9	-0.9	-1.2	-0.2	-0.7	100	93.2	83.3	91.1	100	94.8
11-Sep-01	17:30	-0.4	-1.7	-0.7	-0.9	0.1	-0.9	100	89.9	84.9	91.1	100	93.2
11-Sep-01	17:40	-0.2	-1.9	-0.7	-0.9	0.6	-0.9	100	88.8	83.3	90.6	100	95.4
11-Sep-01	17:50	-0.2	-2.2	-0.9	-0.4	0.8	-0.9	100	92.1	84.9	90.6	100	95.4
11-Sep-01	18:00	-0.4	-1.4	-0.7	-0.4	1.1	-0.7	100	93.8	84.3	90.6	100	93.2
11-Sep-01	18:10	-0.7	-1.4	-0.7	-0.4	1.1	-0.9	100	93.8	83.8	90.6	100	96
11-Sep-01	18:20	-0.7	-1.4	-0.7	-0.4	1.1	-0.7	100	88.8	85.4	90.6	100	94.3
11-Sep-01	18:30	-0.7	-1.4	-0.9	-0.4	1.3	-0.9	100	93.2	83.8	90.6	100	93.2
11-Sep-01	18:40	-0.7	-1.2	-0.9	-0.4	1.6	-0.7	100	94.3	85.4	90.6	100	96
11-Sep-01	18:50	-0.4	-0.9	-0.7	-0.7	1.6	-0.9	100	94.3	83.3	90	100	96
11-Sep-01	19:00	-0.2	-0.7	-0.7	-0.7	1.3	-0.7	100	94.3	84.9	90	100	94.8
11-Sep-01	19:10	-0.4	-0.7	-0.7	-0.4	1.6	-0.7	100	88.3	83.8	90.6	100	93.2
11-Sep-01	19:20	-0.4	-0.9	-0.7	-0.2	1.8	-0.9	100	92.1	84.9	90.6	100	95.4
11-Sep-01	19:30	-0.7	-0.7	-0.7	0.1	2.1	-0.7	100	94.3	84.3	90.6	100	96
11-Sep-01	19:40	-0.7	-0.7	-0.9	0.1	2.1	-0.7	100	94.3	84.3	90	100	94.8
11-Sep-01	19:50	-0.7	-0.4	-0.9	0.1	2.8	-0.7	100	91	85.4	90	100	94.8
11-Sep-01	20:00	-0.4	-0.9	-0.7	0.1	2.8	-0.7	100	88.8	83.3	90	100	96
11-Sep-01	20:10	-0.4	-0.9	-0.9	-0.4	3.6	-0.9	100	93.2	85.4	89	100	96
11-Sep-01	20:20	-0.4	-0.9	-0.7	-0.9	2.8	-0.9	100	94.3	83.3	89	98.3	96
11-Sep-01	20:30	-0.2	-0.7	-0.7	-1.2	1.6	-0.9	100	93.8	84.9	89	96.1	93.2
11-Sep-01	20:40	-0.4	-0.7	-0.7	-1.2	0.8	-0.7	100	89.3	85.4	89	96.1	95.4
11-Sep-01	20:50	-0.4	-0.9	-0.9	-1.2	0.1	-0.7	100	91.6	84.3	92.2	96.1	96
11-Sep-01	21:00	-0.4	-0.9	-0.7	-0.7	-0.7	-0.9	100	94.3	85.4	92.2	96.6	96
11-Sep-01	21:10	-0.7	-0.9	-0.7	-0.7	-0.7	-0.9	100	93.8	84.3	90	100	94.8
11-Sep-01	21:20	-0.4	-0.7	-0.7	-0.9	-0.4	-0.7	100	94.3	85.4	89.5	100	93.7
11-Sep-01	21:30	-0.7	-0.7	-0.7	-1.2	-0.7	-0.7	100	93.8	85.4	90	99.5	95.4
11-Sep-01	21:40	-0.4	-0.4	-0.7	-0.9	-0.7	-0.9	100	92.1	85.4	90	100	96
11-Sep-01	21:50	-0.4	-0.4	-0.4	-0.7	-0.4	-0.7	100	92.1	84.9	90.6	100	93.7
11-Sep-01	22:00	-0.7	-0.2	-0.4	-0.9	-0.4	-0.7	100	92.1	84.9	89.5	100	96
11-Sep-01	22:10	-0.2	0.3	-0.4	-0.9	-0.7	-0.7	100	91.6	84.9	91.1	100	95.4
11-Sep-01	22:20	1.1	0.3	-0.4	-1.2	-0.2	-0.7	100	92.7	85.4	92.8	100	93.7
11-Sep-01	22:30	0.6	0.6	-0.2	-0.7	-0.7	-0.9	99.5	93.8	85.9	90.6	100	96
11-Sep-01	22:40	-0.4	0.3	-0.4	-0.9	-0.9	-0.9	100	92.7	84.3	90	100	96
11-Sep-01	22:50	-0.4	0.1	-0.7	-0.9	-0.4	-0.7	100	89.3	83.8	91.1	100	94.3
11-Sep-01	23:00	-0.7	-0.7	-0.7	-0.9	-0.4	-0.9	100	86.6	83.3	92.8	100	96
11-Sep-01	23:10	-0.7	-0.9	-0.7	-0.7	-0.9	-0.7	100	92.1	85.4	91.1	100	94.3
11-Sep-01	23:20	-0.7	-0.7	-0.7	-0.7	-0.4	-0.7	100	93.8	83.8	90	100	93.7
11-Sep-01	23:30	-0.7	-0.7	-0.7	-1.2	-0.2	-0.7	100	94.3	85.4	91.1	100	96
11-Sep-01	23:40	-0.4	-0.7	-0.7	-0.9	-0.9	-0.4	100	88.8	85.4	92.2	100	96
11-Sep-01	23:50	-0.4	-1.2	-0.9	-0.9	-0.7	-0.7	100	93.2	84.3	91.7	100	94.3
12-Sep-01	00:00	-0.4	-0.9	-0.9	-0.7	-0.2	-0.4	100	94.3	85.9	90	100	94.8

12-Sep-01	00:10	-0.4	-0.7	-0.7	-0.9	-0.7	0.1	100	94.3	83.8	90.6	100	93.7
12-Sep-01	00:20	-0.4	-0.4	-0.7	-1.2	-0.7	0.6	100	89.9	85.9	92.8	100	92.6
12-Sep-01	00:30	-0.4	-0.9	-0.7	-0.7	-0.4	1.1	100	92.1	83.8	91.7	100	92.6
12-Sep-01	00:40	-0.7	-0.9	-0.7	-0.7	-0.4	-0.4	100	93.8	85.4	90	100	92
12-Sep-01	00:50	-0.4	-0.7	-0.7	-1.2	-0.9	-0.7	100	93.8	84.3	91.1	100	93.2
12-Sep-01	01:00	-0.7	-0.4	-0.7	-0.9	-0.7	-0.4	100	93.2	85.9	92.8	100	94.3
12-Sep-01	01:10	-0.4	-0.9	-0.7	-0.7	-0.4	-0.7	100	89.3	83.8	91.7	100	96.5
12-Sep-01	01:20	-0.7	-0.9	-0.7	-0.7	-0.7	-0.7	100	93.8	85.4	90	100	95.4
12-Sep-01	01:30	-0.4	-0.7	-0.9	-0.9	-0.4	-0.4	100	94.3	84.3	89.5	100	93.7
12-Sep-01	01:40	-0.7	-0.7	-0.7	-0.9	-0.2	-0.7	100	94.3	85.4	90.6	100	96
12-Sep-01	01:50	-0.4	-0.4	-0.4	-0.9	0.3	-0.7	100	90.4	84.9	89.5	100	96
12-Sep-01	02:00	-0.4	-0.9	-0.7	-1.2	0.8	-0.9	100	91	85.4	92.2	100	96
12-Sep-01	02:10	-0.7	-0.9	-0.7	-0.9	1.3	-0.7	100	93.8	85.9	92.2	100	94.8
12-Sep-01	02:20	-0.7	-0.9	-0.7	-0.7	0.8	-0.7	100	93.8	84.9	91.7	100	94.8
12-Sep-01	02:30	-0.4	-0.4	-0.9	-0.7	0.1	-0.9	100	93.8	85.9	90	98.9	96
12-Sep-01	02:40	-0.4	-0.4	-0.7	-1.2	-0.9	-0.7	100	92.1	83.8	91.1	98.9	96
12-Sep-01	02:50	-0.4	-0.7	-0.7	-1.2	-0.7	-0.9	100	88.8	85.9	92.8	100	96
12-Sep-01	03:00	-0.4	-0.7	-0.7	-0.7	-0.4	-0.4	100	93.8	84.3	91.7	100	93.7
12-Sep-01	03:10	-0.7	-0.7	-0.9	-0.7	-0.9	-0.4	100	93.8	85.4	90	100	95.4
12-Sep-01	03:20	-0.4	-0.4	-0.9	-1.2	-0.9	-0.7	100	93.8	85.9	90	100	96
12-Sep-01	03:30	-0.7	-0.4	-0.7	-1.2	-0.4	-0.7	100	91.6	85.4	92.8	100	96.5
12-Sep-01	03:40	-0.7	-0.7	-0.7	-0.9	-0.4	-0.7	100	91	85.4	92.2	100	94.8
12-Sep-01	03:50	-0.7	-0.9	-0.7	-0.9	-0.9	-0.7	100	94.3	85.4	89.5	100	94.3
12-Sep-01	04:00	-0.4	-0.7	-0.7	-0.9	-0.7	-0.7	100	93.8	85.4	90	100	96
12-Sep-01	04:10	0.1	-0.7	-0.4	-1.2	-0.2	-0.7	100	93.8	85.4	92.8	100	96
12-Sep-01	04:20	1.3	-0.4	-0.4	-0.9	-0.9	-0.7	100	91.6	85.4	92.2	100	95.4
12-Sep-01	04:30	0.3	-0.7	-0.2	-0.9	-0.7	-0.7	100	90.4	86.5	90	100	93.7
12-Sep-01	04:40	-0.7	-1.2	-0.4	-0.9	-0.4	-0.4	100	91.6	84.3	89.5	100	95.4
12-Sep-01	04:50	-0.7	-1.2	-0.7	-0.9	-0.4	-0.7	100	94.3	83.8	92.2	100	96.5
12-Sep-01	05:00	-0.4	-0.7	-0.7	-0.9	-0.7	-0.7	100	94.3	84.3	92.2	100	96
12-Sep-01	05:10	-0.7	-0.4	-0.7	-0.7	-0.4	-0.4	100	93.2	85.9	89.5	100	93.7
12-Sep-01	05:20	-0.4	-0.7	-0.7	-0.9	-0.2	-0.7	100	88.3	83.8	90	100	96
12-Sep-01	05:30	-0.7	-1.2	-0.7	-1.2	-0.9	-0.7	100	91.6	85.9	92.8	100	96
12-Sep-01	05:40	-0.7	-1.2	-0.7	-0.9	-0.7	-0.7	100	92.1	84.3	91.7	100	94.3
12-Sep-01	05:50	-0.7	-0.9	-0.7	-0.9	-0.4	-0.7	100	92.1	85.9	89.5	100	96
12-Sep-01	06:00	-0.4	-0.4	-0.7	-0.9	-0.7	-0.9	100	92.1	84.3	90	100	96
12-Sep-01	06:10	-0.7	-0.2	-0.9	-1.2	-0.9	-0.9	100	92.1	85.9	92.8	100	96
12-Sep-01	06:20	-0.7	0.1	-0.7	-0.9	-0.7	-0.7	100	91.6	85.4	91.7	100	93.7
12-Sep-01	06:30	-0.7	0.1	-0.7	-0.4	-0.2	-0.4	100	91	85.9	89.5	100	95.4
12-Sep-01	06:40	-0.7	-0.2	-0.7	-1.2	-0.2	-0.7	100	87.7	85.9	89.5	100	96.5
12-Sep-01	06:50	-0.9	-0.7	-0.7	-1.2	0.1	-0.9	100	92.1	85.4	92.8	100	96
12-Sep-01	07:00	-0.9	-0.9	-0.7	-0.7	0.3	-0.7	100	94.3	86.5	92.2	100	93.7
12-Sep-01	07:10	-0.7	-0.7	-0.9	-0.7	0.3	-0.9	100	94.3	83.8	90	100	96
12-Sep-01	07:20	-0.7	-0.4	-0.9	-1.2	0.3	-0.7	100	91.6	85.9	89.5	100	96
12-Sep-01	07:30	-0.4	-0.7	-0.7	-0.9	0.8	-0.7	100	88.8	84.3	90	100	95.4
12-Sep-01	07:40	-0.2	-0.9	-0.7	-0.7	1.1	-0.4	100	93.8	85.9	90.6	100	93.7
12-Sep-01	07:50	-0.4	-0.7	-0.7	-0.7	1.6	-0.7	100	93.8	84.9	90	100	94.8
12-Sep-01	08:00	-0.7	-0.4	-0.7	-0.7	2.1	0.1	100	93.8	85.9	89.5	100	95.4
12-Sep-01	08:10	-0.4	-0.7	-0.9	-0.7	2.3	0.6	100	88.3	85.4	90	100	97.1

12-Sep-01	08:20	-0.7	-0.9	-0.7	-0.7	2.1	1.3	100	93.8	84.9	90	100	96
12-Sep-01	08:30	-0.4	-0.7	-0.7	-0.4	0.8	1.3	100	94.3	86.5	90	98.3	92
12-Sep-01	08:40	-0.4	-0.4	-0.7	-0.2	0.1	0.6	100	91	83.8	90	97.8	90.4
12-Sep-01	08:50	-0.7	-0.7	-0.7	-0.2	-0.4	-0.2	100	91	85.9	90.6	97.8	92
12-Sep-01	09:00	-0.4	-0.9	-0.7	-0.4	-0.7	-0.7	100	94.3	84.3	90	100	92
12-Sep-01	09:10	-0.7	-0.4	-0.7	-0.2	-0.2	-0.7	100	93.8	85.9	90	100	93.2
12-Sep-01	09:20	-0.7	-0.7	-0.7	-0.2	-0.4	-0.7	99.5	88.8	84.9	90	100	93.2
12-Sep-01	09:30	-0.7	-0.9	-0.7	-0.2	-0.7	-0.9	100	93.8	85.4	90	100	96
12-Sep-01	09:40	-0.7	-0.4	-0.7	-0.2	-0.2	-0.2	100	93.8	85.4	90	100	93.2
12-Sep-01	09:50	-0.7	-0.7	-0.7	0.1	-0.4	-0.4	99.5	89.3	85.4	90.6	100	95.4
12-Sep-01	10:00	-0.4	-0.9	-0.7	0.1	-0.7	-0.7	100	92.1	85.4	90.6	100	92.6
12-Sep-01	10:10	0.3	-0.9	-0.4	-0.2	-0.7	-0.4	100	94.3	85.4	89.5	100	93.2
12-Sep-01	10:20	1.3	-0.4	-0.4	-0.2	-0.2	-0.7	100	92.1	85.4	89.5	100	93.7
12-Sep-01	10:30	1.6	-0.7	-0.2	-0.4	-0.7	-0.9	98.9	92.1	85.9	89.5	100	92.6
12-Sep-01	10:40	0.3	-0.7	-0.2	-0.7	-0.4	-0.9	99.5	92.1	84.9	89.5	100	93.7
12-Sep-01	10:50	-0.2	-0.4	-0.4	-0.7	-0.2	-0.7	100	89.9	84.3	89.5	100	93.7
12-Sep-01	11:00	-0.4	-0.9	-0.7	-0.7	-0.7	-0.9	100	88.3	83.8	89.5	100	92
12-Sep-01	11:10	-0.2	-1.2	-0.7	-0.4	-0.4	-0.9	100	91.6	83.3	89.5	100	93.7
12-Sep-01	11:20	0.1	-1.2	-0.7	-0.7	-0.2	-1.2	100	92.7	85.4	89.5	100	95.4
12-Sep-01	11:30	-0.4	-1.2	-0.7	-0.7	-0.4	-0.7	100	89.3	84.3	89.5	100	93.2
12-Sep-01	11:40	-0.4	-1.4	-0.7	-0.7	-0.7	-1.2	100	88.8	83.8	89	100	92
12-Sep-01	11:50	-0.2	-1.7	-0.7	-1.2	-0.2	-1.2	100	91.6	85.9	89	100	92.6
12-Sep-01	12:00	-0.2	-1.2	-0.9	-0.9	-0.4	-0.9	100	91.6	83.8	88.4	100	93.7
12-Sep-01	12:10	-0.2	-1.4	-0.9	-1.2	-0.4	-0.9	100	88.8	83.8	88.4	100	92.6
12-Sep-01	12:20	-0.2	-1.4	-0.9	-0.9	0.1	-0.9	100	92.1	85.4	88.4	100	94.8
12-Sep-01	12:30	-0.4	-1.4	-0.9	-0.9	0.1	-0.9	100	91	83.8	88.4	100	92
12-Sep-01	12:40	-0.2	-1.4	-0.9	-0.9	-0.4	-0.7	99.5	87.7	85.4	90	100	93.2
12-Sep-01	12:50	-0.4	-1.4	-0.7	-0.7	-0.4	-1.2	100	91.6	83.3	92.2	100	93.7
12-Sep-01	13:00	-0.4	-1.4	-1.2	-0.7	-0.2	-0.9	99.5	91	84.3	90	100	92.6
12-Sep-01	13:10	-0.2	-1.4	-0.7	-0.7	-0.2	-1.2	100	88.3	84.3	89.5	100	94.8
12-Sep-01	13:20	-0.2	-1.9	-0.9	-0.7	-0.4	-0.9	100	90.4	83.3	89.5	100	92
12-Sep-01	13:30	-0.2	-1.7	-0.9	-0.9	-0.4	-0.9	98.9	92.1	85.4	89	100	93.7
12-Sep-01	13:40	-0.4	-0.9	-0.9	-0.7	0.3	-0.9	100	91.6	83.8	89.5	100	93.2
12-Sep-01	13:50	-0.4	-0.7	-0.9	-0.4	0.8	-0.9	99.5	91.6	83.8	90	100	92.6
12-Sep-01	14:00	-0.4	-0.2	-0.9	-0.4	1.3	-0.9	100	91	84.3	89	100	93.2
12-Sep-01	14:10	-0.4	0.6	-1.2	-0.9	2.1	-1.2	100	91.6	83.3	88.4	100	91.5
12-Sep-01	14:20	-0.4	0.8	-0.9	-0.7	2.1	-1.2	99.5	92.7	84.3	88.4	100	93.2
12-Sep-01	14:30	-0.4	1.3	-0.9	-0.9	1.1	-1.2	100	88.8	83.8	88.4	100	92
12-Sep-01	14:40	-0.4	0.3	-0.9	-1.2	0.3	-1.2	99.5	86.1	83.3	87.9	98.9	92.6
12-Sep-01	14:50	-0.2	-0.2	-1.2	-1.2	-0.2	-0.9	100	86.6	84.3	87.9	98.9	92.6
12-Sep-01	15:00	-0.7	-0.4	-0.7	-0.9	-0.2	-0.9	100	87.7	83.3	87.9	100	93.7
12-Sep-01	15:10	-0.4	-1.2	-1.2	-0.9	-0.4	-1.2	99.5	88.3	83.3	88.4	100	94.3
12-Sep-01	15:20	-0.4	-1.2	-0.9	-0.9	-0.4	-1.2	100	88.3	84.3	88.4	100	92.6
12-Sep-01	15:30	-0.4	-1.7	-0.9	-0.9	-0.2	-0.9	100	88.3	84.3	88.4	100	91.5
12-Sep-01	15:40	0.1	-1.7	-0.9	-0.9	-0.7	-1.2	100	87.7	84.3	88.4	100	93.2
12-Sep-01	15:50	-0.4	-2.2	-0.7	-0.9	-0.2	-0.9	100	91	84.3	88.4	100	93.2
12-Sep-01	16:00	0.3	-1.4	-0.7	-0.9	-0.2	-0.2	100	93.8	84.3	87.9	100	96
12-Sep-01	16:10	0.8	-1.7	-0.7	-1.2	-0.4	0.3	100	91.6	84.3	87.9	100	98.2
12-Sep-01	16:20	1.6	-1.2	-0.4	-1.2	-0.4	1.6	100	91.6	84.9	87.9	100	98.8

12-Sep-01	16:30	2.6	-1.2	-0.4	-1.2	0.1	1.6	100	86.1	85.9	87.9	100	92
12-Sep-01	16:40	0.8	-1.7	-0.2	-0.9	-0.4	0.1	98.9	89.9	84.9	87.9	100	90.9
12-Sep-01	16:50	0.3	-1.7	-0.7	-0.9	-0.4	-0.4	100	93.2	83.8	87.9	100	93.7
12-Sep-01	17:00	0.1	-1.4	-0.4	-0.9	-0.2	-0.7	100	91.6	83.3	87.3	100	94.8
12-Sep-01	17:10	-0.2	-1.4	-0.7	-1.2	-0.4	-0.7	100	88.3	83.3	88.4	100	94.8
12-Sep-01	17:20	0.1	-1.7	-0.9	-0.7	-0.4	-0.9	100	92.1	83.8	89	100	95.4
12-Sep-01	17:30	-0.4	-1.2	-0.9	-0.7	0.1	-0.7	100	91.6	83.8	89.5	100	93.2
12-Sep-01	17:40	-0.4	-1.2	-0.7	-0.4	0.6	-0.7	100	87.7	84.9	89.5	100	93.7
12-Sep-01	17:50	-0.2	-1.7	-0.7	-0.4	0.8	-0.7	100	92.1	83.3	89.5	100	94.3
12-Sep-01	18:00	-0.4	-1.4	-0.7	-0.4	1.1	-0.7	100	93.8	83.3	89	100	94.3
12-Sep-01	18:10	-0.4	-1.7	-0.9	-0.4	1.3	-0.7	100	88.8	85.4	89	100	93.7
12-Sep-01	18:20	-0.4	-1.4	-0.7	-0.2	1.3	-0.7	100	93.2	83.3	89.5	100	93.7
12-Sep-01	18:30	-0.2	-1.2	-0.9	-0.2	1.6	-0.7	100	94.3	84.3	89.5	100	94.3
12-Sep-01	18:40	-0.2	-0.9	-0.9	-0.2	1.8	-0.7	100	93.8	84.3	89.5	100	94.3
12-Sep-01	18:50	-0.2	-0.7	-0.7	-0.2	1.8	-0.7	100	88.8	83.3	89.5	100	94.8
12-Sep-01	19:00	-0.4	-1.2	-0.7	-0.2	1.8	-0.7	100	91	85.4	89.5	100	94.3
12-Sep-01	19:10	-0.7	-0.9	-0.7	-0.2	1.8	-0.7	100	93.8	83.8	89.5	100	95.4
12-Sep-01	19:20	-0.4	-0.7	-0.7	-0.2	1.8	-0.7	100	93.8	84.3	89.5	100	95.4
12-Sep-01	19:30	-0.4	-0.4	-0.9	-0.2	2.1	-0.4	100	93.8	84.3	89.5	100	96
12-Sep-01	19:40	-0.2	-0.9	-0.7	-0.2	2.6	-0.7	100	88.8	83.3	89.5	100	96
12-Sep-01	19:50	-0.2	-0.9	-0.7	-0.2	2.6	-0.7	100	93.2	84.9	89.5	100	96
12-Sep-01	20:00	-0.7	-1.2	-0.7	-0.4	3.1	-0.9	100	94.3	84.9	88.4	100	96
12-Sep-01	20:10	-0.4	-0.7	-0.9	-0.2	3.4	-0.7	100	93.8	83.3	87.9	100	96
12-Sep-01	20:20	-0.4	-0.7	-0.9	-0.4	2.8	-0.7	100	93.8	84.3	87.3	100	95.4
12-Sep-01	20:30	-0.4	-0.7	-0.7	-0.7	1.8	-0.4	100	89.3	84.3	87.3	97.8	94.3
12-Sep-01	20:40	-0.2	-1.2	-0.7	-0.9	0.8	-0.4	100	91.6	83.3	87.3	96.6	93.7
12-Sep-01	20:50	-0.2	-1.2	-0.7	-0.9	0.3	-0.7	100	94.3	85.4	87.3	96.6	94.3
12-Sep-01	21:00	-0.4	-0.9	-0.7	-0.9	-0.4	-0.7	100	93.8	83.8	89.5	96.6	93.7
12-Sep-01	21:10	-0.4	-0.7	-0.9	-0.7	-0.7	-0.7	100	93.8	83.8	90.6	100	94.3
12-Sep-01	21:20	-0.4	-0.4	-0.7	-0.7	-0.4	-0.7	100	93.8	85.4	89	100	96
12-Sep-01	21:30	-0.4	-0.7	-0.7	-0.9	-0.7	-0.7	100	92.1	85.4	89	99.5	95.4
12-Sep-01	21:40	-0.4	-0.4	-0.7	-0.7	-0.4	-0.7	100	91.6	85.4	89.5	100	96
12-Sep-01	21:50	-0.7	-0.2	-0.4	-0.7	-0.4	-0.7	100	91.6	84.9	88.4	100	96
12-Sep-01	22:00	-0.4	-0.2	-0.4	-1.2	-0.4	-0.7	100	91.6	84.9	87.9	100	96
12-Sep-01	22:10	-0.2	0.1	-0.4	-0.9	-0.7	-0.4	100	91.6	84.9	89.5	100	96
12-Sep-01	22:20	1.1	0.3	-0.4	-0.7	-0.4	-0.7	100	91.6	85.4	90.6	100	96
12-Sep-01	22:30	1.1	0.6	-0.4	-0.7	-0.4	-0.7	99.5	93.8	85.9	89.5	100	96
12-Sep-01	22:40	-0.2	0.6	-0.4	-0.7	-0.9	-0.7	100	93.2	84.3	88.4	100	96
12-Sep-01	22:50	-0.4	0.3	-0.4	-1.2	-0.4	-0.7	100	89.3	83.8	90	100	96
12-Sep-01	23:00	-0.4	-0.7	-0.7	-0.9	-0.4	-0.7	100	88.3	83.3	90.6	100	96
12-Sep-01	23:10	-0.7	-0.9	-0.9	-0.7	-0.7	-0.4	100	93.2	84.3	89.5	100	95.4
12-Sep-01	23:20	-0.7	-0.7	-0.7	-0.9	-0.4	-0.4	100	94.3	85.4	88.4	100	95.4
12-Sep-01	23:30	-0.4	-0.7	-0.7	-1.2	-0.4	-0.7	100	94.3	83.3	89.5	100	95.4
12-Sep-01	23:40	-0.7	-0.7	-0.9	-0.9	-0.7	-0.7	100	89.3	85.4	90.6	100	94.8
12-Sep-01	23:50	-0.4	-1.2	-0.9	-0.7	-0.7	-0.7	100	91.6	84.3	90.6	100	95.4
13-Sep-01	00:00	-0.4	-0.9	-0.9	-0.9	-0.2	-0.4	100	93.8	84.3	89	100	95.4
13-Sep-01	00:10	-0.4	-0.7	-0.7	-0.9	-0.7	0.1	100	94.3	85.9	89	100	93.7
13-Sep-01	00:20	-0.4	-0.7	-0.7	-0.9	-0.7	0.8	100	94.3	83.3	90.6	100	93.2
13-Sep-01	00:30	-0.4	-0.7	-0.7	-0.7	-0.4	1.3	100	88.8	85.4	90.6	100	91.5

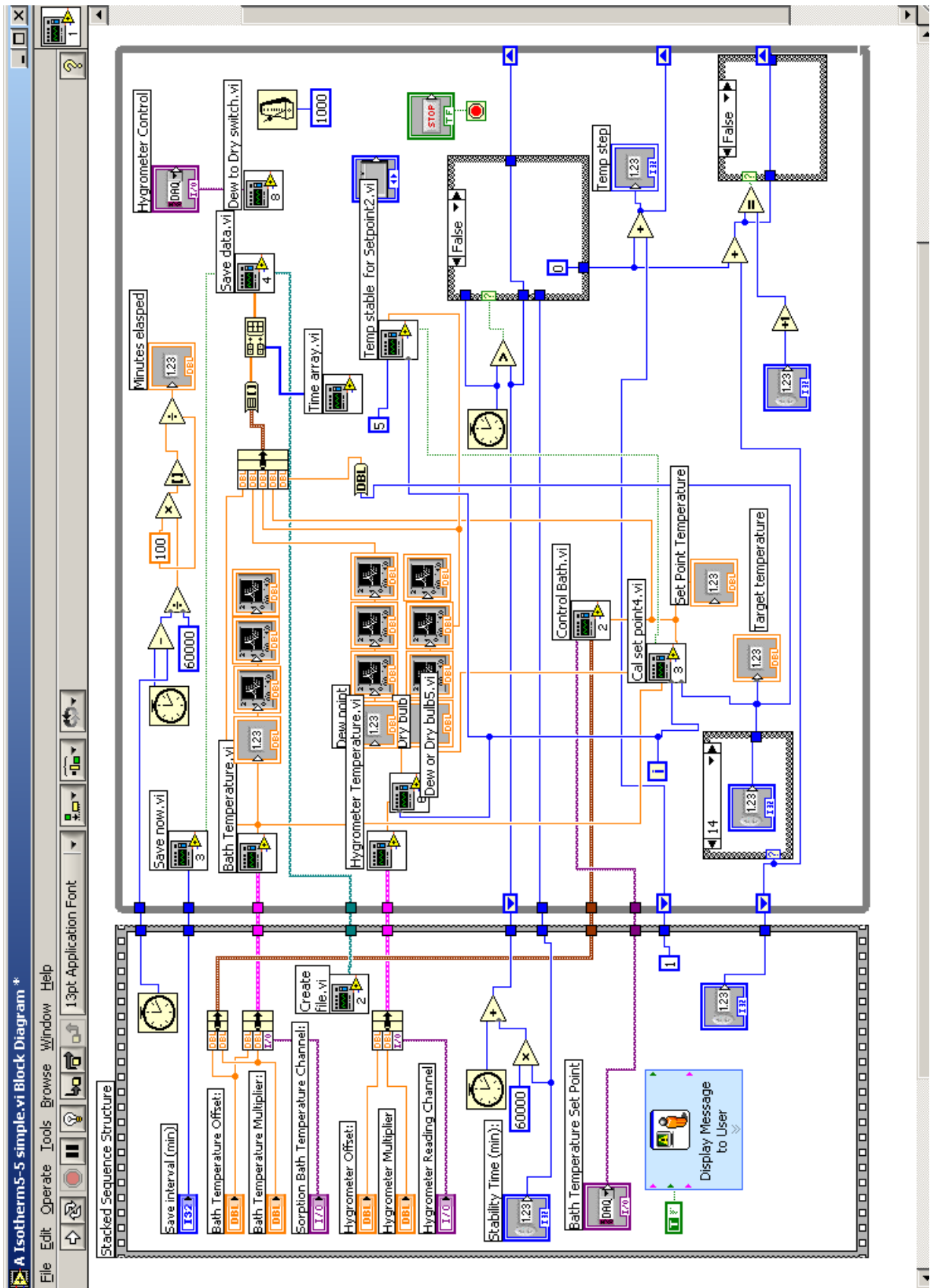
13-Sep-01	00:40	-0.7	-0.9	-0.9	-0.9	-0.4	0.1	100	93.2	84.3	89	100	90.9
13-Sep-01	00:50	-0.7	-0.7	-0.7	-0.9	-0.9	-0.2	100	93.8	83.8	89	100	93.7
13-Sep-01	01:00	-0.4	-0.7	-0.7	-0.7	-0.2	-0.7	100	93.8	85.9	90.6	100	96
13-Sep-01	01:10	-0.4	-0.7	-0.7	-0.7	-0.2	-0.7	100	92.7	84.3	90.6	100	96
13-Sep-01	01:20	-0.4	-0.9	-0.7	-0.7	-0.7	-0.7	100	88.8	84.9	89.5	100	96
13-Sep-01	01:30	-0.4	-0.9	-0.4	-0.7	-0.4	-0.7	100	94.3	85.9	89.5	100	96
13-Sep-01	01:40	-0.7	-0.9	-0.7	-0.7	0.1	-0.4	100	94.3	83.8	90	100	95.4
13-Sep-01	01:50	-0.4	-0.7	-0.7	-0.9	0.3	-0.7	100	94.3	85.9	89.5	100	94.8
13-Sep-01	02:00	-0.4	-0.4	-0.7	-0.9	0.8	-0.7	100	89.9	83.8	89	100	94.3
13-Sep-01	02:10	-0.4	-1.2	-0.7	-1.2	1.6	-0.4	100	91	85.4	90.6	100	94.3
13-Sep-01	02:20	-0.4	-0.9	-0.7	-0.7	0.8	-0.7	100	93.8	85.9	90.6	100	94.3
13-Sep-01	02:30	-0.4	-0.7	-0.9	-0.9	0.1	-0.4	100	93.8	83.8	89.5	99.5	96
13-Sep-01	02:40	-0.4	-0.4	-0.7	-0.9	-0.4	-0.7	100	93.8	85.9	88.4	97.8	96
13-Sep-01	02:50	-0.4	-0.7	-0.7	-0.9	-0.7	-0.7	100	88.3	85.4	90.6	100	96
13-Sep-01	03:00	-0.4	-0.9	-0.7	-0.7	-0.4	-0.7	100	93.2	84.3	90.6	100	96
13-Sep-01	03:10	-0.7	-0.9	-0.7	-0.7	-0.7	-0.7	100	93.8	85.9	89.5	100	96
13-Sep-01	03:20	-0.7	-0.7	-0.9	-0.7	-0.7	-0.7	100	94.3	83.8	88.4	100	96
13-Sep-01	03:30	-0.4	-0.4	-0.7	-0.9	-0.7	-0.7	100	93.2	84.3	90.6	100	96
13-Sep-01	03:40	-0.4	-0.7	-0.4	-0.7	-0.4	-0.4	100	88.3	84.9	90.6	100	96.5
13-Sep-01	03:50	-0.7	-0.9	-0.4	-0.7	-0.9	-0.4	100	93.2	84.9	90	100	96
13-Sep-01	04:00	-0.4	-0.9	-0.4	-0.7	-0.7	-0.7	100	94.3	84.9	88.4	100	96
13-Sep-01	04:10	-0.2	-0.7	-0.7	-0.9	-0.2	-0.7	100	93.8	85.4	90	100	96
13-Sep-01	04:20	1.1	-0.4	-0.7	-0.7	-0.7	-0.4	100	92.7	85.4	90.6	100	96
13-Sep-01	04:30	0.8	-0.4	-0.4	-0.4	-0.4	-0.7	97.8	91.6	85.9	90	100	96
13-Sep-01	04:40	-0.2	-1.2	-0.4	-0.7	-0.4	-0.7	100	91	84.3	89	100	95.4
13-Sep-01	04:50	-0.4	-1.2	-0.4	-1.2	-0.7	-0.4	100	94.3	83.8	90	100	95.4
13-Sep-01	05:00	-0.7	-0.7	-0.7	-0.9	-0.7	-0.7	100	93.8	83.3	90.6	100	95.4
13-Sep-01	05:10	-0.7	-0.4	-0.9	-0.7	-0.7	-0.4	100	93.8	85.4	90.6	100	94.3
13-Sep-01	05:20	-0.7	-0.7	-0.4	-0.7	-0.4	-0.4	100	88.3	84.9	89.5	100	94.8
13-Sep-01	05:30	-0.4	-0.9	-0.9	-0.9	-0.9	-0.4	100	91	84.3	89.5	100	94.3
13-Sep-01	05:40	-0.7	-1.2	-0.7	-0.9	-0.4	-0.7	100	91	85.9	90.6	100	94.3
13-Sep-01	05:50	-0.7	-0.7	-0.7	-0.7	-0.2	-0.7	100	91.6	83.8	90.6	100	94.3
13-Sep-01	06:00	-0.7	-0.7	-0.9	-0.7	-0.7	-0.4	100	92.1	85.9	89.5	100	94.8
13-Sep-01	06:10	-0.7	-0.2	-0.7	-0.9	-0.7	-0.7	100	91.6	85.4	88.4	100	94.8
13-Sep-01	06:20	-0.7	0.1	-0.4	-0.7	-0.4	-0.7	100	92.7	84.9	90.6	100	94.8
13-Sep-01	06:30	-0.4	0.6	-0.4	-0.9	-0.2	-0.7	100	91.6	85.9	90.6	100	96
13-Sep-01	06:40	-0.4	-0.4	-0.7	-0.4	0.3	-0.7	100	87.7	83.8	90	100	95.4
13-Sep-01	06:50	-0.7	-0.9	-0.7	-0.9	0.3	-0.4	100	91	85.4	88.4	100	96
13-Sep-01	07:00	-0.4	-1.2	-0.7	-0.9	0.6	-0.4	100	94.3	85.4	90.6	100	96
13-Sep-01	07:10	-0.2	-0.9	-0.9	-0.7	0.6	-0.7	100	94.3	84.3	91.1	100	96
13-Sep-01	07:20	-0.2	-0.4	-0.7	-0.4	0.8	-0.7	100	91.6	85.9	90	100	96.5
13-Sep-01	07:30	-0.4	-0.9	-0.9	-0.9	1.1	-0.4	100	89.9	83.8	89.5	100	96
13-Sep-01	07:40	-0.4	-1.2	-0.7	-0.7	1.3	-0.4	100	94.3	85.9	90	100	94.3

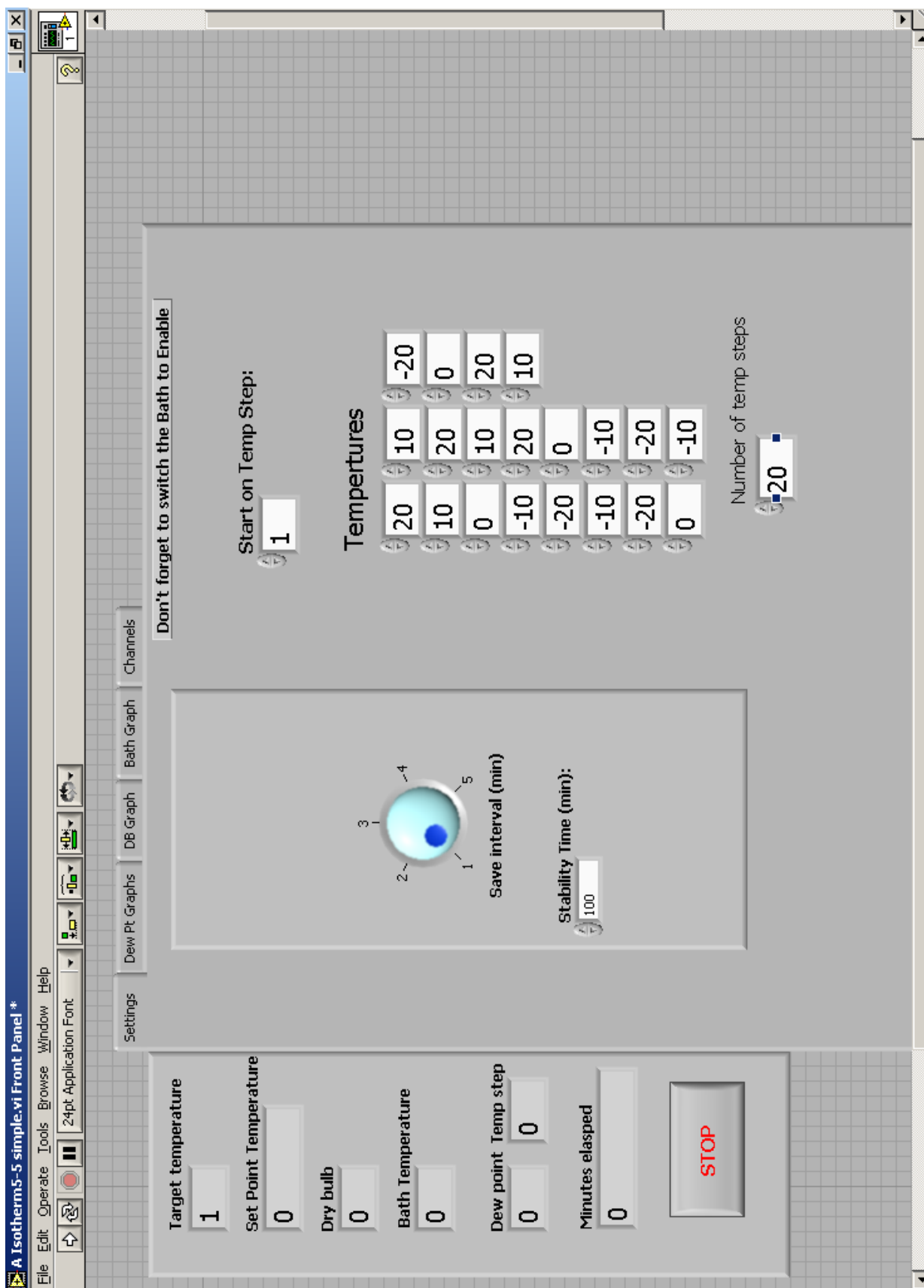
Appendix A3

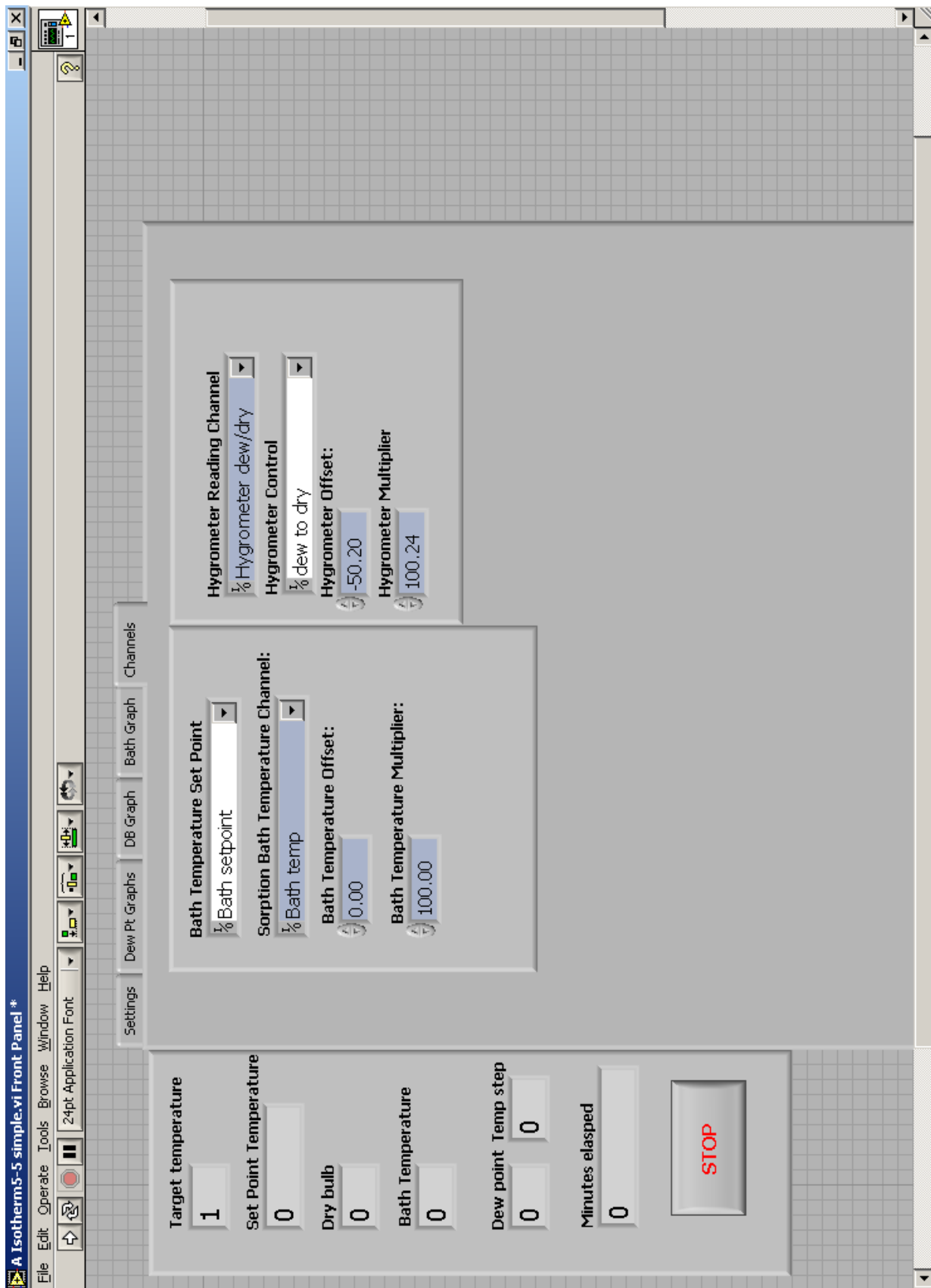
LabVIEW Programme for Measuring Moisture Sorption Isotherms

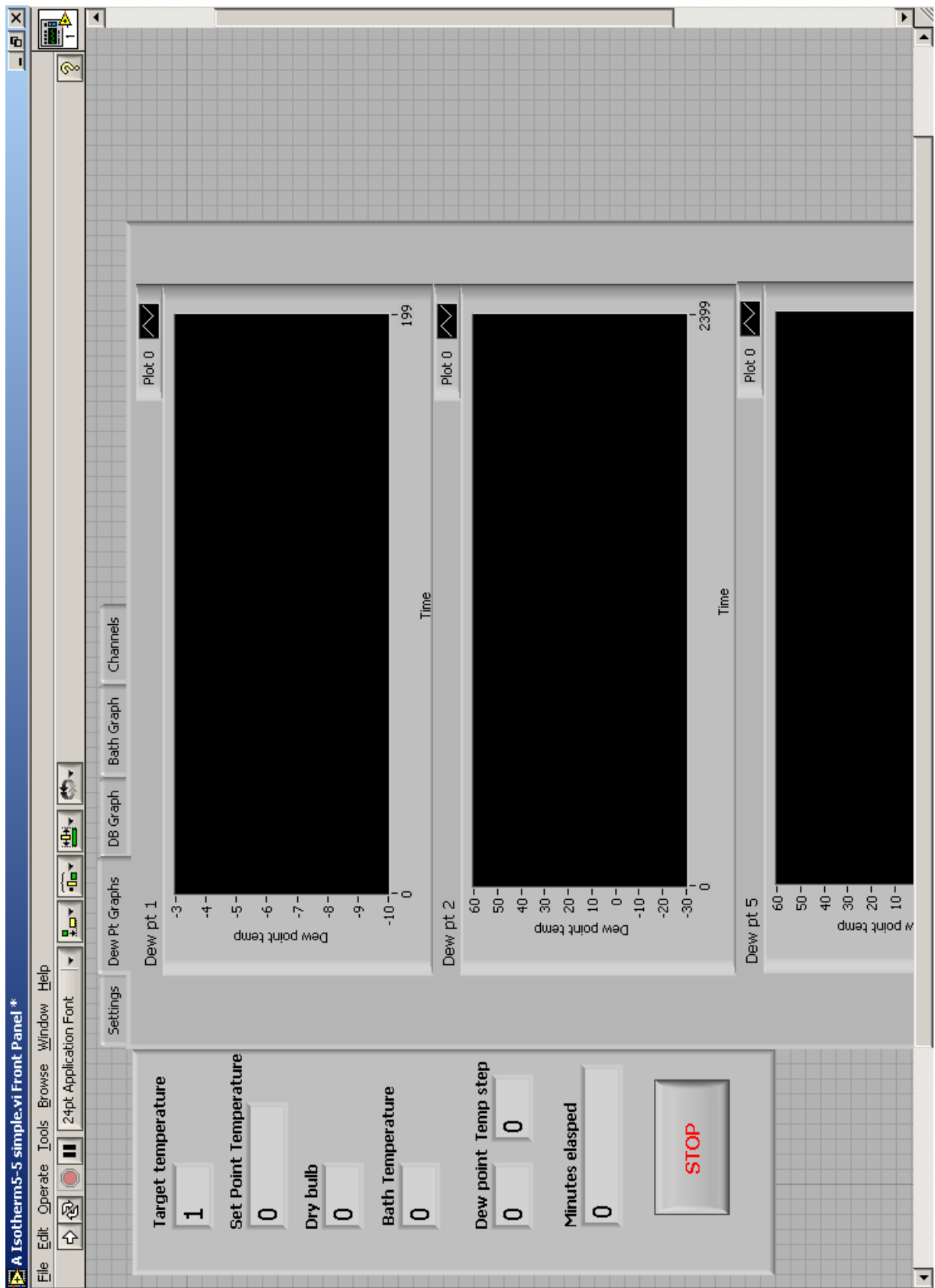
A3.1 Introduction

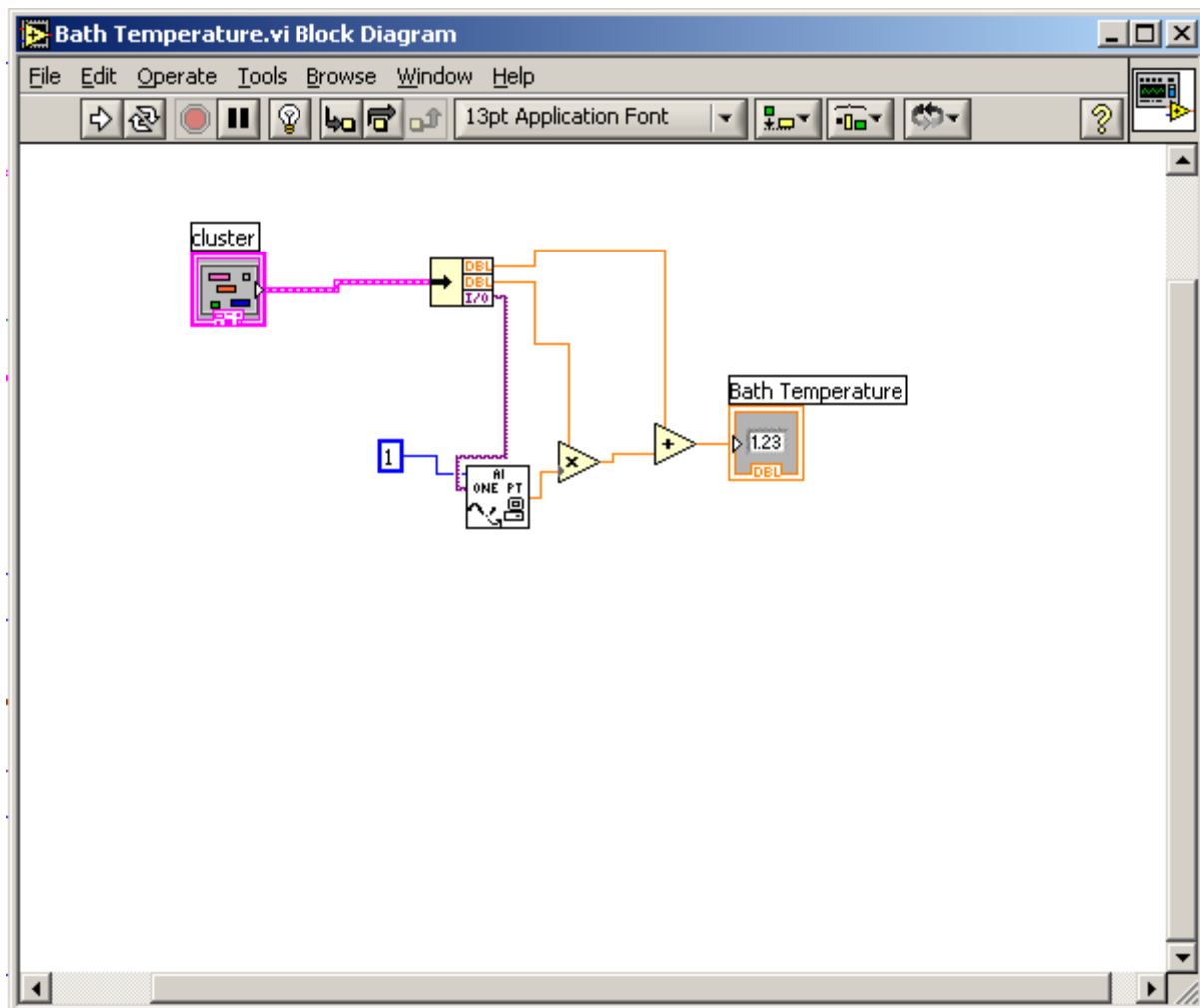
The following pages show screen dumps of the block diagrams and front panel views of the LabVIEW program used to measure the adsorption isotherm of the Kraft linerboard, semi-chemical and recycled fluting mediums. Page A3.2 shows the block diagram for the ‘master file’ that calls for information/data from the other files on pages A3.6 to A3.17. Pages A3.3 to A3.5 show the front panel of the ‘master file’.

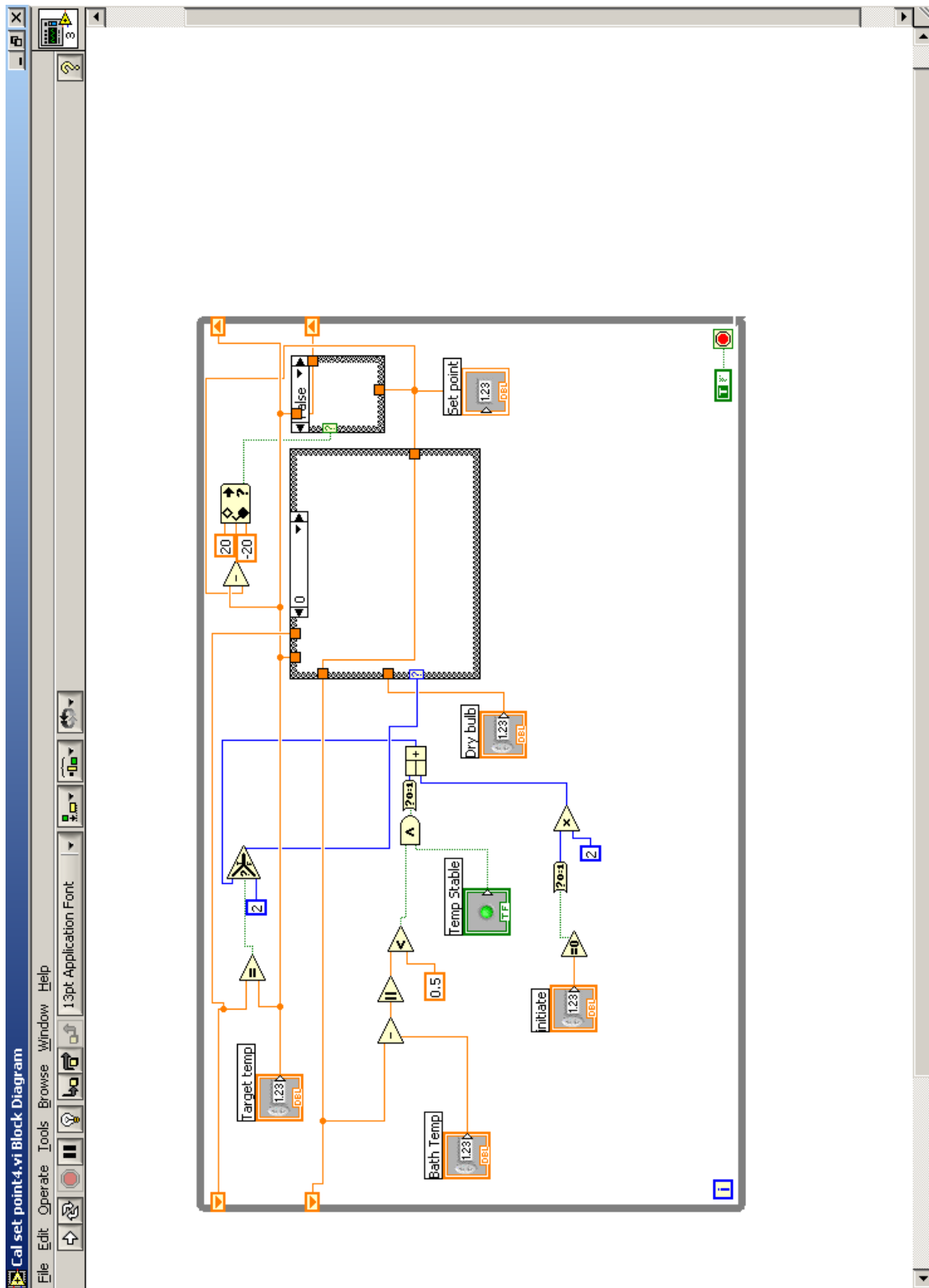


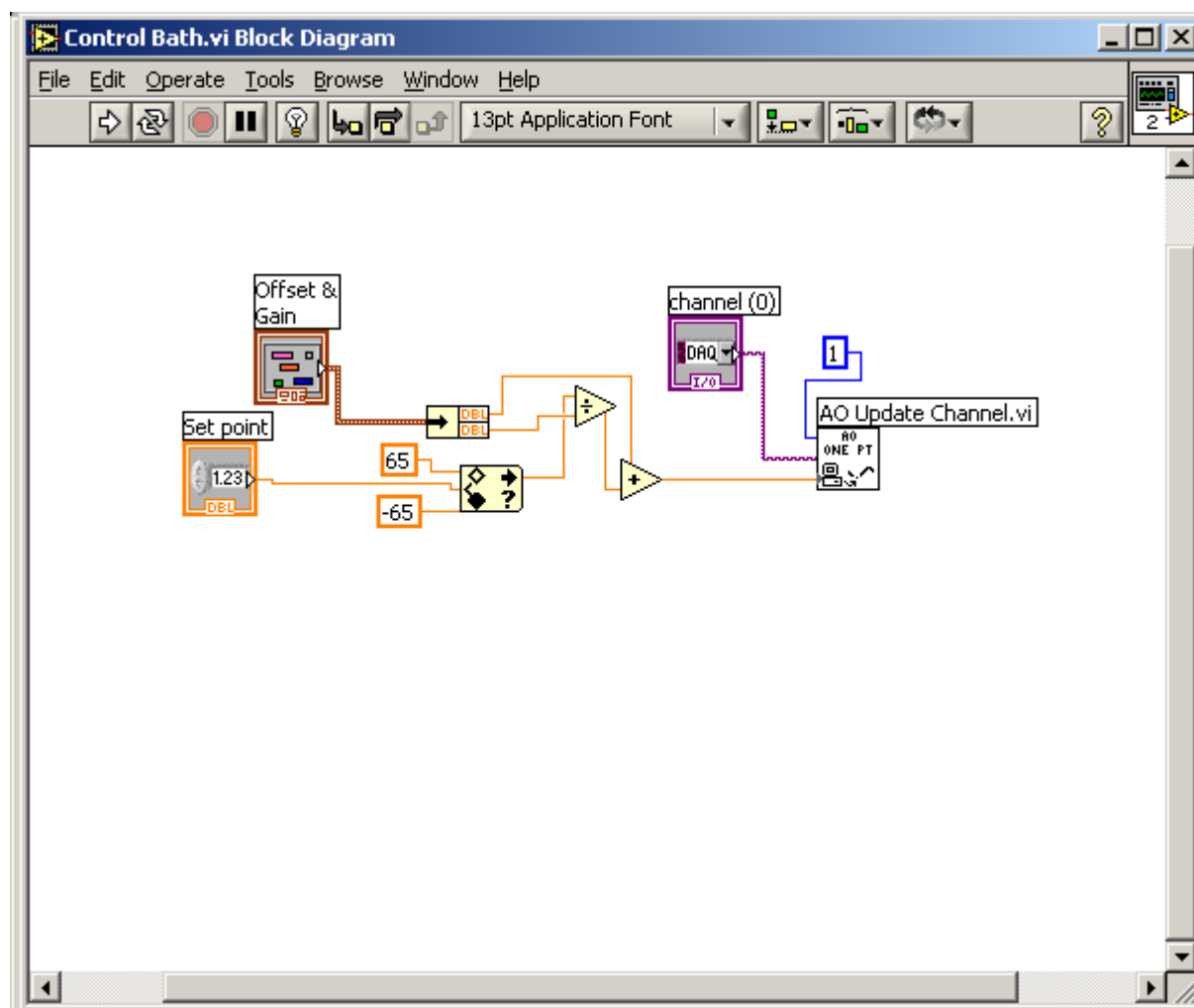


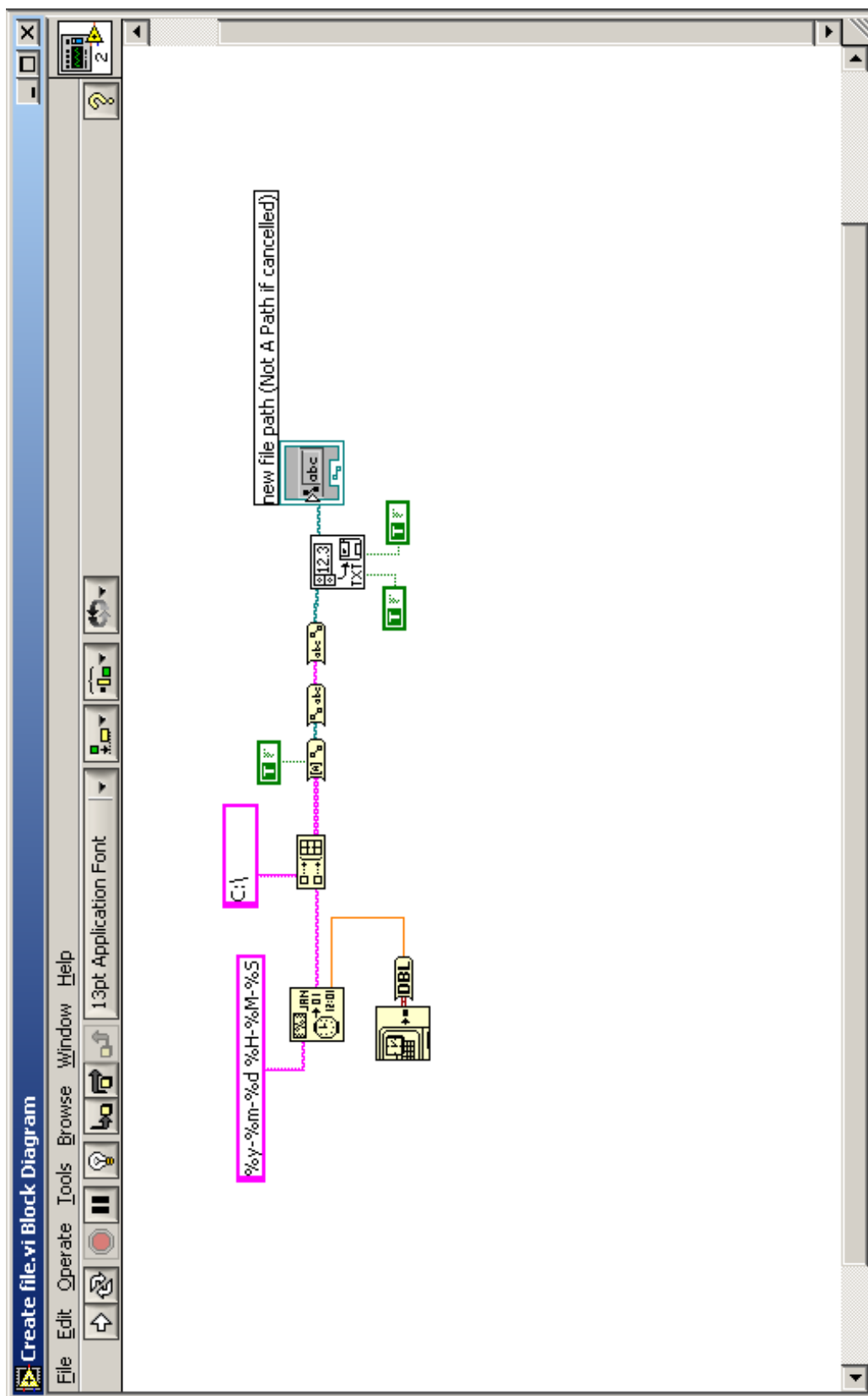


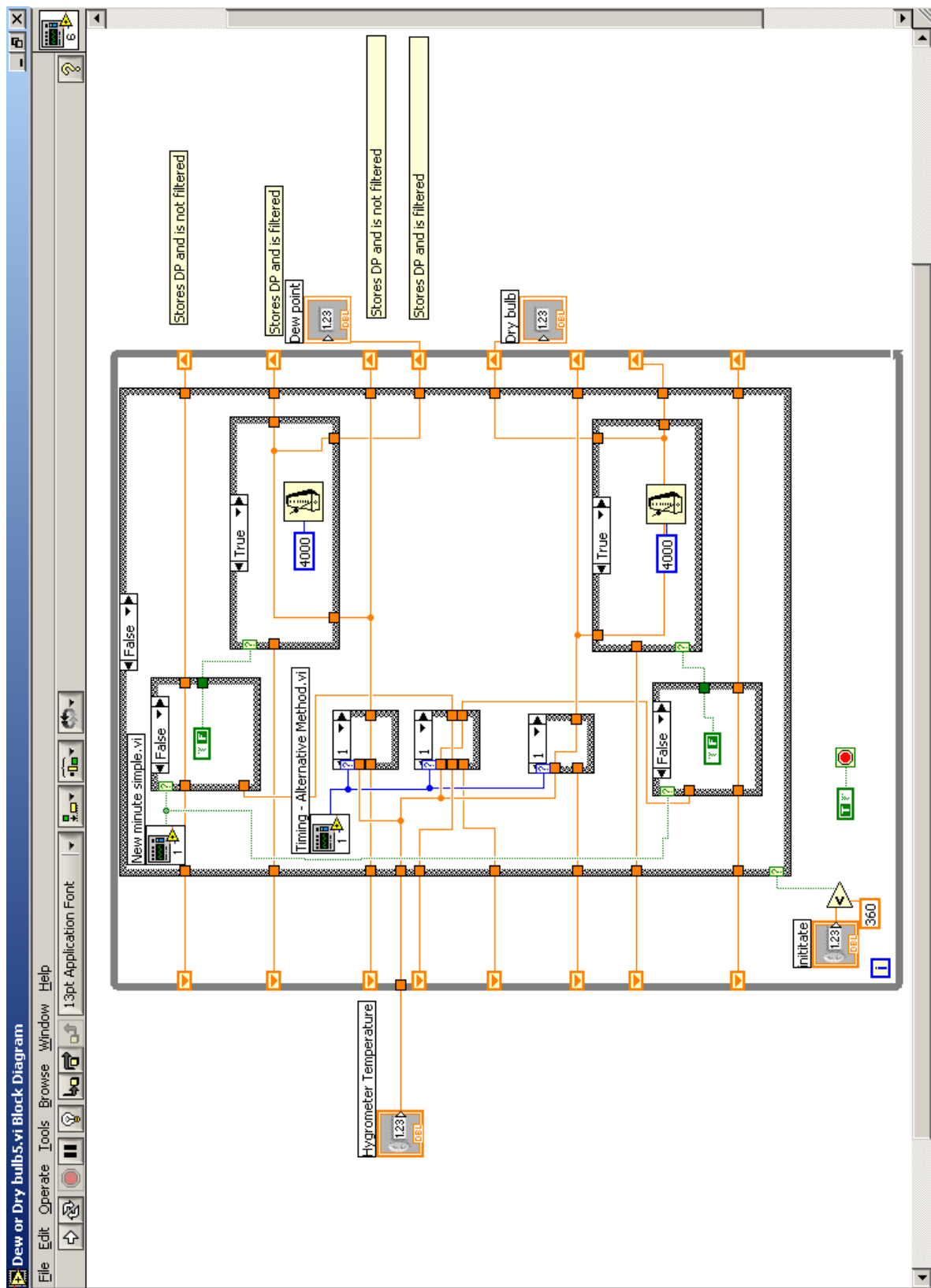


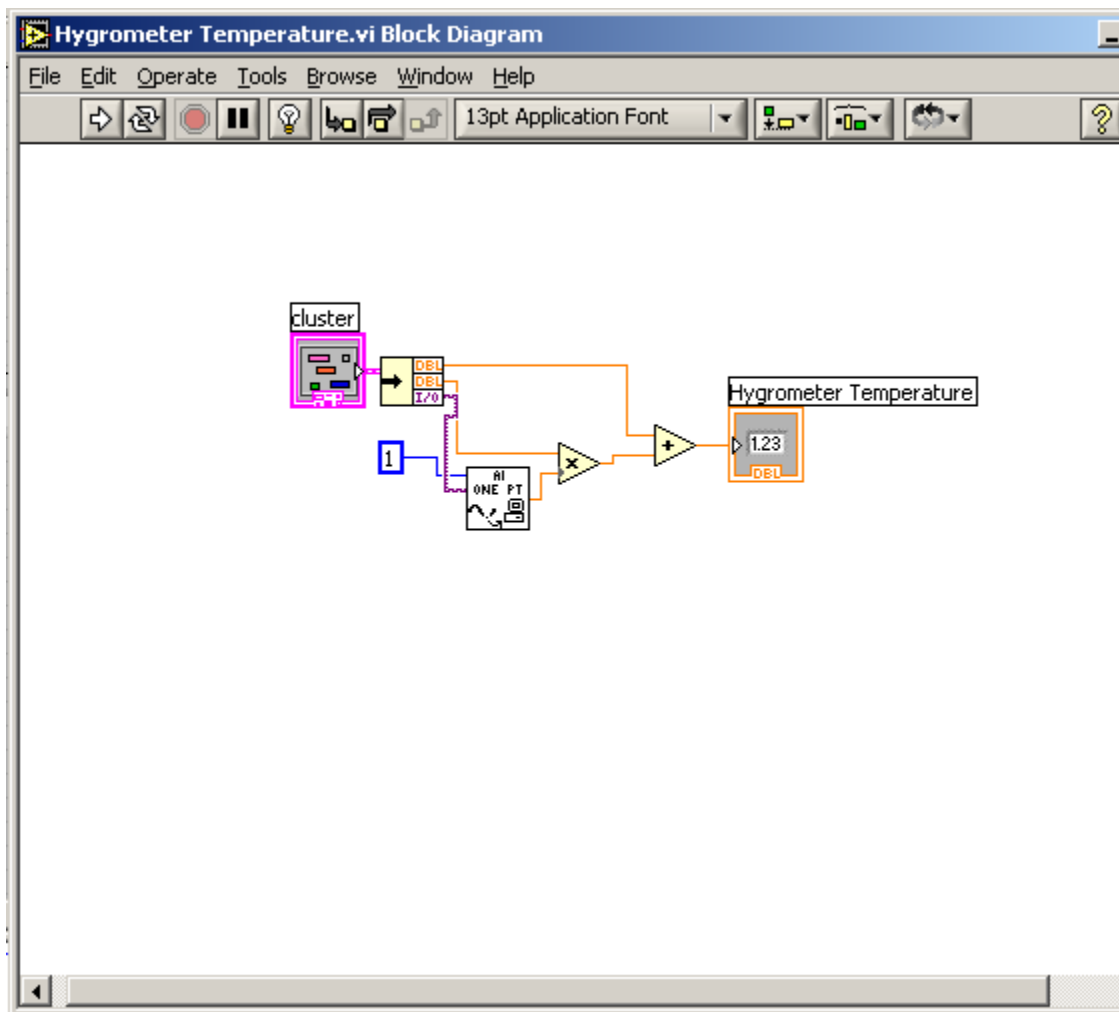


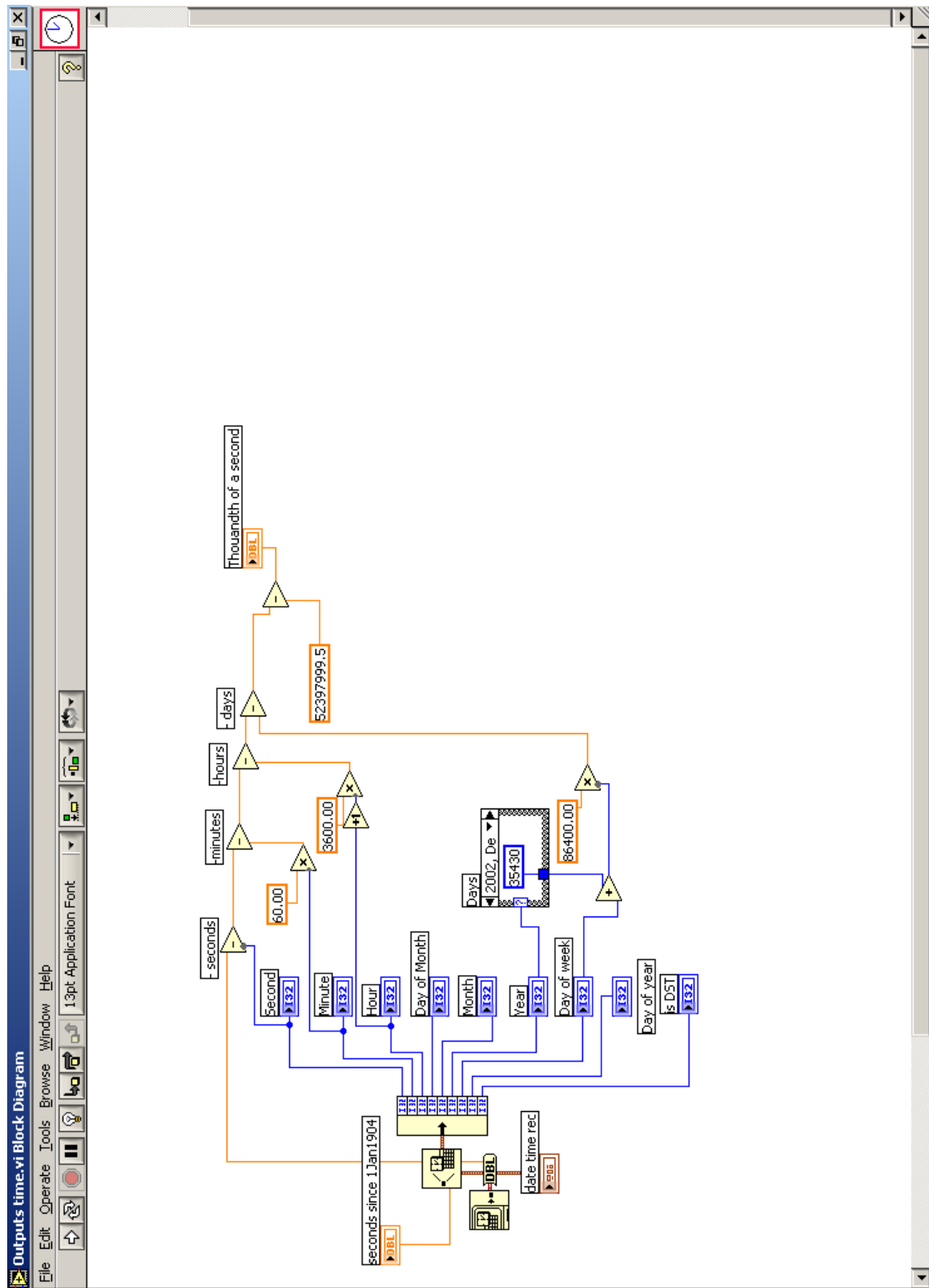


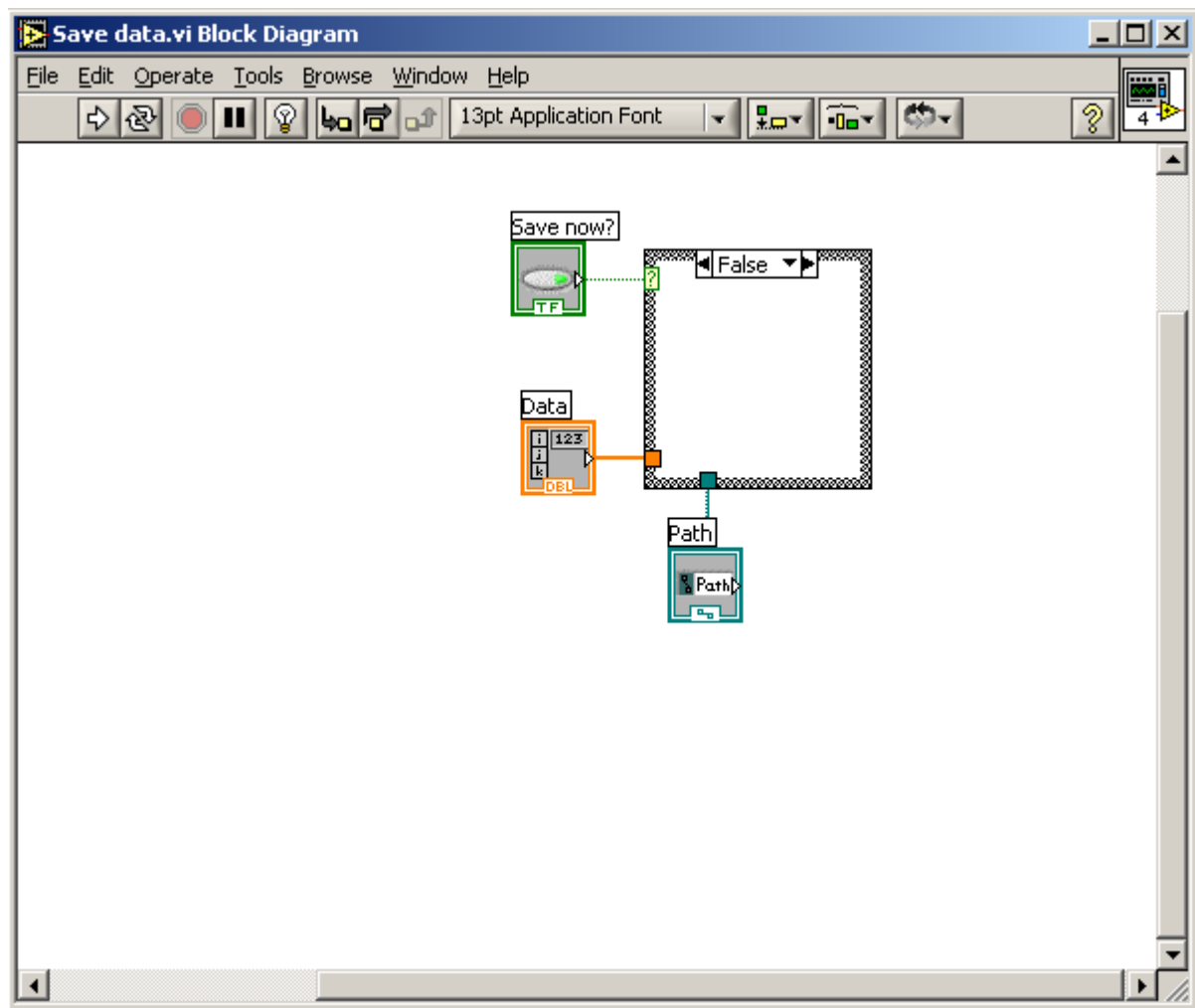


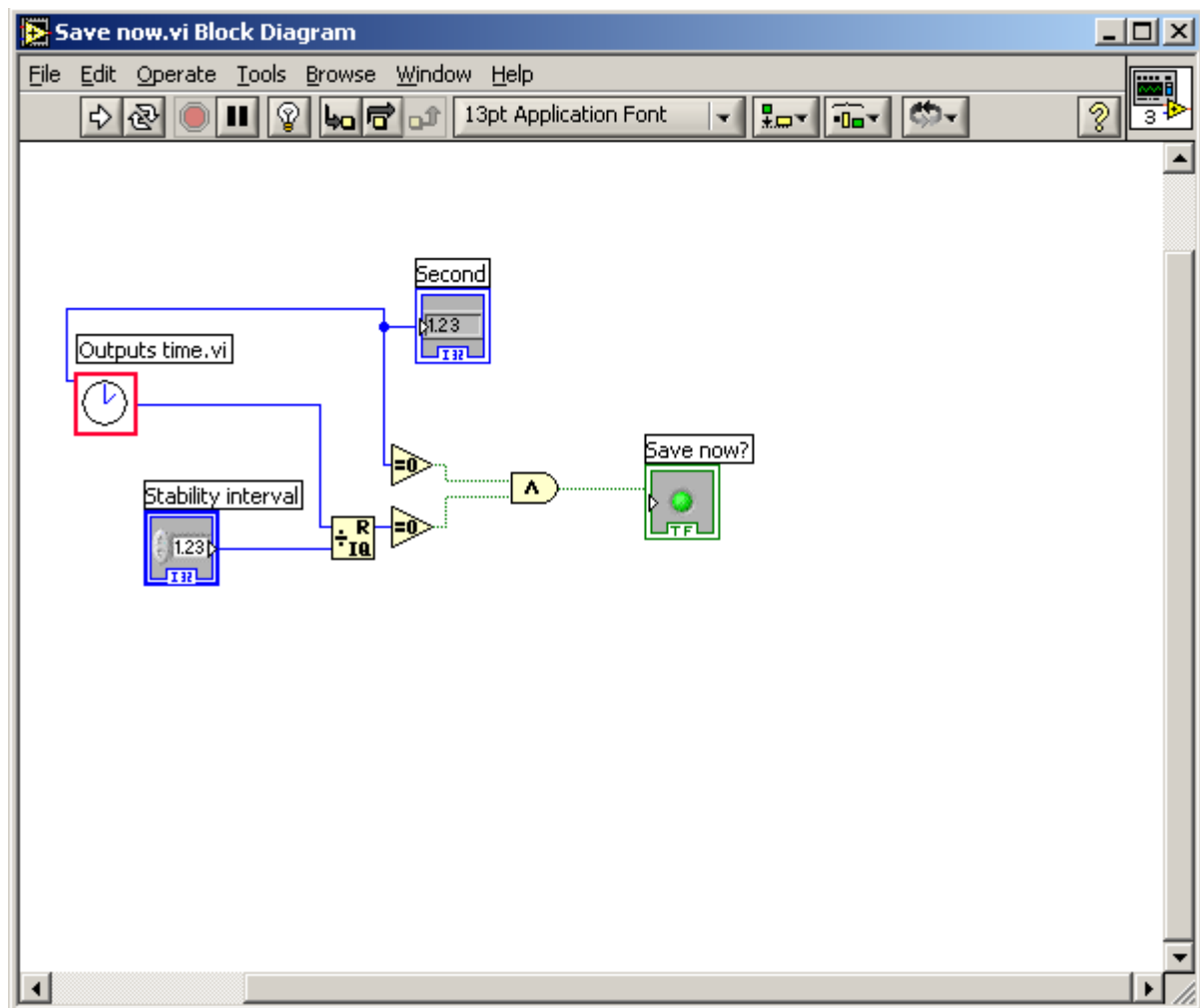


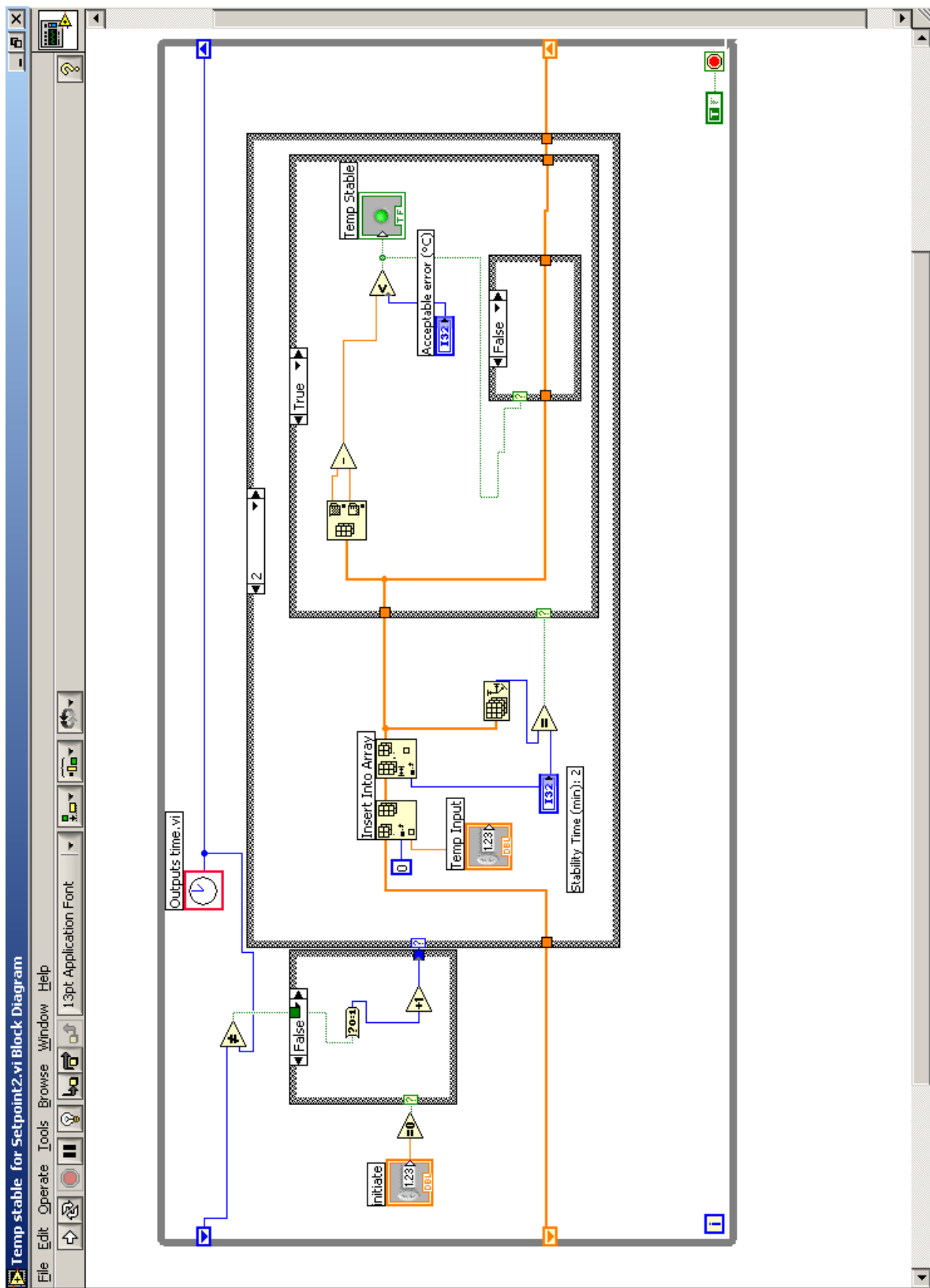


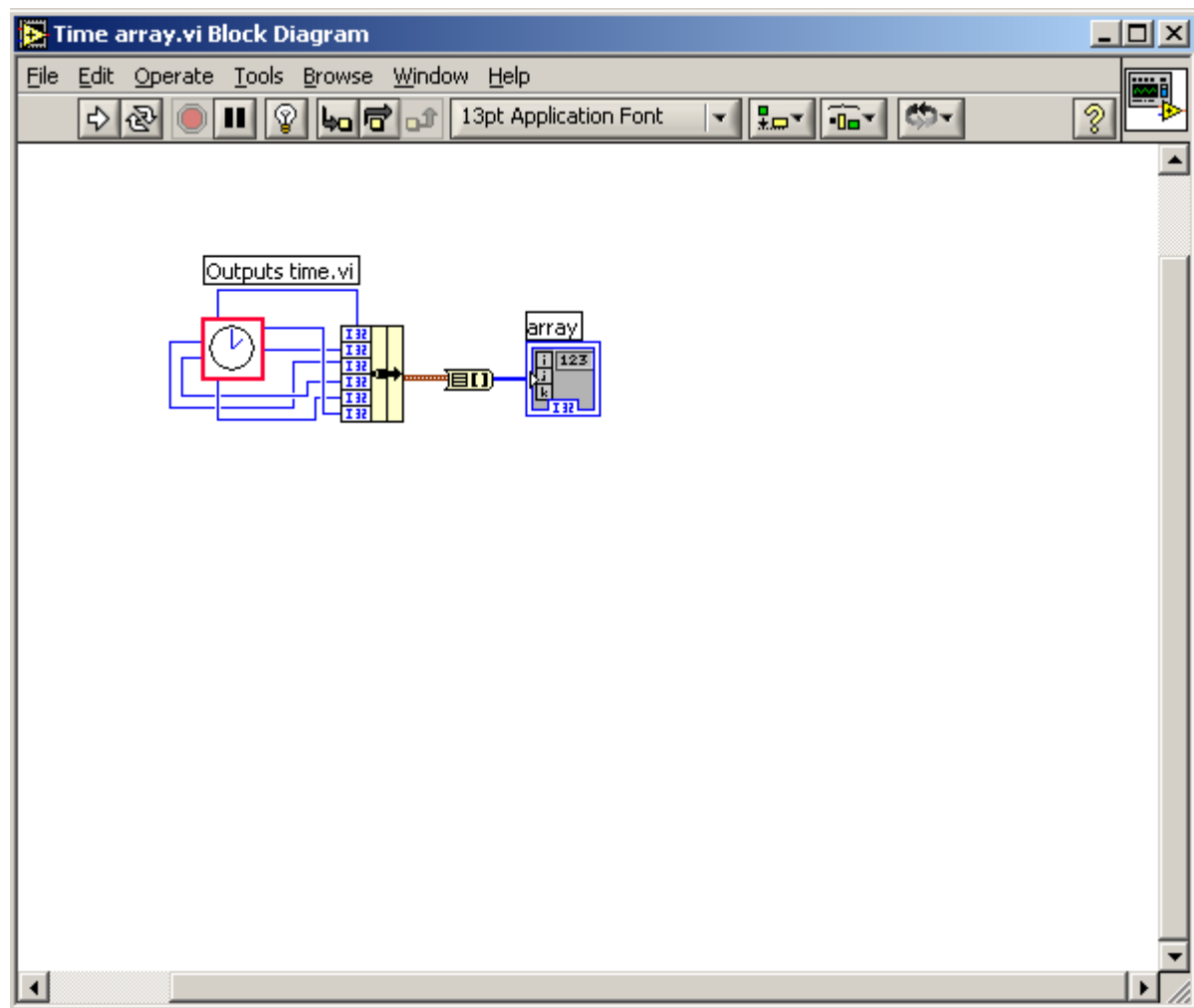












Appendix A4 Moisture Adsorption Data

Sample Type	Sample Number	Replicate Number	Number of Measurements	Target Dry Bulb Temperature (°C)	Dry Bulb Temperature (°C)	Dew Point Temperature (°C)	Relative Humidity (%)	Moisture Content (% db)
Kraft Linerboard	1	1	60	20	20.0	0.5	27.1	5.2
Kraft Linerboard	1	2	60	10	9.9	-8.8	23.7	5.2
Kraft Linerboard	1	3	60	-10	-10.1	-26.2	21.7	5.2
Kraft Linerboard	1	4	54	-20	-19.9	-35.3	20.6	5.2
Kraft Linerboard	1	5	60	-20	-20.0	-34.9	21.9	5.2
Kraft Linerboard	1	6	60	10	9.9	-8.0	25.4	5.2
Kraft Linerboard	1	7	60	20	20.0	2.1	30.5	5.2
Kraft Linerboard	1	8	54	10	10.0	-8.1	25.2	5.2
Kraft Linerboard	1	9	60	20	20.0	2.6	31.6	5.2
Kraft Linerboard	1	10	54	0	0.0	-17.2	22.0	5.2
Kraft Linerboard	1	11	60	-10	-9.9	-24.9	24.4	5.2
Kraft Linerboard	1	12	60	-20	-19.2	-33.7	23.1	5.2
Kraft Linerboard	1	13	52	-10	-10.1	-25.1	24.3	5.2
Kraft Linerboard	1	14	60	-20	-19.9	-33.9	24.1	5.2
Kraft Linerboard	1	15	54	0	0.1	-16.7	23.0	5.2
Kraft Linerboard	1	16	60	20	20.1	3.1	32.6	5.2
Kraft Linerboard	1	17	60	10	10.0	-6.8	28.2	5.2
Kraft Linerboard	1	18	54	20	20.0	3.5	33.6	5.2
Kraft Linerboard	1	19	60	10	10.0	-6.5	28.8	5.2
Kraft Linerboard	1	20	60	-10	-10.0	-25.3	23.8	5.2
Kraft Linerboard	1	21	60	-20	-19.8	-33.6	24.7	5.2
Kraft Linerboard	1	22	54	-10	-9.8	-24.3	25.6	5.2
Kraft Linerboard	1	23	60	-20	-19.1	-32.6	25.8	5.2
Kraft Linerboard	1	24	60	0	0.1	-15.9	24.7	5.2
Kraft Linerboard	1	25	54	10	10.0	-6.1	29.8	5.2
Kraft Linerboard	1	26	60	20	20.1	4.1	34.8	5.2
Kraft Linerboard	1	27	54	10	10.0	-6.0	30.1	5.2
Kraft Linerboard	1	28	60	20	20.0	4.2	35.3	5.2
Kraft Linerboard	1	29	60	0	0.0	-15.9	24.9	5.2
Kraft Linerboard	1	30	52	-10	-10.1	-24.1	26.7	5.2
Kraft Linerboard	1	31	60	-20	-19.8	-32.8	26.9	5.2
Kraft Linerboard	1	32	52	-10	-9.9	-24.0	26.6	5.2
Kraft Linerboard	1	33	60	-20	-19.7	-32.6	27.2	5.2
Kraft Linerboard	1	34	60	0	0.0	-14.9	27.4	5.2
Kraft Linerboard	1	35	54	20	20.0	4.6	36.2	5.2
Kraft Linerboard	1	36	60	10	9.9	-5.6	31.2	5.2
Kraft Linerboard	1	37	60	20	20.0	4.6	36.3	5.2
Kraft Linerboard	1	38	60	10	10.0	-5.4	31.5	5.2
Kraft Linerboard	1	39	60	0	0.0	-17.3	21.7	5.2
Kraft Linerboard	1	40	52	-10	-10.1	-24.4	26.3	5.2
Kraft Linerboard	1	41	60	-20	-19.5	-32.4	27.2	5.2

Kraft Linerboard	1	42	60	-10	-10.1	-23.6	28.1	5.2
Kraft Linerboard	1	43	47	-20	-19.5	-32.2	27.8	5.2
Kraft Linerboard	1	44	60	0	0.1	-14.2	28.8	5.2
Kraft Linerboard	1	45	54	10	10.0	-4.9	33.1	5.2
Kraft Linerboard	1	46	60	20	20.0	5.0	37.4	5.2
Kraft Linerboard	1	47	60	10	9.9	-5.1	32.7	5.2
Kraft Linerboard	1	48	54	20	20.0	5.1	37.6	5.2
Kraft Linerboard	1	49	60	0	-0.1	-15.2	26.8	5.2
Kraft Linerboard	2	1	54	20	20.0	-2.0	22.1	4.7
Kraft Linerboard	2	2	60	10	10.0	-11.7	18.2	4.7
Kraft Linerboard	2	3	60	-10	-10.0	-29.1	16.1	4.7
Kraft Linerboard	2	4	60	-20	-20.0	-38.7	14.4	4.7
Kraft Linerboard	2	5	60	-20	-19.9	-38.3	15.0	4.7
Kraft Linerboard	2	6	54	10	10.1	-10.3	20.6	4.7
Kraft Linerboard	2	7	60	20	20.0	-0.9	24.3	4.7
Kraft Linerboard	2	8	40	10	10.0	-10.9	19.7	4.7
Kraft Linerboard	2	9	60	20	20.0	-0.7	24.8	4.7
Kraft Linerboard	2	10	42	0	0.0	-19.6	17.5	4.7
Kraft Linerboard	2	11	52	-10	-10.0	-28.3	17.4	4.7
Kraft Linerboard	2	12	60	-20	-20.0	-37.4	16.6	4.7
Kraft Linerboard	2	13	46	-10	-10.0	-28.4	17.3	4.7
Kraft Linerboard	2	14	60	-20	-19.6	-37.0	16.9	4.7
Kraft Linerboard	2	15	60	0	0.1	-18.5	19.4	4.7
Kraft Linerboard	2	16	54	20	20.0	-0.1	25.9	4.7
Kraft Linerboard	2	17	60	10	9.9	-10.1	21.1	4.7
Kraft Linerboard	2	18	60	20	19.9	0.2	26.7	4.7
Kraft Linerboard	2	19	54	10	9.9	-9.9	21.5	4.7
Kraft Linerboard	2	20	60	0	0.0	-18.8	19.0	4.7
Kraft Linerboard	2	21	53	-10	-10.0	-27.8	18.5	4.7
Kraft Linerboard	2	22	60	-20	-19.7	-36.5	17.8	4.7
Kraft Linerboard	2	23	60	-10	-10.1	-27.5	19.1	4.7
Kraft Linerboard	2	24	41	-20	-19.7	-36.4	18.1	4.7
Kraft Linerboard	2	25	60	0	0.1	-17.9	20.6	4.7
Kraft Linerboard	2	26	54	10	10.0	-9.2	22.6	4.7
Kraft Linerboard	2	27	60	20	20.0	0.7	27.4	4.7
Kraft Linerboard	2	28	60	10	10.0	-9.4	22.4	4.7
Kraft Linerboard	2	29	54	20	20.0	0.8	27.6	4.7
Kraft Linerboard	2	30	60	0	0.1	-19.4	17.8	4.7
Kraft Linerboard	2	31	60	-10	-10.1	-27.8	18.5	4.7
Kraft Linerboard	2	32	54	-20	-20.0	-36.5	18.3	4.7
Kraft Linerboard	2	33	60	-10	-10.0	-27.2	19.5	4.7
Kraft Linerboard	2	34	60	0	0.1	-17.6	21.1	4.7
Kraft Linerboard	2	35	60	20	20.1	1.2	28.3	4.7
Kraft Linerboard	2	36	54	10	10.0	-9.0	23.1	4.7
Kraft Linerboard	2	37	60	20	20.0	1.2	28.5	4.7
Kraft Linerboard	2	38	54	10	10.0	-8.8	23.5	4.7
Kraft Linerboard	2	39	60	0	0.0	-18.9	18.7	4.7
Kraft Linerboard	2	40	60	-10	-10.0	-26.8	20.3	4.7
Kraft Linerboard	2	41	60	-10	-9.9	-26.7	20.4	4.7

Kraft Linerboard	2	42	54	-20	-20.1	-37.0	17.6	4.7
Kraft Linerboard	2	43	55	0	0.1	-17.2	22.0	4.7
Kraft Linerboard	2	44	60	10	10.0	-8.5	24.2	4.7
Kraft Linerboard	2	45	54	20	20.0	1.6	29.4	4.7
Kraft Linerboard	2	46	60	10	9.9	-8.5	24.2	4.7
Kraft Linerboard	2	47	60	20	20.0	1.8	29.7	4.7
Kraft Linerboard	2	48	54	0	-0.1	-18.8	19.1	4.7
Kraft Linerboard	2	49	60	-10	-10.0	-26.5	21.0	4.7
Kraft Linerboard	2	50	60	-10	-10.0	-26.3	21.3	4.7
Kraft Linerboard	3	1	60	20	20.0	5.7	39.1	6.4
Kraft Linerboard	3	2	60	10	10.0	-4.7	33.7	6.4
Kraft Linerboard	3	3	60	-10	-10.1	-23.7	27.9	6.4
Kraft Linerboard	3	4	54	-20	-20.0	-33.1	26.7	6.4
Kraft Linerboard	3	5	60	-10	-9.9	-23.2	28.8	6.4
Kraft Linerboard	3	6	60	-20	-18.8	-31.9	27.0	6.4
Kraft Linerboard	3	7	54	20	20.0	5.8	39.5	6.4
Kraft Linerboard	3	8	60	10	10.0	-4.7	33.8	6.4
Kraft Linerboard	3	9	60	20	20.0	5.7	39.2	6.4
Kraft Linerboard	3	10	60	-10	-10.0	-23.8	27.4	6.4
Kraft Linerboard	3	11	60	-20	-20.0	-33.1	26.6	6.4
Kraft Linerboard	3	12	54	-10	-10.0	-23.3	28.6	6.4
Kraft Linerboard	3	13	60	-20	-20.0	-32.5	28.3	6.4
Kraft Linerboard	3	14	60	20	20.0	5.4	38.3	6.4
Kraft Linerboard	3	15	60	10	10.0	-4.3	34.7	6.4
Kraft Linerboard	3	16	54	20	20.0	5.8	39.6	6.4
Kraft Linerboard	3	17	60	10	10.0	-4.4	34.5	6.4
Kraft Linerboard	3	18	56	0	0.0	-15.3	26.3	6.4
Kraft Linerboard	3	19	60	-10	-10.1	-23.4	28.8	6.4
Kraft Linerboard	3	20	60	-20	-19.9	-32.3	28.6	6.4
Kraft Linerboard	3	21	54	10	10.0	-5.8	30.7	6.4
Kraft Linerboard	3	22	60	20	20.0	5.6	38.7	6.4
Kraft Linerboard	3	23	54	10	10.0	-4.1	35.6	6.4
Kraft Linerboard	3	24	60	20	20.0	6.0	39.9	6.4
Kraft Linerboard	3	25	51	-10	-10.0	-23.5	28.2	6.4
Kraft Linerboard	3	26	60	0	-0.1	-13.3	31.8	6.4
Kraft Linerboard	3	27	54	20	20.0	6.2	40.7	6.4
Kraft Linerboard	3	28	60	10	10.0	-4.0	35.8	6.4
Kraft Linerboard	3	29	60	20	20.0	6.2	40.7	6.4
Kraft Linerboard	3	30	54	10	10.0	-4.1	35.5	6.4
Kraft Linerboard	3	31	60	0	0.0	-14.3	28.8	6.4
Kraft Linerboard	3	32	52	-10	-9.9	-22.9	29.8	6.4
Kraft Linerboard	3	33	60	-20	-20.0	-32.1	29.7	6.4
Kraft Linerboard	3	34	60	-10	-10.0	-22.6	30.8	6.4
Kraft Linerboard	3	35	60	0	0.1	-13.0	32.3	6.4
Kraft Linerboard	3	36	60	10	10.0	-3.9	35.8	6.4
Kraft Linerboard	3	37	55	20	20.1	6.3	40.8	6.4
Kraft Linerboard	3	38	60	10	10.0	-4.0	35.7	6.4
Kraft Linerboard	3	39	54	20	20.0	6.3	40.7	6.4
Kraft Linerboard	3	40	60	0	0.0	-14.3	28.9	6.4

Kraft Linerboard	3	41	60	-10	-10.0	-22.7	30.8	6.4
Kraft Linerboard	3	42	41	-20	-19.9	-31.8	30.2	6.4
Kraft Linerboard	4	1	60	10	10.0	9.4	95.9	39.7
Kraft Linerboard	4	2	54	10	10.0	9.3	95.1	39.7
Kraft Linerboard	4	3	57	0	0.0	-1.1	91.5	39.7
Kraft Linerboard	4	4	60	0	0.0	-1.1	91.6	39.7
Kraft Linerboard	4	5	60	-10	-10.0	-12.6	79.5	39.7
Kraft Linerboard	4	6	54	-10	-9.9	-12.3	80.8	39.7
Kraft Linerboard	4	7	48	-20	-19.9	-21.5	86.1	39.7
Kraft Linerboard	4	8	55	0	0.0	-2.1	84.2	39.7
Kraft Linerboard	4	9	47	-10	-9.9	-12.6	79.1	39.7
Kraft Linerboard	4	10	50	0	0.0	-1.2	90.9	39.7
Kraft Linerboard	4	11	54	10	10.0	9.4	95.7	39.7
Kraft Linerboard	4	12	54	0	0.0	-1.1	91.4	39.7
Kraft Linerboard	4	13	60	10	10.0	9.3	95.7	39.7
Kraft Linerboard	4	14	60	-10	-10.0	-12.7	78.6	39.7
Kraft Linerboard	4	15	60	0	0.0	-1.0	92.0	39.7
Kraft Linerboard	4	16	54	-10	-10.1	-12.5	80.4	39.7
Kraft Linerboard	4	17	54	0	0.1	-1.7	86.0	39.7
Kraft Linerboard	4	18	60	-20	-19.9	-21.4	85.9	39.7
Kraft Linerboard	4	19	60	10	9.9	9.3	95.9	39.7
Kraft Linerboard	4	20	54	0	0.0	-1.1	91.8	39.7
Kraft Linerboard	4	21	54	10	10.0	9.5	96.4	39.7
Kraft Linerboard	4	22	60	-10	-10.1	-12.8	78.3	39.7
Kraft Linerboard	4	23	60	0	0.0	-1.0	92.2	39.7
Kraft Linerboard	4	24	60	-10	-9.7	-11.2	87.9	39.7
Kraft Linerboard	4	25	48	0	0.0	-1.6	87.9	39.7
Kraft Linerboard	4	26	60	10	10.0	9.3	95.2	39.7
Kraft Linerboard	4	27	60	10	10.0	9.2	94.9	39.7
Kraft Linerboard	4	28	60	0	0.0	-1.1	91.3	39.7
Kraft Linerboard	4	29	52	-20	-18.9	-20.6	84.8	39.7
Kraft Linerboard	4	30	60	-20	-18.3	-20.1	84.3	39.7
Kraft Linerboard	4	31	45	0	0.1	-2.0	84.1	39.7
Kraft Linerboard	4	32	54	10	10.0	9.4	96.1	39.7
Kraft Linerboard	4	33	60	10	10.0	9.3	95.7	39.7
Kraft Linerboard	4	34	54	0	0.0	-1.0	92.6	39.7
Kraft Linerboard	4	35	55	-10	-10.0	-12.3	80.9	39.7
Kraft Linerboard	4	36	60	-20	-19.9	-21.8	83.1	39.7
Kraft Linerboard	4	37	55	-10	-10.1	-11.6	86.8	39.7
Kraft Linerboard	4	38	60	-20	-20.0	-22.2	80.7	39.7
Kraft Linerboard	4	39	54	0	0.1	-1.0	91.5	39.7
Kraft Linerboard	4	40	60	10	10.0	9.3	95.1	39.7
Kraft Linerboard	4	41	54	10	10.0	9.3	95.6	39.7
Kraft Linerboard	4	42	54	0	0.0	-0.9	92.5	39.7
Kraft Linerboard	4	43	60	-10	-10.0	-12.3	81.2	39.7
Kraft Linerboard	4	44	54	20	20.0	19.5	97.0	39.7
Kraft Linerboard	4	45	60	20	20.0	19.5	96.9	39.7
Kraft Linerboard	4	46	60	10	10.0	9.3	95.5	39.7
Kraft Linerboard	4	47	55	20	20.1	19.6	96.9	39.7

Kraft Linerboard	4	48	60	10	10.0	9.3	95.3	39.7
Kraft Linerboard	4	49	49	20	20.0	19.5	96.6	39.7
Kraft Linerboard	4	50	55	20	20.1	19.6	97.2	39.7
Kraft Linerboard	4	51	50	20	20.0	19.6	97.6	39.7
Kraft Linerboard	4	52	60	20	20.0	19.5	97.1	39.7
Kraft Linerboard	4	53	60	10	10.0	9.3	95.4	39.7
Kraft Linerboard	4	54	60	20	20.0	19.5	97.2	39.7
Kraft Linerboard	4	55	54	10	10.0	9.4	95.9	39.7
Kraft Linerboard	4	56	60	20	20.0	19.7	97.8	39.7
Kraft Linerboard	4	57	60	10	10.0	9.2	94.8	39.7
Kraft Linerboard	4	58	54	20	20.0	19.6	97.4	39.7
Kraft Linerboard	4	59	56	20	20.0	19.6	97.4	39.7
Kraft Linerboard	4	60	51	20	20.0	19.7	98.1	39.7
Kraft Linerboard	4	61	60	20	20.1	19.6	97.5	39.7
Kraft Linerboard	4	62	57	20	20.0	19.6	97.3	39.7
Kraft Linerboard	4	63	60	20	20.1	19.6	97.2	39.7
Kraft Linerboard	5	1	60	-20	-19.5	-21.6	81.7	40.3
Kraft Linerboard	5	2	51	-20	-19.4	-21.8	79.3	40.3
Kraft Linerboard	5	3	50	-20	-19.4	-21.5	81.7	40.3
Kraft Linerboard	5	4	60	-20	-18.7	-20.9	81.3	40.3
Kraft Linerboard	5	5	60	-20	-19.0	-20.9	83.5	40.3
Kraft Linerboard	5	6	60	-20	-18.8	-20.5	84.3	40.3
Kraft Linerboard	5	7	54	-20	-18.5	-20.4	83.3	40.3
Kraft Linerboard	5	8	60	-20	-18.2	-19.7	86.3	40.3
Kraft Linerboard	5	9	50	-20	-18.5	-20.3	84.0	40.3
Kraft Linerboard	5	10	48	-20	-18.1	-19.9	84.9	40.3
Kraft Linerboard	5	11	54	20	20.0	19.5	96.9	40.3
Kraft Linerboard	5	12	52	-10	-10.0	-11.9	84.1	40.3
Kraft Linerboard	5	13	60	10	10.0	9.2	94.8	40.3
Kraft Linerboard	5	14	60	0	0.0	-1.1	91.4	40.3
Kraft Linerboard	5	15	60	0	0.0	-1.5	88.4	40.3
Kraft Linerboard	5	16	60	10	10.0	9.2	94.7	40.3
Kraft Linerboard	5	17	54	10	10.0	9.3	95.5	40.3
Kraft Linerboard	5	18	54	20	20.0	19.5	96.5	40.3
Kraft Linerboard	5	19	54	10	10.0	9.3	95.4	40.3
Kraft Linerboard	5	20	60	20	20.1	19.5	96.9	40.3
Kraft Linerboard	5	21	60	10	10.0	9.3	95.3	40.3
Kraft Linerboard	5	22	60	20	20.0	19.4	96.6	40.3
Kraft Linerboard	5	23	60	0	0.0	-1.2	90.8	40.3
Kraft Linerboard	5	24	53	20	20.0	19.5	96.9	40.3
Kraft Linerboard	5	25	60	-10	-10.0	-11.7	85.8	40.3
Kraft Linerboard	5	26	60	0	-0.1	-1.2	91.1	40.3
Kraft Linerboard	5	27	40	0	0.0	-1.6	87.5	40.3
Kraft Linerboard	5	28	60	-10	-10.1	-11.9	84.8	40.3
Kraft Linerboard	5	29	60	0	0.0	-1.5	87.9	40.3
Kraft Linerboard	5	30	54	20	20.0	19.3	96.2	40.3
Kraft Linerboard	5	31	49	-10	-10.0	-12.3	81.6	40.3
Kraft Linerboard	5	32	60	10	10.0	9.2	94.5	40.3
Kraft Linerboard	5	33	54	0	0.0	-1.0	92.1	40.3

Kraft Linerboard	5	34	60	-10	-10.5	-12.2	85.5	40.3
Kraft Linerboard	5	35	54	0	0.0	-1.2	90.6	40.3
Kraft Linerboard	5	36	60	10	10.0	9.2	94.8	40.3
Kraft Linerboard	5	37	60	20	20.0	19.5	96.8	40.3
Kraft Linerboard	5	38	60	10	10.0	9.3	95.3	40.3
Kraft Linerboard	5	39	54	20	20.0	19.4	96.7	40.3
Kraft Linerboard	5	40	60	0	0.0	-1.0	92.6	40.3
Kraft Linerboard	5	41	60	0	0.0	-1.0	92.4	40.3
Kraft Linerboard	5	42	60	20	20.1	19.5	96.4	40.3
Kraft Linerboard	5	43	48	-10	-10.0	-11.4	88.0	40.3
Kraft Linerboard	5	44	60	10	10.1	9.4	95.6	40.3
Kraft Linerboard	5	45	60	0	0.0	-0.8	93.6	40.3
Kraft Linerboard	5	46	60	-10	-9.9	-11.3	88.2	40.3
Kraft Linerboard	5	47	60	-10	-10.0	-11.3	88.7	40.3
Kraft Linerboard	5	48	60	-20	-17.1	-18.6	86.6	40.3
Kraft Linerboard	6	1	54	20	20.0	16.6	81.0	12.1
Kraft Linerboard	6	2	60	10	10.0	6.9	81.1	12.1
Kraft Linerboard	6	3	60	0	0.0	-3.2	76.7	12.1
Kraft Linerboard	6	4	56	-10	-10.0	-13.4	73.5	12.1
Kraft Linerboard	6	5	60	-20	-17.5	-20.7	73.6	12.1
Kraft Linerboard	6	6	44	-10	-11.5	-14.9	73.4	12.1
Kraft Linerboard	6	7	60	-20	-18.2	-21.1	75.5	12.1
Kraft Linerboard	6	8	60	20	20.0	16.8	81.7	12.1
Kraft Linerboard	6	9	54	10	10.0	6.8	80.9	12.1
Kraft Linerboard	6	10	60	20	20.0	17.0	83.0	12.1
Kraft Linerboard	6	11	60	0	0.0	-3.2	76.4	12.1
Kraft Linerboard	6	12	45	-10	-10.0	-13.3	74.1	12.1
Kraft Linerboard	6	13	60	-20	-17.4	-19.9	78.7	12.1
Kraft Linerboard	6	14	47	-10	-11.5	-15.0	73.1	12.1
Kraft Linerboard	6	15	53	-20	-17.5	-20.3	77.2	12.1
Kraft Linerboard	6	16	60	10	10.0	6.6	79.4	12.1
Kraft Linerboard	6	17	60	20	20.0	17.2	84.0	12.1
Kraft Linerboard	6	18	54	10	10.0	7.1	82.6	12.1
Kraft Linerboard	6	19	60	0	0.0	-2.8	79.0	12.1
Kraft Linerboard	6	20	60	-20	-17.6	-19.9	80.6	12.1
Kraft Linerboard	6	21	60	-10	-12.3	-15.4	75.3	12.1
Kraft Linerboard	6	22	47	-20	-17.7	-20.5	76.5	12.1
Kraft Linerboard	6	23	60	10	10.0	7.1	82.3	12.1
Kraft Linerboard	6	24	54	20	20.1	17.5	85.2	12.1
Kraft Linerboard	6	25	60	10	10.0	7.3	83.3	12.1
Kraft Linerboard	6	26	54	20	20.0	17.6	85.9	12.1
Kraft Linerboard	6	27	60	0	0.0	-3.3	76.1	12.1
Kraft Linerboard	6	28	50	-20	-16.9	-19.6	77.3	12.1
Kraft Linerboard	6	29	60	-10	-10.4	-13.2	78.0	12.1
Kraft Linerboard	6	30	47	-20	-18.0	-20.8	76.3	12.1
Kraft Linerboard	6	31	60	20	20.1	17.4	84.9	12.1
Kraft Linerboard	6	32	54	10	10.1	7.3	82.9	12.1
Kraft Linerboard	6	33	60	20	20.0	17.4	84.8	12.1
Kraft Linerboard	6	34	60	10	10.0	7.2	82.8	12.1

Kraft Linerboard	6	35	54	0	0.0	-3.2	76.7	12.1
Kraft Linerboard	6	36	60	-10	-10.0	-13.6	72.0	12.1
Kraft Linerboard	6	37	52	-20	-17.9	-20.3	79.4	12.1
Kraft Linerboard	6	38	56	-10	-12.0	-14.3	81.2	12.1
Kraft Linerboard	6	39	60	-20	-17.7	-20.0	80.4	12.1
Kraft Linerboard	6	40	60	10	10.0	7.1	82.2	12.1
Kraft Linerboard	6	41	60	20	20.0	17.4	84.8	12.1
Kraft Linerboard	6	42	54	10	10.0	7.1	82.0	12.1
Kraft Linerboard	6	43	60	20	20.0	17.2	84.1	12.1
Kraft Linerboard	6	44	54	0	-0.1	-3.3	76.1	12.1
Kraft Linerboard	6	45	60	-10	-10.0	-13.7	71.4	12.1
Kraft Linerboard	6	46	60	-20	-16.7	-19.1	80.3	12.1
Kraft Linerboard	6	47	40	-10	-11.4	-13.8	80.7	12.1
Kraft Linerboard	6	48	60	-20	-17.8	-20.9	74.5	12.1
Kraft Linerboard	6	49	60	20	20.1	17.1	83.3	12.1
Kraft Linerboard	6	50	60	10	10.0	6.9	80.9	12.1
Kraft Linerboard	6	51	54	20	20.0	17.2	83.8	12.1
Kraft Linerboard	6	52	60	10	10.0	6.8	80.4	12.1
Kraft Linerboard	6	53	60	0	0.0	-3.4	75.4	12.1
Kraft Linerboard	6	54	60	-20	-17.5	-20.8	73.0	12.1
Kraft Linerboard	6	55	46	-10	-11.0	-14.4	73.4	12.1
Kraft Linerboard	6	56	60	-20	-17.6	-20.4	77.0	12.1
Kraft Linerboard	6	57	54	10	10.0	6.5	78.8	12.1
Kraft Linerboard	6	58	60	20	20.0	17.1	83.3	12.1
Kraft Linerboard	6	59	60	10	10.0	7.0	81.6	12.1
Kraft Linerboard	6	60	60	20	20.0	17.1	83.7	12.1
Kraft Linerboard	6	61	60	0	0.0	-3.5	74.6	12.1
Kraft Linerboard	6	62	60	-20	-17.0	-20.1	74.6	12.1
Kraft Linerboard	6	63	60	-10	-11.5	-14.5	76.6	12.1
Kraft Linerboard	6	64	47	-20	-17.6	-20.2	77.9	12.1
Kraft Linerboard	6	65	54	20	20.0	17.0	83.0	12.1
Kraft Linerboard	6	66	60	10	10.0	6.9	80.9	12.1
Kraft Linerboard	6	67	60	20	20.0	17.1	83.5	12.1
Kraft Linerboard	6	68	54	10	10.0	6.9	81.0	12.1
Kraft Linerboard	6	69	60	0	0.0	-3.5	74.8	12.1
Kraft Linerboard	6	70	52	-20	-17.6	-20.6	75.2	12.1
Kraft Linerboard	6	71	60	-10	-11.2	-14.0	77.2	12.1
Kraft Linerboard	6	72	50	-20	-18.2	-21.0	75.9	12.1
Kraft Linerboard	6	73	60	10	10.0	6.8	80.6	12.1
Kraft Linerboard	6	74	54	20	20.1	17.2	83.7	12.1
Kraft Linerboard	6	75	60	10	10.0	6.8	80.6	12.1
Kraft Linerboard	6	76	54	20	20.0	17.2	84.2	12.1
Kraft Linerboard	6	77	60	0	-0.1	-3.5	74.9	12.1
Kraft Linerboard	6	78	60	-10	-10.0	-13.8	71.4	12.1
Kraft Linerboard	6	79	49	-20	-17.1	-19.4	79.9	12.1
Kraft Linerboard	6	80	60	-10	-11.0	-13.4	80.4	12.1
Kraft Linerboard	6	81	60	-20	-17.6	-20.0	79.2	12.1
Kraft Linerboard	6	82	60	20	20.1	17.3	84.0	12.1
Kraft Linerboard	6	83	45	10	10.1	6.9	80.7	12.1

Kraft Linerboard	7	1	60	20	20.0	15.6	75.9	12.9
Kraft Linerboard	7	2	60	10	10.0	5.5	73.7	12.9
Kraft Linerboard	7	3	54	0	0.0	-4.6	68.1	12.9
Kraft Linerboard	7	4	60	-20	-17.8	-21.6	69.9	12.9
Kraft Linerboard	7	5	52	-10	-11.9	-15.6	71.4	12.9
Kraft Linerboard	7	6	60	-20	-17.5	-21.2	70.5	12.9
Kraft Linerboard	7	7	60	10	10.1	5.2	71.6	12.9
Kraft Linerboard	7	8	58	20	20.0	15.7	76.0	12.9
Kraft Linerboard	7	9	54	10	10.0	5.5	73.5	12.9
Kraft Linerboard	7	10	60	20	20.0	15.8	76.6	12.9
Kraft Linerboard	7	11	60	0	-0.1	-4.6	68.2	12.9
Kraft Linerboard	7	12	60	-20	-17.8	-21.6	69.4	12.9
Kraft Linerboard	7	13	60	-20	-18.0	-22.0	68.1	12.9
Kraft Linerboard	7	14	60	0	-4.1	-8.2	70.1	12.9
Kraft Linerboard	7	15	54	20	20.0	15.7	76.2	12.9
Kraft Linerboard	7	16	60	10	10.0	5.4	73.2	12.9
Kraft Linerboard	7	17	54	20	20.0	15.8	76.8	12.9
Kraft Linerboard	7	18	60	10	10.0	5.6	74.0	12.9
Kraft Linerboard	7	19	60	0	0.0	-4.5	68.6	12.9
Kraft Linerboard	7	20	60	-20	-17.7	-21.5	69.8	12.9
Kraft Linerboard	7	21	60	-10	-12.6	-16.4	70.4	12.9
Kraft Linerboard	7	22	54	-20	-17.9	-21.4	71.6	12.9
Kraft Linerboard	7	23	60	0	-2.8	-6.7	71.7	12.9
Kraft Linerboard	7	24	54	10	10.0	5.7	74.3	12.9
Kraft Linerboard	7	25	60	20	20.0	15.9	77.1	12.9
Kraft Linerboard	7	26	60	10	10.0	5.8	74.8	12.9
Kraft Linerboard	7	27	54	20	20.0	16.1	78.0	12.9
Kraft Linerboard	7	28	60	0	0.0	-4.5	68.7	12.9
Kraft Linerboard	7	29	60	-20	-17.1	-20.9	69.5	12.9
Kraft Linerboard	7	30	60	-10	-12.8	-16.3	72.5	12.9
Kraft Linerboard	7	31	54	-20	-17.7	-21.2	71.4	12.9
Kraft Linerboard	7	32	60	0	-3.6	-7.1	73.7	12.9
Kraft Linerboard	7	33	60	20	20.0	15.9	77.5	12.9
Kraft Linerboard	7	34	54	10	10.0	5.8	74.9	12.9
Kraft Linerboard	7	35	60	20	20.0	16.1	78.0	12.9
Kraft Linerboard	7	36	54	10	10.0	5.9	75.8	12.9
Kraft Linerboard	7	37	60	0	0.0	-4.4	69.2	12.9
Kraft Linerboard	7	38	54	-20	-17.3	-20.9	70.9	12.9
Kraft Linerboard	7	39	60	-10	-11.6	-15.2	72.4	12.9
Kraft Linerboard	7	40	60	-20	-17.7	-21.2	71.9	12.9
Kraft Linerboard	7	41	54	0	-4.0	-7.4	74.4	12.9
Kraft Linerboard	7	42	60	10	10.0	5.8	74.7	12.9
Kraft Linerboard	7	43	54	20	20.0	16.3	79.0	12.9
Kraft Linerboard	7	44	60	10	10.0	5.9	75.7	12.9
Kraft Linerboard	7	45	60	20	20.0	16.2	79.0	12.9
Kraft Linerboard	7	46	54	0	0.0	-4.3	69.7	12.9
Kraft Linerboard	7	47	54	-20	-17.1	-21.1	68.2	12.9
Kraft Linerboard	7	48	60	-10	-10.0	-13.6	72.2	12.9
Kraft Linerboard	7	49	60	0	0.0	-4.5	69.0	12.9

Kraft Linerboard	7	50	60	0	-0.2	-5.0	67.0	12.9
Kraft Linerboard	8	1	54	20	20.0	15.7	76.4	12.3
Kraft Linerboard	8	2	60	10	10.0	5.5	73.6	12.3
Kraft Linerboard	8	3	60	0	0.0	-4.7	67.7	12.3
Kraft Linerboard	8	4	60	-20	-16.8	-21.0	67.0	12.3
Kraft Linerboard	8	5	54	-20	-17.4	-21.3	68.7	12.3
Kraft Linerboard	8	6	60	0	-0.3	-4.9	68.2	12.3
Kraft Linerboard	8	7	54	10	10.0	5.4	73.2	12.3
Kraft Linerboard	8	8	60	20	20.0	15.7	76.3	12.3
Kraft Linerboard	8	9	60	10	10.0	5.6	73.9	12.3
Kraft Linerboard	8	10	54	20	20.0	15.9	76.9	12.3
Kraft Linerboard	8	11	60	0	0.0	-4.7	67.4	12.3
Kraft Linerboard	8	12	60	-20	-17.1	-20.8	69.9	12.3
Kraft Linerboard	8	13	54	-20	-18.1	-21.6	71.6	12.3
Kraft Linerboard	8	14	60	0	-3.6	-7.3	72.9	12.3
Kraft Linerboard	8	15	60	20	20.0	15.8	77.1	12.3
Kraft Linerboard	8	16	54	10	10.0	5.7	74.9	12.3
Kraft Linerboard	8	17	60	20	20.0	16.0	77.7	12.3
Kraft Linerboard	8	18	54	10	10.0	5.9	75.4	12.3
Kraft Linerboard	8	19	60	0	0.0	-4.5	68.6	12.3
Kraft Linerboard	8	20	54	-20	-17.4	-21.1	70.1	12.3
Kraft Linerboard	8	21	60	-20	-18.2	-21.7	71.3	12.3
Kraft Linerboard	8	22	54	0	-3.5	-7.0	73.6	12.3
Kraft Linerboard	8	23	60	10	10.0	5.8	74.9	12.3
Kraft Linerboard	8	24	54	20	20.0	16.1	78.6	12.3
Kraft Linerboard	8	25	60	10	10.0	5.8	75.3	12.3
Kraft Linerboard	8	26	60	20	20.0	16.1	78.2	12.3
Kraft Linerboard	8	27	54	0	0.1	-4.4	68.6	12.3
Kraft Linerboard	8	28	55	-20	-17.6	-21.3	70.2	12.3
Kraft Linerboard	8	29	60	-20	-18.0	-21.4	72.2	12.3
Kraft Linerboard	8	30	60	20	20.1	15.9	77.0	12.3
Kraft Linerboard	8	31	60	10	10.0	5.8	75.4	12.3
Kraft Linerboard	8	32	54	20	20.0	16.1	78.2	12.3
Kraft Linerboard	8	33	60	10	10.0	5.9	75.4	12.3
Kraft Linerboard	8	34	54	0	0.0	-4.4	69.2	12.3
Kraft Linerboard	8	35	60	-20	-17.1	-20.8	70.5	12.3
Kraft Linerboard	8	36	59	-20	-18.1	-21.5	71.8	12.3
Kraft Linerboard	8	37	60	0	-0.2	-4.8	68.2	12.3
Kraft Linerboard	8	38	54	10	10.0	5.6	74.3	12.3
Kraft Linerboard	8	39	60	20	20.0	15.9	77.7	12.3
Kraft Linerboard	8	40	54	10	10.0	6.0	76.3	12.3
Kraft Linerboard	8	41	60	20	20.0	16.2	78.8	12.3
Kraft Linerboard	8	42	60	0	0.0	-4.3	70.0	12.3
Kraft Linerboard	9	1	60	20	20.1	8.7	47.9	7.6
Kraft Linerboard	9	2	60	10	10.0	-1.6	43.6	7.6
Kraft Linerboard	9	3	49	-10	-10.0	-21.3	35.0	7.6
Kraft Linerboard	9	4	60	-20	-16.1	-26.3	37.3	7.6
Kraft Linerboard	9	5	60	-10	-11.7	-22.5	36.3	7.6
Kraft Linerboard	9	6	54	-20	-17.5	-27.8	36.6	7.6

Kraft Linerboard	9	7	60	0	-2.2	-12.4	41.1	7.6
Kraft Linerboard	9	8	54	10	10.0	-1.1	45.6	7.6
Kraft Linerboard	9	9	60	20	20.0	9.6	51.1	7.6
Kraft Linerboard	9	10	60	10	10.0	-0.4	48.4	7.6
Kraft Linerboard	9	11	54	20	20.0	10.1	53.0	7.6
Kraft Linerboard	9	12	60	0	0.0	-10.4	41.1	7.6
Kraft Linerboard	9	13	50	-10	-10.0	-19.4	42.3	7.6
Kraft Linerboard	9	14	52	-20	-16.0	-24.7	43.2	7.6
Kraft Linerboard	9	15	60	-10	-12.4	-21.0	45.0	7.6
Kraft Linerboard	9	16	54	-20	-17.3	-26.0	43.0	7.6
Kraft Linerboard	9	17	60	0	0.4	-8.8	46.0	7.6
Kraft Linerboard	9	18	60	20	20.0	10.7	55.0	7.6
Kraft Linerboard	9	19	55	10	10.0	0.6	52.0	7.6
Kraft Linerboard	9	20	60	20	20.0	10.9	55.8	7.6
Kraft Linerboard	9	21	55	10	10.0	0.8	53.0	7.6
Kraft Linerboard	9	22	60	0	0.0	-9.5	44.4	7.6
Kraft Linerboard	9	23	60	-10	-10.0	-18.4	46.3	7.6
Kraft Linerboard	9	24	54	-20	-17.0	-24.9	46.3	7.6
Kraft Linerboard	9	25	60	-10	-12.0	-19.9	48.1	7.6
Kraft Linerboard	9	26	60	-20	-17.7	-25.6	46.4	7.6
Kraft Linerboard	9	27	54	0	-2.9	-10.8	50.4	7.6
Kraft Linerboard	9	28	60	10	10.0	1.2	54.4	7.6
Kraft Linerboard	9	29	54	20	20.0	11.6	58.4	7.6
Kraft Linerboard	9	30	60	10	10.0	1.2	54.3	7.6
Kraft Linerboard	9	31	60	20	20.0	11.6	58.2	7.6
Kraft Linerboard	9	32	54	0	0.0	-9.2	45.6	7.6
Kraft Linerboard	9	33	60	-10	-10.0	-18.5	45.8	7.6
Kraft Linerboard	9	34	60	-20	-16.8	-24.7	46.6	7.6
Kraft Linerboard	9	35	55	-10	-12.0	-19.7	48.6	7.6
Kraft Linerboard	9	36	60	-20	-17.7	-25.5	46.9	7.6
Kraft Linerboard	9	37	54	0	-2.3	-10.6	48.8	7.6
Kraft Linerboard	9	38	60	20	20.0	11.7	58.6	7.6
Kraft Linerboard	9	39	60	10	10.0	1.3	54.8	7.6
Kraft Linerboard	9	40	54	20	20.0	11.7	58.9	7.6
Kraft Linerboard	9	41	60	10	9.9	1.5	55.7	7.6
Kraft Linerboard	9	42	54	0	0.0	-9.0	46.6	7.6
Kraft Linerboard	9	43	60	-10	-10.0	-18.3	46.6	7.6
Kraft Linerboard	9	44	60	-20	-16.7	-24.2	48.7	7.6
Kraft Linerboard	9	45	60	-20	-17.2	-24.6	49.0	7.6
Kraft Linerboard	9	46	54	10	10.0	1.6	55.9	7.6
Kraft Linerboard	9	47	60	20	20.0	12.1	60.4	7.6
Kraft Linerboard	9	48	54	10	10.0	1.8	56.7	7.6
Kraft Linerboard	9	49	60	20	20.0	12.1	60.4	7.6
Kraft Linerboard	9	50	60	0	0.0	-8.8	47.5	7.6
Kraft Linerboard	9	51	40	-10	-10.0	-18.3	46.9	7.6
Kraft Linerboard	9	52	60	-20	-17.2	-24.8	48.2	7.6
Kraft Linerboard	9	53	55	-10	-11.3	-19.1	48.8	7.6
Kraft Linerboard	9	54	57	-20	-17.6	-24.8	49.6	7.6
Kraft Linerboard	9	55	60	0	-1.1	-8.7	52.5	7.6

Kraft Linerboard	9	56	54	20	20.0	12.4	61.6	7.6
Kraft Linerboard	9	57	60	10	10.0	2.0	57.5	7.6
Kraft Linerboard	9	58	60	20	20.0	12.3	61.0	7.6
Kraft Linerboard	9	59	54	10	10.0	1.9	57.2	7.6
Kraft Linerboard	9	60	60	0	0.0	-8.4	48.9	7.6
Kraft Linerboard	9	61	41	-10	-10.1	-18.2	47.4	7.6
Kraft Linerboard	9	62	60	-20	-17.0	-24.1	50.2	7.6
Kraft Linerboard	9	63	60	-10	-11.2	-18.5	51.0	7.6
Kraft Linerboard	9	64	54	-20	-17.5	-24.7	49.7	7.6
Kraft Linerboard	9	65	60	0	-1.5	-8.8	53.6	7.6
Kraft Linerboard	9	66	60	10	10.0	2.2	58.5	7.6
Kraft Linerboard	9	67	54	20	20.1	12.6	62.0	7.6
Kraft Linerboard	9	68	60	10	10.0	2.2	58.5	7.6
Kraft Linerboard	9	69	54	20	20.0	12.4	61.6	7.6
Kraft Linerboard	10	1	60	20	20.0	7.8	45.4	7.2
Kraft Linerboard	10	2	55	10	10.1	-2.1	41.7	7.2
Kraft Linerboard	10	3	60	0	0.0	-12.2	35.1	7.2
Kraft Linerboard	10	4	60	-10	-10.1	-20.4	38.6	7.2
Kraft Linerboard	10	5	60	-10	-11.8	-21.8	39.0	7.2
Kraft Linerboard	10	6	60	-20	-17.4	-27.6	36.7	7.2
Kraft Linerboard	10	7	60	-10	-10.0	-21.7	33.5	7.2
Kraft Linerboard	10	8	60	-20	-17.0	-27.4	36.2	7.2
Kraft Linerboard	10	9	60	-20	-17.2	-27.2	37.4	7.2
Kraft Linerboard	10	10	60	20	20.1	9.1	49.2	7.2
Kraft Linerboard	10	11	60	10	10.0	-0.9	46.5	7.2
Kraft Linerboard	10	12	54	20	20.0	9.4	50.5	7.2
Kraft Linerboard	10	13	60	10	10.0	-0.8	46.8	7.2
Kraft Linerboard	10	14	60	0	0.0	-10.9	39.3	7.2
Kraft Linerboard	10	15	47	-10	-9.9	-19.4	41.7	7.2
Kraft Linerboard	10	16	60	-20	-15.7	-24.8	41.6	7.2
Kraft Linerboard	10	17	60	-20	-17.5	-26.2	42.8	7.2
Kraft Linerboard	10	18	54	10	10.0	-0.3	48.6	7.2
Kraft Linerboard	10	19	60	20	20.0	10.0	52.4	7.2
Kraft Linerboard	10	20	60	10	10.0	-0.5	48.0	7.2
Kraft Linerboard	10	21	54	20	20.0	10.1	52.9	7.2
Kraft Linerboard	10	22	60	0	0.0	-10.5	40.7	7.2
Kraft Linerboard	10	23	45	-10	-10.0	-19.5	41.6	7.2
Kraft Linerboard	10	24	60	-20	-17.0	-25.6	43.1	7.2
Kraft Linerboard	10	25	60	-10	-11.2	-20.1	43.8	7.2
Kraft Linerboard	10	26	54	-20	-17.5	-26.1	43.3	7.2
Kraft Linerboard	10	27	54	20	20.0	10.3	53.6	7.2
Kraft Linerboard	10	28	60	10	10.0	0.1	50.0	7.2
Kraft Linerboard	10	29	60	20	20.0	10.3	53.5	7.2
Kraft Linerboard	10	30	54	10	10.0	0.0	49.9	7.2
Kraft Linerboard	10	31	60	0	0.0	-10.1	42.3	7.2
Kraft Linerboard	10	32	55	-10	-10.0	-19.3	42.4	7.2
Kraft Linerboard	10	33	52	-20	-15.5	-23.9	44.7	7.2
Kraft Linerboard	10	34	60	-10	-11.9	-20.3	45.6	7.2
Kraft Linerboard	10	35	52	-20	-16.4	-25.0	43.7	7.2

Kraft Linerboard	10	36	60	10	10.0	0.4	51.2	7.2
Kraft Linerboard	10	37	54	20	20.0	10.7	54.9	7.2
Kraft Linerboard	10	38	60	10	10.0	0.4	51.3	7.2
Kraft Linerboard	10	39	60	20	20.0	10.7	54.7	7.2
Kraft Linerboard	10	40	57	0	0.0	-9.7	43.4	7.2
Kraft Linerboard	10	41	60	-10	-10.0	-18.9	44.2	7.2
Kraft Linerboard	10	42	52	-20	-16.5	-24.9	44.4	7.2
Kraft Linerboard	10	43	60	-10	-13.8	-22.2	45.0	7.2
Kraft Linerboard	10	44	60	-20	-17.8	-26.1	44.8	7.2
Kraft Linerboard	10	45	60	20	19.9	10.7	55.6	7.2
Kraft Linerboard	10	46	54	10	10.0	0.4	51.4	7.2
Kraft Linerboard	10	47	60	20	20.0	10.9	55.9	7.2
Kraft Linerboard	10	48	60	10	10.0	0.6	52.0	7.2
Kraft Linerboard	10	49	54	0	0.0	-9.7	43.7	7.2
Kraft Linerboard	10	50	60	-10	-10.0	-18.9	43.9	7.2
Kraft Linerboard	10	51	60	-20	-16.4	-24.6	45.3	7.2
Kraft Linerboard	10	52	48	-10	-12.7	-20.7	47.0	7.2
Kraft Linerboard	10	53	60	-20	-17.6	-25.6	45.9	7.2
Kraft Linerboard	10	54	60	10	10.0	0.9	53.1	7.2
Kraft Linerboard	10	55	60	20	20.0	11.2	56.9	7.2
Kraft Linerboard	10	56	54	10	9.9	0.8	53.2	7.2
Kraft Linerboard	10	57	60	20	20.0	11.3	57.1	7.2
Kraft Linerboard	10	58	60	0	0.0	-9.5	44.5	7.2
Kraft Linerboard	10	59	49	-10	-10.0	-19.5	41.7	7.2
Kraft Linerboard	11	1	60	20	20.1	17.2	83.9	15.5
Kraft Linerboard	11	2	54	10	10.0	6.7	79.8	15.5
Kraft Linerboard	11	3	60	0	0.0	-3.6	74.3	15.5
Kraft Linerboard	11	4	60	-10	-10.0	-14.4	66.7	15.5
Kraft Linerboard	11	5	49	-20	-17.1	-20.2	74.2	15.5
Kraft Linerboard	11	6	60	-10	-11.0	-14.1	75.6	15.5
Kraft Linerboard	11	7	54	-20	-17.6	-20.7	74.5	15.5
Kraft Linerboard	11	8	60	0	-0.7	-4.2	74.7	15.5
Kraft Linerboard	11	9	60	10	10.0	6.5	78.9	15.5
Kraft Linerboard	11	10	54	20	20.0	16.7	81.0	15.5
Kraft Linerboard	11	11	60	10	10.0	6.4	78.3	15.5
Kraft Linerboard	11	12	60	20	20.0	16.5	80.2	15.5
Kraft Linerboard	11	13	54	0	0.0	-4.1	70.7	15.5
Kraft Linerboard	11	14	60	-10	-10.0	-14.4	66.7	15.5
Kraft Linerboard	11	15	47	-20	-17.3	-20.6	73.6	15.5
Kraft Linerboard	11	16	60	-10	-11.4	-14.5	75.4	15.5
Kraft Linerboard	11	17	60	-20	-17.5	-20.6	74.2	15.5
Kraft Linerboard	11	18	54	0	-2.0	-5.5	73.9	15.5
Kraft Linerboard	11	19	60	20	20.0	16.4	79.8	15.5
Kraft Linerboard	11	20	60	10	10.0	6.1	76.7	15.5
Kraft Linerboard	11	21	55	20	20.0	16.3	79.4	15.5
Kraft Linerboard	11	22	60	10	10.0	6.1	76.7	15.5
Kraft Linerboard	11	23	54	0	-0.1	-4.4	69.7	15.5
Kraft Linerboard	11	24	60	-20	-16.0	-19.6	71.5	15.5
Kraft Linerboard	11	25	60	-20	-17.2	-20.9	70.3	15.5

Kraft Linerboard	11	26	60	10	10.0	5.9	75.8	15.5
Kraft Linerboard	11	27	60	20	20.0	16.3	79.5	15.5
Kraft Linerboard	11	28	54	10	10.0	6.1	76.3	15.5
Kraft Linerboard	11	29	60	20	20.0	16.2	78.8	15.5
Kraft Linerboard	11	30	55	0	0.0	-4.4	69.0	15.5
Kraft Linerboard	11	31	60	-20	-16.7	-20.2	72.0	15.5
Kraft Linerboard	11	32	60	-20	-17.3	-21.1	70.0	15.5
Kraft Linerboard	11	33	54	20	20.0	16.2	78.8	15.5
Kraft Linerboard	11	34	60	10	10.0	6.0	76.1	15.5
Kraft Linerboard	11	35	60	20	20.0	16.2	78.7	15.5
Kraft Linerboard	11	36	54	10	10.0	5.9	76.0	15.5
Kraft Linerboard	11	37	54	0	0.0	-4.4	69.1	15.5
Kraft Linerboard	11	38	55	-20	-16.2	-20.6	65.8	15.5
Kraft Linerboard	11	39	60	-10	-11.8	-15.9	68.6	15.5
Kraft Linerboard	11	40	52	-20	-16.7	-20.6	69.3	15.5
Kraft Linerboard	11	41	60	0	-4.8	-8.5	72.6	15.5
Kraft Linerboard	11	42	60	10	10.0	5.9	75.6	15.5
Kraft Linerboard	11	43	56	20	20.0	16.2	78.6	15.5
Kraft Linerboard	11	44	60	10	10.0	6.0	76.1	15.5
Kraft Linerboard	11	45	48	20	20.0	16.2	78.5	15.5
Kraft Linerboard	11	46	60	0	0.0	-4.3	69.5	15.5
Kraft Linerboard	11	47	52	-20	-16.8	-20.6	69.7	15.5
Kraft Linerboard	11	48	60	-10	-11.5	-15.2	71.1	15.5
Kraft Linerboard	11	49	54	-20	-17.4	-21.0	70.8	15.5
Kraft Linerboard	11	50	54	0	-1.1	-5.2	70.7	15.5
Kraft Linerboard	11	51	60	20	20.0	16.1	78.2	15.5
Kraft Linerboard	11	52	54	10	10.0	5.9	75.7	15.5
Kraft Linerboard	11	53	60	20	20.0	16.0	77.8	15.5
Kraft Linerboard	11	54	60	10	9.9	5.7	74.8	15.5
Kraft Linerboard	11	55	43	0	0.0	-4.5	68.5	15.5
Kraft Linerboard	11	56	43	-20	-16.3	-20.0	70.4	15.5
Kraft Linerboard	11	57	60	-10	-12.0	-15.5	72.4	15.5
Kraft Linerboard	11	58	60	-20	-17.6	-20.9	72.6	15.5
Kraft Linerboard	11	59	60	0	-1.2	-5.1	71.9	15.5
Kraft Linerboard	11	60	60	10	10.0	5.9	75.5	15.5
Kraft Linerboard	11	61	60	20	20.0	16.0	77.9	15.5
Kraft Linerboard	11	62	55	10	10.0	5.8	74.9	15.5
Kraft Linerboard	11	63	60	20	20.0	16.0	77.6	15.5
Kraft Linerboard	12	1	60	20	20.0	17.0	82.9	16.1
Kraft Linerboard	12	2	60	10	10.0	6.8	80.5	16.1
Kraft Linerboard	12	3	54	0	0.0	-3.5	74.5	16.1
Kraft Linerboard	12	4	60	-10	-10.1	-14.0	70.5	16.1
Kraft Linerboard	12	5	42	-20	-17.0	-19.8	76.4	16.1
Kraft Linerboard	12	6	57	-10	-11.0	-13.6	79.0	16.1
Kraft Linerboard	12	7	60	-20	-17.2	-19.8	78.2	16.1
Kraft Linerboard	12	8	54	0	-1.0	-4.2	76.3	16.1
Kraft Linerboard	12	9	60	10	10.0	6.9	80.7	16.1
Kraft Linerboard	12	10	60	20	20.0	16.9	82.4	16.1
Kraft Linerboard	12	11	54	10	10.0	6.6	79.6	16.1

Kraft Linerboard	12	12	60	20	20.0	16.9	82.2	16.1
Kraft Linerboard	12	13	54	0	0.0	-3.7	73.5	16.1
Kraft Linerboard	12	14	60	-10	-10.0	-14.0	69.6	16.1
Kraft Linerboard	12	15	60	-20	-16.0	-18.5	78.9	16.1
Kraft Linerboard	12	16	60	-20	-17.2	-20.0	76.4	16.1
Kraft Linerboard	12	17	60	0	-0.7	-4.1	75.3	16.1
Kraft Linerboard	12	18	54	20	20.0	16.9	82.3	16.1
Kraft Linerboard	12	19	60	10	10.0	6.6	79.5	16.1
Kraft Linerboard	12	20	54	20	20.1	16.9	81.9	16.1
Kraft Linerboard	12	21	60	10	10.0	6.6	79.5	16.1
Kraft Linerboard	12	22	60	0	-0.1	-3.7	73.9	16.1
Kraft Linerboard	12	23	60	-20	-16.8	-19.5	77.2	16.1
Kraft Linerboard	12	24	56	-20	-17.0	-20.0	75.5	16.1
Kraft Linerboard	12	25	60	0	-2.6	-5.9	75.5	16.1
Kraft Linerboard	12	26	54	10	10.0	6.5	78.7	16.1
Kraft Linerboard	12	27	60	20	20.0	16.7	81.4	16.1
Kraft Linerboard	12	28	60	10	10.0	6.6	79.3	16.1
Kraft Linerboard	12	29	54	20	20.0	16.8	81.5	16.1
Kraft Linerboard	12	30	60	0	0.0	-3.7	73.3	16.1
Kraft Linerboard	12	31	60	-20	-15.8	-18.9	75.3	16.1
Kraft Linerboard	12	32	60	-10	-10.9	-14.1	75.2	16.1
Kraft Linerboard	12	33	52	-20	-16.8	-19.6	76.3	16.1
Kraft Linerboard	12	34	60	0	-3.0	-6.0	77.4	16.1
Kraft Linerboard	12	35	60	20	20.1	16.6	80.4	16.1
Kraft Linerboard	12	36	54	10	10.0	6.3	77.9	16.1
Kraft Linerboard	12	37	60	20	20.1	16.6	80.7	16.1
Kraft Linerboard	12	38	54	10	10.0	6.5	78.6	16.1
Kraft Linerboard	12	39	60	0	0.0	-3.9	72.0	16.1
Kraft Linerboard	12	40	54	-20	-16.8	-20.1	73.0	16.1
Kraft Linerboard	12	41	60	-10	-10.9	-14.0	75.9	16.1
Kraft Linerboard	12	42	60	-20	-17.1	-19.9	76.7	16.1
Kraft Linerboard	12	43	56	0	-1.1	-4.5	75.2	16.1
Kraft Linerboard	12	44	60	10	10.0	6.3	77.8	16.1
Kraft Linerboard	12	45	54	20	20.0	16.7	81.3	16.1
Kraft Linerboard	12	46	60	10	10.0	6.4	78.6	16.1
Kraft Linerboard	12	47	60	20	20.0	16.7	81.5	16.1
Kraft Linerboard	12	48	54	0	-0.1	-3.9	72.6	16.1
Kraft Linerboard	12	49	60	-10	-10.1	-14.1	69.6	16.1
Kraft Linerboard	12	50	48	-20	-16.2	-19.1	76.5	16.1
Kraft Linerboard	12	51	60	-10	-10.6	-13.3	78.4	16.1
Kraft Linerboard	12	52	60	-20	-17.0	-19.7	77.4	16.1
Kraft Linerboard	12	53	54	0	-2.0	-5.2	76.2	16.1
Kraft Linerboard	12	54	60	20	20.0	16.8	81.5	16.1
Kraft Linerboard	12	55	60	10	9.9	6.5	79.3	16.1
Kraft Linerboard	12	56	54	20	20.0	16.8	81.5	16.1
Kraft Linerboard	12	57	60	10	10.0	6.6	79.3	16.1
Kraft Linerboard	12	58	54	0	0.0	-3.8	73.2	16.1
Kraft Linerboard	12	59	53	-10	-10.0	-14.1	69.3	16.1
Kraft Linerboard	12	60	60	-20	-16.5	-19.2	78.0	16.1

Kraft Linerboard	12	61	60	-20	-16.9	-19.8	76.1	16.1
Kraft Linerboard	12	62	60	0	-1.6	-5.2	74.0	16.1
Kraft Linerboard	12	63	57	10	10.0	6.5	79.0	16.1
Kraft Linerboard	12	64	60	20	20.0	16.7	81.3	16.1
Kraft Linerboard	12	65	54	10	10.2	6.5	78.0	16.1
Kraft Linerboard	13	1	55	20	20.1	19.6	97.3	50.6
Kraft Linerboard	13	2	60	10	10.0	9.3	95.5	50.6
Kraft Linerboard	13	3	54	0	0.0	-1.1	91.5	50.6
Kraft Linerboard	13	4	60	-10	-9.9	-12.4	79.9	50.6
Kraft Linerboard	13	5	60	-10	-10.8	-12.3	87.4	50.6
Kraft Linerboard	13	6	60	-20	-15.2	-17.2	83.7	50.6
Kraft Linerboard	13	7	43	0	-0.6	-1.6	92.3	50.6
Kraft Linerboard	13	8	60	10	10.1	9.3	95.0	50.6
Kraft Linerboard	13	9	60	20	20.0	19.5	96.7	50.6
Kraft Linerboard	13	10	54	10	10.0	9.2	94.6	50.6
Kraft Linerboard	13	11	60	20	20.1	19.5	96.7	50.6
Kraft Linerboard	13	12	54	0	0.0	-1.1	91.5	50.6
Kraft Linerboard	13	13	60	-20	-15.5	-16.8	88.4	50.6
Kraft Linerboard	13	14	60	-20	-15.2	-16.8	86.0	50.6
Kraft Linerboard	13	15	60	0	-1.0	-2.1	91.7	50.6
Kraft Linerboard	13	16	54	20	20.0	19.6	97.4	50.6
Kraft Linerboard	13	17	60	10	10.0	9.4	96.1	50.6
Kraft Linerboard	13	18	50	20	20.0	19.6	97.5	50.6
Kraft Linerboard	13	19	60	10	9.9	9.2	95.4	50.6
Kraft Linerboard	13	20	60	0	0.0	-0.8	93.4	50.6
Kraft Linerboard	13	21	54	-10	-10.0	-12.2	82.1	50.6
Kraft Linerboard	13	22	56	-20	-15.4	-16.7	88.3	50.6
Kraft Linerboard	13	23	40	-10	-11.2	-12.6	87.9	50.6
Kraft Linerboard	13	24	60	-20	-15.2	-16.6	87.7	50.6
Kraft Linerboard	13	25	54	10	10.0	9.6	96.9	50.6
Kraft Linerboard	13	26	60	20	20.0	19.6	97.1	50.6
Kraft Linerboard	13	27	60	10	10.0	9.2	94.8	50.6
Kraft Linerboard	13	28	54	20	20.0	19.5	97.0	50.6
Kraft Linerboard	13	29	60	0	0.1	-1.1	91.3	50.6
Kraft Linerboard	13	30	60	-20	-15.3	-17.3	82.7	50.6
Kraft Linerboard	13	31	60	-10	-10.8	-12.2	88.0	50.6
Kraft Linerboard	13	32	52	-20	-15.0	-16.8	85.1	50.6
Kraft Linerboard	13	33	49	0	-3.3	-4.5	90.1	50.6
Kraft Linerboard	13	34	55	10	9.9	8.7	91.9	50.6
Kraft Linerboard	13	35	60	20	20.1	19.2	94.6	50.6
Kraft Linerboard	13	36	54	10	9.9	8.9	93.1	50.6
Kraft Linerboard	13	37	60	0	0.0	-1.2	90.6	50.6
Kraft Linerboard	13	38	60	-10	-10.9	-11.5	94.9	50.6
Kraft Linerboard	13	39	54	-20	-15.2	-16.3	91.0	50.6
Kraft Linerboard	13	40	55	0	-2.4	-3.3	92.8	50.6
Kraft Linerboard	13	41	60	10	10.0	9.1	94.7	50.6
Kraft Linerboard	13	42	43	20	20.1	19.4	96.2	50.6
Kraft Linerboard	13	43	60	10	10.0	9.0	93.4	50.6
Kraft Linerboard	13	44	60	20	20.0	19.3	95.9	50.6

Kraft Linerboard	13	45	54	0	0.0	-0.9	92.8	50.6
Kraft Linerboard	13	46	50	-20	-15.4	-16.5	90.2	50.6
Kraft Linerboard	13	47	60	-10	-10.9	-12.2	89.1	50.6
Kraft Linerboard	13	48	60	-20	-15.3	-16.7	88.1	50.6
Kraft Linerboard	13	49	54	0	-0.4	-1.5	91.3	50.6
Kraft Linerboard	13	50	55	20	20.0	19.6	97.9	50.6
Kraft Linerboard	13	51	60	10	10.0	9.3	95.3	50.6
Kraft Linerboard	13	52	57	20	20.1	19.7	97.5	50.6
Kraft Linerboard	13	53	60	10	10.0	9.4	96.3	50.6
Kraft Linerboard	13	54	54	0	0.0	-0.8	93.5	50.6
Kraft Linerboard	13	55	60	-10	-10.0	-10.9	92.3	50.6
Kraft Linerboard	13	56	60	-20	-15.4	-16.7	88.6	50.6
Kraft Linerboard	13	57	54	-10	-10.7	-12.0	89.5	50.6
Kraft Linerboard	13	58	60	-20	-15.3	-16.5	89.0	50.6
Kraft Linerboard	13	59	50	0	-0.7	-1.9	90.3	50.6
Kraft Linerboard	13	60	60	10	10.1	9.5	96.2	50.6
Kraft Linerboard	13	61	60	20	20.0	19.6	97.7	50.6
Kraft Linerboard	13	62	54	10	10.0	9.4	96.1	50.6
Kraft Linerboard	14	1	57	20	20.0	19.5	96.9	39.3
Kraft Linerboard	14	2	54	10	10.0	9.4	96.1	39.3
Kraft Linerboard	14	3	60	0	0.0	-0.9	92.6	39.3
Kraft Linerboard	14	4	48	-10	-9.9	-11.5	87.4	39.3
Kraft Linerboard	14	5	60	-20	-15.1	-16.5	87.7	39.3
Kraft Linerboard	14	6	60	-10	-11.7	-13.1	87.9	39.3
Kraft Linerboard	14	7	44	-20	-15.2	-17.1	83.8	39.3
Kraft Linerboard	14	8	40	0	-5.6	-7.2	87.5	39.3
Kraft Linerboard	14	9	57	10	10.0	9.5	96.2	39.3
Kraft Linerboard	14	10	55	20	20.0	19.6	97.1	39.3
Kraft Linerboard	14	11	60	10	10.0	9.4	96.4	39.3
Kraft Linerboard	14	12	54	20	20.0	19.6	97.5	39.3
Kraft Linerboard	14	13	60	0	0.0	-0.9	92.8	39.3
Kraft Linerboard	14	14	47	-20	-15.0	-16.5	86.6	39.3
Kraft Linerboard	14	15	60	-10	-11.1	-12.5	88.0	39.3
Kraft Linerboard	14	16	45	-20	-15.3	-17.2	84.1	39.3
Kraft Linerboard	14	17	60	20	20.0	19.5	97.3	39.3
Kraft Linerboard	14	18	54	10	10.0	9.3	95.6	39.3
Kraft Linerboard	14	19	60	20	20.0	19.4	96.2	39.3
Kraft Linerboard	14	20	60	10	10.0	9.3	95.8	39.3
Kraft Linerboard	14	21	54	0	-0.1	-1.0	92.4	39.3
Kraft Linerboard	14	22	54	-10	-10.0	-12.4	80.9	39.3
Kraft Linerboard	14	23	47	-20	-15.0	-16.8	84.8	39.3
Kraft Linerboard	14	24	60	-10	-10.5	-11.9	87.9	39.3
Kraft Linerboard	14	25	60	-20	-15.0	-16.8	85.1	39.3
Kraft Linerboard	14	26	60	10	10.0	9.2	94.8	39.3
Kraft Linerboard	14	27	47	20	20.0	19.7	98.2	39.3
Kraft Linerboard	14	28	60	10	9.9	9.3	96.1	39.3
Kraft Linerboard	14	29	60	20	20.0	19.7	98.1	39.3
Kraft Linerboard	14	30	54	0	0.0	-1.0	92.3	39.3
Kraft Linerboard	14	31	60	-10	-10.0	-12.2	81.9	39.3

Kraft Linerboard	14	32	42	-20	-15.1	-16.7	85.8	39.3
Kraft Linerboard	14	33	44	-10	-11.0	-12.4	88.3	39.3
Kraft Linerboard	14	34	60	-20	-15.1	-16.8	85.8	39.3
Kraft Linerboard	14	35	49	0	-0.7	-1.9	90.4	39.3
Kraft Linerboard	14	36	55	20	20.1	19.7	97.7	39.3
Kraft Linerboard	14	37	60	10	10.0	9.4	95.6	39.3
Kraft Linerboard	14	38	54	20	20.0	19.6	97.7	39.3
Kraft Linerboard	14	39	54	10	10.0	9.4	96.1	39.3
Kraft Linerboard	14	40	60	0	0.0	-1.0	92.5	39.3
Kraft Linerboard	14	41	54	-10	-9.9	-12.2	81.8	39.3
Kraft Linerboard	14	42	60	-20	-15.0	-16.5	87.3	39.3
Kraft Linerboard	14	43	60	-20	-14.5	-16.2	85.6	39.3
Kraft Linerboard	14	44	60	0	-1.6	-3.4	86.0	39.3
Kraft Linerboard	14	45	54	10	10.1	9.5	96.1	39.3
Kraft Linerboard	14	46	60	20	20.1	19.7	97.8	39.3
Kraft Linerboard	14	47	55	10	10.0	9.4	96.3	39.3
Kraft Linerboard	14	48	60	20	20.0	19.7	97.7	39.3
Kraft Linerboard	14	49	60	0	0.0	-0.9	93.0	39.3
Kraft Linerboard	14	50	60	-20	-15.0	-16.4	87.8	39.3
Kraft Linerboard	14	51	60	-10	-10.9	-12.4	87.6	39.3
Kraft Linerboard	14	52	60	-20	-13.5	-15.3	85.2	39.3
Kraft Linerboard	15	1	60	20	20.0	18.9	93.5	31.1
Kraft Linerboard	15	2	54	10	10.0	8.9	92.8	31.1
Kraft Linerboard	15	3	60	0	0.0	-1.2	90.5	31.1
Kraft Linerboard	15	4	54	-10	-9.9	-11.5	86.5	31.1
Kraft Linerboard	15	5	42	-10	-10.6	-12.9	81.2	31.1
Kraft Linerboard	15	6	47	-20	-13.9	-15.7	84.8	31.1
Kraft Linerboard	15	7	40	20	20.0	18.0	88.1	31.1
Kraft Linerboard	15	8	54	20	20.0	19.0	93.8	31.1
Kraft Linerboard	15	9	60	0	0.0	-1.2	90.6	31.1
Kraft Linerboard	15	10	60	-10	-10.0	-10.7	93.8	31.1
Kraft Linerboard	15	11	47	-20	-14.0	-14.8	93.2	31.1
Kraft Linerboard	15	12	60	-10	-10.7	-11.8	90.4	31.1
Kraft Linerboard	15	13	52	-20	-14.4	-15.7	88.9	31.1
Kraft Linerboard	15	14	60	0	-1.5	-2.9	88.7	31.1
Kraft Linerboard	15	15	60	20	20.0	19.1	94.4	31.1
Kraft Linerboard	15	16	54	10	10.0	9.0	93.8	31.1
Kraft Linerboard	15	17	60	20	20.0	19.0	93.7	31.1
Kraft Linerboard	15	18	60	10	10.0	9.0	93.6	31.1
Kraft Linerboard	15	19	54	0	0.0	-1.2	90.8	31.1
Kraft Linerboard	15	20	60	-10	-9.9	-10.7	93.4	31.1
Kraft Linerboard	15	21	60	-10	-10.5	-12.0	87.6	31.1
Kraft Linerboard	15	22	60	-20	-14.3	-15.8	86.7	31.1
Kraft Linerboard	15	23	49	0	-4.0	-5.7	86.0	31.1
Kraft Linerboard	15	24	60	10	10.0	9.1	93.9	31.1
Kraft Linerboard	15	25	54	20	20.0	19.3	95.5	31.1
Kraft Linerboard	15	26	60	10	10.0	9.2	94.3	31.1
Kraft Linerboard	15	27	60	20	20.0	19.2	94.9	31.1
Kraft Linerboard	15	28	54	0	-0.1	-1.1	92.0	31.1

Kraft Linerboard	15	29	60	-20	-13.7	-15.0	88.5	31.1
Kraft Linerboard	15	30	47	-10	-10.5	-12.0	87.6	31.1
Kraft Linerboard	15	31	60	-20	-13.9	-15.5	86.8	31.1
Kraft Linerboard	15	32	54	0	-0.9	-2.4	88.4	31.1
Kraft Linerboard	15	33	60	20	20.0	19.1	94.6	31.1
Kraft Linerboard	15	34	60	10	9.9	9.0	93.9	31.1
Kraft Linerboard	15	35	54	20	20.1	19.2	94.6	31.1
Kraft Linerboard	15	36	60	10	10.0	9.1	94.2	31.1
Kraft Linerboard	15	37	60	0	0.0	-1.0	92.0	31.1
Kraft Linerboard	15	38	54	-10	-10.0	-11.6	86.9	31.1
Kraft Linerboard	15	39	60	-20	-14.0	-15.6	86.1	31.1
Kraft Linerboard	15	40	60	0	-0.4	-1.5	90.7	31.1
Kraft Linerboard	15	41	54	10	10.0	9.0	93.6	31.1
Kraft Linerboard	15	42	60	20	20.1	19.0	93.4	31.1
Kraft Linerboard	15	43	54	10	10.0	9.0	93.4	31.1
Kraft Linerboard	15	44	60	20	20.0	18.9	93.2	31.1
Kraft Linerboard	15	45	55	0	0.0	-1.4	89.3	31.1
Kraft Linerboard	15	46	58	-20	-13.9	-15.3	87.9	31.1
Kraft Linerboard	15	47	53	-10	-11.3	-13.1	84.9	31.1
Kraft Linerboard	15	48	49	-20	-13.4	-15.1	85.3	31.1
Kraft Linerboard	15	49	46	20	20.1	18.6	91.1	31.1
Kraft Linerboard	15	50	60	10	10.0	8.6	91.0	31.1
Kraft Linerboard	15	51	60	20	20.1	18.8	92.0	31.1
Kraft Linerboard	15	52	54	10	9.9	8.7	92.1	31.1
Kraft Linerboard	15	53	60	0	0.0	-1.2	90.2	31.1
Kraft Linerboard	15	54	40	-10	-9.9	-10.8	91.9	31.1
Kraft Linerboard	15	55	55	-20	-13.8	-14.7	91.8	31.1
Kraft Linerboard	15	56	60	-10	-10.5	-11.9	88.0	31.1
Kraft Linerboard	15	57	48	-20	-14.0	-15.6	86.4	31.1
Kraft Linerboard	15	58	60	0	0.2	-1.4	88.0	31.1
Kraft Linerboard	15	59	60	10	10.0	8.9	92.8	31.1
Kraft Linerboard	15	60	54	20	20.0	19.0	93.8	31.1
Kraft Linerboard	15	61	60	10	10.0	8.9	92.9	31.1
Kraft Linerboard	16	1	60	20	20.0	18.4	90.6	24.9
Kraft Linerboard	16	2	60	10	10.0	8.4	90.0	24.9
Kraft Linerboard	16	3	54	0	0.0	-1.6	88.1	24.9
Kraft Linerboard	16	4	47	-10	-10.5	-11.9	88.4	24.9
Kraft Linerboard	16	5	60	-20	-13.9	-15.1	89.6	24.9
Kraft Linerboard	16	6	54	0	0.0	-1.8	86.2	24.9
Kraft Linerboard	16	7	60	10	10.0	8.4	90.0	24.9
Kraft Linerboard	16	8	60	20	20.1	18.6	91.4	24.9
Kraft Linerboard	16	9	54	10	9.9	8.6	91.4	24.9
Kraft Linerboard	16	10	54	20	20.0	18.7	92.2	24.9
Kraft Linerboard	16	11	60	0	0.1	-1.3	88.7	24.9
Kraft Linerboard	16	12	55	-10	-10.0	-11.8	85.7	24.9
Kraft Linerboard	16	13	53	-20	-13.6	-14.6	91.6	24.9
Kraft Linerboard	16	14	60	-20	-14.0	-15.1	90.3	24.9
Kraft Linerboard	16	15	60	0	0.2	-1.5	87.2	24.9
Kraft Linerboard	16	16	54	20	20.1	18.6	91.3	24.9

Kraft Linerboard	16	17	60	10	10.0	8.5	90.3	24.9
Kraft Linerboard	16	18	54	20	20.0	18.5	91.0	24.9
Kraft Linerboard	16	19	60	10	10.0	8.3	89.4	24.9
Kraft Linerboard	16	20	60	0	0.0	-1.7	86.9	24.9
Kraft Linerboard	16	21	60	-20	-13.4	-14.4	91.8	24.9
Kraft Linerboard	16	22	48	-20	-13.2	-14.4	89.7	24.9
Kraft Linerboard	16	23	60	0	-0.2	-2.3	83.9	24.9
Kraft Linerboard	16	24	54	10	10.1	8.1	87.1	24.9
Kraft Linerboard	16	25	60	20	20.0	18.0	88.4	24.9
Kraft Linerboard	16	26	60	10	10.0	8.3	89.1	24.9
Kraft Linerboard	16	27	54	20	20.0	18.4	90.9	24.9
Kraft Linerboard	16	28	60	0	0.0	-1.8	85.9	24.9
Kraft Linerboard	16	29	55	-20	-13.5	-14.4	91.7	24.9
Kraft Linerboard	16	30	60	-10	-11.0	-12.3	89.1	24.9
Kraft Linerboard	16	31	48	-20	-12.9	-14.2	88.8	24.9
Kraft Linerboard	16	32	60	0	-0.8	-2.6	86.3	24.9
Kraft Linerboard	16	33	60	20	20.2	18.6	90.7	24.9
Kraft Linerboard	16	34	54	10	10.0	8.3	89.5	24.9
Kraft Linerboard	16	35	60	20	20.1	18.3	89.6	24.9
Kraft Linerboard	16	36	54	10	9.9	8.2	88.9	24.9
Kraft Linerboard	16	37	60	0	0.0	-1.9	86.0	24.9
Kraft Linerboard	16	38	46	-20	-13.5	-14.8	88.7	24.9
Kraft Linerboard	16	39	60	-10	-10.4	-11.9	87.6	24.9
Kraft Linerboard	16	40	60	-20	-12.8	-14.2	88.4	24.9
Kraft Linerboard	16	41	54	0	-0.5	-2.6	83.9	24.9
Kraft Linerboard	16	42	60	10	10.0	7.9	86.5	24.9
Kraft Linerboard	16	43	54	20	20.1	18.1	88.6	24.9
Kraft Linerboard	16	44	60	10	10.0	8.0	87.9	24.9
Kraft Linerboard	16	45	60	20	20.1	18.3	89.4	24.9
Kraft Linerboard	16	46	54	0	0.0	-2.0	84.8	24.9
Kraft Linerboard	16	47	60	-10	-9.9	-12.1	82.2	24.9
Kraft Linerboard	16	48	56	-10	-12.5	-14.1	86.9	24.9
Kraft Linerboard	16	49	60	-20	-13.9	-15.6	85.4	24.9
Kraft Linerboard	16	50	48	0	-0.8	-2.9	83.6	24.9
Semi-chemical Fluting Medium	1	1	45	20	20.0	17.8	87.5	20.5
Semi-chemical Fluting Medium	1	2	60	10	10.0	7.6	85.1	20.5
Semi-chemical Fluting Medium	1	3	54	0	0.0	-2.5	81.5	20.5
Semi-chemical Fluting Medium	1	4	54	0	0.1	-2.5	80.7	20.5
Semi-chemical Fluting Medium	1	5	60	10	10.0	7.9	86.5	20.5
Semi-chemical Fluting Medium	1	6	60	20	20.0	17.9	87.7	20.5
Semi-chemical Fluting Medium	1	7	54	10	9.9	7.8	86.4	20.5
Semi-chemical Fluting Medium	1	8	60	20	20.0	17.8	87.2	20.5
Semi-chemical Fluting Medium	1	9	60	0	0.0	-2.4	81.8	20.5
Semi-chemical Fluting Medium	1	10	54	20	20.0	17.6	86.1	20.5
Semi-chemical Fluting Medium	1	11	60	10	10.0	7.7	85.5	20.5
Semi-chemical Fluting Medium	1	12	60	20	20.0	17.9	87.7	20.5
Semi-chemical Fluting Medium	1	13	54	10	10.0	7.8	86.3	20.5
Semi-chemical Fluting Medium	1	14	60	0	0.0	-2.4	82.2	20.5
Semi-chemical Fluting Medium	1	15	53	10	10.0	7.2	82.6	20.5

Semi-chemical Fluting Medium	1	16	60	20	20.0	17.7	86.5	20.5
Semi-chemical Fluting Medium	1	17	60	10	10.0	7.9	86.6	20.5
Semi-chemical Fluting Medium	1	18	54	20	20.0	18.1	88.7	20.5
Semi-chemical Fluting Medium	1	19	60	0	0.1	-2.4	81.8	20.5
Semi-chemical Fluting Medium	1	20	60	0	-0.3	-2.7	82.3	20.5
Semi-chemical Fluting Medium	1	21	60	20	20.0	17.8	87.3	20.5
Semi-chemical Fluting Medium	1	22	54	10	10.0	7.9	86.9	20.5
Semi-chemical Fluting Medium	1	23	60	20	20.0	18.0	88.3	20.5
Semi-chemical Fluting Medium	1	24	60	10	10.0	8.0	87.0	20.5
Semi-chemical Fluting Medium	1	25	57	0	0.0	-2.4	81.9	20.5
Semi-chemical Fluting Medium	1	26	54	10	10.0	7.8	85.8	20.5
Semi-chemical Fluting Medium	1	27	60	0	0.0	-2.4	82.3	20.5
Semi-chemical Fluting Medium	1	28	60	10	10.1	7.4	83.4	20.5
Semi-chemical Fluting Medium	2	1	60	20	20.0	17.1	83.5	16.8
Semi-chemical Fluting Medium	2	2	54	10	10.0	7.1	82.1	16.8
Semi-chemical Fluting Medium	2	3	60	0	0.0	-3.2	76.6	16.8
Semi-chemical Fluting Medium	2	4	60	10	10.0	6.6	79.4	16.8
Semi-chemical Fluting Medium	2	5	60	20	20.0	17.3	84.3	16.8
Semi-chemical Fluting Medium	2	6	60	10	10.0	7.0	81.8	16.8
Semi-chemical Fluting Medium	2	7	57	20	19.9	17.3	85.0	16.8
Semi-chemical Fluting Medium	2	8	60	0	0.1	-3.2	76.6	16.8
Semi-chemical Fluting Medium	2	9	60	-10	-10.1	-13.2	75.2	16.8
Semi-chemical Fluting Medium	2	10	60	20	20.1	17.2	83.7	16.8
Semi-chemical Fluting Medium	2	11	54	10	10.0	7.2	82.6	16.8
Semi-chemical Fluting Medium	2	12	60	20	20.0	17.2	83.8	16.8
Semi-chemical Fluting Medium	2	13	60	10	10.0	7.2	82.5	16.8
Semi-chemical Fluting Medium	2	14	54	0	0.0	-3.1	77.3	16.8
Semi-chemical Fluting Medium	2	15	54	0	0.0	-3.4	75.4	16.8
Semi-chemical Fluting Medium	2	16	60	10	10.0	6.9	80.9	16.8
Semi-chemical Fluting Medium	2	17	60	20	20.0	17.1	83.7	16.8
Semi-chemical Fluting Medium	2	18	54	10	10.0	7.1	82.2	16.8
Semi-chemical Fluting Medium	2	19	60	20	20.0	17.3	84.3	16.8
Semi-chemical Fluting Medium	2	20	54	0	0.0	-2.9	78.9	16.8
Semi-chemical Fluting Medium	2	21	54	20	19.9	17.0	83.3	16.8
Semi-chemical Fluting Medium	2	22	60	10	10.0	7.0	81.6	16.8
Semi-chemical Fluting Medium	2	23	54	20	20.0	17.3	84.2	16.8
Semi-chemical Fluting Medium	2	24	60	10	9.9	6.9	81.5	16.8
Semi-chemical Fluting Medium	2	25	60	0	0.0	-3.1	77.2	16.8
Semi-chemical Fluting Medium	2	26	38	10	10.0	6.6	78.9	16.8
Semi-chemical Fluting Medium	2	27	60	20	20.0	17.0	82.8	16.8
Semi-chemical Fluting Medium	2	28	60	10	10.0	6.9	81.3	16.8
Semi-chemical Fluting Medium	2	29	54	20	20.1	17.2	83.3	16.8
Semi-chemical Fluting Medium	2	30	60	0	-0.1	-3.3	76.4	16.8
Semi-chemical Fluting Medium	2	31	60	20	20.0	17.2	83.9	16.8
Semi-chemical Fluting Medium	2	32	54	10	10.0	7.2	82.7	16.8
Semi-chemical Fluting Medium	2	33	60	20	20.0	17.3	84.6	16.8
Semi-chemical Fluting Medium	2	34	54	10	10.0	7.3	83.6	16.8
Semi-chemical Fluting Medium	2	35	60	0	0.0	-3.0	77.6	16.8
Semi-chemical Fluting Medium	2	36	60	10	10.0	7.1	82.1	16.8

Semi-chemical Fluting Medium	2	37	54	20	20.1	17.5	85.4	16.8
Semi-chemical Fluting Medium	2	38	60	10	10.0	7.2	83.1	16.8
Semi-chemical Fluting Medium	3	1	54	20	19.9	15.4	75.1	17.0
Semi-chemical Fluting Medium	3	2	60	10	9.9	5.4	73.5	17.0
Semi-chemical Fluting Medium	3	3	54	0	0.1	-4.6	67.2	17.0
Semi-chemical Fluting Medium	3	4	60	-20	-20.2	-23.3	73.9	17.0
Semi-chemical Fluting Medium	3	5	43	-10	-9.9	-14.1	68.7	17.0
Semi-chemical Fluting Medium	3	6	59	-20	-19.8	-23.1	73.0	17.0
Semi-chemical Fluting Medium	3	7	58	10	10.0	5.3	72.4	17.0
Semi-chemical Fluting Medium	3	8	60	20	20.1	16.1	77.6	17.0
Semi-chemical Fluting Medium	3	9	54	10	10.0	5.7	74.8	17.0
Semi-chemical Fluting Medium	3	10	60	20	20.1	16.4	79.3	17.0
Semi-chemical Fluting Medium	3	11	58	0	0.2	-4.5	67.6	17.0
Semi-chemical Fluting Medium	3	12	59	-20	-20.2	-23.5	72.4	17.0
Semi-chemical Fluting Medium	3	13	48	-10	-9.8	-14.3	66.8	17.0
Semi-chemical Fluting Medium	3	14	58	-20	-20.0	-23.2	73.0	17.0
Semi-chemical Fluting Medium	3	15	55	0	-0.2	-5.5	63.9	17.0
Semi-chemical Fluting Medium	3	16	54	20	20.0	15.2	73.6	17.0
Semi-chemical Fluting Medium	3	17	60	10	9.8	5.6	74.8	17.0
Semi-chemical Fluting Medium	3	18	60	20	20.1	15.8	76.6	17.0
Semi-chemical Fluting Medium	3	19	54	10	9.7	5.3	73.8	17.0
Semi-chemical Fluting Medium	3	20	58	0	-0.1	-4.1	71.4	17.0
Semi-chemical Fluting Medium	3	21	60	-20	-20.1	-23.0	75.0	17.0
Semi-chemical Fluting Medium	3	22	60	-10	-10.0	-13.6	72.5	17.0
Semi-chemical Fluting Medium	3	23	47	-20	-19.8	-22.6	75.8	17.0
Semi-chemical Fluting Medium	3	24	58	0	0.2	-3.8	71.3	17.0
Semi-chemical Fluting Medium	3	25	53	10	10.0	5.6	73.8	17.0
Semi-chemical Fluting Medium	3	26	60	20	20.0	16.1	78.4	17.0
Semi-chemical Fluting Medium	3	27	60	10	10.1	6.2	77.1	17.0
Semi-chemical Fluting Medium	3	28	54	20	20.0	16.3	79.3	17.0
Semi-chemical Fluting Medium	3	29	58	0	0.0	-4.1	71.2	17.0
Semi-chemical Fluting Medium	3	30	48	-20	-20.0	-23.1	73.9	17.0
Semi-chemical Fluting Medium	3	31	60	-10	-9.9	-13.5	72.2	17.0
Semi-chemical Fluting Medium	3	32	43	-20	-19.7	-23.3	70.9	17.0
Semi-chemical Fluting Medium	3	33	60	0	-0.2	-4.9	67.5	17.0
Semi-chemical Fluting Medium	3	34	60	20	20.1	16.1	77.8	17.0
Semi-chemical Fluting Medium	3	35	54	10	9.9	5.5	73.7	17.0
Semi-chemical Fluting Medium	3	36	60	20	19.9	15.8	77.2	17.0
Semi-chemical Fluting Medium	3	37	60	10	9.9	6.2	77.4	17.0
Semi-chemical Fluting Medium	3	38	55	0	0.1	-3.9	71.6	17.0
Semi-chemical Fluting Medium	3	39	52	-20	-19.6	-22.7	74.1	17.0
Semi-chemical Fluting Medium	3	40	60	-10	-9.8	-13.3	73.4	17.0
Semi-chemical Fluting Medium	3	41	60	-20	-20.0	-22.8	75.7	17.0
Semi-chemical Fluting Medium	3	42	54	0	-0.2	-4.4	70.5	17.0
Semi-chemical Fluting Medium	3	43	60	10	10.0	5.6	74.2	17.0
Semi-chemical Fluting Medium	3	44	54	20	20.0	16.3	79.5	17.0
Semi-chemical Fluting Medium	3	45	60	10	9.9	6.0	76.9	17.0
Semi-chemical Fluting Medium	3	46	60	20	20.0	16.4	79.6	17.0
Semi-chemical Fluting Medium	3	47	54	0	0.0	-4.1	71.2	17.0

Semi-chemical Fluting Medium	3	48	60	-20	-19.9	-22.4	78.4	17.0
Semi-chemical Fluting Medium	3	49	48	-10	-9.9	-13.1	75.0	17.0
Semi-chemical Fluting Medium	3	50	58	-20	-20.0	-22.7	76.6	17.0
Semi-chemical Fluting Medium	3	51	60	20	20.1	16.1	78.0	17.0
Semi-chemical Fluting Medium	3	52	60	10	10.0	5.8	74.8	17.0
Semi-chemical Fluting Medium	3	53	54	20	20.0	16.0	77.9	17.0
Semi-chemical Fluting Medium	3	54	60	10	10.0	5.6	73.9	17.0
Semi-chemical Fluting Medium	3	55	58	0	-0.1	-4.6	68.9	17.0
Semi-chemical Fluting Medium	3	56	58	-20	-19.8	-23.0	73.4	17.0
Semi-chemical Fluting Medium	3	57	50	-10	-10.1	-13.7	72.1	17.0
Semi-chemical Fluting Medium	3	58	60	-20	-20.0	-22.6	78.0	17.0
Semi-chemical Fluting Medium	3	59	54	10	10.1	5.7	74.4	17.0
Semi-chemical Fluting Medium	3	60	60	20	20.1	16.2	78.4	17.0
Semi-chemical Fluting Medium	3	61	54	10	10.0	6.1	76.5	17.0
Semi-chemical Fluting Medium	3	62	60	20	20.0	16.1	78.2	17.0
Semi-chemical Fluting Medium	3	63	60	0	0.0	-4.0	71.5	17.0
Semi-chemical Fluting Medium	4	1	60	20	20.0	19.0	94.3	35.6
Semi-chemical Fluting Medium	4	2	54	10	10.0	8.9	92.8	35.6
Semi-chemical Fluting Medium	4	3	60	0	0.0	-1.3	89.9	35.6
Semi-chemical Fluting Medium	4	4	60	-20	-19.9	-21.4	87.1	35.6
Semi-chemical Fluting Medium	4	5	56	-10	-10.0	-11.5	87.3	35.6
Semi-chemical Fluting Medium	4	6	52	-20	-20.1	-21.8	84.6	35.6
Semi-chemical Fluting Medium	4	7	53	10	10.1	9.0	92.8	35.6
Semi-chemical Fluting Medium	4	8	60	20	20.0	19.0	94.0	35.6
Semi-chemical Fluting Medium	4	9	60	10	9.9	8.8	92.7	35.6
Semi-chemical Fluting Medium	4	10	54	20	20.1	19.1	94.3	35.6
Semi-chemical Fluting Medium	4	11	60	0	0.0	-1.0	92.0	35.6
Semi-chemical Fluting Medium	4	12	48	-20	-19.6	-21.2	86.3	35.6
Semi-chemical Fluting Medium	4	13	60	-10	-10.3	-12.0	86.3	35.6
Semi-chemical Fluting Medium	4	14	41	-20	-19.9	-21.8	83.4	35.6
Semi-chemical Fluting Medium	4	15	51	0	-0.2	-1.7	88.0	35.6
Semi-chemical Fluting Medium	4	16	60	20	20.1	18.9	93.1	35.6
Semi-chemical Fluting Medium	4	17	54	10	9.8	8.6	92.0	35.6
Semi-chemical Fluting Medium	4	18	60	20	20.0	19.0	93.8	35.6
Semi-chemical Fluting Medium	4	19	60	10	10.0	9.0	93.3	35.6
Semi-chemical Fluting Medium	4	20	57	0	0.0	-1.1	91.6	35.6
Semi-chemical Fluting Medium	4	21	60	-10	-10.0	-11.5	87.2	35.6
Semi-chemical Fluting Medium	4	22	50	-20	-19.9	-21.4	86.5	35.6
Semi-chemical Fluting Medium	4	23	60	-10	-10.1	-11.4	89.3	35.6
Semi-chemical Fluting Medium	4	24	60	-20	-19.7	-21.3	85.8	35.6
Semi-chemical Fluting Medium	4	25	43	0	0.1	-1.2	89.8	35.6
Semi-chemical Fluting Medium	4	26	60	10	10.1	9.3	94.9	35.6
Semi-chemical Fluting Medium	4	27	43	20	20.0	19.6	97.0	35.6
Semi-chemical Fluting Medium	4	28	60	10	10.0	9.3	95.6	35.6
Semi-chemical Fluting Medium	4	29	60	20	20.0	19.4	96.5	35.6
Semi-chemical Fluting Medium	4	30	54	0	0.0	-0.8	93.8	35.6
Semi-chemical Fluting Medium	4	31	60	-10	-10.1	-12.0	84.4	35.6
Semi-chemical Fluting Medium	4	32	60	-20	-19.7	-21.0	88.1	35.6
Semi-chemical Fluting Medium	4	33	52	-10	-9.8	-10.9	91.1	35.6

Semi-chemical Fluting Medium	4	34	60	-20	-19.5	-20.9	87.1	35.6
Semi-chemical Fluting Medium	4	35	48	0	0.1	-1.1	90.5	35.6
Semi-chemical Fluting Medium	4	36	60	20	20.0	19.2	94.8	35.6
Semi-chemical Fluting Medium	4	37	60	10	10.0	8.8	92.8	35.6
Semi-chemical Fluting Medium	4	38	53	20	20.1	19.1	94.5	35.6
Semi-chemical Fluting Medium	4	39	60	10	9.9	8.9	93.1	35.6
Semi-chemical Fluting Medium	4	40	53	0	0.0	-1.0	91.7	35.6
Semi-chemical Fluting Medium	4	41	60	-20	-19.9	-21.5	86.0	35.6
Semi-chemical Fluting Medium	4	42	60	-20	-19.9	-21.4	86.1	35.6
Semi-chemical Fluting Medium	4	43	60	0	0.1	-1.6	87.4	35.6
Semi-chemical Fluting Medium	4	44	54	10	10.0	9.0	93.7	35.6
Semi-chemical Fluting Medium	4	45	60	20	20.1	19.3	95.6	35.6
Semi-chemical Fluting Medium	4	46	50	20	20.0	19.5	96.8	35.6
Semi-chemical Fluting Medium	4	47	55	0	-0.1	-0.7	95.1	35.6
Semi-chemical Fluting Medium	4	48	60	-20	-19.8	-21.4	85.9	35.6
Semi-chemical Fluting Medium	4	49	52	-10	-9.9	-11.2	89.4	35.6
Semi-chemical Fluting Medium	5	1	60	20	20.0	18.7	92.4	30.1
Semi-chemical Fluting Medium	5	2	54	10	9.9	8.6	91.6	30.1
Semi-chemical Fluting Medium	5	3	60	0	0.0	-1.5	88.5	30.1
Semi-chemical Fluting Medium	5	4	60	-10	-10.0	-11.6	87.2	30.1
Semi-chemical Fluting Medium	5	5	52	-20	-20.0	-21.3	88.4	30.1
Semi-chemical Fluting Medium	5	6	60	-10	-10.0	-11.1	90.6	30.1
Semi-chemical Fluting Medium	5	7	52	-20	-19.9	-21.3	86.8	30.1
Semi-chemical Fluting Medium	5	8	48	0	-0.1	-1.6	88.1	30.1
Semi-chemical Fluting Medium	5	9	60	10	10.1	9.0	93.1	30.1
Semi-chemical Fluting Medium	5	10	54	20	20.1	19.1	94.3	30.1
Semi-chemical Fluting Medium	5	11	60	10	10.1	9.0	93.2	30.1
Semi-chemical Fluting Medium	5	12	60	20	20.0	19.0	93.8	30.1
Semi-chemical Fluting Medium	5	13	54	0	0.0	-1.4	89.3	30.1
Semi-chemical Fluting Medium	5	14	50	-10	-10.0	-11.6	86.2	30.1
Semi-chemical Fluting Medium	5	15	52	-20	-19.8	-21.3	86.5	30.1
Semi-chemical Fluting Medium	5	16	60	-10	-9.9	-11.2	89.0	30.1
Semi-chemical Fluting Medium	5	17	60	-20	-20.1	-21.6	85.8	30.1
Semi-chemical Fluting Medium	5	18	50	0	0.0	-1.7	86.9	30.1
Semi-chemical Fluting Medium	5	19	60	20	20.1	18.8	92.3	30.1
Semi-chemical Fluting Medium	5	20	56	10	10.0	8.7	91.8	30.1
Semi-chemical Fluting Medium	5	21	60	20	20.0	18.9	93.6	30.1
Semi-chemical Fluting Medium	5	22	60	10	10.0	8.8	92.4	30.1
Semi-chemical Fluting Medium	5	23	54	0	0.0	-1.3	90.1	30.1
Semi-chemical Fluting Medium	5	24	60	-10	-9.7	-11.4	86.3	30.1
Semi-chemical Fluting Medium	5	25	60	-20	-19.9	-21.4	87.0	30.1
Semi-chemical Fluting Medium	5	26	46	-10	-10.2	-11.3	91.1	30.1
Semi-chemical Fluting Medium	5	27	60	-20	-19.9	-21.2	87.9	30.1
Semi-chemical Fluting Medium	5	28	47	0	0.1	-1.0	91.4	30.1
Semi-chemical Fluting Medium	5	29	60	10	10.0	9.0	93.7	30.1
Semi-chemical Fluting Medium	5	30	60	20	20.0	19.2	95.0	30.1
Semi-chemical Fluting Medium	5	31	49	10	10.0	9.3	95.4	30.1
Semi-chemical Fluting Medium	5	32	55	20	20.0	19.3	95.6	30.1
Semi-chemical Fluting Medium	5	33	55	0	0.0	-1.0	92.4	30.1

Semi-chemical Fluting Medium	5	34	55	-20	-19.7	-20.6	91.8	30.1
Semi-chemical Fluting Medium	5	35	41	-10	-10.1	-11.0	91.8	30.1
Semi-chemical Fluting Medium	5	36	60	-20	-20.0	-20.9	91.4	30.1
Semi-chemical Fluting Medium	5	37	60	0	0.3	-1.3	88.0	30.1
Semi-chemical Fluting Medium	5	38	54	20	20.1	19.5	95.9	30.1
Semi-chemical Fluting Medium	5	39	55	10	10.0	9.3	95.7	30.1
Semi-chemical Fluting Medium	5	40	49	20	20.0	19.4	96.5	30.1
Semi-chemical Fluting Medium	5	41	55	10	10.0	9.1	94.7	30.1
Semi-chemical Fluting Medium	5	42	60	0	0.0	-1.0	91.8	30.1
Semi-chemical Fluting Medium	5	43	60	-20	-20.0	-21.2	89.2	30.1
Semi-chemical Fluting Medium	5	44	50	-10	-9.8	-10.8	91.0	30.1
Semi-chemical Fluting Medium	5	45	50	-20	-20.0	-21.0	90.8	30.1
Semi-chemical Fluting Medium	5	46	48	0	0.0	-1.3	89.5	30.1
Semi-chemical Fluting Medium	5	47	54	10	10.1	9.0	93.3	30.1
Semi-chemical Fluting Medium	5	48	55	20	20.0	19.0	94.2	30.1
Semi-chemical Fluting Medium	5	49	60	10	10.0	9.2	94.9	30.1
Semi-chemical Fluting Medium	5	50	49	20	20.0	19.4	96.4	30.1
Semi-chemical Fluting Medium	5	51	54	0	-0.2	-1.1	92.3	30.1
Semi-chemical Fluting Medium	5	52	52	-20	-19.9	-20.5	94.0	30.1
Semi-chemical Fluting Medium	5	53	45	-10	-10.1	-10.6	95.9	30.1
Semi-chemical Fluting Medium	5	54	50	-20	-20.0	-21.0	90.8	30.1
Semi-chemical Fluting Medium	5	55	60	0	0.0	-1.6	87.6	30.1
Semi-chemical Fluting Medium	5	56	60	-10	-10.3	-11.7	88.4	30.1
Semi-chemical Fluting Medium	5	57	50	-20	-20.0	-20.9	92.1	30.1
Semi-chemical Fluting Medium	5	58	60	-10	-10.0	-10.8	93.1	30.1
Semi-chemical Fluting Medium	5	59	45	-20	-20.3	-21.3	90.8	30.1
Semi-chemical Fluting Medium	6	1	60	20	19.9	14.4	70.4	13.6
Semi-chemical Fluting Medium	6	2	54	10	10.0	4.9	70.4	13.6
Semi-chemical Fluting Medium	6	3	60	0	0.0	-5.4	63.7	13.6
Semi-chemical Fluting Medium	6	4	52	-20	-20.1	-24.6	64.2	13.6
Semi-chemical Fluting Medium	6	5	60	-10	-10.0	-14.8	64.8	13.6
Semi-chemical Fluting Medium	6	6	54	-20	-20.1	-23.9	68.6	13.6
Semi-chemical Fluting Medium	6	7	60	10	10.0	4.5	68.9	13.6
Semi-chemical Fluting Medium	6	8	54	20	20.0	14.8	72.1	13.6
Semi-chemical Fluting Medium	6	9	60	10	10.0	4.6	69.1	13.6
Semi-chemical Fluting Medium	6	10	60	20	20.0	15.1	73.4	13.6
Semi-chemical Fluting Medium	6	11	54	0	-0.1	-5.3	64.6	13.6
Semi-chemical Fluting Medium	6	12	54	-20	-20.1	-24.3	66.4	13.6
Semi-chemical Fluting Medium	6	13	60	-20	-20.1	-24.0	67.9	13.6
Semi-chemical Fluting Medium	6	14	54	0	-0.3	-5.3	65.2	13.6
Semi-chemical Fluting Medium	6	15	60	20	20.0	15.2	74.0	13.6
Semi-chemical Fluting Medium	6	16	55	10	10.0	5.2	72.1	13.6
Semi-chemical Fluting Medium	6	17	60	20	20.0	15.2	74.0	13.6
Semi-chemical Fluting Medium	6	18	60	10	10.0	5.1	72.0	13.6
Semi-chemical Fluting Medium	6	19	54	0	0.0	-5.0	65.4	13.6
Semi-chemical Fluting Medium	6	20	60	-20	-20.1	-24.2	67.5	13.6
Semi-chemical Fluting Medium	6	21	49	-10	-9.9	-14.2	68.4	13.6
Semi-chemical Fluting Medium	6	22	60	-20	-19.6	-23.6	67.6	13.6
Semi-chemical Fluting Medium	6	23	54	0	0.0	-5.4	63.8	13.6

Semi-chemical Fluting Medium	6	24	60	10	9.9	4.7	70.0	13.6
Semi-chemical Fluting Medium	6	25	60	20	20.0	15.4	75.2	13.6
Semi-chemical Fluting Medium	6	26	54	10	10.0	5.5	73.7	13.6
Semi-chemical Fluting Medium	6	27	60	20	20.0	15.5	75.5	13.6
Semi-chemical Fluting Medium	6	28	60	0	-0.1	-4.7	68.2	13.6
Semi-chemical Fluting Medium	6	29	43	-10	-9.9	-14.6	65.4	13.6
Semi-chemical Fluting Medium	6	30	60	-20	-20.0	-23.6	70.1	13.6
Semi-chemical Fluting Medium	6	31	47	-10	-10.2	-14.5	67.7	13.6
Semi-chemical Fluting Medium	6	32	60	-20	-20.1	-23.6	71.3	13.6
Semi-chemical Fluting Medium	6	33	54	20	20.0	15.3	74.4	13.6
Semi-chemical Fluting Medium	6	34	60	10	10.0	5.1	71.5	13.6
Semi-chemical Fluting Medium	6	35	54	20	20.0	15.6	75.8	13.6
Semi-chemical Fluting Medium	6	36	60	10	10.0	5.3	72.8	13.6
Semi-chemical Fluting Medium	6	37	60	0	0.0	-4.8	66.8	13.6
Semi-chemical Fluting Medium	6	38	60	-20	-20.1	-23.8	69.7	13.6
Semi-chemical Fluting Medium	6	39	53	-10	-9.9	-14.4	66.2	13.6
Semi-chemical Fluting Medium	6	40	60	0	-0.3	-4.8	68.4	13.6
Semi-chemical Fluting Medium	6	41	60	20	20.0	15.6	75.4	13.6
Semi-chemical Fluting Medium	6	42	60	10	10.0	5.7	74.4	13.6
Semi-chemical Fluting Medium	6	43	54	20	20.0	16.0	77.6	13.6
Semi-chemical Fluting Medium	6	44	60	0	0.0	-4.5	68.6	13.6
Semi-chemical Fluting Medium	6	45	60	-20	-20.0	-23.0	74.7	13.6
Semi-chemical Fluting Medium	6	46	60	-10	-10.3	-14.1	71.0	13.6
Semi-chemical Fluting Medium	6	47	47	-20	-20.1	-23.6	71.1	13.6
Semi-chemical Fluting Medium	6	48	60	0	0.0	-4.5	68.7	13.6
Semi-chemical Fluting Medium	6	49	60	20	20.1	15.5	74.7	13.6
Semi-chemical Fluting Medium	6	50	54	10	10.0	5.8	75.0	13.6
Semi-chemical Fluting Medium	6	51	60	20	20.0	15.7	76.4	13.6
Semi-chemical Fluting Medium	6	52	54	10	9.9	5.9	75.9	13.6
Semi-chemical Fluting Medium	6	53	60	0	0.0	-3.9	71.9	13.6
Semi-chemical Fluting Medium	6	54	50	-10	-9.9	-14.4	66.3	13.6
Semi-chemical Fluting Medium	6	55	50	-20	-19.6	-22.9	72.3	13.6
Semi-chemical Fluting Medium	6	56	60	-10	-10.1	-13.7	72.4	13.6
Semi-chemical Fluting Medium	6	57	47	-20	-20.0	-23.5	71.1	13.6
Semi-chemical Fluting Medium	6	58	60	0	-0.1	-4.2	71.2	13.6
Semi-chemical Fluting Medium	6	59	60	10	10.0	6.2	77.0	13.6
Semi-chemical Fluting Medium	6	60	54	20	20.1	16.4	79.4	13.6
Semi-chemical Fluting Medium	6	61	60	10	10.0	6.1	76.6	13.6
Semi-chemical Fluting Medium	7	1	54	20	20.0	18.9	92.9	38.6
Semi-chemical Fluting Medium	7	2	60	10	9.9	8.7	92.1	38.6
Semi-chemical Fluting Medium	7	3	60	0	0.1	-1.8	86.1	38.6
Semi-chemical Fluting Medium	7	4	48	-10	-9.6	-12.4	78.1	38.6
Semi-chemical Fluting Medium	7	5	60	-20	-19.8	-21.7	83.6	38.6
Semi-chemical Fluting Medium	7	6	60	-20	-20.0	-22.5	78.6	38.6
Semi-chemical Fluting Medium	7	7	54	10	10.1	8.7	91.3	38.6
Semi-chemical Fluting Medium	7	8	60	20	20.0	18.5	91.1	38.6
Semi-chemical Fluting Medium	7	9	54	10	10.1	8.7	91.4	38.6
Semi-chemical Fluting Medium	7	10	60	20	20.1	18.6	91.1	38.6
Semi-chemical Fluting Medium	7	11	60	0	-0.3	-1.9	87.1	38.6

Semi-chemical Fluting Medium	7	12	54	-20	-19.8	-21.3	86.5	38.6
Semi-chemical Fluting Medium	7	13	56	-10	-9.9	-12.0	83.0	38.6
Semi-chemical Fluting Medium	7	14	51	-20	-20.0	-22.0	82.5	38.6
Semi-chemical Fluting Medium	7	15	54	20	20.2	18.1	88.1	38.6
Semi-chemical Fluting Medium	7	16	60	10	9.9	7.9	87.6	38.6
Semi-chemical Fluting Medium	7	17	60	20	19.8	18.2	90.2	38.6
Semi-chemical Fluting Medium	7	18	54	10	10.0	8.4	89.6	38.6
Semi-chemical Fluting Medium	7	19	60	0	0.0	-1.7	87.0	38.6
Semi-chemical Fluting Medium	7	20	60	-20	-20.2	-21.4	88.9	38.6
Semi-chemical Fluting Medium	7	21	60	-10	-9.9	-11.8	84.2	38.6
Semi-chemical Fluting Medium	7	22	45	-20	-20.2	-22.2	82.6	38.6
Semi-chemical Fluting Medium	7	23	60	0	-0.3	-2.6	82.7	38.6
Semi-chemical Fluting Medium	7	24	60	10	10.0	8.3	88.7	38.6
Semi-chemical Fluting Medium	7	25	54	20	20.0	18.7	92.4	38.6
Semi-chemical Fluting Medium	7	26	60	10	10.1	8.9	92.1	38.6
Semi-chemical Fluting Medium	7	27	54	20	20.0	18.7	92.1	38.6
Semi-chemical Fluting Medium	7	28	60	0	0.1	-1.6	87.1	38.6
Semi-chemical Fluting Medium	7	29	52	-20	-19.9	-21.4	86.3	38.6
Semi-chemical Fluting Medium	7	30	60	-10	-10.1	-11.8	86.2	38.6
Semi-chemical Fluting Medium	7	31	50	-20	-20.1	-21.9	83.5	38.6
Semi-chemical Fluting Medium	7	32	56	0	0.0	-2.3	83.2	38.6
Semi-chemical Fluting Medium	7	33	60	20	20.1	18.3	89.6	38.6
Semi-chemical Fluting Medium	7	34	54	10	9.9	8.5	90.4	38.6
Semi-chemical Fluting Medium	7	35	60	20	20.1	18.6	90.8	38.6
Semi-chemical Fluting Medium	7	36	60	10	10.0	8.7	91.6	38.6
Semi-chemical Fluting Medium	7	37	54	0	0.1	-1.4	88.3	38.6
Semi-chemical Fluting Medium	7	38	60	-10	-10.2	-12.0	85.2	38.6
Semi-chemical Fluting Medium	7	39	50	-20	-19.8	-21.6	84.5	38.6
Semi-chemical Fluting Medium	7	40	60	-10	-10.3	-12.2	84.2	38.6
Semi-chemical Fluting Medium	7	41	60	-20	-20.0	-21.8	84.2	38.6
Semi-chemical Fluting Medium	7	42	50	0	0.1	-1.7	86.1	38.6
Semi-chemical Fluting Medium	7	43	60	10	10.1	8.7	91.4	38.6
Semi-chemical Fluting Medium	7	44	60	20	20.1	18.8	92.0	38.6
Semi-chemical Fluting Medium	7	45	54	10	9.9	8.5	90.6	38.6
Semi-chemical Fluting Medium	7	46	60	20	20.1	18.4	90.4	38.6
Semi-chemical Fluting Medium	7	47	54	0	-0.2	-1.8	87.3	38.6
Semi-chemical Fluting Medium	7	48	60	-10	-10.1	-12.4	81.6	38.6
Semi-chemical Fluting Medium	7	49	60	-20	-19.9	-21.1	88.8	38.6
Semi-chemical Fluting Medium	7	50	52	-10	-10.1	-11.8	86.3	38.6
Semi-chemical Fluting Medium	7	51	60	-20	-20.1	-21.8	85.1	38.6
Semi-chemical Fluting Medium	7	52	56	0	-0.1	-2.0	85.2	38.6
Semi-chemical Fluting Medium	7	53	60	20	20.1	19.0	93.2	38.6
Semi-chemical Fluting Medium	7	54	60	10	9.9	8.2	88.9	38.6
Semi-chemical Fluting Medium	7	55	54	20	19.9	18.5	91.5	38.6
Semi-chemical Fluting Medium	7	56	60	10	10.0	8.8	92.2	38.6
Semi-chemical Fluting Medium	7	57	60	0	0.0	-1.5	88.5	38.6
Semi-chemical Fluting Medium	7	58	48	-10	-9.8	-11.9	83.1	38.6
Semi-chemical Fluting Medium	7	59	60	-20	-19.9	-20.9	90.7	38.6
Semi-chemical Fluting Medium	7	60	44	-10	-10.5	-12.1	86.6	38.6

Semi-chemical Fluting Medium	7	61	60	-20	-20.1	-21.6	86.5	38.6
Semi-chemical Fluting Medium	7	62	60	0	-0.2	-2.2	84.6	38.6
Semi-chemical Fluting Medium	7	63	54	10	10.0	8.8	91.9	38.6
Semi-chemical Fluting Medium	7	64	60	20	19.9	18.4	91.4	38.6
Semi-chemical Fluting Medium	7	65	60	10	9.8	8.1	89.6	38.6
Semi-chemical Fluting Medium	7	66	56	20	20.2	19.0	93.3	38.6
Semi-chemical Fluting Medium	7	67	60	0	0.3	-1.8	84.6	38.6
Semi-chemical Fluting Medium	8	1	49	20	20.0	15.9	77.4	16.9
Semi-chemical Fluting Medium	8	2	60	10	10.0	6.1	76.8	16.9
Semi-chemical Fluting Medium	8	3	59	0	0.0	-3.5	74.5	16.9
Semi-chemical Fluting Medium	8	4	60	-10	-9.7	-13.7	69.6	16.9
Semi-chemical Fluting Medium	8	5	54	10	10.1	6.4	77.8	16.9
Semi-chemical Fluting Medium	8	6	60	20	20.1	16.6	80.2	16.9
Semi-chemical Fluting Medium	8	7	54	10	9.9	6.6	80.0	16.9
Semi-chemical Fluting Medium	8	8	60	20	19.9	16.7	81.7	16.9
Semi-chemical Fluting Medium	8	9	55	0	0.0	-3.0	77.6	16.9
Semi-chemical Fluting Medium	8	10	60	-20	-20.1	-21.8	85.3	16.9
Semi-chemical Fluting Medium	8	11	55	-20	-20.3	-21.7	87.4	16.9
Semi-chemical Fluting Medium	8	12	50	0	0.2	-2.5	80.2	16.9
Semi-chemical Fluting Medium	8	13	54	20	20.4	18.6	89.7	16.9
Semi-chemical Fluting Medium	8	14	60	10	10.0	7.9	86.8	16.9
Semi-chemical Fluting Medium	8	15	60	20	20.1	17.7	86.0	16.9
Semi-chemical Fluting Medium	8	16	54	10	9.9	7.6	85.1	16.9
Semi-chemical Fluting Medium	8	17	60	0	0.0	-2.7	80.1	16.9
Semi-chemical Fluting Medium	8	18	60	-20	-20.3	-22.8	78.1	16.9
Semi-chemical Fluting Medium	8	19	55	-10	-10.1	-13.2	75.6	16.9
Semi-chemical Fluting Medium	8	20	48	-20	-20.3	-22.9	78.1	16.9
Semi-chemical Fluting Medium	8	21	60	0	0.0	-3.5	74.3	16.9
Semi-chemical Fluting Medium	8	22	60	10	10.0	6.7	79.7	16.9
Semi-chemical Fluting Medium	8	23	49	20	20.2	17.1	82.5	16.9
Semi-chemical Fluting Medium	8	24	60	10	9.9	7.3	83.7	16.9
Semi-chemical Fluting Medium	8	25	54	20	20.1	17.2	83.8	16.9
Semi-chemical Fluting Medium	8	26	60	0	-0.2	-3.5	76.0	16.9
Semi-chemical Fluting Medium	8	27	60	-10	-10.2	-13.9	71.5	16.9
Semi-chemical Fluting Medium	8	28	51	-20	-20.3	-23.1	76.5	16.9
Semi-chemical Fluting Medium	8	29	60	-10	-10.1	-13.1	76.0	16.9
Semi-chemical Fluting Medium	8	30	54	-20	-20.4	-22.6	80.6	16.9
Semi-chemical Fluting Medium	8	31	60	0	0.0	-3.8	72.7	16.9
Semi-chemical Fluting Medium	8	32	60	20	19.8	16.7	82.2	16.9
Semi-chemical Fluting Medium	8	33	54	10	9.8	6.8	81.2	16.9
Semi-chemical Fluting Medium	8	34	60	20	19.7	16.6	82.6	16.9
Semi-chemical Fluting Medium	8	35	60	10	9.9	6.6	79.9	16.9
Semi-chemical Fluting Medium	8	36	54	0	-0.2	-4.1	72.3	16.9
Semi-chemical Fluting Medium	8	37	60	-10	-10.0	-14.2	68.3	16.9
Semi-chemical Fluting Medium	8	38	60	-20	-20.0	-23.7	69.3	16.9
Semi-chemical Fluting Medium	8	39	60	10	10.1	5.9	75.3	16.9
Semi-chemical Fluting Medium	8	40	60	20	20.1	16.5	79.6	16.9
Semi-chemical Fluting Medium	8	41	56	10	10.1	6.2	76.8	16.9
Semi-chemical Fluting Medium	8	42	60	20	20.0	16.3	79.4	16.9

Semi-chemical Fluting Medium	8	43	42	-10	-10.1	-14.1	69.3	16.9
Semi-chemical Fluting Medium	9	1	54	20	19.9	3.8	34.7	5.3
Semi-chemical Fluting Medium	9	2	60	10	9.9	-5.3	32.0	5.3
Semi-chemical Fluting Medium	9	3	50	-10	-10.0	-24.0	26.8	5.3
Semi-chemical Fluting Medium	9	4	58	-20	-20.0	-33.2	26.1	5.3
Semi-chemical Fluting Medium	9	5	60	-20	-20.0	-32.4	28.7	5.3
Semi-chemical Fluting Medium	9	6	46	-10	-9.8	-23.2	28.7	5.3
Semi-chemical Fluting Medium	9	7	60	10	10.2	-3.4	37.1	5.3
Semi-chemical Fluting Medium	9	8	54	20	20.0	7.3	43.9	5.3
Semi-chemical Fluting Medium	9	9	54	20	20.0	7.4	44.1	5.3
Semi-chemical Fluting Medium	9	10	60	10	10.0	-3.1	38.7	5.3
Semi-chemical Fluting Medium	9	11	46	-10	-10.0	-22.7	30.7	5.3
Semi-chemical Fluting Medium	9	12	60	-20	-20.0	-32.2	29.2	5.3
Semi-chemical Fluting Medium	9	13	60	-20	-20.1	-30.9	33.8	5.3
Semi-chemical Fluting Medium	9	14	44	-10	-9.9	-21.8	33.2	5.3
Semi-chemical Fluting Medium	9	15	60	10	10.2	-1.5	43.5	5.3
Semi-chemical Fluting Medium	9	16	54	20	19.9	8.7	48.5	5.3
Semi-chemical Fluting Medium	9	17	55	20	20.0	8.7	48.2	5.3
Semi-chemical Fluting Medium	9	18	60	10	9.9	-1.2	45.3	5.3
Semi-chemical Fluting Medium	9	19	44	-10	-10.1	-21.7	34.3	5.3
Semi-chemical Fluting Medium	9	20	60	-20	-20.0	-31.4	31.8	5.3
Semi-chemical Fluting Medium	9	21	60	-20	-20.0	-30.5	35.0	5.3
Semi-chemical Fluting Medium	9	22	60	-10	-9.8	-21.5	34.0	5.3
Semi-chemical Fluting Medium	9	23	60	10	10.0	-1.6	43.8	5.3
Semi-chemical Fluting Medium	9	24	54	20	19.9	8.7	48.6	5.3
Semi-chemical Fluting Medium	9	25	60	20	20.0	8.8	48.5	5.3
Semi-chemical Fluting Medium	9	26	58	10	9.9	-1.6	43.7	5.3
Semi-chemical Fluting Medium	10	1	60	10	9.9	-9.2	22.8	4.2
Semi-chemical Fluting Medium	10	2	60	-10	-10.0	-26.2	21.7	4.2
Semi-chemical Fluting Medium	10	3	60	-20	-20.0	-35.1	21.4	4.2
Semi-chemical Fluting Medium	10	4	60	-20	-20.1	-34.8	22.2	4.2
Semi-chemical Fluting Medium	10	5	48	-10	-10.0	-24.9	24.7	4.2
Semi-chemical Fluting Medium	10	6	60	10	9.8	-6.5	29.2	4.2
Semi-chemical Fluting Medium	10	7	54	20	20.0	3.9	34.6	4.2
Semi-chemical Fluting Medium	10	8	54	20	19.9	4.0	35.0	4.2
Semi-chemical Fluting Medium	10	9	60	10	9.9	-5.3	32.1	4.2
Semi-chemical Fluting Medium	10	10	50	-10	-10.0	-24.9	24.6	4.2
Semi-chemical Fluting Medium	10	11	58	-20	-19.8	-33.7	24.4	4.2
Semi-chemical Fluting Medium	10	12	60	-20	-20.0	-33.1	26.7	4.2
Semi-chemical Fluting Medium	10	13	48	-10	-10.0	-24.0	27.0	4.2
Semi-chemical Fluting Medium	10	14	51	10	10.1	-7.2	27.0	4.2
Semi-chemical Fluting Medium	10	15	54	20	20.1	4.4	35.6	4.2
Semi-chemical Fluting Medium	10	16	54	20	19.9	6.4	41.3	4.2
Semi-chemical Fluting Medium	10	17	60	10	9.8	-4.2	35.6	4.2
Semi-chemical Fluting Medium	10	18	48	-10	-10.1	-24.0	27.2	4.2
Semi-chemical Fluting Medium	10	19	60	-20	-19.8	-33.2	25.8	4.2
Semi-chemical Fluting Medium	10	20	60	-20	-20.1	-32.5	28.4	4.2
Semi-chemical Fluting Medium	10	21	51	-10	-10.0	-23.1	29.4	4.2
Semi-chemical Fluting Medium	10	22	60	10	10.1	-5.7	30.6	4.2

Semi-chemical Fluting Medium	10	23	54	20	19.8	6.6	42.3	4.2
Semi-chemical Fluting Medium	11	1	54	20	19.9	1.1	28.5	4.4
Semi-chemical Fluting Medium	11	2	48	-10	-10.0	-28.0	18.1	4.4
Semi-chemical Fluting Medium	11	3	60	-20	-19.8	-37.1	16.8	4.4
Semi-chemical Fluting Medium	11	4	60	-20	-20.0	-36.1	19.1	4.4
Semi-chemical Fluting Medium	11	5	51	-10	-10.0	-27.0	19.9	4.4
Semi-chemical Fluting Medium	11	6	56	0	0.0	-18.2	20.0	4.4
Semi-chemical Fluting Medium	11	7	54	20	20.0	1.2	28.5	4.4
Semi-chemical Fluting Medium	11	8	54	20	20.0	3.6	33.9	4.4
Semi-chemical Fluting Medium	11	9	60	10	9.9	-7.6	26.5	4.4
Semi-chemical Fluting Medium	11	10	42	0	0.1	-19.0	18.6	4.4
Semi-chemical Fluting Medium	11	11	48	-10	-10.1	-27.3	19.6	4.4
Semi-chemical Fluting Medium	11	12	60	20	20.0	3.1	32.7	4.4
Semi-chemical Fluting Medium	11	13	54	10	9.9	-7.1	27.5	4.4
Semi-chemical Fluting Medium	11	14	58	0	-0.1	-18.0	20.5	4.4
Semi-chemical Fluting Medium	11	15	60	-10	-10.0	-26.3	21.3	4.4
Semi-chemical Fluting Medium	11	16	52	-20	-19.9	-36.5	18.2	4.4
Semi-chemical Fluting Medium	11	17	52	-20	-20.1	-35.2	21.4	4.4
Semi-chemical Fluting Medium	11	18	60	-10	-10.0	-25.5	23.1	4.4
Semi-chemical Fluting Medium	11	19	54	10	10.0	-8.3	24.6	4.4
Semi-chemical Fluting Medium	11	20	60	20	20.1	3.5	33.6	4.4
Semi-chemical Fluting Medium	11	21	60	20	20.0	3.2	33.0	4.4
Semi-chemical Fluting Medium	11	22	54	10	9.8	-5.9	30.7	4.4
Semi-chemical Fluting Medium	11	23	60	0	0.0	-17.2	22.1	4.4
Semi-chemical Fluting Medium	11	24	58	-10	-10.0	-26.0	22.1	4.4
Semi-chemical Fluting Medium	11	25	54	-20	-19.9	-36.2	18.8	4.4
Semi-chemical Fluting Medium	11	26	52	-20	-20.1	-34.6	22.8	4.4
Semi-chemical Fluting Medium	11	27	60	-10	-10.0	-25.1	24.0	4.4
Semi-chemical Fluting Medium	11	28	54	10	9.9	-7.1	27.5	4.4
Semi-chemical Fluting Medium	11	29	60	20	19.9	5.1	37.9	4.4
Semi-chemical Fluting Medium	11	30	60	20	20.0	4.8	36.8	4.4
Semi-chemical Fluting Medium	11	31	60	10	9.9	-5.0	33.2	4.4
Semi-chemical Fluting Medium	11	32	54	0	0.0	-16.7	23.2	4.4
Semi-chemical Fluting Medium	11	33	60	-10	-10.1	-25.3	23.7	4.4
Semi-chemical Fluting Medium	11	34	54	-20	-19.9	-34.5	22.7	4.4
Semi-chemical Fluting Medium	11	35	60	-20	-20.1	-33.8	24.8	4.4
Semi-chemical Fluting Medium	11	36	60	-10	-10.0	-24.3	26.0	4.4
Semi-chemical Fluting Medium	11	37	40	0	0.2	-17.3	21.5	4.4
Semi-chemical Fluting Medium	11	38	54	10	9.9	-5.6	31.2	4.4
Semi-chemical Fluting Medium	11	39	60	20	19.8	4.9	37.4	4.4
Semi-chemical Fluting Medium	11	40	60	20	20.0	5.0	37.4	4.4
Semi-chemical Fluting Medium	11	41	60	10	9.8	-4.5	34.6	4.4
Semi-chemical Fluting Medium	11	42	47	0	-0.1	-17.3	22.0	4.4
Semi-chemical Fluting Medium	12	1	60	20	19.8	12.2	61.8	9.9
Semi-chemical Fluting Medium	12	2	60	10	9.9	2.5	60.0	9.9
Semi-chemical Fluting Medium	12	3	60	10	10.0	2.2	58.4	9.9
Semi-chemical Fluting Medium	12	4	60	20	20.0	12.1	60.6	9.9
Semi-chemical Fluting Medium	12	5	54	20	20.1	12.3	60.7	9.9
Semi-chemical Fluting Medium	12	6	60	10	9.8	2.1	58.7	9.9

Semi-chemical Fluting Medium	12	7	60	10	10.0	2.2	58.1	9.9
Semi-chemical Fluting Medium	12	8	54	20	20.0	12.1	60.4	9.9
Semi-chemical Fluting Medium	12	9	54	20	19.9	12.2	61.1	9.9
Semi-chemical Fluting Medium	12	10	60	10	9.9	2.1	58.3	9.9
Semi-chemical Fluting Medium	13	1	57	20	19.7	9.1	50.3	8.0
Semi-chemical Fluting Medium	13	2	60	10	9.6	-1.4	45.6	8.0
Semi-chemical Fluting Medium	13	3	54	0	-0.2	-11.4	38.1	8.0
Semi-chemical Fluting Medium	13	4	57	20	19.8	8.2	47.3	8.0
Semi-chemical Fluting Medium	13	5	60	20	19.7	8.6	48.6	8.0
Semi-chemical Fluting Medium	13	6	60	10	9.7	-1.5	45.1	8.0
Semi-chemical Fluting Medium	13	7	57	0	-0.2	-10.9	39.8	8.0
Semi-chemical Fluting Medium	13	8	60	20	19.8	9.3	50.9	8.0
Semi-chemical Fluting Medium	13	9	57	20	19.7	9.2	50.6	8.0
Semi-chemical Fluting Medium	13	10	60	10	9.7	-1.1	46.3	8.0
Semi-chemical Fluting Medium	13	11	60	0	-0.1	-11.0	39.3	8.0
Semi-chemical Fluting Medium	13	12	56	10	10.2	-0.6	47.0	8.0
Semi-chemical Fluting Medium	13	13	60	20	19.7	9.3	51.0	8.0
Semi-chemical Fluting Medium	13	14	57	20	19.9	9.4	51.1	8.0
Semi-chemical Fluting Medium	13	15	60	10	9.8	-0.9	46.9	8.0
Semi-chemical Fluting Medium	13	16	57	0	-0.1	-10.9	39.7	8.0
Semi-chemical Fluting Medium	13	17	60	10	9.6	-1.1	46.8	8.0
Semi-chemical Fluting Medium	13	18	58	20	19.6	9.5	52.0	8.0
Semi-chemical Fluting Medium	13	19	60	10	9.6	-1.1	46.7	8.0
Semi-chemical Fluting Medium	13	20	57	0	-0.3	-11.0	39.8	8.0
Semi-chemical Fluting Medium	14	1	47	0	0.4	-1.5	85.6	24.8
Semi-chemical Fluting Medium	14	2	43	10	10.4	8.8	90.0	24.8
Semi-chemical Fluting Medium	14	3	60	20	19.6	17.6	88.7	24.8
Semi-chemical Fluting Medium	14	4	60	20	19.5	17.7	89.4	24.8
Semi-chemical Fluting Medium	14	5	53	-10	-9.6	-10.5	92.0	24.8
Semi-chemical Fluting Medium	14	6	42	0	-0.3	-1.8	88.4	24.8
Semi-chemical Fluting Medium	14	7	57	20	19.9	18.1	89.6	24.8
Semi-chemical Fluting Medium	14	8	56	20	19.8	17.7	87.6	24.8
Semi-chemical Fluting Medium	14	9	56	20	19.6	17.7	89.0	24.8
Semi-chemical Fluting Medium	14	10	60	10	10.0	7.8	86.2	24.8
Semi-chemical Fluting Medium	14	11	57	-10	-9.9	-11.9	83.2	24.8
Semi-chemical Fluting Medium	14	12	57	-20	-19.8	-20.1	97.7	24.8
Semi-chemical Fluting Medium	14	13	53	-10	-9.9	-10.9	91.1	24.8
Semi-chemical Fluting Medium	14	14	60	10	9.9	7.5	85.5	24.8
Semi-chemical Fluting Medium	14	15	57	20	19.8	17.8	88.3	24.8
Semi-chemical Fluting Medium	14	16	60	20	19.9	17.9	88.6	24.8
Semi-chemical Fluting Medium	14	17	46	-10	-9.8	-12.5	78.8	24.8
Semi-chemical Fluting Medium	14	18	57	0	-0.2	-2.7	81.1	24.8
Semi-chemical Fluting Medium	14	19	60	10	9.7	7.9	88.7	24.8
Semi-chemical Fluting Medium	14	20	60	-20	-19.5	-20.0	96.1	24.8
Semi-chemical Fluting Medium	14	21	57	-20	-19.6	-19.9	96.9	24.8
Semi-chemical Fluting Medium	14	22	57	0	-0.1	-2.7	80.6	24.8
Semi-chemical Fluting Medium	14	23	60	10	9.7	7.8	88.2	24.8
Semi-chemical Fluting Medium	14	24	60	20	19.8	18.0	89.4	24.8
Semi-chemical Fluting Medium	14	25	60	10	10.0	7.9	86.9	24.8

Semi-chemical Fluting Medium	14	26	60	0	-0.1	-2.3	83.2	24.8
Semi-chemical Fluting Medium	14	27	60	-10	-9.8	-12.1	81.7	24.8
Semi-chemical Fluting Medium	14	28	60	-20	-19.7	-20.1	96.2	24.8
Semi-chemical Fluting Medium	14	29	60	-20	-19.9	-20.5	94.1	24.8
Semi-chemical Fluting Medium	14	30	60	-10	-9.8	-12.3	79.8	24.8
Semi-chemical Fluting Medium	14	31	60	0	-0.1	-2.8	80.2	24.8
Semi-chemical Fluting Medium	14	32	57	10	10.0	8.0	87.6	24.8
Semi-chemical Fluting Medium	14	33	57	20	19.8	18.0	89.4	24.8
Semi-chemical Fluting Medium	14	34	60	10	9.9	7.7	86.2	24.8
Semi-chemical Fluting Medium	14	35	60	0	-0.1	-2.3	82.9	24.8
Semi-chemical Fluting Medium	14	36	60	-10	-9.7	-12.7	76.3	24.8
Semi-chemical Fluting Medium	14	37	55	-20	-19.9	-21.5	85.9	24.8
Semi-chemical Fluting Medium	14	38	60	-20	-19.6	-21.2	86.0	24.8
Semi-chemical Fluting Medium	14	39	60	-10	-10.0	-12.1	82.9	24.8
Semi-chemical Fluting Medium	14	40	60	0	-0.3	-3.3	77.4	24.8
Semi-chemical Fluting Medium	14	41	60	10	9.8	7.7	86.6	24.8
Semi-chemical Fluting Medium	14	42	60	20	19.8	17.9	89.2	24.8
Semi-chemical Fluting Medium	14	43	60	20	19.9	17.8	87.5	24.8
Semi-chemical Fluting Medium	14	44	60	10	9.9	7.7	86.0	24.8
Semi-chemical Fluting Medium	14	45	57	20	19.8	17.4	86.1	24.8
Semi-chemical Fluting Medium	14	46	60	10	9.9	7.4	84.4	24.8
Semi-chemical Fluting Medium	14	47	57	0	-0.1	-2.7	80.3	24.8
Semi-chemical Fluting Medium	14	48	60	-10	-9.8	-12.4	79.4	24.8
Semi-chemical Fluting Medium	14	49	60	-20	-20.0	-21.5	86.7	24.8
Semi-chemical Fluting Medium	14	50	56	-20	-19.9	-21.0	89.8	24.8
Semi-chemical Fluting Medium	14	51	60	-10	-9.9	-12.5	79.3	24.8
Semi-chemical Fluting Medium	14	52	60	0	-0.1	-3.1	78.1	24.8
Semi-chemical Fluting Medium	14	53	58	10	10.0	7.3	83.5	24.8
Semi-chemical Fluting Medium	14	54	57	20	19.9	17.5	85.7	24.8
Semi-chemical Fluting Medium	14	55	60	20	19.9	17.4	85.8	24.8
Semi-chemical Fluting Medium	14	56	57	10	9.7	7.2	84.4	24.8
Semi-chemical Fluting Medium	14	57	60	0	-0.2	-2.8	80.0	24.8
Semi-chemical Fluting Medium	14	58	60	-10	-9.9	-12.4	79.5	24.8
Semi-chemical Fluting Medium	14	59	57	-20	-19.9	-21.2	87.7	24.8
Semi-chemical Fluting Medium	14	60	60	-20	-20.0	-21.2	88.9	24.8
Semi-chemical Fluting Medium	14	61	60	-10	-9.8	-13.0	75.2	24.8
Semi-chemical Fluting Medium	14	62	57	0	-0.3	-3.9	74.4	24.8
Semi-chemical Fluting Medium	14	63	57	10	9.9	7.5	84.6	24.8
Semi-chemical Fluting Medium	14	64	58	20	19.7	17.4	86.3	24.8
Semi-chemical Fluting Medium	14	65	60	20	20.0	17.5	85.6	24.8
Semi-chemical Fluting Medium	14	66	60	10	9.8	7.2	83.7	24.8
Semi-chemical Fluting Medium	14	67	60	0	-0.2	-2.9	80.0	24.8
Semi-chemical Fluting Medium	14	68	60	-10	-9.8	-12.3	79.6	24.8
Semi-chemical Fluting Medium	14	69	60	-20	-19.7	-21.3	86.4	24.8
Semi-chemical Fluting Medium	14	70	60	-20	-19.9	-21.2	88.2	24.8
Semi-chemical Fluting Medium	14	71	56	-10	-10.1	-11.9	84.8	24.8
Semi-chemical Fluting Medium	14	72	60	0	-0.3	-3.3	77.3	24.8
Semi-chemical Fluting Medium	14	73	57	10	10.0	7.4	83.9	24.8
Semi-chemical Fluting Medium	14	74	57	20	19.8	17.4	85.8	24.8

Semi-chemical Fluting Medium	14	75	60	20	19.7	17.1	85.1	24.8
Semi-chemical Fluting Medium	14	76	60	10	9.7	7.0	83.2	24.8
Semi-chemical Fluting Medium	14	77	60	0	-0.1	-3.0	78.2	24.8
Semi-chemical Fluting Medium	14	78	58	-10	-9.7	-13.1	73.6	24.8
Semi-chemical Fluting Medium	14	79	60	-20	-19.9	-22.1	80.4	24.8
Semi-chemical Fluting Medium	14	80	60	-20	-19.9	-22.1	80.8	24.8
Semi-chemical Fluting Medium	14	81	60	-10	-10.0	-12.5	79.8	24.8
Semi-chemical Fluting Medium	14	82	57	0	-0.3	-3.8	74.5	24.8
Semi-chemical Fluting Medium	14	83	60	10	9.8	7.5	86.0	24.8
Semi-chemical Fluting Medium	14	84	60	0	0.3	-1.6	85.5	24.8
Semi-chemical Fluting Medium	14	85	57	0	0.1	-3.4	75.3	24.8
Semi-chemical Fluting Medium	14	86	60	10	9.7	7.3	85.1	24.8
Semi-chemical Fluting Medium	14	87	60	10	9.7	7.3	84.6	24.8
Semi-chemical Fluting Medium	14	88	60	0	0.2	-2.2	81.9	24.8
Semi-chemical Fluting Medium	14	89	60	0	0.1	-2.9	78.1	24.8
Semi-chemical Fluting Medium	14	90	57	10	9.7	7.2	84.8	24.8
Semi-chemical Fluting Medium	14	91	60	0	0.1	-2.6	79.9	24.8
Semi-chemical Fluting Medium	14	92	57	0	0.0	-2.9	78.5	24.8
Semi-chemical Fluting Medium	14	93	60	10	9.7	7.0	83.2	24.8
Semi-chemical Fluting Medium	14	94	60	10	9.7	6.9	82.5	24.8
Semi-chemical Fluting Medium	14	95	60	0	0.1	-2.8	78.8	24.8
Semi-chemical Fluting Medium	14	96	60	0	0.1	-3.3	75.7	24.8
Semi-chemical Fluting Medium	14	97	60	10	9.7	7.2	84.7	24.8
Semi-chemical Fluting Medium	14	98	60	10	9.7	6.9	82.7	24.8
Semi-chemical Fluting Medium	14	99	60	0	0.1	-2.8	79.0	24.8
Semi-chemical Fluting Medium	14	100	60	0	0.0	-3.0	77.4	24.8
Semi-chemical Fluting Medium	14	101	60	20	19.5	16.7	83.6	24.8
Semi-chemical Fluting Medium	14	102	60	0	0.0	-2.9	78.3	24.8
Semi-chemical Fluting Medium	14	103	57	0	0.0	-3.1	76.8	24.8
Semi-chemical Fluting Medium	14	104	57	20	20.0	17.3	84.6	24.8
Semi-chemical Fluting Medium	14	105	60	0	0.0	-2.9	79.0	24.8
Semi-chemical Fluting Medium	14	106	60	0	0.1	-2.8	79.0	24.8
Semi-chemical Fluting Medium	14	107	55	20	19.7	17.1	85.1	24.8
Semi-chemical Fluting Medium	14	108	60	0	-0.1	-2.9	79.0	24.8
Semi-chemical Fluting Medium	14	109	60	0	0.1	-2.7	79.6	24.8
Semi-chemical Fluting Medium	14	110	60	20	19.7	17.2	85.4	24.8
Semi-chemical Fluting Medium	14	111	60	0	-0.1	-2.8	79.3	24.8
Semi-chemical Fluting Medium	14	112	60	0	0.1	-2.9	77.8	24.8
Semi-chemical Fluting Medium	15	1	57	20	19.8	16.8	82.7	16.7
Semi-chemical Fluting Medium	15	2	60	10	10.0	6.8	80.4	16.7
Semi-chemical Fluting Medium	15	3	57	0	0.0	-3.0	78.1	16.7
Semi-chemical Fluting Medium	15	4	60	-10	-9.9	-12.6	78.8	16.7
Semi-chemical Fluting Medium	15	5	60	-20	-20.0	-21.9	83.4	16.7
Semi-chemical Fluting Medium	15	6	60	0	0.1	-3.3	75.7	16.7
Semi-chemical Fluting Medium	15	7	60	10	10.0	6.9	81.2	16.7
Semi-chemical Fluting Medium	15	8	60	20	20.0	17.0	82.9	16.7
Semi-chemical Fluting Medium	15	9	60	20	20.0	17.1	83.4	16.7
Semi-chemical Fluting Medium	15	10	60	10	9.9	6.9	81.5	16.7
Semi-chemical Fluting Medium	15	11	60	0	-0.1	-3.2	77.3	16.7

Semi-chemical Fluting Medium	15	12	49	-20	-19.9	-22.3	79.2	16.7
Semi-chemical Fluting Medium	15	13	60	-20	-20.1	-21.8	84.7	16.7
Semi-chemical Fluting Medium	15	14	60	0	0.0	-3.9	72.6	16.7
Semi-chemical Fluting Medium	15	15	57	10	10.0	6.8	80.6	16.7
Semi-chemical Fluting Medium	15	16	60	20	19.8	16.8	82.9	16.7
Semi-chemical Fluting Medium	15	17	60	20	20.2	17.2	82.9	16.7
Semi-chemical Fluting Medium	15	18	57	10	10.0	6.8	80.5	16.7
Semi-chemical Fluting Medium	15	19	60	0	-0.1	-3.3	76.6	16.7
Semi-chemical Fluting Medium	15	20	43	-20	-19.9	-22.6	76.8	16.7
Semi-chemical Fluting Medium	15	21	60	-20	-20.1	-22.2	81.8	16.7
Semi-chemical Fluting Medium	15	22	42	-10	-9.7	-12.4	79.0	16.7
Semi-chemical Fluting Medium	15	23	60	0	0.0	-3.6	73.8	16.7
Semi-chemical Fluting Medium	15	24	57	10	10.0	6.9	80.9	16.7
Semi-chemical Fluting Medium	15	25	60	20	19.9	17.1	84.0	16.7
Semi-chemical Fluting Medium	15	26	60	20	20.0	17.1	83.4	16.7
Semi-chemical Fluting Medium	15	27	57	10	10.3	6.9	79.5	16.7
Semi-chemical Fluting Medium	15	28	60	0	0.0	-3.2	76.9	16.7
Semi-chemical Fluting Medium	15	29	47	-20	-19.8	-22.3	79.0	16.7
Semi-chemical Fluting Medium	15	30	56	-20	-20.0	-22.0	82.5	16.7
Semi-chemical Fluting Medium	15	31	60	-10	-9.9	-12.4	79.4	16.7
Semi-chemical Fluting Medium	15	32	59	0	0.0	-3.9	72.3	16.7
Semi-chemical Fluting Medium	15	33	57	10	10.2	7.0	80.7	16.7
Semi-chemical Fluting Medium	15	34	57	20	20.0	17.4	84.9	16.7
Semi-chemical Fluting Medium	15	35	56	20	20.1	17.2	83.9	16.7
Semi-chemical Fluting Medium	15	36	60	10	10.0	6.8	80.5	16.7
Semi-chemical Fluting Medium	15	37	56	0	0.0	-3.3	76.4	16.7
Semi-chemical Fluting Medium	15	38	42	-10	-9.8	-12.9	75.7	16.7
Semi-chemical Fluting Medium	15	39	43	-20	-19.5	-22.5	74.5	16.7
Semi-chemical Fluting Medium	15	40	54	-20	-20.1	-22.2	81.7	16.7
Semi-chemical Fluting Medium	15	41	60	-10	-9.9	-12.3	81.2	16.7
Semi-chemical Fluting Medium	15	42	57	0	0.0	-4.0	71.6	16.7
Semi-chemical Fluting Medium	15	43	60	10	9.9	6.9	81.2	16.7
Semi-chemical Fluting Medium	15	44	57	20	19.8	17.0	84.3	16.7
Semi-chemical Fluting Medium	15	45	57	20	20.0	17.1	83.3	16.7
Semi-chemical Fluting Medium	15	46	60	10	10.0	6.8	80.5	16.7
Semi-chemical Fluting Medium	15	47	57	0	-0.3	-3.5	76.8	16.7
Semi-chemical Fluting Medium	15	48	60	10	10.1	6.9	80.5	16.7
Semi-chemical Fluting Medium	15	49	40	-20	-19.5	-23.0	71.5	16.7
Semi-chemical Fluting Medium	15	50	56	-20	-19.7	-22.2	78.4	16.7
Semi-chemical Fluting Medium	15	51	56	-10	-9.7	-13.5	71.1	16.7
Semi-chemical Fluting Medium	15	52	50	0	-0.3	-4.6	69.7	16.7
Semi-chemical Fluting Medium	15	53	60	10	9.8	6.5	80.1	16.7
Semi-chemical Fluting Medium	15	54	56	20	19.7	17.1	84.8	16.7
Semi-chemical Fluting Medium	15	55	56	20	19.9	17.1	84.0	16.7
Semi-chemical Fluting Medium	15	56	60	10	10.0	6.7	79.9	16.7
Semi-chemical Fluting Medium	15	57	60	-20	-19.8	-22.0	81.1	16.7
Semi-chemical Fluting Medium	15	58	53	-20	-19.8	-22.0	80.4	16.7
Semi-chemical Fluting Medium	15	59	60	10	10.0	7.4	83.7	16.7
Semi-chemical Fluting Medium	15	60	57	0	0.0	-2.3	82.6	16.7

Semi-chemical Fluting Medium	15	61	46	-10	-9.9	-12.3	80.4	16.7
Semi-chemical Fluting Medium	15	62	57	-20	-20.0	-20.9	92.0	16.7
Semi-chemical Fluting Medium	15	63	60	-20	-20.0	-21.0	91.0	16.7
Semi-chemical Fluting Medium	15	64	60	-10	-9.8	-12.4	79.4	16.7
Semi-chemical Fluting Medium	15	65	60	0	0.0	-3.0	77.9	16.7
Semi-chemical Fluting Medium	15	66	57	10	10.0	7.2	82.9	16.7
Semi-chemical Fluting Medium	15	67	56	20	19.9	17.2	84.6	16.7
Semi-chemical Fluting Medium	15	68	57	20	20.0	17.2	84.2	16.7
Semi-chemical Fluting Medium	15	69	57	10	10.0	7.3	83.0	16.7
Semi-chemical Fluting Medium	15	70	60	0	0.0	-2.2	83.7	16.7
Semi-chemical Fluting Medium	15	71	60	-20	-19.9	-21.5	85.9	16.7
Semi-chemical Fluting Medium	15	72	55	-20	-20.0	-21.3	87.6	16.7
Semi-chemical Fluting Medium	15	73	57	0	0.0	-2.9	78.7	16.7
Semi-chemical Fluting Medium	15	74	60	10	10.0	7.5	84.4	16.7
Semi-chemical Fluting Medium	15	75	60	20	20.0	17.4	84.9	16.7
Semi-chemical Fluting Medium	15	76	60	20	20.0	17.2	84.1	16.7
Semi-chemical Fluting Medium	15	77	60	10	10.0	7.0	82.0	16.7
Semi-chemical Fluting Medium	15	78	57	0	0.0	-3.0	78.4	16.7
Semi-chemical Fluting Medium	15	79	58	-20	-20.0	-22.2	80.7	16.7
Semi-chemical Fluting Medium	15	80	56	-20	-20.0	-21.8	84.0	16.7
Semi-chemical Fluting Medium	15	81	45	-10	-9.9	-13.6	71.7	16.7
Semi-chemical Fluting Medium	15	82	60	0	0.0	-3.4	75.6	16.7
Semi-chemical Fluting Medium	15	83	57	10	9.9	7.1	82.3	16.7
Semi-chemical Fluting Medium	15	84	57	20	20.0	17.2	84.1	16.7
Semi-chemical Fluting Medium	15	85	57	20	20.0	17.2	84.0	16.7
Semi-chemical Fluting Medium	15	86	57	10	10.0	7.1	82.3	16.7
Semi-chemical Fluting Medium	15	87	57	0	0.0	-2.8	79.0	16.7
Semi-chemical Fluting Medium	15	88	60	-20	-20.0	-22.1	81.7	16.7
Semi-chemical Fluting Medium	15	89	54	-20	-20.0	-21.8	84.0	16.7
Semi-chemical Fluting Medium	15	90	57	0	0.0	-3.4	75.0	16.7
Semi-chemical Fluting Medium	15	91	60	10	10.0	7.0	82.0	16.7
Semi-chemical Fluting Medium	15	92	60	20	20.0	17.2	83.8	16.7
Semi-chemical Fluting Medium	15	93	60	20	20.0	17.3	84.3	16.7
Semi-chemical Fluting Medium	15	94	60	10	10.0	7.0	81.8	16.7
Semi-chemical Fluting Medium	15	95	57	0	0.0	-2.7	79.7	16.7
Semi-chemical Fluting Medium	15	96	55	-20	-20.0	-22.0	82.6	16.7
Semi-chemical Fluting Medium	15	97	60	-20	-19.9	-21.1	89.5	16.7
Semi-chemical Fluting Medium	15	98	60	-10	-9.9	-12.7	77.7	16.7
Semi-chemical Fluting Medium	15	99	60	0	0.0	-2.9	78.5	16.7
Semi-chemical Fluting Medium	15	100	57	10	10.0	7.3	83.3	16.7
Semi-chemical Fluting Medium	15	101	57	20	20.0	17.3	84.6	16.7
Semi-chemical Fluting Medium	15	102	56	20	20.0	17.5	85.5	16.7
Semi-chemical Fluting Medium	15	103	57	10	10.1	7.4	83.4	16.7
Semi-chemical Fluting Medium	15	104	60	0	0.0	-2.7	79.7	16.7
Semi-chemical Fluting Medium	15	105	56	-20	-20.1	-21.0	91.5	16.7
Semi-chemical Fluting Medium	15	106	58	0	0.0	-2.7	80.1	16.7
Semi-chemical Fluting Medium	15	107	57	10	10.0	7.6	84.7	16.7
Semi-chemical Fluting Medium	15	108	57	20	20.0	17.6	86.0	16.7
Semi-chemical Fluting Medium	15	109	57	20	20.0	17.5	85.5	16.7

Semi-chemical Fluting Medium	15	110	57	10	10.0	7.3	83.4	16.7
Semi-chemical Fluting Medium	15	111	57	0	0.0	-2.7	79.7	16.7
Semi-chemical Fluting Medium	15	112	53	-20	-19.9	-21.9	82.2	16.7
Semi-chemical Fluting Medium	15	113	55	-20	-20.1	-21.5	87.3	16.7
Semi-chemical Fluting Medium	15	114	57	0	0.0	-3.4	75.2	16.7
Semi-chemical Fluting Medium	15	115	57	10	10.0	7.4	83.6	16.7
Semi-chemical Fluting Medium	15	116	57	20	20.0	17.5	85.6	16.7
Semi-chemical Fluting Medium	15	117	57	20	20.0	17.4	85.3	16.7
Semi-chemical Fluting Medium	15	118	57	10	10.0	7.1	82.3	16.7
Semi-chemical Fluting Medium	15	119	45	0	0.0	-3.1	77.4	16.7
Semi-chemical Fluting Medium	15	120	42	20	20.0	17.8	87.6	16.7
Semi-chemical Fluting Medium	15	121	42	0	0.1	-2.3	82.0	16.7
Semi-chemical Fluting Medium	15	122	45	-20	-19.7	-21.1	87.4	16.7
Semi-chemical Fluting Medium	16	1	54	20	20.2	18.4	89.1	20.8
Semi-chemical Fluting Medium	16	2	60	10	9.9	8.2	89.6	20.8
Semi-chemical Fluting Medium	16	3	54	0	-0.1	-1.2	90.7	20.8
Semi-chemical Fluting Medium	16	4	60	0	0.0	-1.7	87.4	20.8
Semi-chemical Fluting Medium	16	5	60	10	10.0	8.5	90.5	20.8
Semi-chemical Fluting Medium	16	6	54	20	19.9	18.4	90.8	20.8
Semi-chemical Fluting Medium	16	7	54	20	20.3	18.9	91.4	20.8
Semi-chemical Fluting Medium	16	8	60	10	10.0	8.5	89.9	20.8
Semi-chemical Fluting Medium	16	9	57	0	0.0	-1.3	89.8	20.8
Semi-chemical Fluting Medium	16	10	60	0	0.1	-1.3	88.9	20.8
Semi-chemical Fluting Medium	16	11	60	10	10.0	8.4	89.7	20.8
Semi-chemical Fluting Medium	16	12	54	20	20.0	18.4	90.2	20.8
Semi-chemical Fluting Medium	16	13	54	20	20.0	18.5	91.0	20.8
Semi-chemical Fluting Medium	16	14	60	10	10.0	8.4	90.3	20.8
Semi-chemical Fluting Medium	16	15	60	0	0.0	-1.4	89.0	20.8
Semi-chemical Fluting Medium	16	16	56	0	0.1	-1.5	87.8	20.8
Semi-chemical Fluting Medium	16	17	60	10	10.0	8.2	88.7	20.8
Semi-chemical Fluting Medium	16	18	54	20	20.0	18.4	90.5	20.8
Semi-chemical Fluting Medium	16	19	54	20	20.0	18.4	91.0	20.8
Semi-chemical Fluting Medium	16	20	60	10	9.9	8.5	91.2	20.8
Semi-chemical Fluting Medium	16	21	60	0	0.0	-1.3	89.5	20.8
Semi-chemical Fluting Medium	16	22	52	0	0.0	-2.4	82.4	20.8
Semi-chemical Fluting Medium	16	23	60	10	10.0	8.4	89.8	20.8
Semi-chemical Fluting Medium	16	24	54	20	19.8	18.6	92.3	20.8
Semi-chemical Fluting Medium	16	25	54	20	20.0	18.6	92.0	20.8
Semi-chemical Fluting Medium	16	26	60	10	9.9	8.4	90.4	20.8
Semi-chemical Fluting Medium	16	27	60	0	0.0	-1.4	88.9	20.8
Recycled Fluting Medium	1	1	60	-10	-9.9	-34.8	8.7	2.2
Recycled Fluting Medium	1	2	60	-20	-16.6	-40.5	8.5	2.2
Recycled Fluting Medium	1	3	54	-10	-11.3	-35.3	9.3	2.2
Recycled Fluting Medium	1	4	60	-20	-16.9	-40.2	9.1	2.2
Recycled Fluting Medium	1	5	54	0	-0.9	-25.4	10.7	2.2
Recycled Fluting Medium	1	6	60	10	10.1	-15.8	12.5	2.2
Recycled Fluting Medium	1	7	60	20	20.0	-7.6	13.7	2.2
Recycled Fluting Medium	1	8	60	20	20.0	-6.9	14.7	2.2
Recycled Fluting Medium	1	9	60	0	0.1	-24.2	11.2	2.2

Recycled Fluting Medium	1	10	46	-10	-9.9	-32.7	10.9	2.2
Recycled Fluting Medium	1	11	60	-20	-16.7	-39.0	10.2	2.2
Recycled Fluting Medium	1	12	60	-20	-16.9	-38.8	10.6	2.2
Recycled Fluting Medium	1	13	60	0	-2.2	-24.9	12.6	2.2
Recycled Fluting Medium	1	14	49	20	20.0	-5.5	16.4	2.2
Recycled Fluting Medium	1	15	60	10	9.9	-15.2	13.3	2.2
Recycled Fluting Medium	1	16	55	10	10.0	-14.5	14.2	2.2
Recycled Fluting Medium	1	17	60	0	0.0	-22.4	13.4	2.2
Recycled Fluting Medium	1	18	60	-20	-16.8	-37.4	12.3	2.2
Recycled Fluting Medium	1	19	60	-10	-10.9	-31.9	13.0	2.2
Recycled Fluting Medium	1	20	60	0	-2.1	-23.2	14.8	2.2
Recycled Fluting Medium	1	21	54	10	10.0	-13.4	15.5	2.2
Recycled Fluting Medium	1	22	60	20	20.0	-3.6	19.3	2.2
Recycled Fluting Medium	1	23	60	10	10.0	-13.4	15.7	2.2
Recycled Fluting Medium	1	24	58	20	20.0	-3.2	19.9	2.2
Recycled Fluting Medium	1	25	60	-10	-10.0	-30.3	14.1	2.2
Recycled Fluting Medium	1	26	46	-20	-16.6	-36.1	13.9	2.2
Recycled Fluting Medium	1	27	60	-10	-11.3	-31.1	14.6	2.2
Recycled Fluting Medium	1	28	60	-10	-5.0	-24.8	16.1	2.2
Recycled Fluting Medium	1	29	60	20	20.1	-2.3	21.6	2.2
Recycled Fluting Medium	1	30	54	10	10.0	-12.2	17.4	2.2
Recycled Fluting Medium	1	31	60	20	20.0	-1.9	22.3	2.2
Recycled Fluting Medium	1	32	60	10	10.0	-11.9	17.9	2.2
Recycled Fluting Medium	1	33	54	0	0.0	-21.1	15.2	2.2
Recycled Fluting Medium	1	34	60	-10	-10.0	-29.4	15.7	2.2
Recycled Fluting Medium	1	35	60	-10	-11.5	-30.3	16.3	2.2
Recycled Fluting Medium	1	1	60	-20	-17.2	-35.9	15.1	2.2
Recycled Fluting Medium	1	2	60	10	9.9	-10.6	20.1	2.2
Recycled Fluting Medium	1	3	58	20	20.0	-1.1	23.9	2.2
Recycled Fluting Medium	1	4	60	10	10.0	-10.8	19.7	2.2
Recycled Fluting Medium	1	5	60	20	20.0	-0.7	24.6	2.2
Recycled Fluting Medium	1	6	40	0	-0.1	-20.6	16.1	2.2
Recycled Fluting Medium	1	7	60	-10	-10.0	-28.7	16.8	2.2
Recycled Fluting Medium	1	8	60	-20	-16.8	-35.0	16.1	2.2
Recycled Fluting Medium	1	9	54	-10	-11.4	-29.6	17.2	2.2
Recycled Fluting Medium	2	1	54	20	20.0	7.8	45.1	6.6
Recycled Fluting Medium	2	2	60	10	10.0	-1.6	43.9	6.6
Recycled Fluting Medium	2	3	54	0	0.0	-11.3	37.7	6.6
Recycled Fluting Medium	2	4	60	-10	-10.0	-20.2	38.9	6.6
Recycled Fluting Medium	2	5	60	-20	-16.2	-25.8	39.8	6.6
Recycled Fluting Medium	2	6	48	-10	-11.4	-21.1	40.7	6.6
Recycled Fluting Medium	2	7	60	-20	-16.4	-25.7	40.3	6.6
Recycled Fluting Medium	2	8	45	0	-3.8	-13.4	42.7	6.6
Recycled Fluting Medium	2	9	60	10	10.0	-0.7	46.9	6.6
Recycled Fluting Medium	2	10	60	20	20.0	9.6	51.2	6.6
Recycled Fluting Medium	2	11	54	10	9.9	-0.4	48.4	6.6
Recycled Fluting Medium	2	12	60	20	20.0	9.9	52.3	6.6
Recycled Fluting Medium	2	13	60	0	-0.1	-10.7	40.2	6.6
Recycled Fluting Medium	2	14	46	-10	-10.1	-19.8	40.9	6.6

Recycled Fluting Medium	2	15	60	-20	-16.4	-25.4	41.8	6.6
Recycled Fluting Medium	2	16	48	-10	-11.3	-20.7	41.8	6.6
Recycled Fluting Medium	2	17	60	-20	-16.5	-25.3	42.4	6.6
Recycled Fluting Medium	2	18	54	20	20.0	10.0	52.6	6.6
Recycled Fluting Medium	2	19	60	10	10.0	0.0	49.8	6.6
Recycled Fluting Medium	2	20	60	20	20.0	10.5	54.2	6.6
Recycled Fluting Medium	2	21	54	10	10.0	0.2	50.4	6.6
Recycled Fluting Medium	2	22	60	0	-0.1	-10.2	41.9	6.6
Recycled Fluting Medium	2	23	44	-10	-10.1	-19.5	42.3	6.6
Recycled Fluting Medium	2	24	60	-20	-14.5	-23.3	43.3	6.6
Recycled Fluting Medium	2	25	60	-10	-11.3	-20.0	44.8	6.6
Recycled Fluting Medium	2	26	52	-20	-16.1	-24.7	43.8	6.6
Recycled Fluting Medium	2	27	60	0	-0.8	-9.7	46.6	6.6
Recycled Fluting Medium	2	28	54	10	10.0	0.6	52.0	6.6
Recycled Fluting Medium	2	29	60	20	20.0	10.8	55.3	6.6
Recycled Fluting Medium	2	30	60	10	10.0	0.3	51.1	6.6
Recycled Fluting Medium	2	31	54	20	20.0	10.6	54.8	6.6
Recycled Fluting Medium	2	32	60	0	0.0	-10.0	42.4	6.6
Recycled Fluting Medium	2	33	53	-10	-10.0	-19.5	41.8	6.6
Recycled Fluting Medium	2	34	52	-20	-15.9	-24.6	43.4	6.6
Recycled Fluting Medium	2	35	60	-10	-10.9	-19.5	45.1	6.6
Recycled Fluting Medium	2	36	52	-20	-16.3	-24.7	44.3	6.6
Recycled Fluting Medium	2	37	60	0	-2.0	-10.7	47.2	6.6
Recycled Fluting Medium	2	38	60	20	20.0	11.1	56.3	6.6
Recycled Fluting Medium	2	39	54	10	10.1	0.6	51.7	6.6
Recycled Fluting Medium	2	40	60	20	20.0	11.0	56.0	6.6
Recycled Fluting Medium	2	41	60	10	10.0	0.5	51.8	6.6
Recycled Fluting Medium	2	42	60	-10	-10.0	-19.7	41.0	6.6
Recycled Fluting Medium	2	43	52	-20	-15.2	-24.5	41.2	6.6
Recycled Fluting Medium	2	44	60	-10	-10.9	-19.9	43.6	6.6
Recycled Fluting Medium	2	45	60	-20	-16.1	-24.9	42.9	6.6
Recycled Fluting Medium	2	46	54	0	-1.9	-10.9	45.9	6.6
Recycled Fluting Medium	2	47	60	10	10.0	0.7	52.4	6.6
Recycled Fluting Medium	2	48	54	20	20.0	11.4	57.5	6.6
Recycled Fluting Medium	2	49	60	10	10.0	1.0	53.6	6.6
Recycled Fluting Medium	2	50	60	20	20.0	11.4	57.4	6.6
Recycled Fluting Medium	2	51	54	0	0.0	-9.6	44.0	6.6
Recycled Fluting Medium	2	52	60	-10	-10.0	-18.8	44.7	6.6
Recycled Fluting Medium	2	53	60	-20	-15.9	-24.1	45.4	6.6
Recycled Fluting Medium	2	54	50	-10	-11.3	-19.4	47.1	6.6
Recycled Fluting Medium	3	1	56	20	20.0	7.4	43.9	6.5
Recycled Fluting Medium	3	2	60	10	10.0	-2.8	39.5	6.5
Recycled Fluting Medium	3	3	60	0	0.0	-13.0	32.4	6.5
Recycled Fluting Medium	3	4	51	-10	-10.0	-21.7	33.6	6.5
Recycled Fluting Medium	3	5	60	-20	-15.0	-26.0	34.7	6.5
Recycled Fluting Medium	3	6	60	-10	-11.0	-22.2	35.1	6.5
Recycled Fluting Medium	3	7	52	-20	-15.9	-26.8	34.5	6.5
Recycled Fluting Medium	3	8	60	0	-2.4	-13.7	37.2	6.5
Recycled Fluting Medium	3	9	54	10	10.0	-2.1	41.8	6.5

Recycled Fluting Medium	3	10	60	20	20.0	8.2	46.6	6.5
Recycled Fluting Medium	3	11	60	10	10.0	-2.1	42.1	6.5
Recycled Fluting Medium	3	12	54	20	20.0	8.4	47.2	6.5
Recycled Fluting Medium	3	13	60	0	0.0	-12.2	35.1	6.5
Recycled Fluting Medium	3	14	57	-10	-10.1	-21.1	36.0	6.5
Recycled Fluting Medium	3	15	53	-20	-14.4	-24.9	36.7	6.5
Recycled Fluting Medium	3	16	60	-10	-10.9	-21.3	37.9	6.5
Recycled Fluting Medium	3	17	52	-20	-16.0	-26.5	36.2	6.5
Recycled Fluting Medium	3	18	60	-10	-5.5	-16.2	38.5	6.5
Recycled Fluting Medium	3	19	60	20	19.8	8.8	49.1	6.5
Recycled Fluting Medium	3	20	54	10	10.0	-1.5	44.2	6.5
Recycled Fluting Medium	3	21	60	20	20.0	8.9	48.7	6.5
Recycled Fluting Medium	3	22	54	10	9.9	-1.5	44.2	6.5
Recycled Fluting Medium	3	23	60	0	0.0	-11.7	36.6	6.5
Recycled Fluting Medium	3	24	60	-10	-10.0	-20.3	38.6	6.5
Recycled Fluting Medium	3	25	52	-20	-15.9	-25.8	38.6	6.5
Recycled Fluting Medium	3	26	60	-10	-10.9	-20.7	40.1	6.5
Recycled Fluting Medium	3	27	60	-20	-15.7	-25.6	38.6	6.5
Recycled Fluting Medium	3	28	60	10	10.1	-0.7	46.7	6.5
Recycled Fluting Medium	3	29	54	20	20.0	9.5	50.7	6.5
Recycled Fluting Medium	3	30	60	10	10.0	-0.8	46.5	6.5
Recycled Fluting Medium	3	31	60	20	20.0	9.5	51.0	6.5
Recycled Fluting Medium	3	32	54	0	0.0	-11.3	37.8	6.5
Recycled Fluting Medium	3	33	60	-10	-10.0	-20.1	39.4	6.5
Recycled Fluting Medium	3	34	57	-20	-15.8	-25.5	39.5	6.5
Recycled Fluting Medium	3	35	57	-10	-11.0	-20.5	41.1	6.5
Recycled Fluting Medium	3	36	60	-20	-15.7	-25.2	40.3	6.5
Recycled Fluting Medium	3	37	60	20	20.1	9.4	50.2	6.5
Recycled Fluting Medium	3	38	60	10	10.0	-0.4	48.2	6.5
Recycled Fluting Medium	3	39	54	20	20.0	9.8	51.8	6.5
Recycled Fluting Medium	3	40	60	10	10.0	-0.6	47.6	6.5
Recycled Fluting Medium	3	41	54	0	0.0	-11.1	38.8	6.5
Recycled Fluting Medium	3	42	60	-10	-10.0	-19.9	40.4	6.5
Recycled Fluting Medium	3	43	60	-20	-15.7	-25.1	40.7	6.5
Recycled Fluting Medium	3	44	52	-20	-13.7	-22.8	42.0	6.5
Recycled Fluting Medium	3	45	60	-20	-15.0	-24.2	41.5	6.5
Recycled Fluting Medium	3	46	60	20	20.0	9.6	51.1	6.5
Recycled Fluting Medium	3	47	54	10	10.0	-0.2	48.9	6.5
Recycled Fluting Medium	3	48	60	20	20.0	9.9	52.4	6.5
Recycled Fluting Medium	3	49	60	0	0.0	-10.9	39.4	6.5
Recycled Fluting Medium	3	50	49	-10	-10.0	-20.0	39.8	6.5
Recycled Fluting Medium	3	51	60	-20	-15.5	-24.8	40.9	6.5
Recycled Fluting Medium	3	52	48	-10	-11.1	-21.0	40.0	6.5
Recycled Fluting Medium	3	53	60	-20	-15.4	-24.6	41.3	6.5
Recycled Fluting Medium	3	54	60	0	-3.4	-12.8	43.8	6.5
Recycled Fluting Medium	3	55	54	20	20.0	10.0	52.7	6.5
Recycled Fluting Medium	3	56	60	10	10.0	-0.4	48.1	6.5
Recycled Fluting Medium	3	57	60	20	20.0	10.0	52.4	6.5
Recycled Fluting Medium	3	58	54	10	10.0	-0.3	48.5	6.5

Recycled Fluting Medium	3	59	50	-10	-10.0	-20.4	38.1	6.5
Recycled Fluting Medium	3	60	60	-20	-15.1	-24.7	40.1	6.5
Recycled Fluting Medium	3	61	60	-10	-11.0	-20.5	41.2	6.5
Recycled Fluting Medium	3	62	60	10	10.0	0.0	49.7	6.5
Recycled Fluting Medium	3	63	54	20	20.0	10.2	53.2	6.5
Recycled Fluting Medium	3	64	60	10	10.0	-0.2	48.7	6.5
Recycled Fluting Medium	4	1	54	20	20.0	18.6	91.9	23.3
Recycled Fluting Medium	4	2	60	10	10.0	8.8	92.3	23.3
Recycled Fluting Medium	4	3	54	0	0.0	-1.3	89.2	23.3
Recycled Fluting Medium	4	4	41	-10	-10.0	-11.9	84.5	23.3
Recycled Fluting Medium	4	5	60	-20	-15.0	-16.2	90.0	23.3
Recycled Fluting Medium	4	6	60	-20	-14.7	-16.3	86.3	23.3
Recycled Fluting Medium	4	7	60	20	20.0	18.9	93.0	23.3
Recycled Fluting Medium	4	8	54	10	10.0	8.7	92.0	23.3
Recycled Fluting Medium	4	9	60	20	20.0	18.8	92.6	23.3
Recycled Fluting Medium	4	10	60	0	0.0	-1.4	88.9	23.3
Recycled Fluting Medium	4	11	60	-20	-14.9	-16.3	88.0	23.3
Recycled Fluting Medium	4	12	60	-20	-14.9	-16.7	85.2	23.3
Recycled Fluting Medium	4	13	54	20	20.0	18.7	92.0	23.3
Recycled Fluting Medium	4	14	54	10	10.0	8.5	90.6	23.3
Recycled Fluting Medium	4	15	60	20	20.0	18.7	92.4	23.3
Recycled Fluting Medium	4	16	54	10	10.0	8.8	92.0	23.3
Recycled Fluting Medium	4	17	60	0	0.0	-1.4	88.8	23.3
Recycled Fluting Medium	4	18	60	-20	-15.1	-16.1	90.8	23.3
Recycled Fluting Medium	4	19	60	-10	-10.9	-12.4	87.8	23.3
Recycled Fluting Medium	4	20	45	-20	-15.1	-16.6	86.9	23.3
Recycled Fluting Medium	4	21	60	10	10.0	8.5	90.3	23.3
Recycled Fluting Medium	4	22	54	20	20.0	18.7	92.0	23.3
Recycled Fluting Medium	4	23	60	10	10.0	8.7	91.4	23.3
Recycled Fluting Medium	4	24	54	20	20.0	18.8	92.9	23.3
Recycled Fluting Medium	4	25	60	0	0.0	-1.5	88.4	23.3
Recycled Fluting Medium	4	26	60	-10	-10.0	-11.8	85.1	23.3
Recycled Fluting Medium	4	27	60	-10	-10.9	-12.2	89.1	23.3
Recycled Fluting Medium	4	28	60	20	20.1	18.7	91.8	23.3
Recycled Fluting Medium	4	29	54	10	10.0	8.7	91.8	23.3
Recycled Fluting Medium	4	30	55	20	20.0	18.7	92.0	23.3
Recycled Fluting Medium	4	31	60	10	10.0	8.7	91.7	23.3
Recycled Fluting Medium	4	32	54	0	0.0	-1.4	89.1	23.3
Recycled Fluting Medium	4	33	48	-20	-15.0	-15.9	91.6	23.3
Recycled Fluting Medium	4	34	60	-20	-13.5	-14.4	92.1	23.3
Recycled Fluting Medium	4	35	60	-20	-15.1	-15.9	92.9	23.3
Recycled Fluting Medium	4	36	46	0	0.0	-2.0	85.0	23.3
Recycled Fluting Medium	4	37	60	10	10.0	8.4	89.7	23.3
Recycled Fluting Medium	4	38	60	20	20.1	18.9	92.8	23.3
Recycled Fluting Medium	4	39	55	10	10.0	8.6	91.2	23.3
Recycled Fluting Medium	4	40	60	20	20.0	18.8	92.7	23.3
Recycled Fluting Medium	4	41	54	0	0.0	-1.4	88.8	23.3
Recycled Fluting Medium	4	42	60	-10	-10.0	-11.8	85.3	23.3
Recycled Fluting Medium	4	43	50	-20	-15.2	-15.8	94.5	23.3

Recycled Fluting Medium	4	44	43	-10	-12.7	-13.8	90.2	23.3
Recycled Fluting Medium	4	45	60	-20	-14.8	-15.8	91.0	23.3
Recycled Fluting Medium	4	46	60	0	-0.4	-2.3	85.0	23.3
Recycled Fluting Medium	4	47	60	20	20.1	18.9	93.2	23.3
Recycled Fluting Medium	4	48	60	10	10.0	8.8	92.3	23.3
Recycled Fluting Medium	4	49	54	20	20.0	18.9	93.2	23.3
Recycled Fluting Medium	4	50	60	10	10.0	8.8	92.2	23.3
Recycled Fluting Medium	4	51	60	0	0.0	-1.4	89.5	23.3
Recycled Fluting Medium	4	52	43	-10	-10.0	-11.7	86.2	23.3
Recycled Fluting Medium	4	53	60	-20	-15.0	-15.6	94.8	23.3
Recycled Fluting Medium	4	54	60	-20	-14.8	-15.8	91.5	23.3
Recycled Fluting Medium	4	55	60	0	0.0	-1.5	88.1	23.3
Recycled Fluting Medium	4	56	54	10	10.0	8.6	91.1	23.3
Recycled Fluting Medium	4	57	60	20	20.0	18.7	92.1	23.3
Recycled Fluting Medium	4	58	60	10	10.0	8.7	92.0	23.3
Recycled Fluting Medium	4	59	41	20	19.9	18.7	92.9	23.3
Recycled Fluting Medium	5	1	60	20	20.0	17.7	86.5	16.3
Recycled Fluting Medium	5	2	54	10	10.0	7.6	85.2	16.3
Recycled Fluting Medium	5	3	60	0	0.0	-2.5	81.0	16.3
Recycled Fluting Medium	5	4	60	-20	-14.9	-17.0	82.2	16.3
Recycled Fluting Medium	5	5	60	-10	-11.0	-13.4	80.7	16.3
Recycled Fluting Medium	5	6	50	-20	-14.7	-17.0	81.1	16.3
Recycled Fluting Medium	5	7	60	0	-2.4	-5.1	79.9	16.3
Recycled Fluting Medium	5	8	57	10	10.0	7.1	82.0	16.3
Recycled Fluting Medium	5	9	60	20	20.0	17.4	85.1	16.3
Recycled Fluting Medium	5	10	60	10	10.0	7.5	84.5	16.3
Recycled Fluting Medium	5	11	54	20	20.0	17.7	86.5	16.3
Recycled Fluting Medium	5	12	60	0	0.0	-2.7	79.8	16.3
Recycled Fluting Medium	5	13	49	-20	-14.0	-16.0	83.1	16.3
Recycled Fluting Medium	5	14	60	-10	-11.0	-13.2	82.3	16.3
Recycled Fluting Medium	5	15	50	-20	-14.9	-17.0	82.4	16.3
Recycled Fluting Medium	5	16	60	20	20.1	17.6	85.6	16.3
Recycled Fluting Medium	5	17	54	10	10.0	7.3	83.8	16.3
Recycled Fluting Medium	5	18	60	20	20.0	17.3	84.5	16.3
Recycled Fluting Medium	5	19	60	10	10.0	7.2	82.9	16.3
Recycled Fluting Medium	5	20	54	0	0.0	-3.0	77.6	16.3
Recycled Fluting Medium	5	21	49	-20	-14.5	-17.0	79.6	16.3
Recycled Fluting Medium	5	22	60	-10	-10.9	-13.4	80.1	16.3
Recycled Fluting Medium	5	23	60	-20	-14.7	-16.9	81.2	16.3
Recycled Fluting Medium	5	24	60	10	10.1	7.1	81.9	16.3
Recycled Fluting Medium	5	25	56	20	20.1	17.5	85.0	16.3
Recycled Fluting Medium	5	26	60	10	10.0	7.3	83.1	16.3
Recycled Fluting Medium	5	27	60	20	20.0	17.4	84.9	16.3
Recycled Fluting Medium	5	28	54	0	-0.1	-3.1	77.9	16.3
Recycled Fluting Medium	5	29	60	-20	-13.9	-16.3	80.1	16.3
Recycled Fluting Medium	5	30	50	-10	-10.9	-13.4	79.9	16.3
Recycled Fluting Medium	5	31	60	-20	-14.6	-16.9	81.3	16.3
Recycled Fluting Medium	5	32	54	20	19.9	17.3	84.8	16.3
Recycled Fluting Medium	5	33	60	10	9.9	7.2	83.3	16.3

Recycled Fluting Medium	5	34	54	20	20.1	17.5	85.3	16.3
Recycled Fluting Medium	5	35	60	10	9.9	7.1	82.5	16.3
Recycled Fluting Medium	5	36	60	0	0.0	-2.9	78.6	16.3
Recycled Fluting Medium	5	37	49	-10	-10.0	-13.2	74.8	16.3
Recycled Fluting Medium	5	38	60	-20	-14.3	-16.6	80.7	16.3
Recycled Fluting Medium	5	39	46	-10	-10.8	-13.3	80.2	16.3
Recycled Fluting Medium	5	40	60	-20	-14.6	-16.6	83.0	16.3
Recycled Fluting Medium	5	41	54	10	10.1	6.8	80.4	16.3
Recycled Fluting Medium	5	42	60	20	20.0	17.2	84.0	16.3
Recycled Fluting Medium	5	43	55	10	10.0	7.3	83.1	16.3
Recycled Fluting Medium	5	44	60	20	20.0	17.3	84.6	16.3
Recycled Fluting Medium	5	45	60	0	0.0	-3.0	78.1	16.3
Recycled Fluting Medium	5	46	60	-20	-14.5	-17.0	79.0	16.3
Recycled Fluting Medium	5	47	54	-10	-11.0	-13.8	77.2	16.3
Recycled Fluting Medium	5	48	48	-20	-14.5	-16.8	80.8	16.3
Recycled Fluting Medium	5	49	60	0	-1.4	-4.3	78.3	16.3
Recycled Fluting Medium	5	50	43	20	20.0	16.2	78.9	16.3
Recycled Fluting Medium	5	51	60	10	10.0	6.9	80.8	16.3
Recycled Fluting Medium	5	52	60	20	20.0	17.2	84.0	16.3
Recycled Fluting Medium	5	53	54	10	10.0	7.4	84.0	16.3
Recycled Fluting Medium	5	54	60	0	0.0	-2.7	79.6	16.3
Recycled Fluting Medium	5	55	56	-20	-14.5	-16.9	80.1	16.3
Recycled Fluting Medium	5	56	60	-10	-10.8	-13.4	79.0	16.3
Recycled Fluting Medium	5	57	45	-20	-14.5	-17.2	78.3	16.3
Recycled Fluting Medium	5	58	60	0	-1.8	-4.8	77.6	16.3
Recycled Fluting Medium	5	59	60	10	10.0	7.0	81.8	16.3
Recycled Fluting Medium	6	1	60	20	20.0	18.9	93.4	42.9
Recycled Fluting Medium	6	2	60	10	10.0	8.9	92.8	42.9
Recycled Fluting Medium	6	3	54	0	-0.1	-1.3	90.5	42.9
Recycled Fluting Medium	6	4	55	-20	-11.7	-13.8	83.0	42.9
Recycled Fluting Medium	6	5	57	-20	-13.8	-16.0	81.4	42.9
Recycled Fluting Medium	6	6	60	10	10.0	9.0	93.3	42.9
Recycled Fluting Medium	6	7	60	20	20.0	19.2	95.1	42.9
Recycled Fluting Medium	6	8	54	10	10.0	9.1	94.3	42.9
Recycled Fluting Medium	6	9	60	20	20.0	19.4	96.1	42.9
Recycled Fluting Medium	6	10	54	0	0.0	-1.1	91.0	42.9
Recycled Fluting Medium	6	11	56	-20	-10.1	-12.6	79.8	42.9
Recycled Fluting Medium	6	12	60	-20	-13.2	-15.2	83.3	42.9
Recycled Fluting Medium	6	13	60	0	-0.3	-1.8	88.2	42.9
Recycled Fluting Medium	6	14	54	20	20.0	19.5	97.1	42.9
Recycled Fluting Medium	6	15	60	10	9.9	9.2	95.1	42.9
Recycled Fluting Medium	6	16	49	20	20.0	19.6	97.5	42.9
Recycled Fluting Medium	6	17	60	10	10.0	9.1	93.9	42.9
Recycled Fluting Medium	6	18	60	0	0.0	-1.2	90.9	42.9
Recycled Fluting Medium	6	19	60	-20	-13.6	-15.4	84.7	42.9
Recycled Fluting Medium	6	20	52	-20	-10.9	-12.4	87.1	42.9
Recycled Fluting Medium	6	21	44	-20	-13.3	-15.1	84.7	42.9
Recycled Fluting Medium	6	22	54	10	10.1	9.4	95.5	42.9
Recycled Fluting Medium	6	23	53	20	20.1	19.5	96.5	42.9

Recycled Fluting Medium	6	24	60	10	10.0	9.4	96.0	42.9
Recycled Fluting Medium	6	25	53	20	20.0	19.7	97.9	42.9
Recycled Fluting Medium	6	26	60	0	0.0	-1.0	92.3	42.9
Recycled Fluting Medium	6	27	60	-20	-13.7	-15.5	85.2	42.9
Recycled Fluting Medium	6	28	60	-20	-13.3	-15.0	85.5	42.9
Recycled Fluting Medium	6	29	44	-20	-12.7	-14.6	83.9	42.9
Recycled Fluting Medium	6	30	44	0	-1.5	-2.7	90.5	42.9
Recycled Fluting Medium	6	31	50	20	20.0	19.6	97.9	42.9
Recycled Fluting Medium	6	32	54	10	10.0	9.4	95.9	42.9
Recycled Fluting Medium	6	33	60	20	20.1	19.6	97.3	42.9
Recycled Fluting Medium	6	34	54	10	10.0	9.4	95.9	42.9
Recycled Fluting Medium	6	35	60	0	0.0	-1.0	92.3	42.9
Recycled Fluting Medium	6	36	44	-20	-13.7	-15.4	85.6	42.9
Recycled Fluting Medium	6	37	60	-20	-10.7	-12.2	87.6	42.9
Recycled Fluting Medium	6	38	50	-20	-13.7	-15.6	84.2	42.9
Recycled Fluting Medium	6	39	54	0	-2.7	-4.2	87.6	42.9
Recycled Fluting Medium	6	40	60	10	10.0	9.2	94.8	42.9
Recycled Fluting Medium	6	41	49	20	20.0	19.6	97.3	42.9
Recycled Fluting Medium	6	42	60	10	10.0	9.3	95.5	42.9
Recycled Fluting Medium	6	43	52	20	20.0	19.5	96.9	42.9
Recycled Fluting Medium	6	44	54	0	0.2	-0.9	91.7	42.9
Recycled Fluting Medium	6	45	60	-20	-10.0	-12.2	81.7	42.9
Recycled Fluting Medium	6	46	51	-20	-12.2	-13.9	85.3	42.9
Recycled Fluting Medium	6	47	60	-20	-13.2	-15.0	85.0	42.9
Recycled Fluting Medium	6	48	50	20	20.0	19.7	98.4	42.9
Recycled Fluting Medium	6	49	60	10	10.1	9.5	96.2	42.9
Recycled Fluting Medium	6	50	44	20	20.0	19.7	98.4	42.9
Recycled Fluting Medium	6	51	60	10	10.0	9.4	96.0	42.9
Recycled Fluting Medium	6	52	54	0	-0.1	-0.8	94.6	42.9
Recycled Fluting Medium	6	53	60	-20	-10.0	-11.9	83.9	42.9
Recycled Fluting Medium	6	54	60	-20	-13.0	-14.8	84.8	42.9
Recycled Fluting Medium	6	55	60	0	-1.4	-3.4	84.7	42.9
Recycled Fluting Medium	6	56	55	10	10.0	9.2	94.5	42.9
Recycled Fluting Medium	6	57	60	20	20.0	19.5	97.1	42.9
Recycled Fluting Medium	7	1		20	20.0	19.6	97.9	41.8
Recycled Fluting Medium	7	2		-10	-10.5	-12.2	85.5	41.8
Recycled Fluting Medium	7	3		-20	-13.5	-15.5	83.1	41.8
Recycled Fluting Medium	7	4		-20	-13.6	-15.5	84.1	41.8
Recycled Fluting Medium	7	5		-20	-13.0	-14.8	84.9	41.8
Recycled Fluting Medium	7	6		-10	-10.0	-12.4	80.6	41.8
Recycled Fluting Medium	7	7		-20	-13.2	-14.8	86.3	41.8
Recycled Fluting Medium	7	8		-10	-10.3	-11.8	87.0	41.8
Recycled Fluting Medium	7	9		-10	-10.1	-11.9	84.9	41.8
Recycled Fluting Medium	7	10		0	-0.4	-1.4	92.2	41.8
Recycled Fluting Medium	7	11		20	20.0	19.5	96.9	41.8
Recycled Fluting Medium	7	12		20	20.1	19.8	98.1	41.8
Recycled Fluting Medium	7	13		0	-0.2	-1.6	89.3	41.8
Recycled Fluting Medium	7	14		10	10.0	9.5	96.7	41.8
Recycled Fluting Medium	7	15		0	-0.2	-1.3	90.8	41.8

Recycled Fluting Medium	7	16		0	0.0	-1.1	91.8	41.8
Recycled Fluting Medium	7	17		0	0.0	-0.8	93.5	41.8
Recycled Fluting Medium	7	18		10	10.0	9.2	95.0	41.8
Recycled Fluting Medium	7	19		10	10.0	9.2	94.8	41.8
Recycled Fluting Medium	7	20		10	10.0	9.3	94.9	41.8
Recycled Fluting Medium	7	21		10	10.0	9.2	94.8	41.8
Recycled Fluting Medium	7	22		20	20.0	19.6	97.1	41.8
Recycled Fluting Medium	7	23		20	20.0	19.5	96.5	41.8
Recycled Fluting Medium	7	24		20	20.1	19.5	96.7	41.8
Recycled Fluting Medium	7	25		0	-2.7	-4.0	89.9	41.8
Recycled Fluting Medium	7	26		0	0.0	-1.0	91.9	41.8
Recycled Fluting Medium	7	27		10	10.0	9.4	95.9	41.8
Recycled Fluting Medium	7	28		20	20.0	19.4	96.7	41.8
Recycled Fluting Medium	7	29		20	20.0	19.5	96.8	41.8
Recycled Fluting Medium	7	30		20	20.0	19.7	97.7	41.8
Recycled Fluting Medium	7	31		0	-2.2	-3.4	90.9	41.8
Recycled Fluting Medium	7	32		10	10.0	9.3	95.6	41.8
Recycled Fluting Medium	7	33		-20	-13.4	-15.1	85.6	41.8
Recycled Fluting Medium	7	34		-20	-13.3	-15.0	86.0	41.8
Recycled Fluting Medium	7	35		-20	-13.3	-15.1	84.8	41.8
Recycled Fluting Medium	7	36		-20	-13.2	-14.6	87.9	41.8
Recycled Fluting Medium	7	37		-20	-13.2	-14.8	86.4	41.8
Recycled Fluting Medium	7	38		-20	-13.0	-14.6	85.9	41.8
Recycled Fluting Medium	7	39		-20	-12.8	-14.7	83.8	41.8
Recycled Fluting Medium	7	40		-20	-12.7	-14.7	83.6	41.8
Recycled Fluting Medium	7	41		-10	-10.3	-12.0	85.8	41.8
Recycled Fluting Medium	7	42		-10	-10.0	-12.2	82.1	41.8
Recycled Fluting Medium	7	43		-10	-10.0	-12.4	81.0	41.8
Recycled Fluting Medium	7	44		-10	-10.0	-11.7	85.7	41.8
Recycled Fluting Medium	7	45		0	0.0	-1.0	92.1	41.8
Recycled Fluting Medium	7	46		0	0.0	-0.9	93.1	41.8
Recycled Fluting Medium	7	47		0	0.0	-1.3	90.1	41.8
Recycled Fluting Medium	7	48		0	0.0	-0.9	93.0	41.8
Recycled Fluting Medium	7	49		10	9.9	9.4	96.3	41.8
Recycled Fluting Medium	7	50		10	10.0	9.2	95.0	41.8
Recycled Fluting Medium	7	51		10	10.0	9.3	95.4	41.8
Recycled Fluting Medium	7	52		10	10.0	9.2	94.9	41.8
Recycled Fluting Medium	7	53		10	10.0	9.5	96.3	41.8
Recycled Fluting Medium	7	54		10	10.0	9.2	94.4	41.8
Recycled Fluting Medium	7	55		10	10.1	9.3	95.0	41.8
Recycled Fluting Medium	7	56		20	20.0	19.4	96.8	41.8
Recycled Fluting Medium	7	57		20	20.0	19.5	97.3	41.8
Recycled Fluting Medium	7	58		20	20.0	19.3	95.5	41.8
Recycled Fluting Medium	7	59		20	20.0	19.5	96.7	41.8
Recycled Fluting Medium	7	60		20	20.0	19.5	96.8	41.8
Recycled Fluting Medium	8	1	54	10	20.0	17.1	83.3	14.6
Recycled Fluting Medium	8	2	60	20	10.0	7.4	83.9	14.6
Recycled Fluting Medium	8	3	60	20	0.0	-2.6	80.5	14.6
Recycled Fluting Medium	8	4	50	0	-10.1	-12.9	77.8	14.6

Recycled Fluting Medium	8	5	60	-10	-12.8	-15.3	79.6	14.6
Recycled Fluting Medium	8	6	60	-20	-12.8	-15.9	74.9	14.6
Recycled Fluting Medium	8	7	46	-10	-2.1	-6.0	72.0	14.6
Recycled Fluting Medium	8	8	60	-10	20.0	17.1	83.1	14.6
Recycled Fluting Medium	8	9	56	10	10.0	7.3	83.2	14.6
Recycled Fluting Medium	8	10	60	10	20.0	17.3	84.3	14.6
Recycled Fluting Medium	8	11	60	-10	0.0	-2.6	80.5	14.6
Recycled Fluting Medium	8	12	45	10	-9.4	-11.8	81.0	14.6
Recycled Fluting Medium	8	13	60	10	-12.9	-14.7	85.0	14.6
Recycled Fluting Medium	8	14	47	-20	-10.2	-13.6	74.1	14.6
Recycled Fluting Medium	8	15	45	20	-12.6	-15.3	78.1	14.6
Recycled Fluting Medium	8	16	60	10	0.0	-3.3	75.8	14.6
Recycled Fluting Medium	8	17	54	0	20.0	17.7	86.6	14.6
Recycled Fluting Medium	8	18	60	20	10.0	7.7	85.5	14.6
Recycled Fluting Medium	8	19	60	20	20.0	17.9	87.6	14.6
Recycled Fluting Medium	8	20	53	0	10.0	7.7	85.8	14.6
Recycled Fluting Medium	8	21	60	10	0.0	-2.4	81.7	14.6
Recycled Fluting Medium	8	22	41	20	-9.8	-12.3	80.1	14.6
Recycled Fluting Medium	8	23	54	10	-12.8	-14.5	85.4	14.6
Recycled Fluting Medium	8	24	60	-10	-10.4	-12.7	81.2	14.6
Recycled Fluting Medium	8	25	45	20	-12.8	-15.1	80.7	14.6
Recycled Fluting Medium	8	26	60	0	0.0	-2.9	78.5	14.6
Recycled Fluting Medium	8	27	60	-10	10.1	7.1	81.9	14.6
Recycled Fluting Medium	8	28	54	-20	20.0	17.8	87.1	14.6
Recycled Fluting Medium	8	29	60	-20	10.0	7.8	86.6	14.6
Recycled Fluting Medium	8	30	54	-10	20.0	18.1	88.8	14.6
Recycled Fluting Medium	8	31	60	0	0.1	-2.5	80.6	14.6
Recycled Fluting Medium	8	32	60	20	-9.5	-12.4	77.3	14.6
Recycled Fluting Medium	8	33	60	-10	-12.0	-14.4	80.5	14.6
Recycled Fluting Medium	8	34	60	20	-13.1	-15.5	79.9	14.6
Recycled Fluting Medium	8	35	54	-20	-0.4	-3.2	79.4	14.6
Recycled Fluting Medium	8	36	60	-20	20.1	17.5	85.3	14.6
Recycled Fluting Medium	8	37	54	-10	10.0	7.8	86.1	14.6
Recycled Fluting Medium	8	38	60	-20	20.1	17.8	86.5	14.6
Recycled Fluting Medium	8	39	60	10	10.0	7.7	85.9	14.6
Recycled Fluting Medium	8	40	54	-20	0.0	-2.6	80.7	14.6
Recycled Fluting Medium	8	41	43	10	-9.8	-12.6	77.3	14.6
Recycled Fluting Medium	8	42	44	0	-12.8	-15.5	77.7	14.6
Recycled Fluting Medium	8	43	57	-20	-11.9	-14.2	81.8	14.6
Recycled Fluting Medium	8	44	60	0	-12.5	-15.0	80.1	14.6
Recycled Fluting Medium	8	45	60	-10	10.0	7.3	83.3	14.6
Recycled Fluting Medium	8	46	60	-20	20.0	17.7	86.6	14.6
Recycled Fluting Medium	8	47	54	0	10.0	7.7	85.6	14.6
Recycled Fluting Medium	8	48	60	20	20.0	17.9	87.5	14.6
Recycled Fluting Medium	8	49	53	20	0.0	-2.6	80.8	14.6
Recycled Fluting Medium	8	50	57	0	-9.3	-12.4	76.0	14.6
Recycled Fluting Medium	8	51	55	0	-12.9	-15.4	79.6	14.6
Recycled Fluting Medium	8	52	60	-20	-12.8	-14.8	83.2	14.6
Recycled Fluting Medium	9	1	54	-20	20.0	14.6	71.0	13.4

Recycled Fluting Medium	9	2	60	20	9.9	4.1	67.1	13.4
Recycled Fluting Medium	9	3	58	-10	0.0	-6.0	60.5	13.4
Recycled Fluting Medium	9	4	47	-20	-10.1	-15.7	60.3	13.4
Recycled Fluting Medium	9	5	58	-20	-20.0	-24.4	65.4	13.4
Recycled Fluting Medium	9	6	60	-10	-19.3	-24.0	63.3	13.4
Recycled Fluting Medium	9	7	60	-20	-0.6	-7.0	58.1	13.4
Recycled Fluting Medium	9	8	54	10	10.0	4.1	66.6	13.4
Recycled Fluting Medium	9	9	60	0	20.2	14.5	69.7	13.4
Recycled Fluting Medium	9	10	54	10	9.9	3.7	65.4	13.4
Recycled Fluting Medium	9	11	60	-20	20.0	13.8	67.8	13.4
Recycled Fluting Medium	9	12	58	20	-0.2	-5.9	61.9	13.4
Recycled Fluting Medium	9	13	58	0	-19.7	-24.3	64.2	13.4
Recycled Fluting Medium	9	14	60	0	-10.1	-15.3	62.1	13.4
Recycled Fluting Medium	9	15	52	-20	-19.6	-24.0	65.0	13.4
Recycled Fluting Medium	9	16	60	20	-0.1	-5.9	61.4	13.4
Recycled Fluting Medium	9	17	54	-20	20.1	14.5	70.2	13.4
Recycled Fluting Medium	9	18	60	20	10.0	4.6	69.1	13.4
Recycled Fluting Medium	9	19	60	20	20.0	14.4	70.2	13.4
Recycled Fluting Medium	9	20	54	-10	10.2	4.1	66.0	13.4
Recycled Fluting Medium	9	21	58	-20	-0.1	-6.1	60.2	13.4
Recycled Fluting Medium	9	22	60	20	-19.8	-24.4	64.3	13.4
Recycled Fluting Medium	9	23	60	0	-9.9	-15.0	62.8	13.4
Recycled Fluting Medium	9	24	52	10	-20.2	-24.8	64.0	13.4
Recycled Fluting Medium	9	25	60	10	-0.2	-5.8	62.4	13.4
Recycled Fluting Medium	9	26	60	10	10.0	4.2	67.3	13.4
Recycled Fluting Medium	9	27	54	20	20.0	13.9	67.8	13.4
Recycled Fluting Medium	9	28	60	-10	9.9	4.5	68.8	13.4
Recycled Fluting Medium	9	29	54	0	20.0	15.3	74.1	13.4
Recycled Fluting Medium	9	30	58	20	0.0	-5.2	64.4	13.4
Recycled Fluting Medium	9	31	52	10	-19.8	-23.8	68.2	13.4
Recycled Fluting Medium	9	32	58	20	-10.0	-14.5	66.5	13.4
Recycled Fluting Medium	9	33	57	20	-20.3	-23.9	70.4	13.4
Recycled Fluting Medium	9	34	54	10	-0.1	-5.2	65.5	13.4
Recycled Fluting Medium	9	35	60	10	20.0	15.2	73.7	13.4
Recycled Fluting Medium	9	36	54	0	10.0	5.3	72.7	13.4
Recycled Fluting Medium	9	37	60	-10	20.0	15.5	75.0	13.4
Recycled Fluting Medium	9	38	60	0	10.0	5.4	72.8	13.4
Recycled Fluting Medium	9	39	52	-20	0.0	-4.8	66.9	13.4
Recycled Fluting Medium	9	40	52	-10	-20.0	-23.9	68.2	13.4
Recycled Fluting Medium	9	41	60	10	-9.9	-14.1	68.5	13.4
Recycled Fluting Medium	9	42	60	0	-20.0	-23.5	71.2	13.4
Recycled Fluting Medium	9	43	54	0	-0.2	-5.0	67.0	13.4
Recycled Fluting Medium	9	44	60	20	10.0	5.3	72.6	13.4
Recycled Fluting Medium	9	45	60	0	20.0	15.7	76.6	13.4
Recycled Fluting Medium	9	46	54	0	9.9	5.5	73.7	13.4
Recycled Fluting Medium	9	47	60	-20	20.0	15.6	75.7	13.4
Recycled Fluting Medium	9	48	52	0	0.0	-4.7	67.7	13.4
Recycled Fluting Medium	9	49	43	20	-10.0	-15.1	62.8	13.4
Recycled Fluting Medium	9	50	60	0	-19.9	-23.5	70.7	13.4

Recycled Fluting Medium	9	51	43	10	-10.0	-14.5	66.8	13.4
Recycled Fluting Medium	9	52	60	10	-19.9	-23.7	69.4	13.4
Recycled Fluting Medium	9	53	60	0	-0.1	-5.1	65.6	13.4
Recycled Fluting Medium	9	54	56	-10	20.0	15.2	73.8	13.4
Recycled Fluting Medium	9	55	58	-20	9.9	5.3	72.7	13.4
Recycled Fluting Medium	9	56	54	10	20.0	15.4	74.7	13.4
Recycled Fluting Medium	9	57	60	-20	10.0	5.1	71.7	13.4
Recycled Fluting Medium	9	58	58	10	0.1	-4.7	67.2	13.4
Recycled Fluting Medium	9	59	60	20	-19.8	-23.6	69.5	13.4
Recycled Fluting Medium	9	60	46	-20	-9.7	-14.5	65.1	13.4
Recycled Fluting Medium	9	61	60	-20	-19.9	-23.5	71.0	13.4
Recycled Fluting Medium	9	62	58	-10	-1.5	-6.3	66.7	13.4
Recycled Fluting Medium	10	1	60	10	20.0	19.0	93.5	31.5
Recycled Fluting Medium	10	2	48	20	10.0	8.9	92.3	31.5
Recycled Fluting Medium	10	3	60	-20	-0.1	-1.3	91.1	31.5
Recycled Fluting Medium	10	4	58	0	-19.6	-21.3	85.7	31.5
Recycled Fluting Medium	10	5	60	20	-9.9	-11.6	86.5	31.5
Recycled Fluting Medium	10	6	44	20	-20.1	-21.9	83.9	31.5
Recycled Fluting Medium	10	7	60	-20	10.0	9.1	94.1	31.5
Recycled Fluting Medium	10	8	54	10	20.1	19.1	94.2	31.5
Recycled Fluting Medium	10	9	60	10	10.1	8.9	92.8	31.5
Recycled Fluting Medium	10	10	49	-20	20.1	19.2	94.5	31.5
Recycled Fluting Medium	10	11	60	-10	-0.1	-1.0	92.7	31.5
Recycled Fluting Medium	10	12	60	10	-10.0	-12.1	82.2	31.5
Recycled Fluting Medium	10	13	52	20	-19.9	-21.6	84.9	31.5
Recycled Fluting Medium	10	14	58	-20	-10.1	-11.8	86.4	31.5
Recycled Fluting Medium	10	15	54	10	-19.9	-21.8	82.9	31.5
Recycled Fluting Medium	10	16	58	0	20.1	19.1	94.1	31.5
Recycled Fluting Medium	10	17	54	-10	10.0	8.9	92.8	31.5
Recycled Fluting Medium	10	18	60	-10	20.0	19.0	94.0	31.5
Recycled Fluting Medium	10	19	60	10	10.1	9.0	93.1	31.5
Recycled Fluting Medium	10	20	54	-20	0.0	-1.1	91.4	31.5
Recycled Fluting Medium	10	21	49	10	-9.9	-12.2	81.2	31.5
Recycled Fluting Medium	10	22	47	10	-20.0	-21.5	86.7	31.5
Recycled Fluting Medium	10	23	60	-20	-10.0	-11.5	87.2	31.5
Recycled Fluting Medium	10	24	60	20	-19.7	-21.5	84.3	31.5
Recycled Fluting Medium	10	25	54	0	-0.4	-1.7	89.7	31.5
Recycled Fluting Medium	10	26	60	20	10.0	9.2	94.7	31.5
Recycled Fluting Medium	10	27	60	20	20.1	19.3	95.3	31.5
Recycled Fluting Medium	10	28	54	20	10.0	9.0	93.9	31.5
Recycled Fluting Medium	10	29	60	-10	20.0	19.2	95.2	31.5
Recycled Fluting Medium	10	30	54	-10	-0.2	-1.2	92.1	31.5
Recycled Fluting Medium	10	31	60	-20	-20.0	-21.2	89.2	31.5
Recycled Fluting Medium	10	32	52	-10	-10.1	-11.5	88.7	31.5
Recycled Fluting Medium	10	33	60	0	-20.0	-21.2	89.4	31.5
Recycled Fluting Medium	10	34	56	-20	20.0	19.6	97.3	31.5
Recycled Fluting Medium	10	35	54	0	10.0	9.4	96.0	31.5
Recycled Fluting Medium	10	36	45	0	20.0	19.7	98.3	31.5
Recycled Fluting Medium	10	37	60	-20	10.0	9.5	96.4	31.5

Recycled Fluting Medium	10	38	60	0	0.0	-0.9	93.5	31.5
Recycled Fluting Medium	10	39	41	-10	-10.0	-11.9	84.6	31.5
Recycled Fluting Medium	10	40	58	-10	-20.0	-21.0	90.9	31.5
Recycled Fluting Medium	10	41	44	20	-10.0	-11.4	87.6	31.5
Recycled Fluting Medium	10	42	60	10	-19.9	-21.2	88.1	31.5
Recycled Fluting Medium	10	43	52	20	10.1	9.4	95.5	31.5
Recycled Fluting Medium	10	44	60	20	20.1	19.5	96.3	31.5
Recycled Fluting Medium	10	45	60	10	10.0	9.4	96.3	31.5
Recycled Fluting Medium	10	46	54	-20	20.0	19.5	96.6	31.5
Recycled Fluting Medium	10	47	60	10	0.0	-1.0	92.3	31.5
Recycled Fluting Medium	10	48	60	-20	-20.0	-20.9	91.9	31.5
Recycled Fluting Medium	11	1	49	20	20.0	19.5	96.7	31.5
Recycled Fluting Medium	11	2	58	10	10.0	9.3	95.5	31.5
Recycled Fluting Medium	11	3	56	20	-0.1	-1.0	92.8	31.5
Recycled Fluting Medium	11	4	60	20	-10.0	-12.2	82.0	31.5
Recycled Fluting Medium	11	5	60	-10	-19.7	-21.3	85.4	31.5
Recycled Fluting Medium	11	6	41	-10	-10.0	-11.5	87.1	31.5
Recycled Fluting Medium	11	7	60	20	-19.7	-21.3	85.7	31.5
Recycled Fluting Medium	11	8	60	20	0.1	-1.0	91.2	31.5
Recycled Fluting Medium	11	9	53	-20	10.0	9.6	97.0	31.5
Recycled Fluting Medium	11	10	50	0	0.1	-0.4	96.6	31.5
Recycled Fluting Medium	11	11	56	0	-19.8	-21.2	86.7	31.5
Recycled Fluting Medium	11	12	51	-20	-10.0	-11.5	87.4	31.5
Recycled Fluting Medium	11	13	53	-20	-19.7	-21.2	86.2	31.5
Recycled Fluting Medium	11	14	52	20	20.1	19.4	96.0	31.5
Recycled Fluting Medium	11	15	60	-10	9.9	9.1	94.9	31.5
Recycled Fluting Medium	11	16	60	10	20.0	19.4	96.3	31.5
Recycled Fluting Medium	11	17	54	-20	10.0	9.3	95.5	31.5
Recycled Fluting Medium	11	18	60	-10	0.0	-0.8	93.8	31.5
Recycled Fluting Medium	11	19	60	-20	-19.7	-21.0	88.5	31.5
Recycled Fluting Medium	11	20	60	10	-10.0	-11.3	89.3	31.5
Recycled Fluting Medium	11	21	43	10	-19.8	-21.4	85.2	31.5
Recycled Fluting Medium	11	22	52	10	-0.1	-1.8	86.3	31.5
Recycled Fluting Medium	11	23	60	-10	10.0	9.2	94.7	31.5
Recycled Fluting Medium	11	24	54	0	20.0	19.4	96.4	31.5
Recycled Fluting Medium	11	25	60	20	10.0	9.2	94.6	31.5
Recycled Fluting Medium	11	26	54	-10	20.0	19.3	95.4	31.5
Recycled Fluting Medium	11	27	60	10	0.1	-1.3	89.5	31.5
Recycled Fluting Medium	11	28	48	-10	-20.0	-21.8	84.1	31.5
Recycled Fluting Medium	11	29	58	-20	-9.9	-11.5	86.6	31.5
Recycled Fluting Medium	11	30	47	20	-20.0	-21.8	84.0	31.5
Recycled Fluting Medium	11	31	49	0	0.2	-1.5	87.3	31.5
Recycled Fluting Medium	11	32	58	20	20.1	19.3	95.4	31.5
Recycled Fluting Medium	11	33	54	0	10.0	9.1	94.1	31.5
Recycled Fluting Medium	11	34	60	10	20.0	19.2	94.9	31.5
Recycled Fluting Medium	11	35	60	10	10.0	9.1	93.9	31.5
Recycled Fluting Medium	11	36	54	20	0.0	-1.1	91.6	31.5
Recycled Fluting Medium	11	37	54	10	-10.0	-12.0	83.7	31.5
Recycled Fluting Medium	11	38	46	-20	-20.0	-21.8	83.7	31.5

Recycled Fluting Medium	11	39	60	0	-10.0	-11.5	87.2	31.5
Recycled Fluting Medium	11	40	60	0	-19.9	-21.8	82.9	31.5
Recycled Fluting Medium	11	41	44	-20	0.0	-1.6	87.4	31.5
Recycled Fluting Medium	11	42	60	0	10.0	8.9	92.8	31.5
Recycled Fluting Medium	11	43	60	-20	20.0	19.3	95.3	31.5
Recycled Fluting Medium	11	44	54	-10	10.0	9.0	93.6	31.5
Recycled Fluting Medium	11	45	60	20	20.0	19.3	95.6	31.5
Recycled Fluting Medium	11	46	54	10	0.2	-1.1	90.6	31.5
Recycled Fluting Medium	11	47	58	-10	-20.0	-21.3	87.5	31.5
Recycled Fluting Medium	11	48	51	0	-9.9	-11.3	87.8	31.5
Recycled Fluting Medium	11	49	59	-20	-19.9	-21.5	86.4	31.5
Recycled Fluting Medium	11	50	55	-20	0.0	-1.2	90.4	31.5
Recycled Fluting Medium	11	51	60	10	20.1	19.4	95.6	31.5
Recycled Fluting Medium	11	52	60	20	10.0	9.0	93.4	31.5
Recycled Fluting Medium	11	53	54	10	20.1	19.3	95.4	31.5
Recycled Fluting Medium	11	54	60	-20	9.9	8.9	93.5	31.5
Recycled Fluting Medium	11	55	60	0	0.0	-1.3	90.2	31.5
Recycled Fluting Medium	11	56	46	10	-9.8	-11.8	83.5	31.5
Recycled Fluting Medium	11	57	58	0	-20.0	-21.4	87.5	31.5
Recycled Fluting Medium	11	58	60	10	-20.0	-21.8	84.7	31.5
Recycled Fluting Medium	11	59	60	20	0.1	-1.7	86.2	31.5
Recycled Fluting Medium	11	60	54	0	10.1	9.0	93.4	31.5
Recycled Fluting Medium	11	61	60	-20	20.0	19.1	94.2	31.5
Recycled Fluting Medium	11	62	60	-20	10.1	8.9	92.5	31.5
Recycled Fluting Medium	11	63	60	0	20.1	19.1	94.3	31.5

Appendix A5 Paper Strength Test Results

Test	Sample	Direction	Sample Number	Average Test Value (kN.m ⁻¹)	Average Moisture Content (% db)
Short Span Compression Strength	Kraft Linerboard	Machine	1	8.9	7.5
Short Span Compression Strength	Kraft Linerboard	Machine	2	9.3	7.5
Short Span Compression Strength	Kraft Linerboard	Machine	3	9.0	7.5
Short Span Compression Strength	Kraft Linerboard	Machine	4	9.0	7.5
Short Span Compression Strength	Kraft Linerboard	Machine	5	9.4	7.5
Short Span Compression Strength	Kraft Linerboard	Machine	6	9.2	7.5
Short Span Compression Strength	Kraft Linerboard	Machine	7	9.5	7.5
Short Span Compression Strength	Kraft Linerboard	Machine	8	9.3	7.5
Short Span Compression Strength	Kraft Linerboard	Machine	9	8.9	7.5
Short Span Compression Strength	Kraft Linerboard	Machine	10	8.7	7.5
Short Span Compression Strength	Kraft Linerboard	Machine	11	9.2	7.7
Short Span Compression Strength	Kraft Linerboard	Machine	12	8.8	7.8
Short Span Compression Strength	Kraft Linerboard	Machine	13	7.3	10.2
Short Span Compression Strength	Kraft Linerboard	Machine	14	7.1	10.1
Short Span Compression Strength	Kraft Linerboard	Machine	15	6.8	10.2
Short Span Compression Strength	Kraft Linerboard	Machine	16	6.9	10.2
Short Span Compression Strength	Kraft Linerboard	Machine	17	7.2	10.4
Short Span Compression Strength	Kraft Linerboard	Machine	18	7.0	10.2
Short Span Compression Strength	Kraft Linerboard	Machine	19	7.4	10.8
Short Span Compression Strength	Kraft Linerboard	Machine	20	7.5	10.2
Short Span Compression Strength	Kraft Linerboard	Machine	21	7.1	10.5
Short Span Compression Strength	Kraft Linerboard	Machine	22	7.5	10.2
Short Span Compression Strength	Kraft Linerboard	Machine	23	7.5	10.2
Short Span Compression Strength	Kraft Linerboard	Machine	24	7.1	10.2
Short Span Compression Strength	Kraft Linerboard	Machine	25	5.5	13.3
Short Span Compression Strength	Kraft Linerboard	Machine	26	5.7	13.3
Short Span Compression Strength	Kraft Linerboard	Machine	27	5.5	13.3
Short Span Compression Strength	Kraft Linerboard	Machine	28	5.3	13.7
Short Span Compression Strength	Kraft Linerboard	Machine	29	5.6	13.3
Short Span Compression Strength	Kraft Linerboard	Machine	30	5.2	13.3
Short Span Compression Strength	Kraft Linerboard	Machine	31	5.6	13.4
Short Span Compression Strength	Kraft Linerboard	Machine	32	5.6	13.3
Short Span Compression Strength	Kraft Linerboard	Machine	33	5.0	13.3
Short Span Compression Strength	Kraft Linerboard	Machine	34	5.3	13.5
Short Span Compression Strength	Kraft Linerboard	Machine	35	5.4	13.3
Short Span Compression Strength	Kraft Linerboard	Machine	36	5.3	13.3
Short Span Compression Strength	Kraft Linerboard	Machine	37	3.9	16.0
Short Span Compression Strength	Kraft Linerboard	Machine	38	4.3	16.0
Short Span Compression Strength	Kraft Linerboard	Machine	39	4.3	16.2
Short Span Compression Strength	Kraft Linerboard	Machine	40	4.3	16.6

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Short Span Compression Strength	Kraft Linerboard	Cross Machine	36	3.8	12.5
Short Span Compression Strength	Kraft Linerboard	Cross Machine	37	3.4	12.9
Short Span Compression Strength	Kraft Linerboard	Cross Machine	38	3.3	12.5
Short Span Compression Strength	Kraft Linerboard	Cross Machine	39	3.5	12.5
Short Span Compression Strength	Kraft Linerboard	Cross Machine	40	4.3	12.5
Short Span Compression Strength	Kraft Linerboard	Cross Machine	41	3.4	12.5
Short Span Compression Strength	Kraft Linerboard	Cross Machine	42	3.6	12.5
Short Span Compression Strength	Kraft Linerboard	Cross Machine	43	3.6	12.5
Short Span Compression Strength	Kraft Linerboard	Cross Machine	44	3.3	12.3
Short Span Compression Strength	Kraft Linerboard	Cross Machine	45	2.7	15.9
Short Span Compression Strength	Kraft Linerboard	Cross Machine	46	2.7	15.9
Short Span Compression Strength	Kraft Linerboard	Cross Machine	47	2.7	15.9
Short Span Compression Strength	Kraft Linerboard	Cross Machine	48	2.7	16.7
Short Span Compression Strength	Kraft Linerboard	Cross Machine	49	2.7	16.3
Short Span Compression Strength	Kraft Linerboard	Cross Machine	50	2.7	15.9
Short Span Compression Strength	Kraft Linerboard	Cross Machine	51	2.6	15.9
Short Span Compression Strength	Kraft Linerboard	Cross Machine	52	2.8	15.9
Short Span Compression Strength	Kraft Linerboard	Cross Machine	53	2.9	15.9
Short Span Compression Strength	Kraft Linerboard	Cross Machine	54	2.7	16.2
Short Span Compression Strength	Kraft Linerboard	Cross Machine	55	2.8	16.5
Short Span Compression Strength	Kraft Linerboard	Cross Machine	56	2.9	15.9
Short Span Compression Strength	Kraft Linerboard	Cross Machine	57	2.7	15.9
Short Span Compression Strength	Kraft Linerboard	Cross Machine	58	2.8	15.9
Short Span Compression Strength	Kraft Linerboard	Cross Machine	59	2.0	19.1
Short Span Compression Strength	Kraft Linerboard	Cross Machine	60	2.0	19.1
Short Span Compression Strength	Kraft Linerboard	Cross Machine	61	2.3	19.1
Short Span Compression Strength	Kraft Linerboard	Cross Machine	62	2.1	19.9
Short Span Compression Strength	Kraft Linerboard	Cross Machine	63	2.2	20.3
Short Span Compression Strength	Kraft Linerboard	Cross Machine	64	2.0	19.1
Short Span Compression Strength	Kraft Linerboard	Cross Machine	65	2.0	19.1
Short Span Compression Strength	Kraft Linerboard	Cross Machine	66	2.1	19.1
Short Span Compression Strength	Kraft Linerboard	Cross Machine	67	2.1	19.7
Short Span Compression Strength	Kraft Linerboard	Cross Machine	68	2.1	19.1
Short Span Compression Strength	Kraft Linerboard	Cross Machine	69	2.0	19.1
Short Span Compression Strength	Kraft Linerboard	Cross Machine	70	2.2	19.1
Short Span Compression Strength	Kraft Linerboard	Cross Machine	71	2.1	19.1
Short Span Compression Strength	Kraft Linerboard	Cross Machine	72	2.0	19.3
Short Span Compression Strength	Semi-chemical Fluting Medium	Machine	1	6.2	8.0
Short Span Compression Strength	Semi-chemical Fluting Medium	Machine	2	6.6	8.0
Short Span Compression Strength	Semi-chemical Fluting Medium	Machine	3	6.4	8.9
Short Span Compression Strength	Semi-chemical Fluting Medium	Machine	4	6.3	8.0
Short Span Compression Strength	Semi-chemical Fluting Medium	Machine	5	6.2	8.0
Short Span Compression Strength	Semi-chemical Fluting Medium	Machine	6	5.9	8.0
Short Span Compression Strength	Semi-chemical Fluting Medium	Machine	7	6.4	8.0
Short Span Compression Strength	Semi-chemical Fluting Medium	Machine	8	6.2	8.0
Short Span Compression Strength	Semi-chemical Fluting Medium	Machine	9	5.9	8.0
Short Span Compression Strength	Semi-chemical Fluting Medium	Machine	10	6.1	8.0
Short Span Compression Strength	Semi-chemical Fluting Medium	Machine	11	6.1	8.0
Short Span Compression Strength	Semi-chemical Fluting Medium	Machine	12	6.1	8.0
Short Span Compression Strength	Semi-chemical Fluting Medium	Machine	13	5.8	8.0
Short Span Compression Strength	Semi-chemical Fluting Medium	Machine	14	6.2	8.3
Short Span Compression Strength	Semi-chemical Fluting Medium	Machine	15	6.0	8.0
Short Span Compression Strength	Semi-chemical Fluting Medium	Machine	16	4.3	12.0
Short Span Compression Strength	Semi-chemical Fluting Medium	Machine	17	5.0	12.0
Short Span Compression Strength	Semi-chemical Fluting Medium	Machine	18	4.5	12.0

Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	54	2.0	16.1
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	55	1.9	16.4
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	56	1.8	15.8
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	57	2.0	15.8
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	58	2.0	15.8
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	59	1.8	15.8
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	60	1.9	17.4
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	61	1.6	18.4
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	62	1.3	18.4
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	63	1.5	18.4
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	64	1.4	18.4
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	65	1.6	19.5
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	66	1.5	18.4
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	67	1.4	18.4
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	68	1.5	18.4
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	69	2.8	18.4
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	70	1.4	20.1
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	71	1.4	20.0
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	72	1.5	18.4
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	73	1.5	19.0
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	74	1.6	18.4
Short Span Compression Strength	Semi-chemical Fluting Medium	Cross Machine	75	1.4	18.4
Tensile Strength	Kraft Linerboard	Machine	1	23.6	7.5
Tensile Strength	Kraft Linerboard	Machine	2	23.8	7.5
Tensile Strength	Kraft Linerboard	Machine	3	23.3	7.5
Tensile Strength	Kraft Linerboard	Machine	4	24.6	7.5
Tensile Strength	Kraft Linerboard	Machine	5	23.1	7.4
Tensile Strength	Kraft Linerboard	Machine	6	24.8	7.5
Tensile Strength	Kraft Linerboard	Machine	7	23.6	7.5
Tensile Strength	Kraft Linerboard	Machine	8	22.3	7.5
Tensile Strength	Kraft Linerboard	Machine	9	23.4	7.5
Tensile Strength	Kraft Linerboard	Machine	10	24.2	7.5
Tensile Strength	Kraft Linerboard	Machine	11	22.8	7.5
Tensile Strength	Kraft Linerboard	Machine	12	23.7	7.5
Tensile Strength	Kraft Linerboard	Machine	13	22.4	7.5
Tensile Strength	Kraft Linerboard	Machine	14	25.8	7.5
Tensile Strength	Kraft Linerboard	Machine	15	23.4	7.2
Tensile Strength	Kraft Linerboard	Machine	16	23.4	7.2
Tensile Strength	Kraft Linerboard	Machine	17	21.5	10.1
Tensile Strength	Kraft Linerboard	Machine	18	23.1	10.2
Tensile Strength	Kraft Linerboard	Machine	19	20.0	10.2
Tensile Strength	Kraft Linerboard	Machine	20	21.1	10.2
Tensile Strength	Kraft Linerboard	Machine	21	20.4	10.1
Tensile Strength	Kraft Linerboard	Machine	22	22.2	10.2
Tensile Strength	Kraft Linerboard	Machine	23	21.1	10.2
Tensile Strength	Kraft Linerboard	Machine	24	22.1	10.2
Tensile Strength	Kraft Linerboard	Machine	25	20.8	10.2
Tensile Strength	Kraft Linerboard	Machine	26	21.3	9.6
Tensile Strength	Kraft Linerboard	Machine	27	21.7	10.2
Tensile Strength	Kraft Linerboard	Machine	28	22.5	10.3
Tensile Strength	Kraft Linerboard	Machine	29	21.5	10.2
Tensile Strength	Kraft Linerboard	Machine	30	23.1	10.2
Tensile Strength	Kraft Linerboard	Machine	31	20.9	10.0
Tensile Strength	Kraft Linerboard	Machine	32	20.9	10.0
Tensile Strength	Kraft Linerboard	Machine	33	20.7	13.2

Tensile Strength	Kraft Linerboard	Machine	34	19.8	13.3
Tensile Strength	Kraft Linerboard	Machine	35	19.5	13.3
Tensile Strength	Kraft Linerboard	Machine	36	18.6	13.3
Tensile Strength	Kraft Linerboard	Machine	37	18.4	13.3
Tensile Strength	Kraft Linerboard	Machine	38	19.1	12.8
Tensile Strength	Kraft Linerboard	Machine	39	19.8	13.3
Tensile Strength	Kraft Linerboard	Machine	40	18.8	13.3
Tensile Strength	Kraft Linerboard	Machine	41	19.1	13.3
Tensile Strength	Kraft Linerboard	Machine	42	19.5	13.3
Tensile Strength	Kraft Linerboard	Machine	43	19.0	13.3
Tensile Strength	Kraft Linerboard	Machine	44	19.4	13.3
Tensile Strength	Kraft Linerboard	Machine	45	19.8	13.3
Tensile Strength	Kraft Linerboard	Machine	46	18.7	13.4
Tensile Strength	Kraft Linerboard	Machine	47	19.6	13.6
Tensile Strength	Kraft Linerboard	Machine	48	19.9	12.8
Tensile Strength	Kraft Linerboard	Machine	49	18.5	16.0
Tensile Strength	Kraft Linerboard	Machine	50	17.1	16.0
Tensile Strength	Kraft Linerboard	Machine	51	17.7	16.0
Tensile Strength	Kraft Linerboard	Machine	52	21.4	15.4
Tensile Strength	Kraft Linerboard	Machine	53	16.7	16.0
Tensile Strength	Kraft Linerboard	Machine	54	17.5	16.1
Tensile Strength	Kraft Linerboard	Machine	55	18.4	15.6
Tensile Strength	Kraft Linerboard	Machine	56	18.0	16.0
Tensile Strength	Kraft Linerboard	Machine	57	16.6	16.0
Tensile Strength	Kraft Linerboard	Machine	58	17.8	16.5
Tensile Strength	Kraft Linerboard	Machine	59	16.5	16.6
Tensile Strength	Kraft Linerboard	Machine	60	17.3	16.0
Tensile Strength	Kraft Linerboard	Machine	61	18.0	15.9
Tensile Strength	Kraft Linerboard	Machine	62	17.4	16.0
Tensile Strength	Kraft Linerboard	Machine	63	16.7	15.9
Tensile Strength	Kraft Linerboard	Machine	64	19.7	15.5
Tensile Strength	Kraft Linerboard	Machine	65	15.0	19.0
Tensile Strength	Kraft Linerboard	Machine	66	14.4	19.0
Tensile Strength	Kraft Linerboard	Machine	67	16.1	18.8
Tensile Strength	Kraft Linerboard	Machine	68	15.2	19.0
Tensile Strength	Kraft Linerboard	Machine	69	14.7	19.0
Tensile Strength	Kraft Linerboard	Machine	70	15.1	19.0
Tensile Strength	Kraft Linerboard	Machine	71	15.8	19.0
Tensile Strength	Kraft Linerboard	Machine	72	15.0	18.8
Tensile Strength	Kraft Linerboard	Machine	73	15.0	19.0
Tensile Strength	Kraft Linerboard	Machine	74	14.9	19.0
Tensile Strength	Kraft Linerboard	Machine	75	14.9	18.6
Tensile Strength	Kraft Linerboard	Machine	76	14.4	18.8
Tensile Strength	Kraft Linerboard	Machine	77	17.0	17.4
Tensile Strength	Kraft Linerboard	Machine	78	14.7	19.0
Tensile Strength	Kraft Linerboard	Machine	79	15.4	19.0
Tensile Strength	Kraft Linerboard	Machine	80	15.6	19.0
Tensile Strength	Kraft Linerboard	Cross Machine	1	10.1	6.6
Tensile Strength	Kraft Linerboard	Cross Machine	2	9.7	6.6
Tensile Strength	Kraft Linerboard	Cross Machine	3	10.2	6.8
Tensile Strength	Kraft Linerboard	Cross Machine	4	10.7	6.6
Tensile Strength	Kraft Linerboard	Cross Machine	5	10.6	7.0
Tensile Strength	Kraft Linerboard	Cross Machine	6	10.4	6.6
Tensile Strength	Kraft Linerboard	Cross Machine	7	10.8	6.7
Tensile Strength	Kraft Linerboard	Cross Machine	8	10.4	6.6

Tensile Strength	Kraft Linerboard	Cross Machine	9	10.6	6.6
Tensile Strength	Kraft Linerboard	Cross Machine	10	10.2	6.6
Tensile Strength	Kraft Linerboard	Cross Machine	11	9.8	6.6
Tensile Strength	Kraft Linerboard	Cross Machine	12	9.8	6.6
Tensile Strength	Kraft Linerboard	Cross Machine	13	10.0	6.9
Tensile Strength	Kraft Linerboard	Cross Machine	14	9.9	7.1
Tensile Strength	Kraft Linerboard	Cross Machine	15	10.8	6.6
Tensile Strength	Kraft Linerboard	Cross Machine	16	10.4	6.6
Tensile Strength	Kraft Linerboard	Cross Machine	17	9.9	6.6
Tensile Strength	Kraft Linerboard	Cross Machine	18	10.5	6.6
Tensile Strength	Kraft Linerboard	Cross Machine	19	10.4	6.8
Tensile Strength	Kraft Linerboard	Cross Machine	20	10.1	5.1
Tensile Strength	Kraft Linerboard	Cross Machine	21	9.5	10.8
Tensile Strength	Kraft Linerboard	Cross Machine	22	9.7	10.8
Tensile Strength	Kraft Linerboard	Cross Machine	23	9.7	10.8
Tensile Strength	Kraft Linerboard	Cross Machine	24	9.4	10.4
Tensile Strength	Kraft Linerboard	Cross Machine	25	10.4	10.8
Tensile Strength	Kraft Linerboard	Cross Machine	26	9.6	10.8
Tensile Strength	Kraft Linerboard	Cross Machine	27	9.7	10.8
Tensile Strength	Kraft Linerboard	Cross Machine	28	9.6	10.8
Tensile Strength	Kraft Linerboard	Cross Machine	29	9.4	10.8
Tensile Strength	Kraft Linerboard	Cross Machine	30	9.6	10.8
Tensile Strength	Kraft Linerboard	Cross Machine	31	10.1	10.9
Tensile Strength	Kraft Linerboard	Cross Machine	32	9.0	10.8
Tensile Strength	Kraft Linerboard	Cross Machine	33	9.6	10.8
Tensile Strength	Kraft Linerboard	Cross Machine	34	9.6	10.8
Tensile Strength	Kraft Linerboard	Cross Machine	35	9.7	10.8
Tensile Strength	Kraft Linerboard	Cross Machine	36	9.7	10.8
Tensile Strength	Kraft Linerboard	Cross Machine	37	9.5	10.3
Tensile Strength	Kraft Linerboard	Cross Machine	38	9.5	10.8
Tensile Strength	Kraft Linerboard	Cross Machine	39	9.7	10.8
Tensile Strength	Kraft Linerboard	Cross Machine	40	10.3	10.8
Tensile Strength	Kraft Linerboard	Cross Machine	41	9.0	12.5
Tensile Strength	Kraft Linerboard	Cross Machine	42	9.2	12.5
Tensile Strength	Kraft Linerboard	Cross Machine	43	9.3	12.5
Tensile Strength	Kraft Linerboard	Cross Machine	44	8.9	12.5
Tensile Strength	Kraft Linerboard	Cross Machine	45	9.5	12.5
Tensile Strength	Kraft Linerboard	Cross Machine	46	9.3	12.5
Tensile Strength	Kraft Linerboard	Cross Machine	47	9.2	12.5
Tensile Strength	Kraft Linerboard	Cross Machine	48	9.1	12.5
Tensile Strength	Kraft Linerboard	Cross Machine	49	8.7	12.7
Tensile Strength	Kraft Linerboard	Cross Machine	50	8.9	12.5
Tensile Strength	Kraft Linerboard	Cross Machine	51	7.9	12.1
Tensile Strength	Kraft Linerboard	Cross Machine	52	8.2	12.5
Tensile Strength	Kraft Linerboard	Cross Machine	53	9.0	12.6
Tensile Strength	Kraft Linerboard	Cross Machine	54	9.1	12.5
Tensile Strength	Kraft Linerboard	Cross Machine	55	9.4	12.5
Tensile Strength	Kraft Linerboard	Cross Machine	56	8.8	12.5
Tensile Strength	Kraft Linerboard	Cross Machine	57	8.8	12.5
Tensile Strength	Kraft Linerboard	Cross Machine	58	9.0	12.5
Tensile Strength	Kraft Linerboard	Cross Machine	59	9.0	12.5
Tensile Strength	Kraft Linerboard	Cross Machine	60	9.4	12.2
Tensile Strength	Kraft Linerboard	Cross Machine	61	8.6	15.9
Tensile Strength	Kraft Linerboard	Cross Machine	62	8.4	15.9
Tensile Strength	Kraft Linerboard	Cross Machine	63	8.6	15.9

Tensile Strength	Kraft Linerboard	Cross Machine	64	8.5	15.9
Tensile Strength	Kraft Linerboard	Cross Machine	65	8.8	15.9
Tensile Strength	Kraft Linerboard	Cross Machine	66	8.6	15.9
Tensile Strength	Kraft Linerboard	Cross Machine	67	8.7	15.9
Tensile Strength	Kraft Linerboard	Cross Machine	68	8.0	15.4
Tensile Strength	Kraft Linerboard	Cross Machine	69	8.6	15.9
Tensile Strength	Kraft Linerboard	Cross Machine	70	8.6	15.9
Tensile Strength	Kraft Linerboard	Cross Machine	71	9.0	15.3
Tensile Strength	Kraft Linerboard	Cross Machine	72	8.0	15.9
Tensile Strength	Kraft Linerboard	Cross Machine	73	7.9	15.9
Tensile Strength	Kraft Linerboard	Cross Machine	74	7.8	15.8
Tensile Strength	Kraft Linerboard	Cross Machine	75	8.3	15.5
Tensile Strength	Kraft Linerboard	Cross Machine	76	8.6	15.9
Tensile Strength	Kraft Linerboard	Cross Machine	77	8.1	15.7
Tensile Strength	Kraft Linerboard	Cross Machine	78	8.7	15.9
Tensile Strength	Kraft Linerboard	Cross Machine	79	8.9	16.0
Tensile Strength	Kraft Linerboard	Cross Machine	80	8.5	15.9
Tensile Strength	Kraft Linerboard	Cross Machine	81	7.8	19.1
Tensile Strength	Kraft Linerboard	Cross Machine	82	7.4	19.1
Tensile Strength	Kraft Linerboard	Cross Machine	83	7.3	19.0
Tensile Strength	Kraft Linerboard	Cross Machine	84	7.1	19.3
Tensile Strength	Kraft Linerboard	Cross Machine	85	7.5	19.1
Tensile Strength	Kraft Linerboard	Cross Machine	86	7.4	19.1
Tensile Strength	Kraft Linerboard	Cross Machine	87	6.9	19.1
Tensile Strength	Kraft Linerboard	Cross Machine	88	8.5	17.7
Tensile Strength	Kraft Linerboard	Cross Machine	89	7.6	19.1
Tensile Strength	Kraft Linerboard	Cross Machine	90	7.2	19.1
Tensile Strength	Kraft Linerboard	Cross Machine	91	7.3	19.1
Tensile Strength	Kraft Linerboard	Cross Machine	92	7.4	18.3
Tensile Strength	Kraft Linerboard	Cross Machine	93	7.6	19.1
Tensile Strength	Kraft Linerboard	Cross Machine	94	7.4	18.6
Tensile Strength	Kraft Linerboard	Cross Machine	95	7.9	19.1
Tensile Strength	Kraft Linerboard	Cross Machine	96	7.6	19.1
Tensile Strength	Kraft Linerboard	Cross Machine	97	7.4	19.1
Tensile Strength	Kraft Linerboard	Cross Machine	98	7.5	18.6
Tensile Strength	Kraft Linerboard	Cross Machine	99	7.4	19.1
Tensile Strength	Kraft Linerboard	Cross Machine	100	7.4	19.1
Tensile Strength	Semi-chemical Fluting Medium	Machine	1	12.2	8.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	2	12.0	8.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	3	11.3	8.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	4	12.3	8.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	5	11.8	7.5
Tensile Strength	Semi-chemical Fluting Medium	Machine	6	12.2	7.5
Tensile Strength	Semi-chemical Fluting Medium	Machine	7	12.4	8.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	8	11.7	8.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	9	14.3	7.9
Tensile Strength	Semi-chemical Fluting Medium	Machine	10	11.6	8.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	11	12.8	7.9
Tensile Strength	Semi-chemical Fluting Medium	Machine	12	12.8	8.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	13	12.0	7.8
Tensile Strength	Semi-chemical Fluting Medium	Machine	14	11.2	8.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	15	12.2	8.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	16	12.9	8.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	17	11.6	8.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	18	13.3	8.0

Tensile Strength	Semi-chemical Fluting Medium	Machine	19	12.4	8.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	20	12.7	8.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	21	10.6	12.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	22	11.5	12.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	23	11.2	12.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	24	10.6	12.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	25	8.9	12.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	26	10.3	12.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	27	9.8	12.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	28	10.3	12.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	29	9.9	12.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	30	10.5	12.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	31	9.8	10.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	32	11.1	12.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	33	10.1	12.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	34	9.9	12.3
Tensile Strength	Semi-chemical Fluting Medium	Machine	35	10.1	11.8
Tensile Strength	Semi-chemical Fluting Medium	Machine	36	10.8	12.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	37	11.0	12.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	38	10.5	12.1
Tensile Strength	Semi-chemical Fluting Medium	Machine	39	9.8	12.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	40	10.8	12.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	41	10.1	13.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	42	10.6	13.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	43	9.8	13.1
Tensile Strength	Semi-chemical Fluting Medium	Machine	44	10.5	13.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	45	10.1	13.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	46	11.1	13.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	47	11.0	13.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	48	10.6	13.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	49	10.3	13.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	50	8.9	13.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	51	10.5	14.1
Tensile Strength	Semi-chemical Fluting Medium	Machine	52	9.9	14.2
Tensile Strength	Semi-chemical Fluting Medium	Machine	53	10.3	13.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	54	11.2	13.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	55	9.8	14.0
Tensile Strength	Semi-chemical Fluting Medium	Machine	56	10.8	13.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	57	9.8	13.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	58	9.9	13.2
Tensile Strength	Semi-chemical Fluting Medium	Machine	59	10.8	13.6
Tensile Strength	Semi-chemical Fluting Medium	Machine	60	11.5	13.2
Tensile Strength	Semi-chemical Fluting Medium	Machine	61	9.5	16.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	62	9.2	16.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	63	10.5	16.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	64	10.3	16.3
Tensile Strength	Semi-chemical Fluting Medium	Machine	65	9.6	16.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	66	9.5	16.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	67	8.9	16.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	68	10.8	16.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	69	10.4	16.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	70	9.8	16.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	71	10.2	16.3
Tensile Strength	Semi-chemical Fluting Medium	Machine	72	8.8	16.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	73	9.4	16.7

Tensile Strength	Semi-chemical Fluting Medium	Machine	74	8.6	16.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	75	9.7	16.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	76	9.0	16.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	77	10.8	16.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	78	9.4	16.7
Tensile Strength	Semi-chemical Fluting Medium	Machine	79	9.2	16.5
Tensile Strength	Semi-chemical Fluting Medium	Machine	80	9.2	17.5
Tensile Strength	Semi-chemical Fluting Medium	Machine	81	8.5	19.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	82	9.1	19.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	83	11.1	15.5
Tensile Strength	Semi-chemical Fluting Medium	Machine	84	8.2	19.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	85	8.2	19.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	86	8.9	19.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	87	8.0	19.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	88	8.0	19.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	89	8.0	19.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	90	8.9	19.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	91	9.9	19.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	92	9.5	19.6
Tensile Strength	Semi-chemical Fluting Medium	Machine	93	9.2	19.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	94	9.1	19.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	95	9.5	19.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	96	9.0	19.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	97	9.3	19.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	98	7.7	19.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	99	9.9	19.4
Tensile Strength	Semi-chemical Fluting Medium	Machine	100	7.7	19.4
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	1	6.0	7.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	2	5.4	6.5
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	3	6.0	7.6
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	4	5.2	7.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	5	5.2	7.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	6	5.4	7.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	7	5.6	7.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	8	5.4	7.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	9	5.5	7.6
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	10	5.6	7.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	11	6.0	7.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	12	6.0	7.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	13	5.3	7.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	14	6.0	7.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	15	5.5	7.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	16	5.6	7.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	17	5.8	7.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	18	5.6	7.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	19	5.4	7.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	20	6.0	7.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	21	5.5	12.5
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	22	5.2	11.8
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	23	5.0	11.8
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	24	5.6	11.8
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	25	5.4	11.8
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	26	5.1	11.8
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	27	5.0	11.8
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	28	5.6	11.5

Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	84	4.5	18.4
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	85	4.9	18.4
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	86	4.5	18.4
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	87	4.7	18.4
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	88	4.6	18.4
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	89	4.7	16.5
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	90	4.7	18.4
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	91	4.8	18.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	92	4.6	18.0
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	93	4.3	18.4
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	94	4.5	18.4
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	95	4.6	17.9
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	96	4.8	18.4
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	97	4.8	18.4
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	98	4.5	18.4
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	99	4.8	17.6
Tensile Strength	Semi-chemical Fluting Medium	Cross Machine	100	4.7	17.5
Tensile Stiffness	Kraft Linerboard	Machine	1	2241	7.5
Tensile Stiffness	Kraft Linerboard	Machine	2	2190	7.5
Tensile Stiffness	Kraft Linerboard	Machine	3	2198	7.5
Tensile Stiffness	Kraft Linerboard	Machine	4	2282	7.5
Tensile Stiffness	Kraft Linerboard	Machine	5	2214	7.4
Tensile Stiffness	Kraft Linerboard	Machine	6	2227	7.5
Tensile Stiffness	Kraft Linerboard	Machine	7	2265	7.5
Tensile Stiffness	Kraft Linerboard	Machine	8	2203	7.5
Tensile Stiffness	Kraft Linerboard	Machine	9	2259	7.5
Tensile Stiffness	Kraft Linerboard	Machine	10	2195	7.5
Tensile Stiffness	Kraft Linerboard	Machine	11	2211	7.5
Tensile Stiffness	Kraft Linerboard	Machine	12	2243	7.5
Tensile Stiffness	Kraft Linerboard	Machine	13	2180	7.5
Tensile Stiffness	Kraft Linerboard	Machine	14	2337	7.5
Tensile Stiffness	Kraft Linerboard	Machine	15	2187	7.2
Tensile Stiffness	Kraft Linerboard	Machine	16	2238	7.2
Tensile Stiffness	Kraft Linerboard	Machine	17	2018	10.1
Tensile Stiffness	Kraft Linerboard	Machine	18	2150	10.2
Tensile Stiffness	Kraft Linerboard	Machine	19	1988	10.2
Tensile Stiffness	Kraft Linerboard	Machine	20	2030	10.2
Tensile Stiffness	Kraft Linerboard	Machine	21	1933	10.1
Tensile Stiffness	Kraft Linerboard	Machine	22	2062	10.2
Tensile Stiffness	Kraft Linerboard	Machine	23	1974	10.2
Tensile Stiffness	Kraft Linerboard	Machine	24	2037	10.2
Tensile Stiffness	Kraft Linerboard	Machine	25	2069	10.2
Tensile Stiffness	Kraft Linerboard	Machine	26	2008	9.6
Tensile Stiffness	Kraft Linerboard	Machine	27	2089	10.2
Tensile Stiffness	Kraft Linerboard	Machine	28	2036	10.3
Tensile Stiffness	Kraft Linerboard	Machine	29	2039	10.2
Tensile Stiffness	Kraft Linerboard	Machine	30	2059	10.2
Tensile Stiffness	Kraft Linerboard	Machine	31	2027	10.0
Tensile Stiffness	Kraft Linerboard	Machine	32	1904	10.0
Tensile Stiffness	Kraft Linerboard	Machine	33	1796	13.2
Tensile Stiffness	Kraft Linerboard	Machine	34	1704	13.3
Tensile Stiffness	Kraft Linerboard	Machine	35	1669	13.3
Tensile Stiffness	Kraft Linerboard	Machine	36	1650	13.3
Tensile Stiffness	Kraft Linerboard	Machine	37	1571	13.3
Tensile Stiffness	Kraft Linerboard	Machine	38	1673	12.8

Tensile Stiffness	Kraft Linerboard	Machine	39	1682	13.3
Tensile Stiffness	Kraft Linerboard	Machine	40	1680	13.3
Tensile Stiffness	Kraft Linerboard	Machine	41	1648	13.3
Tensile Stiffness	Kraft Linerboard	Machine	42	1655	13.3
Tensile Stiffness	Kraft Linerboard	Machine	43	1624	13.3
Tensile Stiffness	Kraft Linerboard	Machine	44	1627	13.3
Tensile Stiffness	Kraft Linerboard	Machine	45	1701	13.3
Tensile Stiffness	Kraft Linerboard	Machine	46	1674	13.4
Tensile Stiffness	Kraft Linerboard	Machine	47	1706	13.6
Tensile Stiffness	Kraft Linerboard	Machine	48	1692	12.8
Tensile Stiffness	Kraft Linerboard	Machine	49	1435	16.0
Tensile Stiffness	Kraft Linerboard	Machine	50	1385	16.0
Tensile Stiffness	Kraft Linerboard	Machine	51	1465	16.0
Tensile Stiffness	Kraft Linerboard	Machine	52	1935	15.4
Tensile Stiffness	Kraft Linerboard	Machine	53	1391	16.0
Tensile Stiffness	Kraft Linerboard	Machine	54	1414	16.1
Tensile Stiffness	Kraft Linerboard	Machine	55	1423	15.6
Tensile Stiffness	Kraft Linerboard	Machine	56	1438	16.0
Tensile Stiffness	Kraft Linerboard	Machine	57	1371	16.0
Tensile Stiffness	Kraft Linerboard	Machine	58	1419	16.5
Tensile Stiffness	Kraft Linerboard	Machine	59	1368	16.6
Tensile Stiffness	Kraft Linerboard	Machine	60	1392	16.0
Tensile Stiffness	Kraft Linerboard	Machine	61	1446	15.9
Tensile Stiffness	Kraft Linerboard	Machine	62	1375	16.0
Tensile Stiffness	Kraft Linerboard	Machine	63	1389	15.9
Tensile Stiffness	Kraft Linerboard	Machine	64	1497	15.5
Tensile Stiffness	Kraft Linerboard	Machine	65	1142	19.0
Tensile Stiffness	Kraft Linerboard	Machine	66	1084	19.0
Tensile Stiffness	Kraft Linerboard	Machine	67	1192	18.8
Tensile Stiffness	Kraft Linerboard	Machine	68	1115	19.0
Tensile Stiffness	Kraft Linerboard	Machine	69	1112	19.0
Tensile Stiffness	Kraft Linerboard	Machine	70	1125	19.0
Tensile Stiffness	Kraft Linerboard	Machine	71	1157	19.0
Tensile Stiffness	Kraft Linerboard	Machine	72	1122	18.8
Tensile Stiffness	Kraft Linerboard	Machine	73	1100	19.0
Tensile Stiffness	Kraft Linerboard	Machine	74	1087	19.0
Tensile Stiffness	Kraft Linerboard	Machine	75	1074	18.6
Tensile Stiffness	Kraft Linerboard	Machine	76	1080	18.8
Tensile Stiffness	Kraft Linerboard	Machine	77	1296	17.4
Tensile Stiffness	Kraft Linerboard	Machine	78	1101	19.0
Tensile Stiffness	Kraft Linerboard	Machine	79	1146	19.0
Tensile Stiffness	Kraft Linerboard	Machine	80	1115	19.0
Tensile Stiffness	Kraft Linerboard	Cross Machine	1	963	6.6
Tensile Stiffness	Kraft Linerboard	Cross Machine	2	817	6.6
Tensile Stiffness	Kraft Linerboard	Cross Machine	3	1067	6.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	4	966	6.6
Tensile Stiffness	Kraft Linerboard	Cross Machine	5	1126	7.0
Tensile Stiffness	Kraft Linerboard	Cross Machine	6	815	6.6
Tensile Stiffness	Kraft Linerboard	Cross Machine	7	929	6.7
Tensile Stiffness	Kraft Linerboard	Cross Machine	8	932	6.6
Tensile Stiffness	Kraft Linerboard	Cross Machine	9	912	6.6
Tensile Stiffness	Kraft Linerboard	Cross Machine	10	787	6.6
Tensile Stiffness	Kraft Linerboard	Cross Machine	11	922	6.6
Tensile Stiffness	Kraft Linerboard	Cross Machine	12	907	6.6
Tensile Stiffness	Kraft Linerboard	Cross Machine	13	958	6.9

Tensile Stiffness	Kraft Linerboard	Cross Machine	14	895	7.1
Tensile Stiffness	Kraft Linerboard	Cross Machine	15	992	6.6
Tensile Stiffness	Kraft Linerboard	Cross Machine	16	1159	6.6
Tensile Stiffness	Kraft Linerboard	Cross Machine	17	933	6.6
Tensile Stiffness	Kraft Linerboard	Cross Machine	18	915	6.6
Tensile Stiffness	Kraft Linerboard	Cross Machine	19	903	6.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	20	952	5.1
Tensile Stiffness	Kraft Linerboard	Cross Machine	21	741	10.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	22	782	10.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	23	794	10.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	24	740	10.4
Tensile Stiffness	Kraft Linerboard	Cross Machine	25	1123	10.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	26	783	10.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	27	776	10.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	28	768	10.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	29	672	10.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	30	792	10.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	31	788	10.9
Tensile Stiffness	Kraft Linerboard	Cross Machine	32	639	10.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	33	800	10.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	34	753	10.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	35	797	10.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	36	788	10.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	37	768	10.3
Tensile Stiffness	Kraft Linerboard	Cross Machine	38	605	10.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	39	900	10.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	40	916	10.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	41	495	12.5
Tensile Stiffness	Kraft Linerboard	Cross Machine	42	641	12.5
Tensile Stiffness	Kraft Linerboard	Cross Machine	43	673	12.5
Tensile Stiffness	Kraft Linerboard	Cross Machine	44	630	12.5
Tensile Stiffness	Kraft Linerboard	Cross Machine	45	780	12.5
Tensile Stiffness	Kraft Linerboard	Cross Machine	46	629	12.5
Tensile Stiffness	Kraft Linerboard	Cross Machine	47	771	12.5
Tensile Stiffness	Kraft Linerboard	Cross Machine	48	685	12.5
Tensile Stiffness	Kraft Linerboard	Cross Machine	49	585	12.7
Tensile Stiffness	Kraft Linerboard	Cross Machine	50	629	12.5
Tensile Stiffness	Kraft Linerboard	Cross Machine	51	549	12.1
Tensile Stiffness	Kraft Linerboard	Cross Machine	52	643	12.5
Tensile Stiffness	Kraft Linerboard	Cross Machine	53	738	12.6
Tensile Stiffness	Kraft Linerboard	Cross Machine	54	626	12.5
Tensile Stiffness	Kraft Linerboard	Cross Machine	55	781	12.5
Tensile Stiffness	Kraft Linerboard	Cross Machine	56	626	12.5
Tensile Stiffness	Kraft Linerboard	Cross Machine	57	602	12.5
Tensile Stiffness	Kraft Linerboard	Cross Machine	58	631	12.5
Tensile Stiffness	Kraft Linerboard	Cross Machine	59	640	12.5
Tensile Stiffness	Kraft Linerboard	Cross Machine	60	804	12.2
Tensile Stiffness	Kraft Linerboard	Cross Machine	61	492	15.9
Tensile Stiffness	Kraft Linerboard	Cross Machine	62	483	15.9
Tensile Stiffness	Kraft Linerboard	Cross Machine	63	501	15.9
Tensile Stiffness	Kraft Linerboard	Cross Machine	64	476	15.9
Tensile Stiffness	Kraft Linerboard	Cross Machine	65	485	15.9
Tensile Stiffness	Kraft Linerboard	Cross Machine	66	498	15.9
Tensile Stiffness	Kraft Linerboard	Cross Machine	67	533	15.9
Tensile Stiffness	Kraft Linerboard	Cross Machine	68	493	15.4

Tensile Stiffness	Kraft Linerboard	Cross Machine	69	476	15.9
Tensile Stiffness	Kraft Linerboard	Cross Machine	70	472	15.9
Tensile Stiffness	Kraft Linerboard	Cross Machine	71	609	15.3
Tensile Stiffness	Kraft Linerboard	Cross Machine	72	496	15.9
Tensile Stiffness	Kraft Linerboard	Cross Machine	73	478	15.9
Tensile Stiffness	Kraft Linerboard	Cross Machine	74	476	15.8
Tensile Stiffness	Kraft Linerboard	Cross Machine	75	496	15.5
Tensile Stiffness	Kraft Linerboard	Cross Machine	76	494	15.9
Tensile Stiffness	Kraft Linerboard	Cross Machine	77	491	15.7
Tensile Stiffness	Kraft Linerboard	Cross Machine	78	506	15.9
Tensile Stiffness	Kraft Linerboard	Cross Machine	79	472	16.0
Tensile Stiffness	Kraft Linerboard	Cross Machine	80	468	15.9
Tensile Stiffness	Kraft Linerboard	Cross Machine	81	357	19.1
Tensile Stiffness	Kraft Linerboard	Cross Machine	82	353	19.1
Tensile Stiffness	Kraft Linerboard	Cross Machine	83	354	19.0
Tensile Stiffness	Kraft Linerboard	Cross Machine	84	322	19.3
Tensile Stiffness	Kraft Linerboard	Cross Machine	85	365	19.1
Tensile Stiffness	Kraft Linerboard	Cross Machine	86	335	19.1
Tensile Stiffness	Kraft Linerboard	Cross Machine	87	337	19.1
Tensile Stiffness	Kraft Linerboard	Cross Machine	88	385	17.7
Tensile Stiffness	Kraft Linerboard	Cross Machine	89	359	19.1
Tensile Stiffness	Kraft Linerboard	Cross Machine	90	361	19.1
Tensile Stiffness	Kraft Linerboard	Cross Machine	91	342	19.1
Tensile Stiffness	Kraft Linerboard	Cross Machine	92	364	18.3
Tensile Stiffness	Kraft Linerboard	Cross Machine	93	325	19.1
Tensile Stiffness	Kraft Linerboard	Cross Machine	94	346	18.6
Tensile Stiffness	Kraft Linerboard	Cross Machine	95	350	19.1
Tensile Stiffness	Kraft Linerboard	Cross Machine	96	317	19.1
Tensile Stiffness	Kraft Linerboard	Cross Machine	97	325	19.1
Tensile Stiffness	Kraft Linerboard	Cross Machine	98	356	18.6
Tensile Stiffness	Kraft Linerboard	Cross Machine	99	399	19.1
Tensile Stiffness	Kraft Linerboard	Cross Machine	100	387	19.1
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	1	1189	8.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	2	1158	8.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	3	1251	8.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	4	1263	8.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	5	1299	7.5
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	6	1332	7.5
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	7	1229	8.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	8	1168	8.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	9	1413	7.9
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	10	1150	8.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	11	1360	7.9
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	12	1336	8.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	13	1328	7.8
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	14	1248	8.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	15	1323	8.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	16	1353	8.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	17	1285	8.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	18	1359	8.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	19	1330	8.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	20	1322	8.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	21	849	12.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	22	1174	12.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	23	1249	12.0

Tensile Stiffness	Semi-chemical Fluting Medium	Machine	24	926	12.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	25	922	12.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	26	925	12.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	27	1080	12.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	28	785	12.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	29	1057	12.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	30	947	12.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	31	951	10.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	32	1263	12.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	33	1091	12.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	34	911	12.3
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	35	893	11.8
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	36	936	12.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	37	1043	12.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	38	964	12.1
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	39	901	12.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	40	946	12.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	41	922	13.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	42	1100	13.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	43	809	13.1
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	44	1132	13.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	45	939	13.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	46	1137	13.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	47	1209	13.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	48	787	13.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	49	783	13.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	50	608	13.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	51	989	14.1
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	52	962	14.2
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	53	908	13.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	54	1249	13.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	55	1080	14.0
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	56	1101	13.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	57	649	13.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	58	777	13.2
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	59	1133	13.6
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	60	1250	13.2
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	61	781	16.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	62	583	16.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	63	919	16.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	64	820	16.3
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	65	787	16.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	66	650	16.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	67	752	16.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	68	1152	16.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	69	950	16.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	70	909	16.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	71	961	16.3
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	72	739	16.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	73	783	16.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	74	729	16.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	75	957	16.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	76	772	16.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	77	945	16.7
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	78	608	16.7

Tensile Stiffness	Semi-chemical Fluting Medium	Machine	79	762	16.5
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	80	610	17.5
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	81	637	19.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	82	617	19.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	83	1017	15.5
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	84	642	19.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	85	675	19.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	86	634	19.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	87	600	19.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	88	636	19.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	89	608	19.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	90	629	19.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	91	666	19.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	92	793	19.6
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	93	710	19.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	94	597	19.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	95	774	19.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	96	610	19.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	97	612	19.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	98	571	19.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	99	921	19.4
Tensile Stiffness	Semi-chemical Fluting Medium	Machine	100	620	19.4
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	1	561	7.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	2	524	6.5
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	3	546	7.6
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	4	539	7.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	5	519	7.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	6	541	7.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	7	545	7.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	8	582	7.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	9	539	7.6
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	10	570	7.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	11	563	7.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	12	541	7.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	13	521	7.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	14	532	7.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	15	528	7.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	16	560	7.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	17	556	7.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	18	551	7.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	19	560	7.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	20	566	7.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	21	452	12.5
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	22	432	11.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	23	424	11.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	24	482	11.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	25	484	11.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	26	469	11.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	27	445	11.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	28	473	11.5
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	29	473	11.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	30	481	12.1
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	31	427	11.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	32	488	11.2
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	33	478	11.3

Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	34	496	11.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	35	438	11.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	36	438	11.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	37	470	11.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	38	425	11.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	39	486	11.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	40	472	11.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	41	406	13.1
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	42	418	13.1
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	43	391	13.1
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	44	377	13.1
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	45	394	13.1
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	46	391	13.1
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	47	404	13.1
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	48	393	13.1
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	49	349	13.2
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	50	354	13.1
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	51	385	13.1
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	52	396	13.1
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	53	399	13.2
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	54	373	13.4
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	55	393	13.1
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	56	354	12.3
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	57	390	12.4
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	58	350	12.5
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	59	388	13.1
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	60	360	13.1
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	61	292	15.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	62	280	15.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	63	282	15.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	64	288	15.4
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	65	297	15.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	66	277	15.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	67	279	15.2
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	68	279	14.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	69	285	15.5
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	70	283	15.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	71	287	15.5
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	72	284	15.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	73	275	15.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	74	284	15.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	75	288	15.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	76	279	15.2
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	77	285	15.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	78	282	15.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	79	272	15.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	80	265	15.8
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	81	202	18.4
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	82	206	18.4
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	83	206	18.4
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	84	195	18.4
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	85	198	18.4
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	86	207	18.4
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	87	210	18.4
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	88	191	18.4

Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	89	207	16.5
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	90	198	18.4
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	91	199	18.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	92	185	18.0
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	93	207	18.4
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	94	188	18.4
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	95	190	17.9
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	96	205	18.4
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	97	203	18.4
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	98	212	18.4
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	99	192	17.6
Tensile Stiffness	Semi-chemical Fluting Medium	Cross Machine	100	197	17.5

Appendix A6 Corrugated Fibreboard Strength Test Results

Test	Sample Number	Replicate Number	Test Value	Test Value Units	Average Moisture Content (%db)
Bending Stiffness - Cross Machine Direction	9	1	7.9	Nm	14.1
Bending Stiffness - Cross Machine Direction	9	2	10.2	Nm	11.3
Bending Stiffness - Cross Machine Direction	9	3	13.0	Nm	7.3
Bending Stiffness - Cross Machine Direction	9	4	6.3	Nm	17.4
Bending Stiffness - Cross Machine Direction	9	5	10.4	Nm	11.4
Bending Stiffness - Cross Machine Direction	9	6	5.2	Nm	19.3
Bending Stiffness - Cross Machine Direction	9	7	7.9	Nm	14.5
Bending Stiffness - Cross Machine Direction	9	8	6.2	Nm	17.4
Bending Stiffness - Cross Machine Direction	9	9	8.1	Nm	14.4
Bending Stiffness - Cross Machine Direction	9	10	8.0	Nm	14.5
Bending Stiffness - Cross Machine Direction	9	11	13.1	Nm	7.3
Bending Stiffness - Cross Machine Direction	9	12	6.1	Nm	17.5
Bending Stiffness - Cross Machine Direction	9	13	13.6	Nm	7.3
Bending Stiffness - Cross Machine Direction	9	14	5.1	Nm	19.4
Bending Stiffness - Cross Machine Direction	9	15	8.1	Nm	14.5
Bending Stiffness - Cross Machine Direction	9	16	6.1	Nm	17.6
Bending Stiffness - Cross Machine Direction	9	17	13.5	Nm	7.3
Bending Stiffness - Cross Machine Direction	9	18	5.5	Nm	19.4
Bending Stiffness - Cross Machine Direction	9	19	13.8	Nm	7.3
Bending Stiffness - Cross Machine Direction	9	20	10.4	Nm	11.4
Bending Stiffness - Cross Machine Direction	9	21	10.4	Nm	11.5
Bending Stiffness - Cross Machine Direction	9	22	6.1	Nm	17.7
Bending Stiffness - Cross Machine Direction	9	23	5.0	Nm	19.4
Bending Stiffness - Cross Machine Direction	9	24	10.4	Nm	11.4
Bending Stiffness - Cross Machine Direction	9	25	4.9	Nm	19.3
Bending Stiffness - Cross Machine Direction	10	1	6.1	Nm	18.2
Bending Stiffness - Cross Machine Direction	10	2	8.0	Nm	15.0
Bending Stiffness - Cross Machine Direction	10	3	7.7	Nm	15.1
Bending Stiffness - Cross Machine Direction	10	4	7.6	Nm	15.1
Bending Stiffness - Cross Machine Direction	10	5	13.4	Nm	7.7
Bending Stiffness - Cross Machine Direction	10	6	14.0	Nm	7.7
Bending Stiffness - Cross Machine Direction	10	7	12.9	Nm	7.8
Bending Stiffness - Cross Machine Direction	10	8	7.6	Nm	15.0
Bending Stiffness - Cross Machine Direction	10	9	10.1	Nm	11.9
Bending Stiffness - Cross Machine Direction	10	10	4.8	Nm	20.0
Bending Stiffness - Cross Machine Direction	10	11	5.9	Nm	18.2
Bending Stiffness - Cross Machine Direction	10	12	12.7	Nm	7.7
Bending Stiffness - Cross Machine Direction	10	13	10.5	Nm	11.9
Bending Stiffness - Cross Machine Direction	10	14	5.8	Nm	18.0
Bending Stiffness - Cross Machine Direction	10	15	10.1	Nm	12.0
Bending Stiffness - Cross Machine Direction	10	16	6.1	Nm	18.2

Bending Stiffness - Cross Machine Direction	10	17	13.4	Nm	7.7
Bending Stiffness - Cross Machine Direction	10	18	10.1	Nm	12.0
Bending Stiffness - Cross Machine Direction	10	19	6.0	Nm	18.2
Bending Stiffness - Cross Machine Direction	10	20	4.9	Nm	20.1
Bending Stiffness - Cross Machine Direction	10	21	10.1	Nm	12.0
Bending Stiffness - Cross Machine Direction	10	22	7.7	Nm	15.0
Bending Stiffness - Cross Machine Direction	10	23	4.9	Nm	20.0
Bending Stiffness - Cross Machine Direction	10	24	5.2	Nm	20.0
Bending Stiffness - Cross Machine Direction	10	25	5.3	Nm	20.0
Bending Stiffness - Cross Machine Direction	11	1	7.9	Nm	14.6
Bending Stiffness - Cross Machine Direction	11	2	8.1	Nm	14.5
Bending Stiffness - Cross Machine Direction	11	3	6.0	Nm	17.8
Bending Stiffness - Cross Machine Direction	11	4	12.7	Nm	7.4
Bending Stiffness - Cross Machine Direction	11	5	5.2	Nm	19.6
Bending Stiffness - Cross Machine Direction	11	6	13.4	Nm	7.4
Bending Stiffness - Cross Machine Direction	11	7	13.2	Nm	7.4
Bending Stiffness - Cross Machine Direction	11	8	10.1	Nm	11.6
Bending Stiffness - Cross Machine Direction	11	9	5.1	Nm	19.5
Bending Stiffness - Cross Machine Direction	11	10	10.3	Nm	11.7
Bending Stiffness - Cross Machine Direction	11	11	5.0	Nm	19.6
Bending Stiffness - Cross Machine Direction	11	12	10.2	Nm	11.7
Bending Stiffness - Cross Machine Direction	11	13	10.1	Nm	11.6
Bending Stiffness - Cross Machine Direction	11	14	6.2	Nm	17.9
Bending Stiffness - Cross Machine Direction	11	15	5.1	Nm	19.5
Bending Stiffness - Cross Machine Direction	11	16	5.9	Nm	17.8
Bending Stiffness - Cross Machine Direction	11	17	6.2	Nm	17.7
Bending Stiffness - Cross Machine Direction	11	18	10.3	Nm	11.7
Bending Stiffness - Cross Machine Direction	11	19	13.2	Nm	7.4
Bending Stiffness - Cross Machine Direction	11	20	13.3	Nm	7.4
Bending Stiffness - Cross Machine Direction	11	21	5.2	Nm	19.3
Bending Stiffness - Cross Machine Direction	11	22	8.6	Nm	14.5
Bending Stiffness - Cross Machine Direction	11	23	8.1	Nm	14.5
Bending Stiffness - Cross Machine Direction	11	24	6.3	Nm	17.4
Bending Stiffness - Cross Machine Direction	11	25	8.1	Nm	14.4
Bending Stiffness - Machine Direction	2	1	11.7	Nm	17.6
Bending Stiffness - Machine Direction	2	2	10.0	Nm	19.8
Bending Stiffness - Machine Direction	2	3	18.6	Nm	7.6
Bending Stiffness - Machine Direction	2	4	9.4	Nm	19.8
Bending Stiffness - Machine Direction	2	5	11.3	Nm	17.7
Bending Stiffness - Machine Direction	2	6	11.7	Nm	17.6
Bending Stiffness - Machine Direction	2	7	19.1	Nm	7.6
Bending Stiffness - Machine Direction	2	8	14.1	Nm	14.6
Bending Stiffness - Machine Direction	2	9	18.7	Nm	7.6
Bending Stiffness - Machine Direction	2	10	13.4	Nm	14.5
Bending Stiffness - Machine Direction	2	11	14.0	Nm	14.5
Bending Stiffness - Machine Direction	2	12	9.8	Nm	19.8
Bending Stiffness - Machine Direction	2	13	9.6	Nm	19.7

Bending Stiffness - Machine Direction	2	14	13.8	Nm	14.5
Bending Stiffness - Machine Direction	2	15	9.3	Nm	19.7
Bending Stiffness - Machine Direction	2	16	11.2	Nm	17.6
Bending Stiffness - Machine Direction	2	17	15.5	Nm	11.7
Bending Stiffness - Machine Direction	2	18	18.3	Nm	7.6
Bending Stiffness - Machine Direction	2	19	14.7	Nm	11.6
Bending Stiffness - Machine Direction	2	20	16.2	Nm	11.7
Bending Stiffness - Machine Direction	2	21	18.6	Nm	7.6
Bending Stiffness - Machine Direction	2	22	13.7	Nm	14.7
Bending Stiffness - Machine Direction	2	23	15.8	Nm	11.5
Bending Stiffness - Machine Direction	2	24	15.2	Nm	11.6
Bending Stiffness - Machine Direction	2	25	11.2	Nm	17.6
Bending Stiffness - Machine Direction	6	1	13.1	Nm	14.5
Bending Stiffness - Machine Direction	6	2	9.8	Nm	19.7
Bending Stiffness - Machine Direction	6	3	9.6	Nm	19.5
Bending Stiffness - Machine Direction	6	4	16.1	Nm	11.5
Bending Stiffness - Machine Direction	6	5	13.8	Nm	14.4
Bending Stiffness - Machine Direction	6	6	14.5	Nm	11.7
Bending Stiffness - Machine Direction	6	7	10.2	Nm	19.5
Bending Stiffness - Machine Direction	6	8	15.7	Nm	11.6
Bending Stiffness - Machine Direction	6	9	12.0	Nm	17.5
Bending Stiffness - Machine Direction	6	10	16.0	Nm	11.4
Bending Stiffness - Machine Direction	6	11	9.4	Nm	19.4
Bending Stiffness - Machine Direction	6	12	18.7	Nm	7.5
Bending Stiffness - Machine Direction	6	13	10.1	Nm	19.3
Bending Stiffness - Machine Direction	6	14	19.1	Nm	7.6
Bending Stiffness - Machine Direction	6	15	19.1	Nm	7.5
Bending Stiffness - Machine Direction	6	16	11.6	Nm	17.6
Bending Stiffness - Machine Direction	6	17	15.8	Nm	11.5
Bending Stiffness - Machine Direction	6	18	11.6	Nm	17.4
Bending Stiffness - Machine Direction	6	19	11.1	Nm	17.3
Bending Stiffness - Machine Direction	6	20	14.0	Nm	14.6
Bending Stiffness - Machine Direction	6	21	15.9	Nm	7.5
Bending Stiffness - Machine Direction	6	22	13.7	Nm	14.4
Bending Stiffness - Machine Direction	6	23	15.7	Nm	7.5
Bending Stiffness - Machine Direction	6	24	10.6	Nm	17.3
Bending Stiffness - Machine Direction	6	25	14.2	Nm	14.6
Bending Stiffness - Machine Direction	14	1	12.9	Nm	14.4
Bending Stiffness - Machine Direction	14	2	9.3	Nm	19.5
Bending Stiffness - Machine Direction	14	3	15.7	Nm	11.5
Bending Stiffness - Machine Direction	14	4	9.9	Nm	19.5
Bending Stiffness - Machine Direction	14	5	16.8	Nm	7.2
Bending Stiffness - Machine Direction	14	6	13.8	Nm	14.6
Bending Stiffness - Machine Direction	14	7	9.7	Nm	19.7
Bending Stiffness - Machine Direction	14	8	18.7	Nm	7.4
Bending Stiffness - Machine Direction	14	9	9.1	Nm	19.6
Bending Stiffness - Machine Direction	14	10	11.9	Nm	17.9

Bending Stiffness - Machine Direction	14	11	11.2	Nm	17.7
Bending Stiffness - Machine Direction	14	12	15.7	Nm	11.7
Bending Stiffness - Machine Direction	14	13	16.2	Nm	11.7
Bending Stiffness - Machine Direction	14	14	11.4	Nm	17.6
Bending Stiffness - Machine Direction	14	15	14.3	Nm	14.7
Bending Stiffness - Machine Direction	14	16	18.9	Nm	7.4
Bending Stiffness - Machine Direction	14	17	14.1	Nm	14.3
Bending Stiffness - Machine Direction	14	18	18.8	Nm	7.3
Bending Stiffness - Machine Direction	14	19	9.0	Nm	19.5
Bending Stiffness - Machine Direction	14	20	15.5	Nm	11.7
Bending Stiffness - Machine Direction	14	21	15.6	Nm	11.7
Bending Stiffness - Machine Direction	14	22	11.8	Nm	17.5
Bending Stiffness - Machine Direction	14	23	11.7	Nm	17.5
Bending Stiffness - Machine Direction	14	24	12.8	Nm	14.3
Bending Stiffness - Machine Direction	14	25	19.0	Nm	7.3
Edgewise Compression	1	1	8.1	N/m	11.9
Edgewise Compression	1	2	2.8	N/m	28.1
Edgewise Compression	1	3	11.3	N/m	7.7
Edgewise Compression	1	4	5.2	N/m	17.4
Edgewise Compression	1	5	8.1	N/m	12.1
Edgewise Compression	1	6	5.4	N/m	17.7
Edgewise Compression	1	7	8.3	N/m	11.9
Edgewise Compression	1	8	2.8	N/m	29.2
Edgewise Compression	1	9	11.7	N/m	7.7
Edgewise Compression	1	10	11.5	N/m	7.5
Edgewise Compression	1	11	6.8	N/m	14.7
Edgewise Compression	1	12	6.4	N/m	14.6
Edgewise Compression	1	13	2.7	N/m	30.5
Edgewise Compression	1	14	8.4	N/m	11.8
Edgewise Compression	1	15	12.1	N/m	7.7
Edgewise Compression	1	16	2.7	N/m	29.6
Edgewise Compression	1	17	6.4	N/m	14.9
Edgewise Compression	1	18	8.3	N/m	11.7
Edgewise Compression	1	19	6.3	N/m	14.8
Edgewise Compression	1	20	2.7	N/m	29.0
Edgewise Compression	1	21	11.0	N/m	7.7
Edgewise Compression	1	22	2.8	N/m	29.4
Edgewise Compression	1	23	2.7	N/m	29.2
Edgewise Compression	1	24	8.2	N/m	12.6
Edgewise Compression	1	25	2.7	N/m	29.5
Edgewise Compression	1	26	11.6	N/m	7.6
Edgewise Compression	1	27	2.7	N/m	29.5
Edgewise Compression	1	28	5.3	N/m	17.8
Edgewise Compression	1	29	5.0	N/m	17.7
Edgewise Compression	1	30	5.0	N/m	17.8
Edgewise Compression	1	31	8.4	N/m	11.9
Edgewise Compression	1	32	8.6	N/m	12.0
Edgewise Compression	1	33	6.7	N/m	14.8
Edgewise Compression	1	34	6.9	N/m	14.8
Edgewise Compression	1	35	5.0	N/m	17.7
Edgewise Compression	1	36	5.8	N/m	17.7
Edgewise Compression	1	37	6.7	N/m	14.7
Edgewise Compression	1	38	6.9	N/m	14.6

Edgewise Compression	1	39	5.1	N/m	18.3
Edgewise Compression	1	40	11.8	N/m	7.7
Edgewise Compression	1	41	11.9	N/m	7.6
Edgewise Compression	1	42	8.3	N/m	11.3
Edgewise Compression	1	43	5.7	N/m	17.9
Edgewise Compression	1	44	6.5	N/m	14.8
Edgewise Compression	1	45	7.9	N/m	11.8
Edgewise Compression	1	46	2.6	N/m	29.7
Edgewise Compression	1	47	6.6	N/m	15.0
Edgewise Compression	1	48	11.8	N/m	7.7
Edgewise Compression	1	49	11.6	N/m	7.7
Edgewise Compression	1	50	5.3	N/m	17.8
Edgewise Compression	13	1	5.2	N/m	17.9
Edgewise Compression	13	2	2.7	N/m	30.3
Edgewise Compression	13	3	8.2	N/m	11.6
Edgewise Compression	13	4	2.7	N/m	29.7
Edgewise Compression	13	5	11.7	N/m	7.3
Edgewise Compression	13	6	5.3	N/m	17.5
Edgewise Compression	13	7	11.4	N/m	7.3
Edgewise Compression	13	8	2.7	N/m	29.0
Edgewise Compression	13	9	2.8	N/m	28.5
Edgewise Compression	13	10	8.5	N/m	11.5
Edgewise Compression	13	11	5.2	N/m	17.6
Edgewise Compression	13	12	6.6	N/m	15.0
Edgewise Compression	13	13	2.8	N/m	28.2
Edgewise Compression	13	14	11.6	N/m	7.4
Edgewise Compression	13	15	11.6	N/m	7.6
Edgewise Compression	13	16	6.6	N/m	14.7
Edgewise Compression	13	17	2.9	N/m	28.5
Edgewise Compression	13	18	8.3	N/m	12.1
Edgewise Compression	13	19	11.7	N/m	7.4
Edgewise Compression	13	20	2.8	N/m	27.6
Edgewise Compression	13	21	5.0	N/m	17.6
Edgewise Compression	13	22	5.2	N/m	17.7
Edgewise Compression	13	23	6.5	N/m	14.4
Edgewise Compression	13	24	6.4	N/m	14.5
Edgewise Compression	13	25	6.6	N/m	14.9
Edgewise Compression	13	26	2.9	N/m	28.3
Edgewise Compression	13	27	6.6	N/m	14.5
Edgewise Compression	13	28	5.4	N/m	17.9
Edgewise Compression	13	29	2.9	N/m	28.4
Edgewise Compression	13	30	8.1	N/m	11.9
Edgewise Compression	13	31	2.9	N/m	28.3
Edgewise Compression	13	32	5.0	N/m	17.9
Edgewise Compression	13	33	6.5	N/m	14.3
Edgewise Compression	13	34	5.1	N/m	17.3
Edgewise Compression	13	35	8.3	N/m	12.1
Edgewise Compression	13	36	6.5	N/m	14.8
Edgewise Compression	13	37	8.5	N/m	11.9
Edgewise Compression	13	38	11.6	N/m	7.4
Edgewise Compression	13	39	8.3	N/m	12.0
Edgewise Compression	13	40	8.4	N/m	12.3
Edgewise Compression	13	41	11.7	N/m	7.5
Edgewise Compression	13	42	11.8	N/m	7.4
Edgewise Compression	13	43	5.2	N/m	18.3

Edgewise Compression	13	44	11.6	N/m	7.6
Edgewise Compression	13	45	6.4	N/m	15.7
Edgewise Compression	13	46	7.9	N/m	12.2
Edgewise Compression	13	47	7.9	N/m	12.2
Edgewise Compression	13	48	11.5	N/m	7.7
Edgewise Compression	13	49	5.2	N/m	17.9
Edgewise Compression	16	1	6.6	N/m	14.5
Edgewise Compression	16	2	5.0	N/m	17.3
Edgewise Compression	16	3	11.5	N/m	7.3
Edgewise Compression	16	4	6.4	N/m	14.9
Edgewise Compression	16	5	5.0	N/m	17.5
Edgewise Compression	16	6	6.5	N/m	14.9
Edgewise Compression	16	7	6.5	N/m	15.0
Edgewise Compression	16	8	5.3	N/m	17.6
Edgewise Compression	16	9	7.6	N/m	11.7
Edgewise Compression	16	10	2.7	N/m	30.4
Edgewise Compression	16	11	5.3	N/m	17.9
Edgewise Compression	16	12	11.0	N/m	7.3
Edgewise Compression	16	13	2.8	N/m	29.4
Edgewise Compression	16	14	8.4	N/m	12.1
Edgewise Compression	16	15	6.7	N/m	14.8
Edgewise Compression	16	16	8.4	N/m	11.7
Edgewise Compression	16	17	6.2	N/m	15.2
Edgewise Compression	16	18	11.7	N/m	7.4
Edgewise Compression	16	19	5.0	N/m	17.7
Edgewise Compression	16	20	6.4	N/m	15.1
Edgewise Compression	16	21	6.3	N/m	15.2
Edgewise Compression	16	22	2.6	N/m	28.9
Edgewise Compression	16	23	5.1	N/m	17.7
Edgewise Compression	16	24	11.5	N/m	7.4
Edgewise Compression	16	25	2.6	N/m	29.3
Edgewise Compression	16	26	11.1	N/m	7.4
Edgewise Compression	16	27	11.2	N/m	7.4
Edgewise Compression	16	28	2.6	N/m	28.7
Edgewise Compression	16	29	8.3	N/m	11.9
Edgewise Compression	16	30	7.7	N/m	11.9
Edgewise Compression	16	31	2.7	N/m	29.5
Edgewise Compression	16	32	6.1	N/m	14.7
Edgewise Compression	16	33	2.7	N/m	29.3
Edgewise Compression	16	34	11.6	N/m	7.4
Edgewise Compression	16	35	5.0	N/m	17.5
Edgewise Compression	16	36	8.5	N/m	11.6
Edgewise Compression	16	37	2.7	N/m	29.6
Edgewise Compression	16	38	12.0	N/m	7.3
Edgewise Compression	16	39	8.1	N/m	11.5
Edgewise Compression	16	40	8.1	N/m	11.5
Edgewise Compression	16	41	6.3	N/m	14.6
Edgewise Compression	16	42	11.7	N/m	7.3
Edgewise Compression	16	43	11.3	N/m	7.5
Edgewise Compression	16	44	5.2	N/m	17.3
Edgewise Compression	16	45	2.8	N/m	30.0
Edgewise Compression	16	46	5.4	N/m	17.5
Edgewise Compression	16	47	8.0	N/m	11.6
Edgewise Compression	16	48	2.7	N/m	30.4
Edgewise Compression	16	49	8.5	N/m	11.8

Edgewise Compression	16	50	5.2	N/m	17.6
Flat Crush	3	1	206.5	kPa	7.7
Flat Crush	3	2	157.0	kPa	11.9
Flat Crush	3	3	127.3	kPa	14.1
Flat Crush	3	4	124.3	kPa	14.0
Flat Crush	3	5	104.6	kPa	17.7
Flat Crush	3	6	161.3	kPa	11.8
Flat Crush	3	7	100.6	kPa	18.3
Flat Crush	3	8	138.9	kPa	14.0
Flat Crush	3	9	224.6	kPa	7.9
Flat Crush	3	10	170.9	kPa	11.8
Flat Crush	3	11	219.3	kPa	7.7
Flat Crush	3	12	59.8	kPa	29.4
Flat Crush	3	13	218.6	kPa	7.5
Flat Crush	3	14	132.7	kPa	14.2
Flat Crush	3	15	107.1	kPa	17.9
Flat Crush	3	16	211.3	kPa	7.6
Flat Crush	3	17	161.6	kPa	11.9
Flat Crush	3	18	133.1	kPa	14.0
Flat Crush	3	19	165.3	kPa	11.7
Flat Crush	3	20	166.3	kPa	11.6
Flat Crush	3	21	58.2	kPa	29.3
Flat Crush	3	22	128.7	kPa	14.1
Flat Crush	3	23	166.5	kPa	12.0
Flat Crush	3	24	102.5	kPa	18.0
Flat Crush	3	25	102.0	kPa	18.1
Flat Crush	3	26	204.5	kPa	7.7
Flat Crush	3	27	58.8	kPa	29.4
Flat Crush	3	28	145.4	kPa	14.1
Flat Crush	3	29	104.6	kPa	18.4
Flat Crush	3	30	58.0	kPa	29.3
Flat Crush	3	31	171.5	kPa	11.9
Flat Crush	3	32	61.2	kPa	28.5
Flat Crush	3	33	59.6	kPa	29.1
Flat Crush	3	34	220.3	kPa	7.8
Flat Crush	3	35	227.8	kPa	7.7
Flat Crush	3	36	107.6	kPa	18.2
Flat Crush	3	37	60.6	kPa	29.3
Flat Crush	3	38	58.0	kPa	28.7
Flat Crush	3	39	144.6	kPa	14.1
Flat Crush	4	1	154.8	kPa	11.6
Flat Crush	4	2	120.9	kPa	14.0
Flat Crush	4	3	148.4	kPa	11.7
Flat Crush	4	4	90.9	kPa	17.8
Flat Crush	4	5	53.9	kPa	28.8
Flat Crush	4	6	91.1	kPa	17.9
Flat Crush	4	7	121.9	kPa	14.1
Flat Crush	4	8	215.1	kPa	7.7
Flat Crush	4	9	158.3	kPa	12.0
Flat Crush	4	10	56.3	kPa	29.1
Flat Crush	4	11	95.1	kPa	18.2
Flat Crush	4	12	214.9	kPa	7.7
Flat Crush	4	13	123.5	kPa	14.2
Flat Crush	4	14	160.8	kPa	12.0
Flat Crush	4	15	103.1	kPa	17.9

Flat Crush	4	16	208.9	kPa	7.7
Flat Crush	4	17	104.6	kPa	17.8
Flat Crush	4	18	221.4	kPa	7.6
Flat Crush	4	19	99.3	kPa	17.9
Flat Crush	4	20	163.7	kPa	11.7
Flat Crush	4	21	105.6	kPa	17.8
Flat Crush	4	22	188.8	kPa	7.5
Flat Crush	4	23	202.5	kPa	7.8
Flat Crush	4	24	129.1	kPa	14.0
Flat Crush	4	25	127.2	kPa	14.0
Flat Crush	4	26	97.1	kPa	17.6
Flat Crush	4	27	151.3	kPa	11.6
Flat Crush	4	28	203.1	kPa	7.5
Flat Crush	4	29	208.5	kPa	7.7
Flat Crush	4	30	120.8	kPa	11.6
Flat Crush	4	31	128.1	kPa	14.0
Flat Crush	4	32	56.6	kPa	28.9
Flat Crush	4	33	131.7	kPa	14.1
Flat Crush	4	34	52.9	kPa	30.7
Flat Crush	4	35	54.7	kPa	30.1
Flat Crush	4	36	56.3	kPa	29.7
Flat Crush	4	37	55.3	kPa	29.8
Flat Crush	4	38	139.3	kPa	14.1
Flat Crush	4	39	159.7	kPa	11.9
Flat Crush	4	40	58.0	kPa	29.3
Flat Crush	5	1	134.3	kPa	14.4
Flat Crush	5	2	128.1	kPa	14.6
Flat Crush	5	3	161.8	kPa	11.7
Flat Crush	5	4	210.1	kPa	7.8
Flat Crush	5	5	58.8	kPa	29.2
Flat Crush	5	6	159.4	kPa	11.5
Flat Crush	5	7	217.1	kPa	7.9
Flat Crush	5	8	103.6	kPa	18.0
Flat Crush	5	9	132.7	kPa	14.2
Flat Crush	5	10	169.9	kPa	11.9
Flat Crush	5	11	135.9	kPa	14.2
Flat Crush	5	12	215.5	kPa	7.9
Flat Crush	5	13	104.8	kPa	17.9
Flat Crush	5	14	60.9	kPa	28.5
Flat Crush	5	15	57.4	kPa	29.5
Flat Crush	5	16	127.3	kPa	14.1
Flat Crush	5	17	163.1	kPa	11.6
Flat Crush	5	18	105.8	kPa	18.0
Flat Crush	5	19	139.6	kPa	14.2
Flat Crush	5	20	55.0	kPa	29.4
Flat Crush	5	21	155.2	kPa	11.8
Flat Crush	5	22	95.5	kPa	18.3
Flat Crush	5	23	128.7	kPa	14.3
Flat Crush	5	24	101.8	kPa	18.0
Flat Crush	5	25	215.1	kPa	7.7
Flat Crush	5	26	97.1	kPa	17.8
Flat Crush	5	27	56.3	kPa	29.6
Flat Crush	5	28	102.0	kPa	18.3
Flat Crush	5	29	166.7	kPa	12.1
Flat Crush	5	30	104.2	kPa	18.2

Flat Crush	5	31	218.0	kPa	7.7
Flat Crush	5	32	169.1	kPa	12.0
Flat Crush	5	33	229.0	kPa	7.7
Flat Crush	5	34	137.1	kPa	14.1
Flat Crush	5	35	56.9	kPa	29.6
Flat Crush	5	36	233.2	kPa	7.7
Flat Crush	5	37	231.6	kPa	7.8
Flat Crush	5	38	169.9	kPa	12.2
Flat Crush	5	39	58.5	kPa	29.8
Flat Crush	5	40	59.0	kPa	29.3
Flat Crush	7	1	97.7	kPa	17.8
Flat Crush	7	2	157.8	kPa	11.7
Flat Crush	7	3	217.1	kPa	7.6
Flat Crush	7	4	216.0	kPa	7.7
Flat Crush	7	5	58.2	kPa	29.0
Flat Crush	7	6	89.3	kPa	18.2
Flat Crush	7	7	137.1	kPa	14.0
Flat Crush	7	8	135.8	kPa	14.2
Flat Crush	7	9	142.5	kPa	14.2
Flat Crush	7	10	168.3	kPa	12.1
Flat Crush	7	11	144.6	kPa	14.3
Flat Crush	7	12	221.7	kPa	7.8
Flat Crush	7	13	61.2	kPa	29.0
Flat Crush	7	14	220.3	kPa	7.7
Flat Crush	7	15	225.7	kPa	7.7
Flat Crush	7	16	107.6	kPa	17.7
Flat Crush	7	17	138.7	kPa	14.2
Flat Crush	7	18	226.0	kPa	7.7
Flat Crush	7	19	137.9	kPa	14.1
Flat Crush	7	20	56.9	kPa	29.1
Flat Crush	7	21	157.5	kPa	12.1
Flat Crush	7	22	162.6	kPa	12.2
Flat Crush	7	23	157.0	kPa	11.9
Flat Crush	7	24	128.5	kPa	14.2
Flat Crush	7	25	103.3	kPa	18.2
Flat Crush	7	26	54.1	kPa	29.7
Flat Crush	7	27	131.5	kPa	14.3
Flat Crush	7	28	160.3	kPa	11.9
Flat Crush	7	29	57.4	kPa	30.0
Flat Crush	7	30	53.1	kPa	30.5
Flat Crush	7	31	109.4	kPa	18.1
Flat Crush	7	32	52.9	kPa	31.6
Flat Crush	7	33	107.4	kPa	18.0
Flat Crush	7	34	215.5	kPa	7.7
Flat Crush	7	35	160.7	kPa	11.6
Flat Crush	7	36	134.9	kPa	11.8
Flat Crush	7	37	109.2	kPa	17.9
Flat Crush	7	38	48.7	kPa	34.4
Flat Crush	7	39	230.0	kPa	7.7
Flat Crush	7	40	107.0	kPa	18.0
Hardness	3	1	667.0	N	7.7
Hardness	3	2	581.3	N	11.9
Hardness	3	3	520.4	N	14.1
Hardness	3	4	517.4	N	14.0
Hardness	3	5	386.4	N	17.7

Hardness	3	6	585.0	N	11.8
Hardness	3	7	436.2	N	18.3
Hardness	3	8	533.9	N	14.0
Hardness	3	9	694.5	N	7.9
Hardness	3	10	595.3	N	11.8
Hardness	3	11	692.2	N	7.7
Hardness	3	12	299.8	N	29.4
Hardness	3	13	675.8	N	7.5
Hardness	3	14	535.4	N	14.2
Hardness	3	15	456.2	N	17.9
Hardness	3	16	671.7	N	7.6
Hardness	3	17	603.0	N	11.9
Hardness	3	18	550.3	N	14.0
Hardness	3	19	607.9	N	11.7
Hardness	3	20	665.3	N	11.6
Hardness	3	21	282.2	N	29.3
Hardness	3	22	508.5	N	14.1
Hardness	3	23	603.1	N	12.0
Hardness	3	24	440.7	N	18.0
Hardness	3	25	455.4	N	18.1
Hardness	3	26	659.6	N	7.7
Hardness	3	27	302.4	N	29.4
Hardness	3	28	564.8	N	14.1
Hardness	3	29	456.3	N	18.4
Hardness	3	30	298.6	N	29.3
Hardness	3	31	610.9	N	11.9
Hardness	3	32	302.4	N	28.5
Hardness	3	33	304.3	N	29.1
Hardness	3	34	656.3	N	7.8
Hardness	3	35	693.1	N	7.7
Hardness	3	36	470.5	N	18.2
Hardness	3	37	322.9	N	29.3
Hardness	3	38	292.0	N	28.7
Hardness	3	39	550.8	N	14.1
Hardness	4	1	548.3	N	11.6
Hardness	4	2	495.0	N	14.0
Hardness	4	3	544.2	N	11.7
Hardness	4	4	400.9	N	17.8
Hardness	4	5	264.0	N	28.8
Hardness	4	6	405.2	N	17.9
Hardness	4	7	490.5	N	14.1
Hardness	4	8	746.6	N	7.7
Hardness	4	9	575.3	N	12.0
Hardness	4	10	298.6	N	29.1
Hardness	4	11	438.1	N	18.2
Hardness	4	12	647.1	N	7.7
Hardness	4	13	363.4	N	14.2
Hardness	4	14	580.9	N	12.0
Hardness	4	15	455.7	N	17.9
Hardness	4	16	603.2	N	7.7
Hardness	4	17	461.7	N	17.8
Hardness	4	18	673.7	N	7.6
Hardness	4	19	408.7	N	17.9
Hardness	4	20	610.2	N	11.7
Hardness	4	21	450.4	N	17.8

Hardness	4	22	610.7	N	7.5
Hardness	4	23	622.1	N	7.8
Hardness	4	24	506.3	N	14.0
Hardness	4	25	496.2	N	14.0
Hardness	4	26	428.7	N	17.6
Hardness	4	27	552.2	N	11.6
Hardness	4	28	612.3	N	7.5
Hardness	4	29	651.0	N	7.7
Hardness	4	30	577.6	N	11.6
Hardness	4	31	524.9	N	14.0
Hardness	4	32	271.2	N	28.9
Hardness	4	33	518.9	N	14.1
Hardness	4	34	218.9	N	30.7
Hardness	4	35	235.6	N	30.1
Hardness	4	36	255.6	N	29.7
Hardness	4	37	264.5	N	29.8
Hardness	4	38	554.8	N	14.1
Hardness	4	39	597.7	N	11.9
Hardness	4	40	279.2	N	29.3
Hardness	5	1	526.4	N	14.4
Hardness	5	2	520.4	N	14.6
Hardness	5	3	627.4	N	11.7
Hardness	5	4	673.0	N	7.8
Hardness	5	5	314.7	N	29.2
Hardness	5	6	579.1	N	11.5
Hardness	5	7	669.1	N	7.9
Hardness	5	8	459.9	N	18.0
Hardness	5	9	545.9	N	14.2
Hardness	5	10	621.8	N	11.9
Hardness	5	11	526.4	N	14.2
Hardness	5	12	685.2	N	7.9
Hardness	5	13	476.2	N	17.9
Hardness	5	14	315.8	N	28.5
Hardness	5	15	290.4	N	29.5
Hardness	5	16	527.9	N	14.1
Hardness	5	17	617.0	N	11.6
Hardness	5	18	474.6	N	18.0
Hardness	5	19	548.6	N	14.2
Hardness	5	20	201.5	N	29.4
Hardness	5	21	572.9	N	11.8
Hardness	5	22	453.1	N	18.3
Hardness	5	23	524.9	N	14.3
Hardness	5	24	448.8	N	18.0
Hardness	5	25	658.0	N	7.7
Hardness	5	26	429.2	N	17.8
Hardness	5	27	282.4	N	29.6
Hardness	5	28	461.2	N	18.3
Hardness	5	29	611.7	N	12.1
Hardness	5	30	454.8	N	18.2
Hardness	5	31	693.1	N	7.7
Hardness	5	32	611.7	N	12.0
Hardness	5	33	683.5	N	7.7
Hardness	5	34	541.4	N	14.1
Hardness	5	35	293.3	N	29.6
Hardness	5	36	705.9	N	7.7

Hardness	5	37	691.9	N	7.8
Hardness	5	38	596.9	N	12.2
Hardness	5	39	297.4	N	29.8
Hardness	5	40	282.2	N	29.3
Hardness	7	1	427.6	N	17.8
Hardness	7	2	585.8	N	11.7
Hardness	7	3	731.3	N	7.6
Hardness	7	4	675.7	N	7.7
Hardness	7	5	269.1	N	29.0
Hardness	7	6	446.5	N	18.2
Hardness	7	7	550.7	N	14.0
Hardness	7	8	556.7	N	14.2
Hardness	7	9	552.1	N	14.2
Hardness	7	10	599.1	N	12.1
Hardness	7	11	566.8	N	14.3
Hardness	7	12	695.3	N	7.8
Hardness	7	13	293.3	N	29.0
Hardness	7	14	675.7	N	7.7
Hardness	7	15	695.9	N	7.7
Hardness	7	16	454.6	N	17.7
Hardness	7	17	548.3	N	14.2
Hardness	7	18	686.6	N	7.7
Hardness	7	19	560.8	N	14.1
Hardness	7	20	307.9	N	29.1
Hardness	7	21	583.0	N	12.1
Hardness	7	22	589.0	N	12.2
Hardness	7	23	598.6	N	11.9
Hardness	7	24	516.4	N	14.2
Hardness	7	25	432.2	N	18.2
Hardness	7	26	278.4	N	29.7
Hardness	7	27	524.2	N	14.3
Hardness	7	28	607.3	N	11.9
Hardness	7	29	315.5	N	30.0
Hardness	7	30	260.1	N	30.5
Hardness	7	31	462.5	N	18.1
Hardness	7	32	254.2	N	31.6
Hardness	7	33	451.2	N	18.0
Hardness	7	34	689.9	N	7.7
Hardness	7	35	613.4	N	11.6
Hardness	7	36	603.3	N	11.8
Hardness	7	37	457.0	N	17.9
Hardness	7	38	218.7	N	34.4
Hardness	7	39	674.8	N	7.7
Hardness	7	40	445.2	N	18.0
Liner Adhesion	8	1	84.3	N	29.1
Liner Adhesion	8	2	201.0	N	12.6
Liner Adhesion	8	3	81.4	N	29.6
Liner Adhesion	8	4	134.6	N	18.8
Liner Adhesion	8	5	140.2	N	18.6
Liner Adhesion	8	6	132.8	N	18.5
Liner Adhesion	8	7	157.8	N	15.5
Liner Adhesion	8	8	168.3	N	15.3
Liner Adhesion	8	9	193.2	N	12.0
Liner Adhesion	8	10	189.7	N	11.8
Liner Adhesion	8	11	226.9	N	8.0

Liner Adhesion	8	12	78.8	N	30.2
Liner Adhesion	8	13	73.3	N	31.2
Liner Adhesion	8	14	84.5	N	27.0
Liner Adhesion	8	15	170.9	N	15.2
Liner Adhesion	8	16	162.0	N	15.1
Liner Adhesion	8	17	132.4	N	18.6
Liner Adhesion	8	18	258.2	N	8.0
Liner Adhesion	8	19	244.6	N	8.5
Liner Adhesion	8	20	252.8	N	7.9
Liner Adhesion	8	21	177.8	N	15.1
Liner Adhesion	8	22	141.7	N	18.1
Liner Adhesion	8	23	171.6	N	15.1
Liner Adhesion	8	24	173.7	N	15.8
Liner Adhesion	8	25	196.4	N	11.8
Liner Adhesion	8	26	178.1	N	15.2
Liner Adhesion	8	27	167.0	N	14.9
Liner Adhesion	8	28	202.4	N	12.0
Liner Adhesion	8	29	92.2	N	27.8
Liner Adhesion	8	30	254.1	N	8.1
Liner Adhesion	8	31	246.0	N	7.9
Liner Adhesion	8	32	146.0	N	18.4
Liner Adhesion	8	33	83.7	N	28.3
Liner Adhesion	8	34	265.0	N	8.1
Liner Adhesion	8	35	161.7	N	15.4
Liner Adhesion	8	36	186.7	N	11.9
Liner Adhesion	8	37	209.5	N	11.8
Liner Adhesion	8	38	78.9	N	28.6
Liner Adhesion	8	39	250.1	N	7.9
Liner Adhesion	8	40	84.0	N	28.9
Liner Adhesion	8	41	146.5	N	18.6
Liner Adhesion	8	42	194.9	N	12.0
Liner Adhesion	8	43	196.9	N	12.0
Liner Adhesion	8	44	140.7	N	17.9
Liner Adhesion	8	45	86.8	N	29.4
Liner Adhesion	8	46	136.5	N	18.4
Liner Adhesion	8	47	130.5	N	18.7
Liner Adhesion	8	48	258.2	N	8.2
Liner Adhesion	12	1	254.1	N	7.5
Liner Adhesion	12	2	203.5	N	11.6
Liner Adhesion	12	3	91.2	N	26.5
Liner Adhesion	12	4	182.3	N	12.0
Liner Adhesion	12	5	172.1	N	14.5
Liner Adhesion	12	6	87.0	N	27.6
Liner Adhesion	12	7	86.6	N	28.6
Liner Adhesion	12	8	150.5	N	17.8
Liner Adhesion	12	9	74.3	N	29.2
Liner Adhesion	12	10	207.8	N	11.5
Liner Adhesion	12	11	254.1	N	7.3
Liner Adhesion	12	12	197.7	N	11.9
Liner Adhesion	12	13	258.2	N	7.3
Liner Adhesion	12	14	140.0	N	17.6
Liner Adhesion	12	15	138.8	N	18.2
Liner Adhesion	12	16	79.6	N	29.8
Liner Adhesion	12	17	166.4	N	14.6
Liner Adhesion	12	18	140.5	N	18.1

Liner Adhesion	12	19	137.0	N	17.9
Liner Adhesion	12	20	251.4	N	7.3
Liner Adhesion	12	21	157.0	N	14.5
Liner Adhesion	12	22	202.5	N	11.6
Liner Adhesion	12	23	190.4	N	12.0
Liner Adhesion	12	24	270.4	N	7.3
Liner Adhesion	12	25	78.3	N	30.2
Liner Adhesion	12	26	263.6	N	7.4
Liner Adhesion	12	27	164.3	N	14.7
Liner Adhesion	12	28	170.7	N	14.3
Liner Adhesion	12	29	243.3	N	7.4
Liner Adhesion	12	30	144.7	N	18.0
Liner Adhesion	12	31	165.1	N	14.6
Liner Adhesion	12	32	204.8	N	11.7
Liner Adhesion	12	33	77.6	N	30.9
Liner Adhesion	12	34	243.3	N	7.5
Liner Adhesion	12	35	146.3	N	18.4
Liner Adhesion	12	36	201.0	N	11.4
Liner Adhesion	12	37	269.1	N	7.2
Liner Adhesion	12	38	130.1	N	18.3
Liner Adhesion	12	39	198.4	N	11.2
Liner Adhesion	12	40	99.0	N	26.1
Liner Adhesion	12	41	85.8	N	26.8
Liner Adhesion	12	42	164.9	N	14.8
Liner Adhesion	12	43	172.1	N	14.6
Liner Adhesion	12	44	135.7	N	17.6
Liner Adhesion	12	45	171.6	N	14.4
Liner Adhesion	12	46	203.9	N	11.2
Liner Adhesion	15	1	167.0	N	14.8
Liner Adhesion	15	2	259.6	N	7.3
Liner Adhesion	15	3	166.0	N	14.8
Liner Adhesion	15	4	258.2	N	7.4
Liner Adhesion	15	5	80.9	N	27.1
Liner Adhesion	15	6	258.2	N	7.3
Liner Adhesion	15	7	168.3	N	14.3
Liner Adhesion	15	8	157.0	N	14.5
Liner Adhesion	15	9	197.9	N	11.9
Liner Adhesion	15	10	163.4	N	14.6
Liner Adhesion	15	11	124.9	N	17.2
Liner Adhesion	15	12	190.8	N	11.4
Liner Adhesion	15	13	165.5	N	14.7
Liner Adhesion	15	14	256.9	N	7.3
Liner Adhesion	15	15	246.0	N	7.3
Liner Adhesion	15	16	195.0	N	11.0
Liner Adhesion	15	17	133.9	N	17.2
Liner Adhesion	15	18	166.6	N	14.1
Liner Adhesion	15	19	192.2	N	11.3
Liner Adhesion	15	20	266.4	N	7.1
Liner Adhesion	15	21	80.7	N	27.8
Liner Adhesion	15	22	199.4	N	11.1
Liner Adhesion	15	23	169.0	N	14.2
Liner Adhesion	15	24	83.0	N	28.0
Liner Adhesion	15	25	255.5	N	7.1
Liner Adhesion	15	26	199.6	N	11.4
Liner Adhesion	15	27	251.4	N	7.2

Liner Adhesion	15	28	83.7	N	28.8
Liner Adhesion	15	29	208.6	N	11.1
Liner Adhesion	15	30	159.1	N	14.3
Liner Adhesion	15	31	77.6	N	29.4
Liner Adhesion	15	32	71.4	N	30.7
Liner Adhesion	15	33	246.0	N	7.4
Liner Adhesion	15	34	137.6	N	17.7
Liner Adhesion	15	35	143.6	N	17.5
Liner Adhesion	15	36	157.5	N	14.3
Liner Adhesion	15	37	90.1	N	25.4
Liner Adhesion	15	38	191.5	N	11.5
Liner Adhesion	15	39	141.1	N	17.6
Liner Adhesion	15	40	86.4	N	26.5
Liner Adhesion	15	41	132.3	N	17.6
Liner Adhesion	15	42	202.0	N	11.7
Liner Adhesion	15	43	138.4	N	17.1
Liner Adhesion	15	44	142.1	N	17.8
Liner Adhesion	15	45	188.7	N	11.2
Liner Adhesion	15	46	86.6	N	27.1
Liner Adhesion	15	47	150.8	N	17.7
Liner Adhesion	15	48	128.7	N	17.7
Liner Adhesion	15	49	78.5	N	27.5
Liner Adhesion	15	50	260.9	N	7.3

Appendix A7

Conversion of Corrugated Fibreboard

A7.1 Introduction

Processing of the corrugated fibreboard blanks by a converter to produce the printed, creased and cut boxes has the potential to affect the strength properties of the corrugated fibreboard, primarily through the thickness reduction. An experiment was carried out on a commercial converter (Carter Holt Harvey Ltd. Levin) used to produce the apple Z-packs, in order to quantify the effect of the converter process on the corrugated fibreboard.

A7.2 Materials and Methods

Batches of 4 corrugated fibreboard blanks (250 g.m⁻¹ Kraft linerboard - 160 g.m⁻¹ semi-chemical fluting medium - 250 g.m⁻¹ Kraft linerboard) were periodically taken from the feed table of the converter (Martin 924 Flexo-Folder-Gluer). Two of the blanks were labelled and placed back on to the feed table to be converted, and collected again before the bundles of boxes were strapped. The two unconverted and the two converted blanks were used to determine the effect of the conversion process. Over a two hour period, eleven batches of four blanks were taken from the converter. The corrugated fibreboard blanks and boxes were preconditioned (30°C and 33 %RH for at least 24 hours) and conditioned (23°C and 50 %RH for at least 24 hours) as per standard testing procedures and subjected to 6 tests and measurements with replicates (Table A7.1). The conditioning and testing of the samples was performed in the New Zealand Forest Research Institute, Rotorua, paper testing laboratory. The sample dimensions and platen speeds are presented in Table 4.6.

Table A7.1 Test and measurements performed and number of replicates

Test and measurements	Replicates per blank and box
Edgewise compression	5 for blanks 4 for boxes
Bending stiffness – machine direction	3
Bending stiffness – cross machine direction	3
Calliper	3
Flat crush	3
Hardness	3

A7.3 Results and Discussions

The difference of the properties of the blanks and box samples were insignificant (Table A7.2 and Table A7.3, Figures A7.1 to A7.6). This indicates that the corrugated fibreboard blanks can be converted to boxes by the converter (Martin 924 Flexo-Folder-Gluer) without significantly affecting the properties of the corrugated fibreboard. However the graphs do show considerable measurement variation, up to 25%. This indicates that for statistically valid results to be produced a considerable increase in the number of measurements per sample and the number of batches would be required.

Table A7.2 Properties of corrugated fibreboard blanks and converted blanks

Tests/Measurements	Blanks		Converted Blanks		Difference between Averages* (%)
	Average	95% CI	Average	95% CI	
ECT (N.m ⁻¹)	10468	162	10344	156	1.2
BS MD (Nm)	14.0	0.54	14.2	0.37	1.4
BS CD (Nm)	8.87	0.30	8.83	0.26	0.45
Thickness (mm)	4.39	0.016	4.38	0.016	0.23
Grammage (g.m ⁻²)	739	4.6	734	6.4	0.68
FCT (kPa)	225	11	229	11	1.8
Hardness (MPa.m ⁻¹)	554	20	559	26	0.90

*Blank properties used for basis of percentage calculation.

Table A7.3 Percent* difference between the properties of batches of blanks and converted blanks.

Batch Number	Measurements					
	Edgewise Compression	Bending Stiffness – Cross Machine Direction	Bending Stiffness – Machine Direction	Thickness	Flat Crush	Hardness
1	-1.8**	-5.4	3.8	0.0	0.3	0.2
2	-3.0	-4.4	-1.1	-0.2	1.1	2.4
3	-0.5	1.8	2.0	0.1	-5.1	-0.4
4	-1.8	0.5	4.6	-0.2	-1.0	-1.3
5	-2.5	2.2	3.9	-0.1	-3.0	-1.3
6	-4.6	-1.8	4.4	-0.4	4.0	1.8
7	1.2	0.1	2.6	-0.4	7.7	4.4
8	1.7	-1.2	2.2	-0.2	6.2	0.8
9	1.5	1.9	1.9	-0.3	-0.5	-1.0
10	-1.5	-0.9	-0.2	-0.8	3.5	1.8
11	-1.4	1.3	-3.3	-0.1	7.7	3.9
Average	-1.2	-0.5	1.9	-0.2	1.9	1.0

*Blank properties used for basis of percentage calculation.

**Negative values represents reduction in property from blank to box.

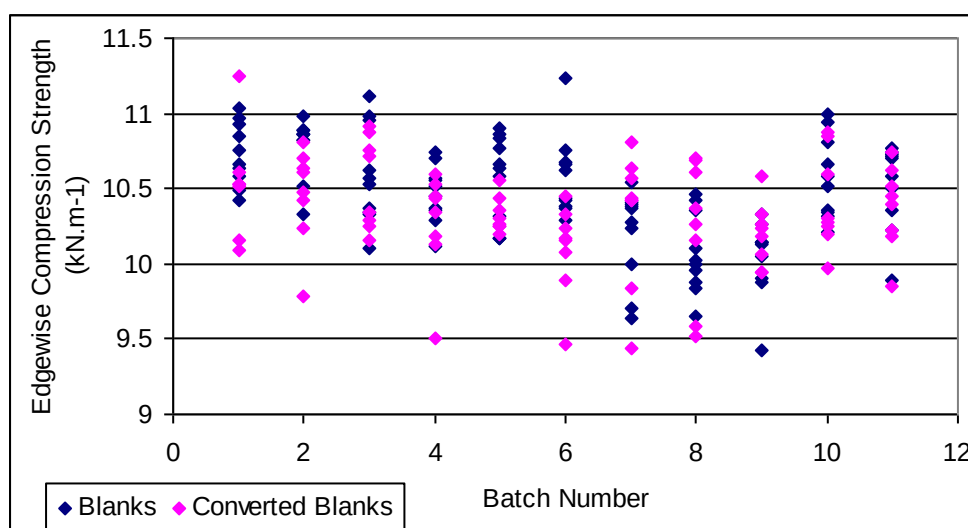


Figure A7.1 Edgewise compression strength of blanks and converted blanks.

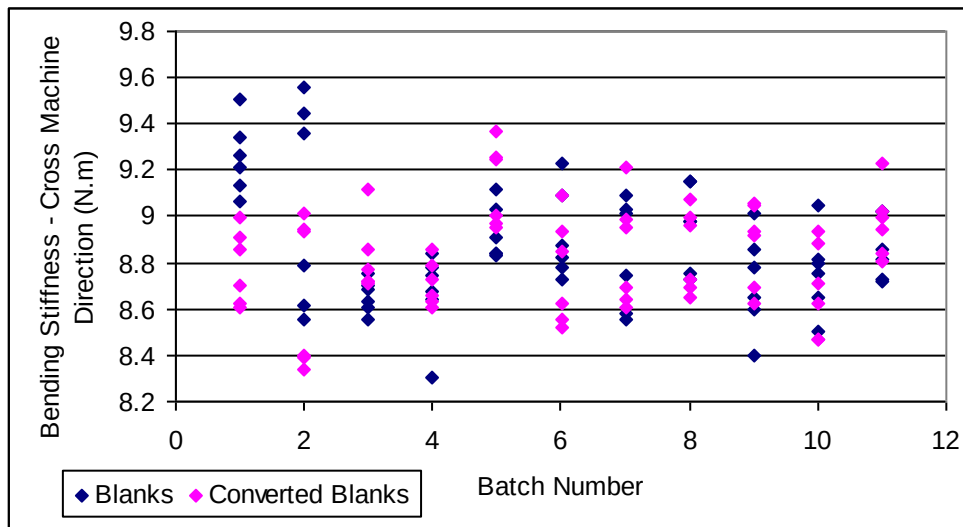


Figure A7.2 Cross machine bending stiffness of blanks and converted blanks.

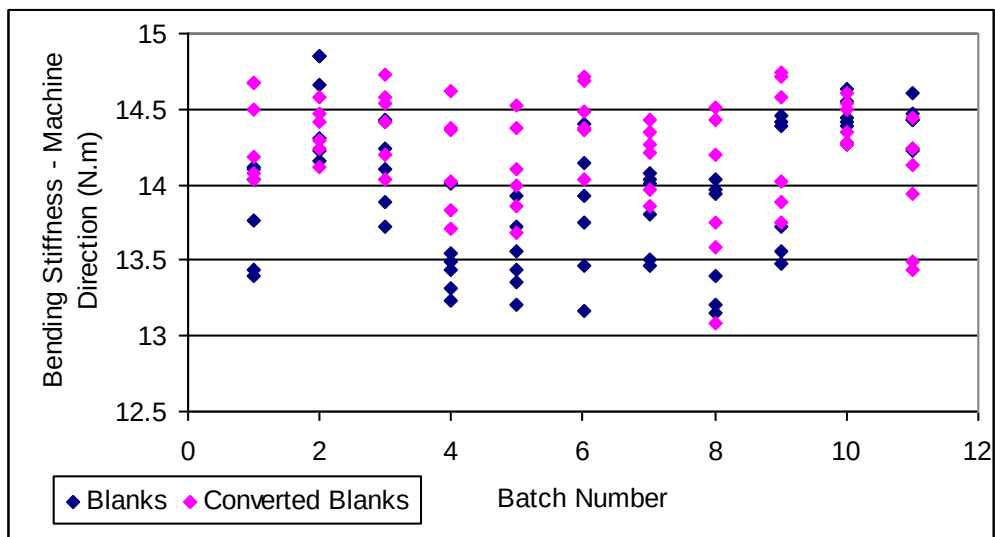


Figure A7.3 Machine bending stiffness of blanks and converted blanks.

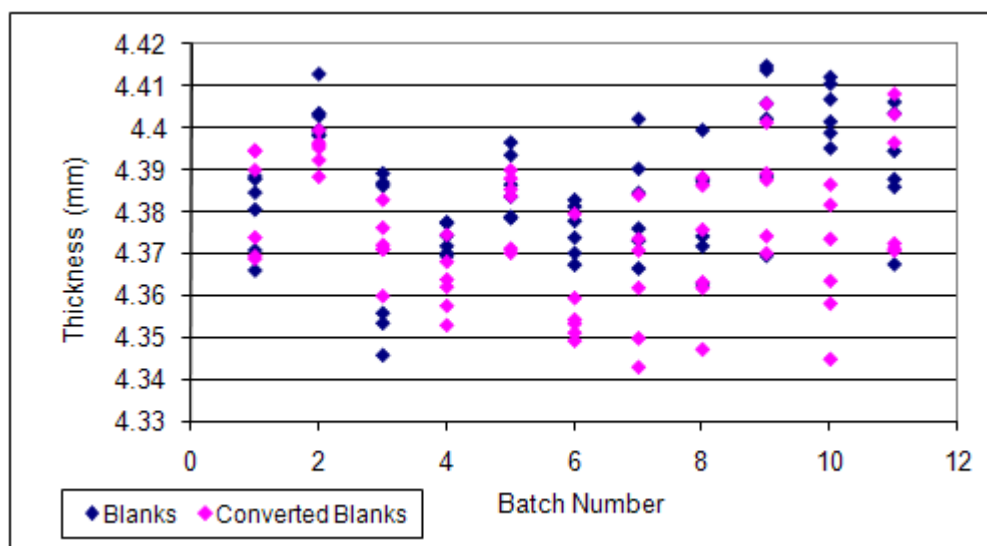


Figure A7.4 Thickness of blanks and converted blanks.

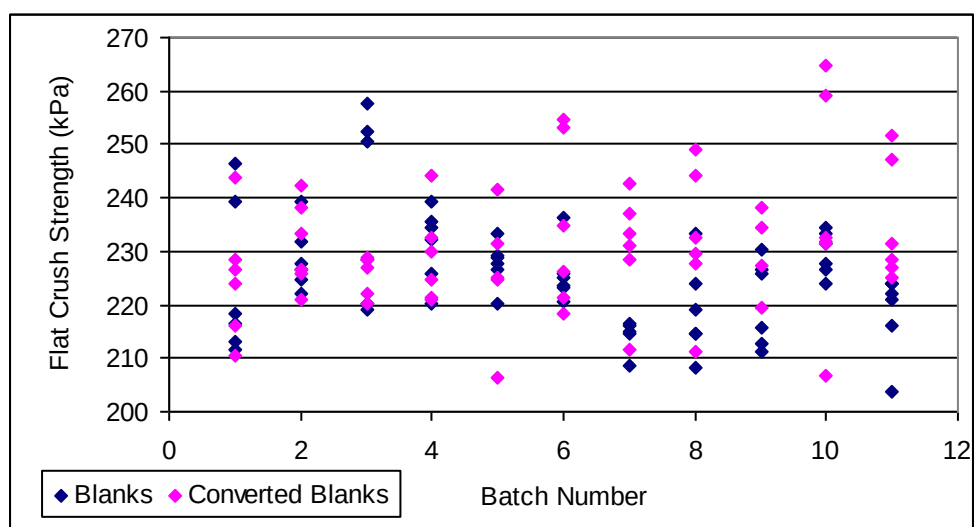


Figure A7.5 Flat crush strength of blanks and converted blanks.

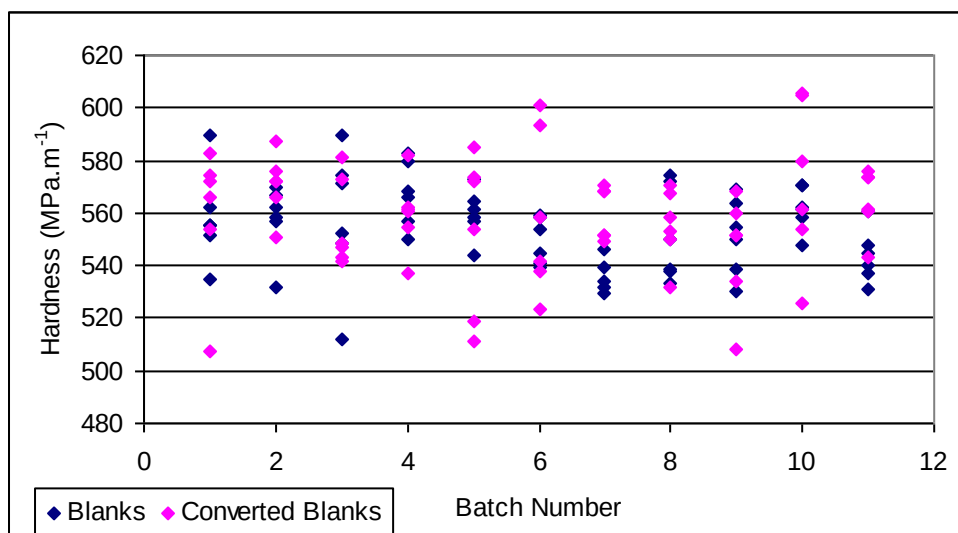


Figure A7.6 Hardness values of blanks and converted blanks.

A7.4 Conclusions

This experiment established that the corrugated fibreboard blanks could be converted into boxes without being significantly damaged in the process. Further analysis of the converter process could not be justified given the findings of the experiment.

Appendix A8

Development of an Online Moisture Sensor

A8.1 Introduction

A moisture sensor was required for measuring the moisture content of the fluting medium just prior to the single facer on a commercial corrugator (Carter Holt Harvey Ltd., Levin). The main requirements for the moisture sensor were: accurate to within $\pm 0.25\%$ moisture (dry basis), operate without contacting the fluting medium and able to be manufactured relatively inexpensively by staff at Massey University, Palmerston North

James (1988) listed different types of moisture sensors for wood: conductance type (resistance-type), power-loss type and capacitance types. The sensors use the relationship between the wood direct current conductivity and moisture content, dielectric loss factor and moisture content and dielectric constant and moisture content respectively (James, 1988).

The conductance type sensors rely on contact with the wood either via surface-contact electrodes or pin-type electrodes (James, 1988). This type of sensor was not suitable for measuring the moisture content of the fluting medium between the preconditioner and the steam shower due to the need for the sensors to contact the surface of the sample. The power-loss type and capacitance-type measure their respective properties via an electric field penetrating the sample.

The portable power-loss type and capacitance-type measuring sensors outlined by James (1988) were all placed on the samples. This was probably to ensure the transmitter and sensor components of the moisture sensors were all at a fixed distance from the sample. It may be possible for these sensors to be secured in a fixed position so that the sensor to fluting medium distance is constant without the sensor contacting the sample.

O'Mahony *et al.* (1998) presented the design of a moisture sensor that used the relationship between near infrared reflectance/transmittance and moisture content. Near infrared sensors were less suitable for measuring the moisture content of the

fluting medium as based on the O'Mahony *et al.* (1998) design, the sensor required moving parts which complicated the design.

A8.2 First Prototype

The mode of operation for the first prototype was chosen based on the availability of a portable capacitance meter. The first prototype consisted of a pair of aluminium flat bars connected to the capacitance meter (Figure A8.1). To test the sensitivity of the prototype, moisture was added with a spray bottle to samples of paper to produce a series of paper samples with a range of moisture contents. The moistened samples were then sealed in plastic bags to allow the moisture to evenly distribute over the entire sample for two days. The paper samples were separately placed 10 mm above the aluminium bars under tension. The paper samples were then oven dried to determine their moisture content. The first prototype produced promising initial results (Figure A8.2) although the sensitivity of the capacitance sensor output declined with diminishing moisture content.

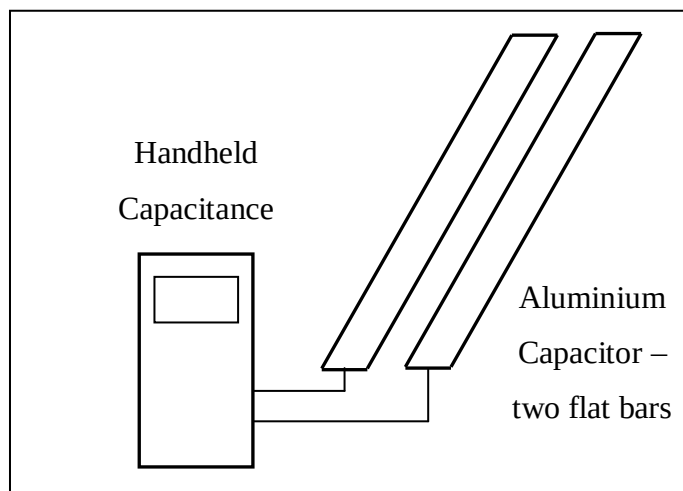


Figure A8.1 Schematic diagram of first prototype moisture sensor.

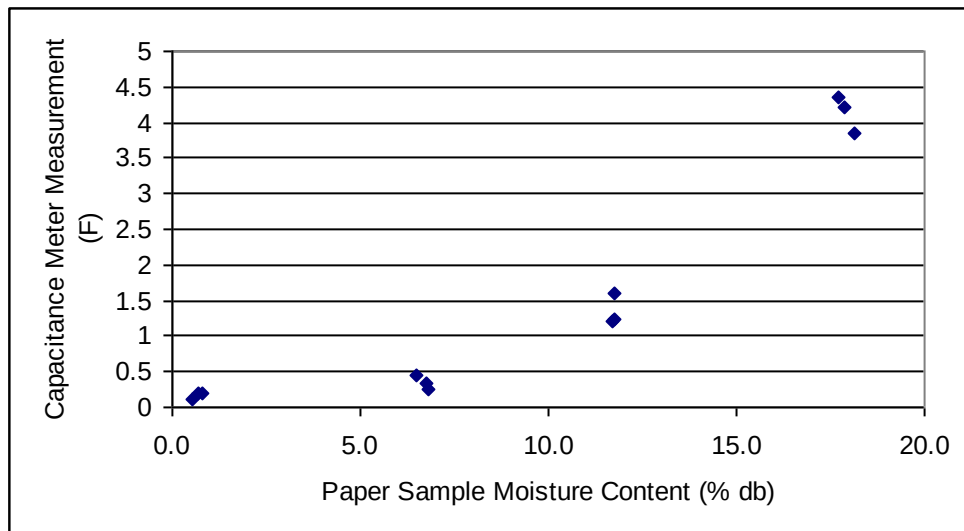


Figure A8.2 Measurements from a laboratory trial of the first prototype moisture sensor.

A8.3 Second Prototype

Following the success of the first prototype, a second capacitance based prototype moisture sensor was developed. The sensor consisted of an aluminium capacitor, a signal generator, a converter and a data logger or computer (Figure A8.3). The signal generator fed a 1 MHz square wave signal to the capacitor via the converter box. The 1 MHz signal was chosen as it is significantly higher than any frequency used on a commercial corrugator. The aluminium capacitor was placed within 30 mm of the paper sample in the cross machine direction. The converter relayed the capacitance of the capacitor to the data logger or computer which was also used to display and record the output of the converter.

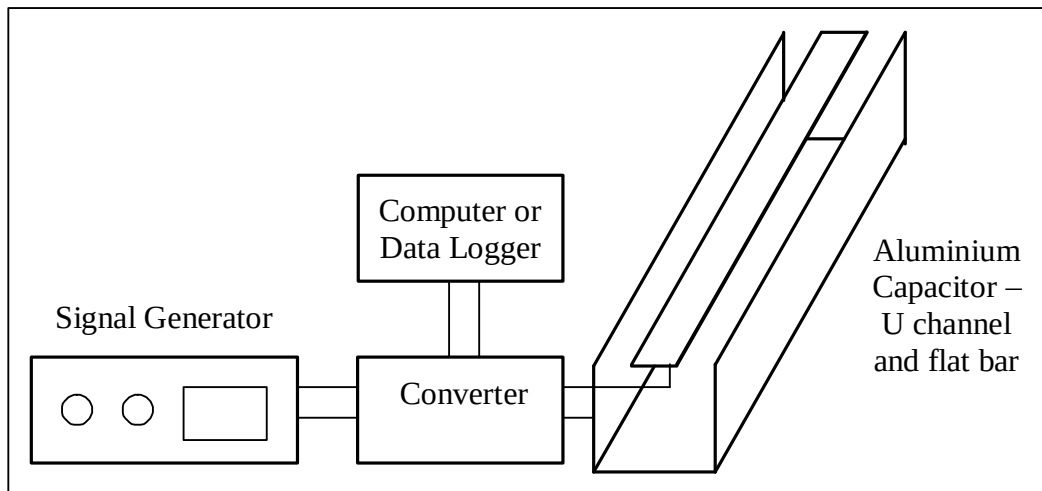


Figure A8.3 Schematic diagram of second prototype moisture sensor.

The capacitance of the aluminium U-channel and flat bar responded to increases in the quantity of moisture in the fluting medium. The quantity of moisture in the fluting medium was affected by the fluting medium moisture content and grammage. Oven dried fluting medium did not increase the capacitance of the aluminium capacitor indicating that the sensor only responded to moisture and not dry matter. The capacitance of the aluminium rods were also affected by metal machinery up to a distance of approximately 0.5m away and by the distance between the aluminium rods and the fluting medium.

The converter produced a DC voltage output proportional to the capacitance of the aluminium rods which was recorded by the data logger or laptop computer. The gain and offset of the voltage output could be adjusted to account for the interference of the metal machinery and to ensure that the output does not ‘max out’ with increasing moisture quantity. The moisture quantity was a function of the sample basis weight and moisture content.

The second prototype was tested in the laboratory in the same manor as the first prototype. The second prototype produced promising results in the laboratory (Figure A8.4) with a linear relationship between the sensor output and sample moisture content.

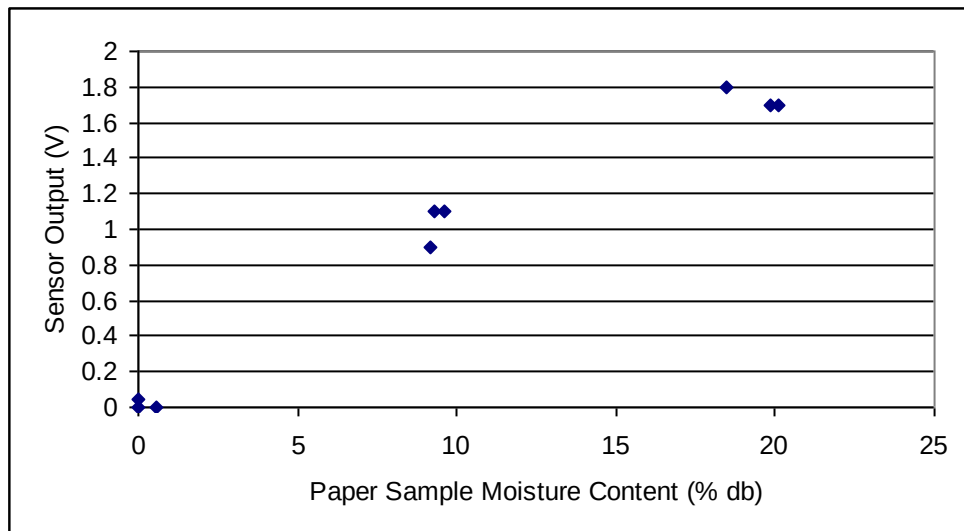


Figure A8.4 Measurements from a laboratory trial of the second prototype moisture sensor.

As the sensor was affected by the metal machinery and the distance between the aluminium capacitor and the fluting medium, online calibration was required. An attempt was made to calibrate the sensor by taking samples of fluting medium near the moisture sensor, however as the samples were at approximately 100°C, the sample moisture evaporated before the samples could be sealed in plastic bags for weighing. As the moisture sensor could not be calibrated in situ, the moisture sensor could not be used to accurately measure the moisture content of the fluting medium prior to the single-facer

A8.4 Discussion

The two moisture sensors trialled in a laboratory showed that the moisture content of a single paper sheet could be measured using the relationship between the capacitance of an aluminium capacitor placed close to the paper sheet and the paper moisture content. As the second more advanced prototype could not be calibrated online, it could not be used to measure the fluting medium moisture content. The ability to measure the fluting medium moisture content before the single-facer would have greatly assisted in the validation of the mathematical model of fluting medium moisture content and temperature.

Appendix A9

Development of the Numerical Solution for the Computer Programme MATLAB

A9.1 Introduction

The over all heat and mass balances listed in section 7.4 are partial differential equations that are difficult to solve. A numerical solution involves converting the partial differential equations into ordinary differential equations that calculate the heat and mass flow to and from thin layers of the fluting medium in the thickness direction.

A9.2 Mass Balances

A9.2.1 Internal Nodes

A9.2.1.1 Mass Flows

Mass transfer to and from the internal nodes consists of water vapour diffusion and transport via bulk vapour flow. Figure A9.1 depicts the conventions used in terms of the direction of mass flow and labelling of the nodes. The worded mass balance for the internal nodes is given by equation (A9.1).

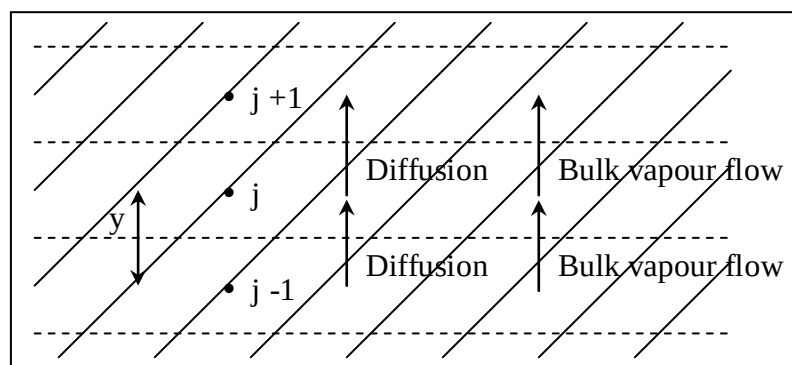


Figure A9.1 Conventions used for position of nodes j , $j-1$ and $j+1$ within paper web and the direction of mass flow for the internal mass balance.

$$\begin{aligned}
&\text{Rate of accumulation of moisture in } j^{\text{th}} \text{ node} = \text{Rate of diffusion from } j-1^{\text{th}} \text{ node} - \text{Rate of diffusion to } j+1^{\text{th}} \text{ node} \\
&\quad + \text{Rate of flow from } j-1^{\text{th}} \text{ node} - \text{Rate of flow to } j+1^{\text{th}} \text{ node}
\end{aligned}
\tag{A9.1}$$

A9.2.1.2 Mass Balance Equation

The diffusion coefficients and the vapour density, permeability and viscosity were dependent on the temperature and/or the moisture content of the fluting medium. Therefore, these properties were calculated using the average temperature and/or moisture content of the two corresponding nodes. For example, for mass transfer to node j the diffusion coefficient was calculated using the average moisture content for nodes $j-1$ and j . The mass balance equation for internal nodes (equation A9.2) was rearranged to make the derivative of moisture content and time the subject (equation A9.3).

$$\begin{aligned}
\frac{b_w}{J.y} y.A \frac{dM_j}{dt} = & \frac{D_{j-1,j} A}{y} (\rho_{v,j-1} - \rho_{v,j}) - \frac{D_{j,j+1} A}{y} (\rho_{v,j} - \rho_{v,j+1}) \\
& + \frac{\rho_{v,j-1,j} K_{v,j-1,j} A}{\mu_{v,j-1,j} y} (P_{j-1} - P_j) - \frac{\rho_{v,j,j+1} K_{v,j,j+1} A}{\mu_{v,j,j+1} y} (P_j - P_{j+1})
\end{aligned}
\tag{A9.2}$$

$$\frac{dM_j}{dt} = \left[\frac{D_{j-1,j}}{y} (\rho_{v,j-1} - \rho_{v,j}) - \frac{D_{j,j+1}}{y} (\rho_{v,j} - \rho_{v,j+1}) + \frac{\rho_{v,j-1,j} K_{v,j-1,j}}{\mu_{v,j-1,j} y} (P_{j-1} - P_j) - \frac{\rho_{v,j,j+1} K_{v,j,j+1}}{\mu_{v,j,j+1} y} (P_j - P_{j+1}) \right] \frac{J}{b_w}
\tag{A9.3}$$

where	M	=	moisture content ($\text{kg}_{\text{water}} \cdot \text{kg}_{\text{fibre}}^{-1}$)
	A	=	area (m^2)
	t	=	time (seconds)
	D	=	diffusion coefficient ($\text{m}^2 \cdot \text{s}^{-1}$)
	y	=	node thickness (m)
	ρ_v	=	water vapour density ($\text{kg} \cdot \text{m}^{-3}$)
	κ_v	=	permeability (m^2)
	μ_v	=	water vapour viscosity ($\text{kg} \cdot \text{m}^{-1} \cdot \text{s}^{-1}$)

P = total pressure (Pa)
 J = number of nodes minus one
 b_w = basis weight (kg.m^{-2})
 subscripts j = j^{th} node
 $j-1$ = node below j^{th} node
 $j+1$ = node above j^{th} node

A9.2.2 Top Boundary Node

A9.2.2.1 Surface in Contact with Ambient Air

The modes of mass transfer to and from the top boundary node, when the fluting medium was in contact with air, were the same as for an internal node (section A9.2.1.1). The top layer with node label $J+1$ were half as thick as internal layers. Figure A9.2 depicts the conventions used and the worded mass balance for the top boundary node is given by equation (A9.4).

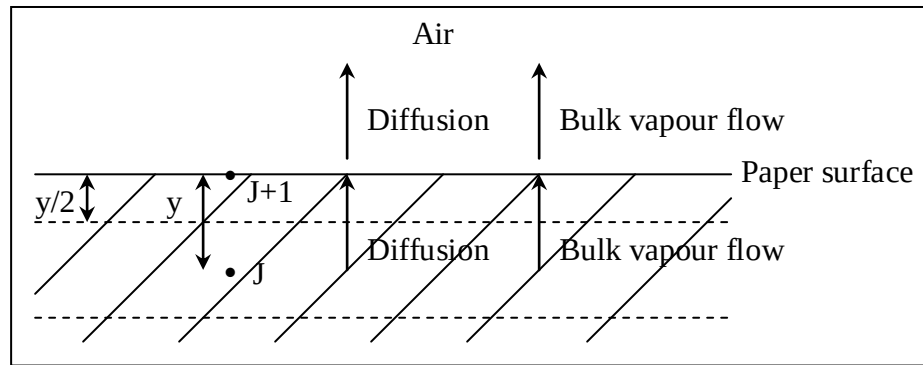


Figure A9.2 Conventions used for position of nodes J and J+1 and direction of mass flow for the top boundary mass balance.

$$\begin{aligned}
 \text{Rate of accumulation of moisture at node J+1} &= \text{Rate of diffusion from node J} - \text{Rate of diffusion to Air} \\
 &+ \text{Rate of bulk flow from node J} - \text{Rate of bulk flow to Air}
 \end{aligned}$$

(A9.4)

A9.2.2.2 Surface in Contact with Preconditioner

The modes of mass transfer to and from the top boundary node, when the fluting medium was in contact with the preconditioner, were reduced to diffusion and bulk

vapour flow to the top node with no mass flow from the top node. Figure A9.3 depicts the conventions used and the worded mass balance for the top boundary node is given by equation (A9.5).

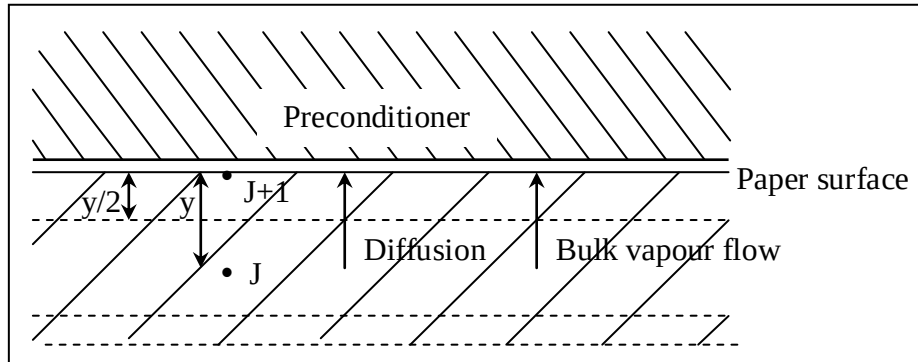


Figure A9.3 Convention used for position of nodes J and J+1 and the direction of mass flow for the internal mass balance.

$$\begin{array}{ccccc} \text{Rate of} & & \text{Rate of} & & \text{Rate of bulk} \\ \text{accumulation} & = & \text{diffusion from} & + & \text{flow from node} \\ \text{of moisture at} & & \text{node J} & & \text{J} \\ \text{node J+1} & & & & \end{array}$$

(A9.5)

A9.2.2.3 Mass Balance Equation

A single mass balance equation was formulated for the top boundary nodes for the two different boundary conditions when the fluting medium top surface was either in contact with the ambient air or the preconditioner (equation A9.6). Equation (A9.6) was rearranged to make the derivative of moisture content and time the subject (equation A9.7). The absence of convection, diffusion and bulk vapour flow from the top boundary node could be accounted for in the MATLAB programme by setting the appropriate convection-mass transfer coefficient, diffusion coefficient and permeability to 0 in equation (A9.7). A mass transfer coefficient was used to calculate the rate of mass transfer from the surface.

$$\frac{b_w}{J.y} \frac{A.y}{2} \frac{dM_{J+1}}{dt} = \frac{D_{f J:J+1} \cdot A}{y} (\rho_{v,J} - \rho_{v,J+1}) - h_{mT} A (\rho_{v,J+1} - \rho_A) + \frac{\rho_{v,J:J+1} \kappa_{v,J:J+1} \cdot A}{\mu_{v,J:J+1} y} (P_J - P_{J+1}) - \frac{\rho_{v,J+1AT} \kappa_{AT} A}{\mu_{v,J+1A} y} (P_{J+1} - P_{atm}) \quad (A9.6)$$

$$\frac{dM_{J+1}}{dt} = \left[\frac{D_{f J:J+1}}{y} (\rho_{v,J} - \rho_{v,J+1}) - h_{mT} (\rho_{v,J+1} - \rho_A) + \frac{\rho_{v,J:J+1} \kappa_{v,J:J+1}}{\mu_{v,J:J+1} y} (P_J - P_{J+1}) - \frac{\rho_{v,J+1AT} \kappa_{AT}}{\mu_{J+1A} y} (P_{J+1} - P_{atm}) \right] \frac{2.J}{b_w} \quad (A9.7)$$

where h_{mT} = mass transfer coefficient for the top surface (kg.s^{-1}) (refer to equation A9.8)
 ρ_A = ambient air water vapour density (kg.m^{-3})
 κ_{AT} = permeability of ambient air at top surface (m^2) (refer to equation A9.9)
subscripts J = node J
 A = surrounding air
 atm = atmospheric

$$h_{mT} = \begin{bmatrix} h_{m1} \text{ for Process Sections 1, 3, 5 and 7} \\ h_{m2} \text{ for Process Sections 2 and 4} \\ h_{m3} \text{ for Process Section 6} \end{bmatrix} \quad (A9.8)$$

where h_{m1} = mass transfer coefficient for planar surfaces (kg.s^{-1})
 h_{m2} = mass transfer coefficient for curved surfaces (kg.s^{-1})
 h_{m3} = mass transfer coefficient at preconditioner ($=0.0 \text{ kg.s}^{-1}$)

Refer to Figure 7.1 and Table 7.1 for clarification of the process sections.

$$\kappa_{AT} = \begin{bmatrix} \kappa_A \text{ for Process Sections 1, 2, 3, 5, 6 and 7} \\ \kappa_P \text{ for Process Section 4} \end{bmatrix} \quad (A9.9)$$

where κ_A = permeability of ambient air (m^2)
 κ_P = permeability of preconditioner ($=0.0 \text{ m}^2$)

A9.2.3 Bottom Boundary Node

A9.2.3.1 Surface in Contact with Ambient Air

The modes of mass transfer to and from the bottom node, when the fluting medium is in contact with air, are a mirror image of the top node mass transfer modes in section A9.2.2.1. Figure A9.4 depicts the conventions used and the worded mass balance for the bottom boundary node is given by equation (A9.10). A separate diagram and worded mass balance was not presented for when the fluting medium passes over the steam shower, as during this section of the process the ambient air temperature and vapour pressure would be adjusted to model the effect of the steam shower.

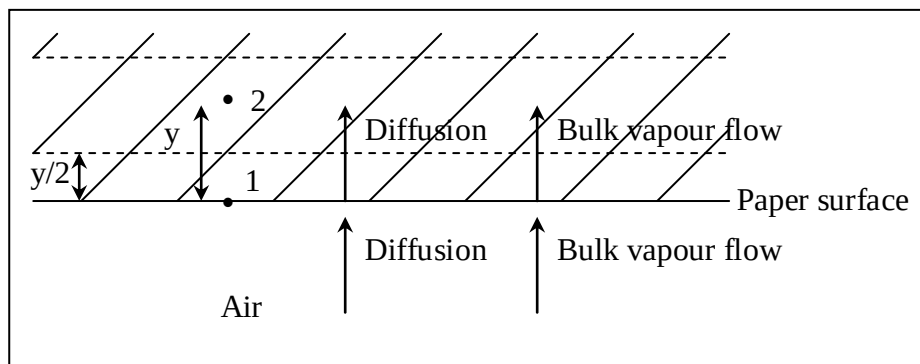


Figure A9.4 Convention used for position of nodes 1 and 2 and direction of mass flow for bottom boundary mass balance.

$$\begin{array}{rclclcl}
 \text{Rate of} & & \text{Rate of} & & \text{Rate of} \\
 \text{accumulation} & = & \text{diffusion from} & - & \text{diffusion to} \\
 \text{of moisture at} & & \text{Air} & & \text{node 2} \\
 \text{node 1} & & & & \\
 & + & \text{Rate of bulk} & - & \text{Rate of bulk} \\
 & & \text{flow from Air} & & \text{flow to node 2}
 \end{array}$$

(A9.10)

A9.2.3.2 Surface in Contact with Preconditioner

The modes of mass transfer to and from the bottom node, when the fluting medium is in contact with the preconditioner, are a mirror image of the top node mass transfer modes in section A9.2.2.2. Figure A9.5 depicts the conventions used and the worded mass balance for the bottom boundary node is given by equation (A9.11).

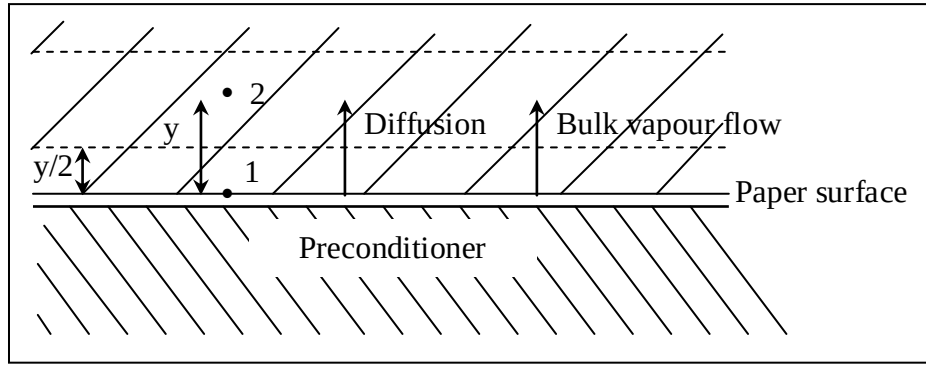


Figure A9.5 Convention used for position of nodes 1 and 2 and the direction of mass flow for the internal mass balance.

$$\begin{array}{ccccc} \text{Rate of} & & \text{Rate of} & & \text{Rate of bulk} \\ \text{accumulation} & = & \text{diffusion to} & - & \text{flow to node 2} \\ \text{of moisture at} & & \text{node 2} & & \\ \text{node 1} & & & & \end{array}$$

(A9.11)

A9.2.3.3 Mass Balance Equation

A single mass balance equation was formulated for the bottom boundary node for the three different boundary conditions when the fluting medium bottom surface was either in contact with the ambient air or the preconditioner or steam from the steam shower (equation A9.12). Equation (A9.12) was rearranged to make the derivative of mass and time the subject (equation A9.13).

$$\begin{aligned} \frac{b_w}{J.y} \frac{A.y}{2} \frac{dM_1}{dt} = & h_{mB} A (\rho_{AB} - \rho_{v,1}) - \frac{D_{12} A}{y} (\rho_{v,1} - \rho_{v,2}) \\ & + \frac{\rho_{v,AB,1} K_{v,AB,1} A}{\mu_{v,1} y} (P_{atm} - P_1) - \frac{\rho_{v,12} K_{v,12} A}{\mu_{v,12} y} (P_1 - P_2) \end{aligned} \quad (A9.12)$$

$$\frac{dM_1}{dt} = \left[\begin{aligned} & h_{mB} (\rho_{AB} - \rho_{v,1}) - \frac{D_{12}}{y} (\rho_{v,1} - \rho_{v,2}) \\ & + \frac{\rho_{v,AB,1} K_{v,AB,1}}{\mu_{v,1} y} (P_A - P_1) - \frac{\rho_{v,12} K_{v,12}}{\mu_{v,12} y} (P_1 - P_2) \end{aligned} \right] \frac{2.J}{b_w} \quad (A9.13)$$

where h_{mB} = mass transfer coefficient for the bottom surface (kg.s^{-1}) (refer to equation A9.14)
 ρ_{AB} = vapour pressure under fluting medium (Pa) (refer to equation A9.15)
 κ_{AB} = permeability at fluting medium bottom surface (m^2) (refer to equation A9.16)
subscripts $1,2$ = nodes 1 and 2
 AB = surrounding air below bottom surface

$$h_{mB} = \begin{bmatrix} h_{m1} \text{ for Process Sections 1, 3, 5, 6 and 7} \\ h_{m2} \text{ for Process Section 4} \\ h_{m3} \text{ for Process Section 2} \end{bmatrix} \quad (\text{A9.14})$$

$$\rho_{AB} = \begin{bmatrix} \rho_A \text{ for Process Sections 1, 2, 3, 4, 5 and 7} \\ \rho_S \text{ for Process Section 6} \end{bmatrix} \quad (\text{A9.15})$$

where ρ_S = water vapour density at steam shower (kg.m^{-3})

$$\kappa_{AB} = \begin{bmatrix} \kappa_A \text{ for Process Sections 1, 3, 4, 5, 6 and 7} \\ \kappa_P \text{ for Process Section 2} \end{bmatrix} \quad (\text{A9.16})$$

A9.3 Heat Balances

A9.3.1 Internal Nodes

A9.3.1.1 Heat Flows

Heat transfer within the fluting medium web consists of conduction and heat transfer accompanying mass transfer. Figure A9.6 depicts the conventions used and the worded heat balance for the internal nodes is given by equation (A9.17).

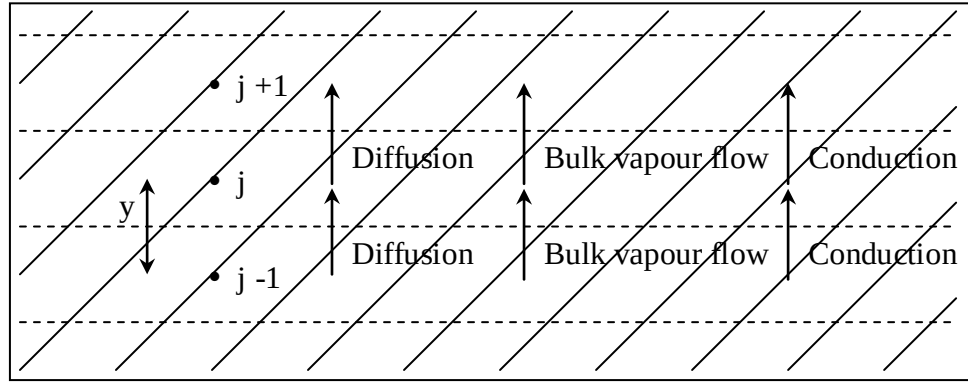


Figure A9.6 Convention used for the direction of heat flow for the internal heat balance.

$$\begin{aligned}
 \text{Rate of accumulation of heat at } j^{\text{th}} \text{ node} &= \text{Rate of heat transfer via diffusion from } j-1^{\text{th}} \text{ node} - \text{Rate of heat transfer via diffusion to } j+1^{\text{th}} \text{ node} \\
 &+ \text{Rate of heat transfer via bulk flow from } j-1^{\text{th}} \text{ node} - \text{Rate of heat transfer via bulk flow to } j+1^{\text{th}} \text{ node} \\
 &+ \text{Rate of heat transfer via conduction from } j-1^{\text{th}} \text{ node} - \text{Rate of heat transfer via conduction to } j+1^{\text{th}} \text{ node}
 \end{aligned}$$

(A9.17)

A9.3.1.2 Heat Balance Equation

The thermal conductivity, water vapour enthalpy, heat of sorption and specific heat capacity were dependent on the temperature and/or the moisture content of the fluting medium. Therefore, these properties were calculated using the average temperature and/or moisture content of the two corresponding nodes. The heat balance equation for internal nodes (equation A9.18) was rearranged to make the derivative of temperature and time the subject (equation A9.19).

$$\begin{aligned}
\frac{b_w(1+M_j)}{J.y} A.y.c_{com,j} \frac{d\theta_j}{dt} = & \frac{D_{j-1,j}A}{y} (\rho_{v,j-1} - \rho_{v,j}) (H_{j-1,j} + Q_{j-1,j}) \\
& - \frac{D_{j,j+1}A}{y} (\rho_{v,j} - \rho_{v,j+1}) (H_{j,j+1} + Q_{j,j+1}) \\
& + \frac{\rho_{v,j-1,j}K_{v,j-1,j}A}{\mu_{v,j-1,j}Y} (P_{j-1} - P_j) (H_{j-1,j} + Q_{j-1,j}) \\
& - \frac{\rho_{v,j,j+1}K_{v,j,j+1}A}{\mu_{v,j,j+1}Y} (P_j - P_{j+1}) (H_{j,j+1} + Q_{j,j+1}) \\
& + \frac{\lambda_{com,j-1,j}A}{y} (\theta_{j-1} - \theta_j) - \frac{\lambda_{com,j,j+1}A}{y} (\theta_j - \theta_{j+1})
\end{aligned}
\tag{A9.18}$$

$$\frac{d\theta_j}{dt} = \left[\begin{aligned} & \frac{D_{j-1,j}}{y} (\rho_{j-1} - \rho_j) (H_{j-1,j} + Q_{j-1,j}) \\ & - \frac{D_{j,j+1}}{y} (\rho_j - \rho_{j+1}) (H_{j,j+1} + Q_{j,j+1}) \\ & + \frac{\rho_{v,j-1,j}K_{v,j-1,j}}{\mu_{v,j-1,j}Y} (P_{j-1} - P_j) (H_{j-1,j} + Q_{j-1,j}) \\ & - \frac{\rho_{v,j,j+1}K_{v,j,j+1}}{\mu_{v,j,j+1}Y} (P_j - P_{j+1}) (H_{j,j+1} + Q_{j,j+1}) \\ & + \frac{\lambda_{com,j-1,j}}{y} (\theta_{j-1} - \theta_j) - \frac{\lambda_{com,j,j+1}}{y} (\theta_j - \theta_{j+1}) \end{aligned} \right] \frac{J}{b_w(1+M_j)c_{com,j}}
\tag{A9.19}$$

where θ = temperature ($^{\circ}\text{C}$)
 H = water vapour enthalpy (J.kg^{-1})
 Q = heat of sorption (J.kg^{-1})
 λ = thermal conductivity ($\text{W.m}^{-1}\text{K}^{-1}$)
 c = combined (fibre, liquid water and water vapour) specific heat capacity ($\text{J.kg}^{-1}\text{K}^{-1}$)

A9.3.2 Top Boundary Node

A9.3.2.1 Surface in Contact with Ambient Air

The modes of heat transfer to and from the top boundary node, when the fluting medium is in contact with air, are the same for an internal node except there is convection from the surface to the air and no conduction from the surface. Figure A9.7 depicts the conventions used and the worded heat balance for the top boundary nodes is given by equation (A9.20).

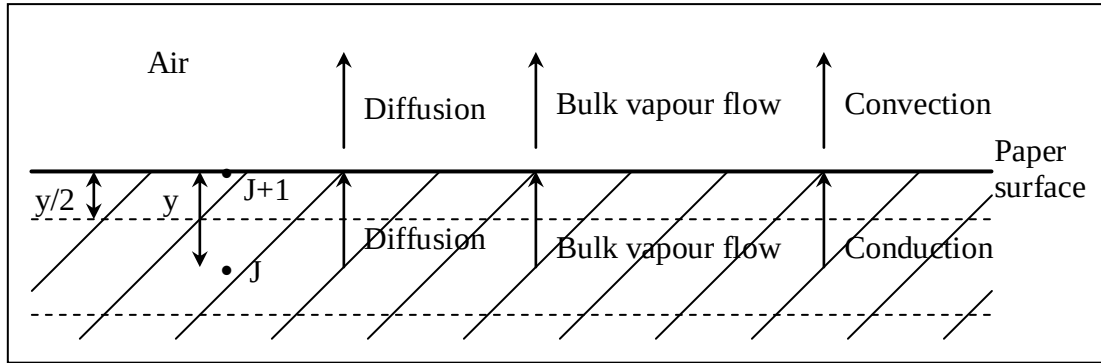


Figure A9.7 Convention used for direction of heat flow for the top boundary heat balance with the surface in contact with ambient air.

$$\begin{array}{rclcl}
 \text{Rate of} & & \text{Rate of heat} & & \text{Rate of heat} \\
 \text{accumulation} & = & \text{transfer via} & - & \text{transfer via} \\
 \text{of heat at node} & & \text{diffusion from} & & \text{diffusion to Air} \\
 \text{J+1} & & \text{node J} & & \\
 & & + & & \\
 & & \text{Rate of heat} & - & \text{Rate of heat} \\
 & & \text{transfer via} & & \text{transfer via} \\
 & & \text{bulk flow} & & \text{bulk flow to} \\
 & & \text{from node J} & & \text{Air} \\
 & & + & & \\
 & & \text{Rate of heat} & - & \text{Rate of heat} \\
 & & \text{transfer via} & & \text{transfer via} \\
 & & \text{conduction} & & \text{convection to} \\
 & & \text{from node J} & & \text{Air}
 \end{array}$$

(A9.20)

A9.3.2.2 Surface in Contact with Preconditioner

The modes of heat transfer to and from the top boundary node, when the fluting medium was in contact with the preconditioner, were reduced to conduction and heat transfer to the surface via mass transfer, and conduction from the surface. Figure A9.8 depicts the conventions used and the worded mass balance for the top boundary node is given by equation (A9.21).

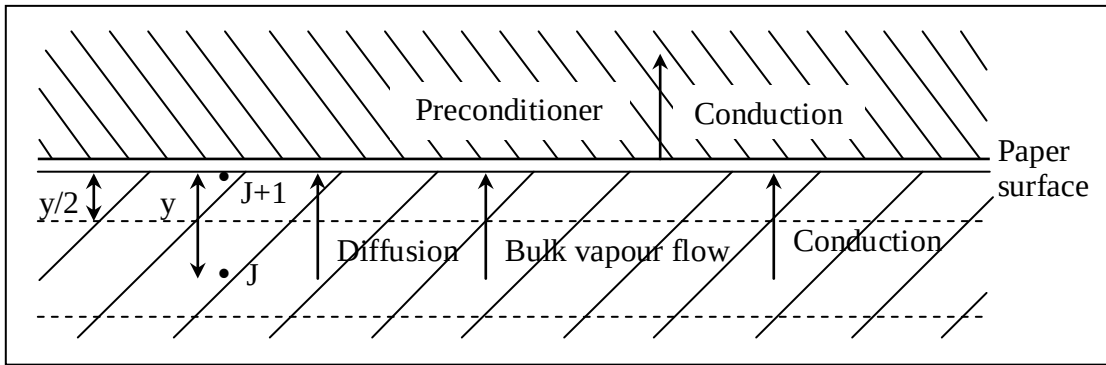


Figure A9.8 Convention used for direction of heat flow for the top boundary heat balance with the surface in contact with the preconditioner.

$$\begin{aligned}
 \text{Rate of accumulation of heat at node J+1} &= \text{Rate of heat transfer via diffusion from node J} + \text{Rate of heat transfer via bulk flow from node J} \\
 &+ \text{Rate of heat transfer via conduction from node J} - \text{Rate of heat transfer to Preconditioner}
 \end{aligned}$$

(A9.21)

A9.3.2.3 Heat Balance Equation

The water vapour enthalpy and heat of sorption values for the mass flow terms between the surface node J+1 and the air, were calculated using the temperature at node J+1. The only situation that there was expected to be flow of moisture vapour from the air to the fluting medium surface was between the roll-stand and the preconditioner. In this situation the temperature at node J+1 will not be significantly different from that of the ambient air. The enthalpy and heat of sorption was calculated this way because, if the water vapour enthalpy was calculated as a function of the top surface node and air temperature, the enthalpy would be under estimated when there is a large difference between the top surface and air temperature, and the mass flow is positive.

The heat transfer between the preconditioner and the fluting medium surface was treated like a convection heat transfer term with a contact heat transfer coefficient and constant preconditioner temperature. The contact heat transfer coefficient quantifies the heat transfer resistance between the preconditioner and the fluting medium surface and through the preconditioner.

The heat balance equation for the top node (equation A9.22) was rearranged to make the derivative of temperature and time the subject (equation A9.23).

$$\begin{aligned} \frac{b_w(1+M_{J+1})}{J.y} \frac{A.y}{2} c_{com.J+1} \frac{d\theta_{J+1}}{dt} = & \frac{D_{J:J+1}A}{y} (\rho_{v.J} - \rho_{v.J+1})(H_{J:J+1} + Q_{J+1}) \\ & - h_{mT}.A(\rho_{v.J+1} - \rho_{v.A})(H_{J+1} + Q_{J+1}) \\ & + \frac{\rho_{v.J:J+1}K_{v.J:J+1}A}{\mu_{v.J:J+1}y} (P_J - P_{J+1})(H_{J:J+1} + Q_{J+1}) \\ & - \frac{\rho_{v.J+1}A K_{AT}}{\mu_{v.J+1}y} (P_{J+1} - P_{atm})(H_{J+1} + Q_{J+1}) \\ & + \frac{\lambda_{com.J:J+1}A}{y} (\theta_J - \theta_{J+1}) - h_{cT}A(\theta_{J+1} - \theta_{AT}) \end{aligned} \quad (A9.22)$$

$$\frac{d\theta_{J+1}}{dt} = \left[\begin{aligned} & \frac{D_{J:J+1}}{y} (\rho_{v.J} - \rho_{v.J+1})(H_{J:J+1} + Q_{J+1}) \\ & - h_{mT} (\rho_{v.J+1} - \rho_{v.A})(H_{J+1} + Q_{J+1}) \\ & + \frac{\rho_{v.J:J+1}K_{v.J:J+1}}{\mu_{v.J:J+1}y} (P_{J+1} - P_J)(H_{J:J+1} + Q_{J+1}) \\ & - \frac{\rho_{v.J+1}A K_{AT}}{\mu_{v.J+1}y} (P_{J+1} - P_{atm})(H_{J+1} + Q_{J+1}) \\ & + \frac{\lambda_{com.J:J+1}}{y} (\theta_J - \theta_{J+1}) - h_{cT} (\theta_{J+1} - \theta_{AT}) \end{aligned} \right] \frac{2.J}{b_w(1+M_{J+1})c_{com.J+1}} \quad (A9.23)$$

where h_{cT} = convection coefficient for top surface ($\text{W.m}^{-2}\text{K}^{-1}$) (refer to equation A9.24)
 θ_{AT} = temperature of ambient air or preconditioner ($^{\circ}\text{C}$) (refer to equation A9.25)

$$h_{cT} = \begin{bmatrix} h_{c1} \text{ for Process Sections 1, 3, 5, 6 and 7} \\ h_{c2} \text{ for Process Section 2} \\ h_{c3} \text{ for Process Section 4} \end{bmatrix} \quad (\text{A9.24})$$

where h_1 = convection heat transfer coefficient for planar surfaces ($\text{W.m}^{-2}\text{K}^{-1}$)
 h_2 = convection heat transfer coefficient for curved surfaces ($\text{W.m}^{-2}\text{K}^{-1}$)
 h_3 = heat transfer coefficient at fluting medium-preconditioner interface ($\text{W.m}^{-2}\text{K}^{-1}$)

$$\theta_{AT} = \begin{bmatrix} \theta_A \text{ for Process Sections 1, 2, 3, 5, 6 and 7} \\ \theta_P \text{ for Process Section 4} \end{bmatrix} \quad (\text{A9.25})$$

where θ_A = ambient air temperature ($^{\circ}\text{C}$)
 θ_P = Preconditioner surface temperature ($^{\circ}\text{C}$)

A9.3.3 Bottom Boundary Node

A9.3.3.1 Surface in Contact with Ambient Air

The modes of heat transfer to and from the bottom boundary node, for when the fluting medium is in contact with the ambient air, are a mirror image of the top boundary node heat transfer modes in section A9.3.2.1. Figure A9.9 depicts the conventions used and the worded heat balance for the top boundary nodes is given by equation (A9.26).

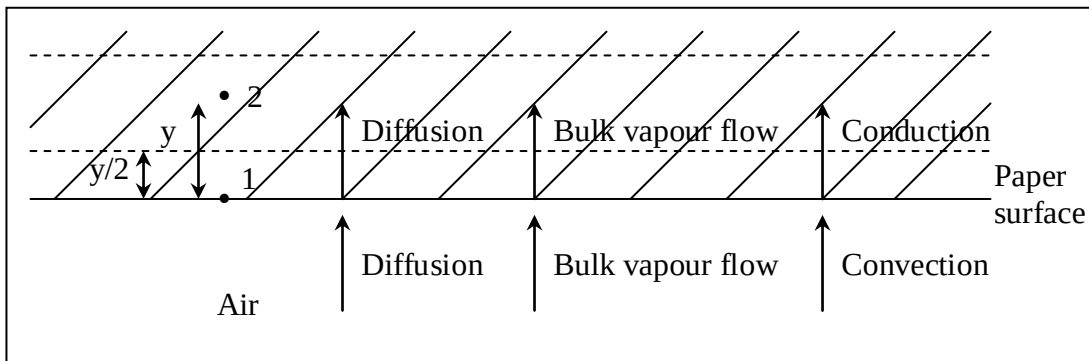


Figure A9.9 Convention used for direction of heat flow for the bottom boundary heat balance with the surface in contact with ambient air.

Rate of accumulation of heat at node 1	=	Rate of heat transfer via diffusion from Air	-	Rate of heat transfer via diffusion to node 2
	+	Rate of heat transfer via bulk flow from Air	-	Rate of heat transfer via bulk flow to node 2
	+	Rate of heat transfer via convection from Air	-	Rate of heat transfer via conduction to node 2

(A9.26)

A9.3.3.2 Surface in Contact with Preconditioner

The modes of heat transfer to and from the bottom boundary node, for when the fluting medium is in contact with the preconditioner, are a mirror image of the top boundary node heat transfer modes in section A9.3.2.2. Figure A9.10 depicts the conventions used and the worded heat balance for the top boundary nodes is given by equation (A9.27).

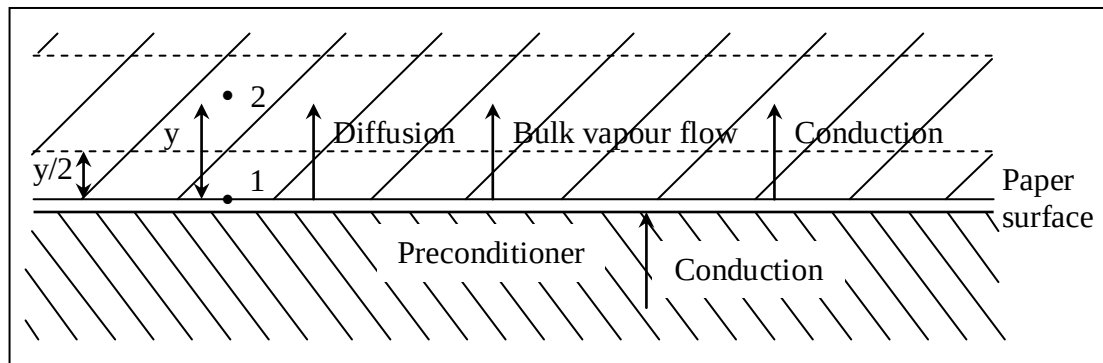


Figure A9.10 Conventions used for direction of heat flow for the bottom boundary heat balance with the surface in contact with the preconditioner.

Rate of accumulation of heat at node 1	=	Rate of heat transfer from Preconditioner	-	Rate of heat transfer via conduction to node 2
		Rate of heat transfer via diffusion to node 2	-	Rate of heat transfer via bulk flow to node 2

(A9.27)

A9.3.3.3 Heat Balance Equation

The heat balance equation formulated for the bottom boundary node is are a mirror image of the equation for the top boundary node heat transfer modes in section A9.2.2.3, except for the changes to the subscripts and the direction of heat flow (equation A9.28). Equation (A9.28) was rearranged to make the derivative of mass and time the subject (equation A9.29).

$$\begin{aligned}
 \frac{b_w(1+M_1)}{J.y} \frac{A.y}{2} c_{com.1} \frac{d\theta_1}{dt} = & h_{mB} A (\rho_{AB} - \rho_{v.1}) (H_1 + Q_1) - \frac{D_{12} A}{y} (\rho_{v.1} - \rho_{v.2}) (H_{12} + Q_1) \\
 & + \frac{\rho_{v.A.1} K_{AB} A}{\mu_{v.1A} y} (P_{atm} - P_1) (H_1 + Q_1) - \frac{\rho_{v.12} K_{v.12} A}{\mu_{v.12} y} (P_1 - P_2) (H_{12} + Q_1) \\
 & + h_{cB} A (\theta_{AB} - \theta_1) - \frac{\lambda_{com.12} A}{y} (\theta_1 - \theta_2)
 \end{aligned}
 \tag{A9.28}$$

$$\frac{d\theta_1}{dt} = \left[\begin{aligned} & h_{mB} (\rho_{AB} - \rho_{v.1}) (H_1 + Q_1) - \frac{D_{12}}{y} (\rho_{v.1} - \rho_{v.2}) (H_{12} + Q_1) \\ & + \frac{\rho_{v.A.1} K_{v.AB}}{\mu_{v.A.1} y} (P_{atm} - P_1) (H_1 + Q_1) - \frac{\rho_{v.12} K_{v.12}}{\mu_{v.12} y} (P_1 - P_2) (H_{12} + Q_1) \\ & + h_{cB} (\theta_{AB} - \theta_1) - \frac{\lambda_{com.12}}{y} (\theta_1 - \theta_2) \end{aligned} \right] \frac{2.J}{b_w(1+M_1)c_{com.1}}
 \tag{A9.29}$$

where h_{cB} = convection coefficient for top surface ($\text{Wm}^{-2}\text{K}^{-1}$) (refer to equation A9.30)
 θ_{AB} = temperature of ambient air, preconditioner or steam shower ($^{\circ}\text{C}$) (refer to equation A9.31)

$$h_{cB} = \begin{bmatrix} h_{c1} \text{ for Process Sections 1, 3, 5, 6 and 7} \\ h_{c2} \text{ for Process Section 4} \\ h_{c3} \text{ for Process Section 2} \end{bmatrix} \quad (\text{A9.30})$$

$$\theta_{AB} = \begin{bmatrix} \theta_A \text{ for Process Sections 1, 3, 4, 5 and 7} \\ \theta_P \text{ for Process Sections 2} \\ \theta_S \text{ for Process Sections 6} \end{bmatrix} \quad (\text{A9.31})$$

where θ_S = Preconditioner surface temperature ($^{\circ}\text{C}$)

Appendix A10

MATLAB 'm' files for Fluting Medium Model

A10.1 Introduction

This document contains the code for the 'm' files that form the mathematical model used to predict the fluting medium temperature and moisture content. To run the model, transfer the code to a blank MatLAB m.file and save as the given file name. In the MatLAB command window type 'PaperRun' and press the Enter key. Note the time required to run the programme will vary depending on the computer speed.

A10.2 File 1 – File Name: PaperRun.m

%Scrip File

%Sequence of Steps (steam shower on)

% Section	Top	Bottom	Residence time
% 1	Air	Air	R1
% 2	Air	Hot cylinder	R2
% 3	Air	Air	R3
% 4	Hot cylinder	Air	R4
% 5	Air	Air	R5
% 6	Air	Steam	R6
% 7	Air	Air	R7

% Global variables
tic

global bw;	% sheet basis weight (kg/m ²)
global pw;	% density of water (kg/m ³)
global E;	% sheet porosity
global J;	% number of nodes -1
global y;	% distance between nodes (m)
global pAB pAT;	% density of water vapour in ambient air for top and bottom of %paper web (kg/m ³)
global Mw;	% Molar mass of water (0.018 kg/mole)
global R;	% gas constant = 8.314 (J/K/mol)
global Ks;	% Fluting medium permeability (saturated intrinsic) (m ²)
global Patm;	% Atmospheric pressure (Pa)
global hmB hmT;	% Mass transfer coefficient for bottom and top surface %(kg/m ²)
global TaT TaB;	% Ambient air temperature for top and bottom surface (°C)

```

global hcT hcB;      % Convection heat transfer coefficient for top and bottom
                     %surface (J/M^2/K)
global SC;           % Fluting medium thickness (m)
global KAT KAB;      % Permeability to ambient air (m^2)
global E             % Fluting medium porosity
global Tfact;        % Tortuosity factor for diffusivity
global x;            % proportion of conduction in parallel vs in series

x = 0.5;              %Ave 0.5, high 0.7, low 0.3
Tfact = 0.4;         %Ave 0.4, high 0.7, low 0.1
J = 40;
Tc = 180;            %Ave 180, high 190, low 170
Ts = 150 ;           %Ave 150, high 160, low 140.
Ta = 20;             % Ambient air temp %Ave 20, high 30, low 10
KA = 1e-14;
SC = 0.157/1000;     %Ave 0.157, high 0.167, low 0.147
Rmax = 7.7/1000000; % Maximum pore size
                     %Ave 7.7, high 100, low 1
bw = 149/1000;       %Ave 149, high 154, low 144
E = 0.5;             %Ave 0.5, high 0.8, low 0.2
y = SC/J;
Mw = 0.018;
R = 8.314;
RHA = 0.60;          % Relative humidity of ambient air (kg/kg)
                     %Ave 0.6, high 0.7, low 0.5
PsatA = exp(23.4795-3990.56./(Ta+233.833));
                     % Saturated vapour pressure at ambient air temperature (Pa)
pA = RHA*PsatA*Mw/R/(Ta+273.15);
                     % Density of water vapour in ambient air (kg/m^3)
pAT = pA;

PSteam = 101300;      %Steam shower vapour pressure (Pa)
pS = PSteam*Mw/R/(Ts+273.15);

tf = 1.42;           % Take up factor (m/m)
MS = 180*tf;         % Machine speed (meters/minute)
                     %Ave 180, high 200, low 100
Ks = E*Rmax^2/24*(-0.09+2)*(-0.09+1)/(-0.09+25.06+3)/(-0.09+25.06+2); %
sheet permeability (saturated intrinsic)
Patm = 101300 ;      % Atmospheric pressure (Pa)

% Calculating the convection and contact heat transfer coefficients
h1 = 7.3*(MS/60)^0.8; %Ave *1, high *1.5, low *0.5
h2 = 12.5*(MS/60)^0.6; %Ave *1, high *1.5, low *0.5
h3=213;              %Ave 213, high 290, low 108
if h1 < 5
    h1 = 5;
end

```

```

if h2 < 5
    h2 = 5;
end

hm1= 7.3*(MS/60)^0.8/1000/1.2;           %Ave *1, high *1.5, low *0.5
hm2= 12.5*(MS/60)^0.6/1000/1.2;         %Ave *1, high *1.5, low *0.5

if 7.3*(MS/60)^0.8 < 5
    hm1= 5/1000/1.2;
end
if 12.5*(MS/60)^0.6 < 5
    hm2= 5/1000/1.29;
end

R1 = (7)/MS*60;      % Residence time at section one (seconds)
                                %Ave *1, high *1.1 low *0.9
R2 = 1/MS*60 + R1;    %Ave *1, high *1.1 low *0.9
R3 = 0.5/MS*60 + R2;  %Ave *1, high *1.1 low *0.9
R4 = 1/MS*60 + R3;    %Ave *1, high *1.1 low *0.9
R5 = 1.2/MS*60 + R4;  %Ave *1, high *1.1 low *0.9
R6 = 0.4/MS*60 + R5;  %Ave *1, high *1.5 low *0.5
R7 = 1/MS*60 + R6;    %Ave *1, high *1.1 low *0.9

%Initial Conditions
Mi=ones(J+1,1)*0.099;    %Ave 0.099, high 0.119, low 0.079
Ti=ones(J+1,1)*15;       %Ave 15, high 25, low 5
Mii=Mi;
Tii=Ti;

%Arrays of values for the Six sections
TaBA = [Ta Tc Ta Ta Ta Ts Ta];    %Steam shower on
%TaBA = [Ta Tc Ta Ta Ta Ta Ta];    %Steam shower off
TaTA = [Ta Ta Ta Tc Ta Ta Ta];
tA = [0 R1 R2 R3 R4 R5 R6 R7];
pABA = [pA pA pA pA pA pS pA];    %Steam shower on
%pABA = [pA pA pA pA pA pA pA];    %Steam shower off
hcTA=[h1 h2 h1 h3 h1 h1 h1];
hcBA=[h1 h3 h1 h2 h1 h1 h1];
hmTA=[hm1 hm2 hm1 0 hm1 hm1 hm1];
hmBA=[hm1 0 hm1 hm2 hm1 hm1 hm1];

KABA=[KA 0 KA KA KA KA KA];    %KC is set to 0 to stop bulk vapour flow
                                %at the preconditioner
KATA=[KA KA KA 0 KA KA KA];

Mn = [];
Tn = [];
tt=[];

```

```

for i = 1:7
    TaB = TaBA(i);
    TaT = TaTA(i);
    pAB = pABA(i);
    hcT =hcTA(i);
    hcB =hcBA(i);
    hmT =hmTA(i);
    hmB =hmBA(i);

    KAB = KABA(i);
    KAT = KATA(i);

    tstart = tA(i);
    tstop = tA(i+1);
    tSpan = [tstart,tstop];

    options = odeset('OutputFcn',@odeplot,'RelTol',1e-3,'AbsTol',1e-6);
% ode calculation
    [t, d] = ode23s('Paper',tSpan,[Mi;Ti],options);

    M = d(:,1:J+1);
    T = d(:,J+2:2*(J+1));

    X=size(M);

    Mn = [Mn; M(2:X(1),:)];
    Tn = [Tn; T(2:X(1),:)];
    tt = [tt; t(2:X(1),:)];

    Mi = M(X(1),:).';
    Ti = T(X(1),:).';

end

Mn=[Mii.';Mn];
Tn=[Tii.';Tn];

subplot(2,1,1);
plot(Mn);
subplot(2,1,2);
plot(Tn);

figure
subplot(2,1,1)
plot(Mn(size(Mn,1),:));
subplot(2,1,2)
plot(Tn(size(Tn,1),:));

```

toc

A10.3 File 2 – File Name: Paper.m

```
function odes=Paper(t,d)

% global variables

global bw;
global pw;
global E;
global J;
global y;
global pAB pAT;
global Mw;
global R;
global Patm;
global hmB hmT;
global hcT hcB;
global BFlag TFlag;
global TaT TaB;
global KAT KAB;

M=d(1:J+1);
T=d(J+2:2*(J+1));

Pt=Ptotal(M,T);
p=pv(M,T);

dM=zeros(J+1,1);
dT=zeros(J+1,1);

% TOP BOUNDARY NODE

% For Mass Transfer
dM(J+1) = ( D(M(J:J+1),T(J:J+1))/y*(p(J)-p(J+1)) ...
    + mean(p(J:J+1))*K(M(J:J+1),T(J:J+1))/u(T(J:J+1))/y*(Pt(J)-Pt(J+1)) ...
    - mean([p(J+1),pAT])*KAT/u([T(J+1),TaT])*(Pt(J+1)-Patm) ...
    - hmT*(p(J+1)-pAT))*2*J/bw;

% For Heat Transfer
dT(J+1) = ( +D(M(J:J+1),T(J:J+1))/y*(p(J)-p(J+1))*(H(mean(T(J:J+1))) ...
    + Q(M(J+1),T(J+1))) ...
    + mean(p(J:J+1))*K(M(J:J+1),T(J:J+1))/u(T(J:J+1))/y*(Pt(J) ...
    -Pt(J+1))*(H(mean(T(J:J+1)))+ Q(M(J+1),T(J+1))) ...
    - mean([p(J+1),pAT])*KAT/u([T(J+1),TaT])*(Pt(J+1)-Patm) ...
    *(H((T(J+1)+TaT)/2 )+ Q(M(J+1),T(J+1))) ...
```

```

- hmT*(p(J+1)-pAT)*(H((TaT+T(J+1))/2)+ Q(M(J+1),T(J+1))) ...
+ lam(mean(M(J:J+1)),mean(T(J:J+1)))*(T(J)-T(J+1))/y ...
- hcT*(T(J+1)-TaT))^2*J/bw/(1+M(J+1))/C(M(J+1),T(J+1));

```

% INTERNAL NODES

% ode for Mass Transfer

for j = 2:J

% for Mass Transfer

```

dM(j) = ( D(M(j-1:j),T(j-1:j))/y*(p(j-1)-p(j)) ...
- D(M(j:j+1),T(j:j+1))/y*(p(j)-p(j+1)) ...
+ mean(p(j-1:j))*K(M(j-1:j),T(j-1:j))/u(T(j-1:j))/y*(Pt(j-1)-Pt(j)) ...
- mean(p(j:j+1))*K(M(j:j+1),T(j:j+1))/u(T(j:j+1))/y*(Pt(j)-Pt(j+1)) )*J/bw;

```

% for Heat Transfer

```

dT(j)=( D(M(j-1:j),T(j-1:j))/y*(p(j-1)-p(j))*(H(mean(T(j-1:j))) ...
+ Q(mean(M(j-1:j)),mean(T(j-1:j)))) ...
- D(M(j:j+1),T(j:j+1))/y*(p(j)-p(j+1))*(H(mean(T(j:j+1))) ...
+ Q(mean(M(j:j+1)),mean(T(j:j+1)))) ...
+ mean(p(j-1:j))*K(M(j-1:j),T(j-1:j))/u(T(j-1:j))/y*(Pt(j-1) ...
-Pt(j))*(H(mean(T(j-1:j))) ...
+ Q(mean(M(j-1:j)),mean(T(j-1:j)))) ...
- mean(p(j:j+1))*K(M(j:j+1),T(j:j+1))/u(T(j:j+1))/y*(Pt(j) ...
-Pt(j+1))*(H(mean(T(j:j+1)))) ...
+ Q(mean(M(j:j+1)),mean(T(j:j+1)))) ...
+ lam(mean(M(j-1:j)),mean(T(j-1:j)))*(T(j-1)-T(j))/y ...
- lam(mean(M(j:j+1)),mean(T(j:j+1)))*(T(j)-T(j+1))/y ...
*J/bw/(1+M(j))/C(M(j),T(j));

```

end

% BOTTOM BOUNDARY NODE

% for Mass Transfer

```

dM(1)=( hmB*(pAB-p(1)) ...
- D(M(1:2),T(1:2))/y*(p(1)-p(2)) ...
- mean(p(1:2))*K(M(1:2),T(1:2))/u(T(1:2))/y*(Pt(1)-Pt(2)) ...
+ mean([p(1),pAB])*KAB/u([T(1),TaB])*(Patm-Pt(1))^2*J/bw ;

```

% for Heat Transfer

```

dT(1)=( hmB*(pAB-p(1))*(H((TaB+T(1))/2)+ Q(M(1),T(1))) ...
- D(M(1:2),T(1:2))/y*(p(1)-p(2))*(H(mean(T(1:2)))+ Q(M(1),T(1))) ...
+ mean([p(1),pAB])*KAB/u([T(1),TaB])*(Patm-Pt(1)) *(H((T(1)+TaB)/2) ...
+ Q(M(1),T(1))) ...
- mean(p(1:2))*K(M(1:2),T(1:2))/u(T(1:2))/y*(Pt(1)-Pt(2)) ...
*(H(mean(T(1:2)))+ Q(M(1),T(1))) ...
- lam(mean(M(1:2)),mean(T(1:2)))*(T(1)-T(2))/y ...
+ hcB*(TaB-T(1)) )^2*J/bw/(1+M(1))/C(M(1),T(1));

```


odes=[dM ; dT];

A10.4 File 3 – File Name: C.m

```
function Out=C(M,T)
% Combined specific heat capacity (J/kg/K)

global E bw R;

Cf = 1340;          % Fibre specific heat capacity - constant (J/kg/K)
                    % Ave 1340 high 1370 low 1170
pf = 1540;          % Fibre density - constant (kg/m^3)
                    % Ave 1540 high 1560 low 1500
Cw = 4201.61 - 1.02237*T+0.01166*T^2;
                    % Water specific heat capacity (J/kg/K)
pw = 1003.57 - 0.20178*T+0.00249*T^2;
                    % Water density (kg/m^3)
Cv = 1906.07-1.8235*T+0.03117*T^2;
                    % Water vapour specific heat capacity (J/kg/K)

Out=(Cf*pf*(1-E)+Cw*pw*E*S(M,T)+Cv*pv(M,T)*E ...
      *(1-S(M,T)))/(pf*(1-E)+pw*E*S(M,T)+pv(M,T)*E*(1-S(M,T)));
```

A10.5 File 4 – File Name: D.m

```
function Out=D(M,T)
% Diffusion coefficient of water vapour in the fluting medium (m^2/s^1)

global E Tfact;

Out = 2.6*10^-5*((mean(T)+273)/298)^1.5 * (1-mean(S(M,T))) * E * Tfact;
```

A10.6 File 5 – File Name: H.m

```
function Out=H(T) %
% Water vapour enthalpy (J/kg)

Out = (2635 + 1.688*(T-75))*1000;
```

A10.7 File 6 – File Name: K.m

```
function Out=K(M,T)
% Fluting medium water vapour permeability (m^2)

global Ks
```

Out = Ks*(1-S(M,T));

A10.8 File 7 – File Name: lam.m

```
function Out=lam(M,T)
% Combined thermal conductivity (J/m/K)

global E x;

kf=0.088; % Fibre thermal conductivity - constant (J/m/K)
% Ave 0.088 high 0.144 low 0.027
kw = 0.548042 + 2.09888*10^-3*T - 7.76*10^-6*T^2;
% Thermal conductivity of liquid water (J/m/K)
kv = 1.69255*10^-2 + 5.695*10^-5*T - 2.07946*10^-7*T^2;
% Thermal conductivity of water vapour (J/m/K)
k1I = kf*(1-E)+kw*E*S(M,T)+kv*E*(1-S(M,T));
% Thermal conductivity via components in series (J/m/K)
k1II = 1./((1-E)/kf + E*S(M,T)/kw + E.*(1-S(M,T))/kv );
% Thermal conductivity via components in parallel (J/m/K)

Out = 1./((1-x)./k1I+x./k1II);
```

A10.9 File 8 – File Name: Psat.m

```
function Out=Psat(T)
% Saturated water vapour pressure at T Kelvin (Pa)

Out=exp(23.4795-3990.56./(T+233.833));
```

A10.10 File 9 – File Name: Ptotal.m

```
function Out=Ptotal(M,T)
% Partial water vapour pressure (Pa)

global Patm;

Out=RH(M,T).*Psat(T);

i=find(Out<Patm);

Out(i)=Patm;
```

A10.11 File 10 – File Name: pv.m

```
function Out=pv(M,T)
```

```
% Water vapour density (kg/m^3)
```

```
global Mw R;  
Out = RH(M,T).*Psat(T)*Mw/R./(T+273.15);
```

A10.12 File 11 – File Name: Q.m

```
function Out=Q(M,T)  
% Heat of sorption from PrahdI isotherm (J/kg)
```

```
global Mw;  
  
Out= 22204*exp(-0.163*M)/Mw;
```

A10.13 File 12 – File Name: RH.m

```
function Out=RH(M,T)  
  
if T > 80  
  
Out = exp( exp(-17.255*M-0.121*M.^0.5-3.640).*(80+273.15)  
          - exp(-14.313*M-2.167*M.^0.5+2.772) );  
else  
Out = exp( exp(-17.255*M-0.121*M.^0.5-3.640).*(T+273.15)  
          - exp(-14.313*M-2.167*M.^0.5+2.772) );  
  
end  
  
% Ave *1, high *1.5, low *0.5
```

A10.14 File 13 – File Name: S.m

```
function Out=S(M,T)  
% Degree of fractional saturation  
  
global bw E SC;  
  
n=max(size(M));  
  
if n>=2  
pw = 1003.57 - 0.20178*mean(T) + 0.00249*mean(T)^2;  
Out = mean(M)*bw/pw/E/SC;  
  
else  
pw = 1003.57 - 0.20178*T + 0.00249*T^2;
```

```
    Out=M*bw/pw/E/SC;  
end
```

A10.15 File 14 – File Name: u.m

```
function Out=u(T)  
% Water vapour viscosity (kg/m/s)
```

```
Out = 8.08413*1e-6 + 0.0413*1e-8*mean(T) - 0.000015898*1e-13*mean(T).^2;
```