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# **SOVIET OPERATIONAL ART AND THE AIRLAND BATTLE**

## **THE INFLUENCE OF SOVIET OPERATIONAL WARFARE ON AMERICAN DOCTRINE**

A thesis presented in partial fulfilment of the requirements for the degree of  
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# Abstract

This thesis examines the development of Soviet and American operational thought. It investigates the development of the Soviet operational paradigm during the early 1920s and follows further Soviet development into the 1980s. It then studies the US Army's development of the operational level and suggests reasons for the relatively late development of American operational thought. It goes on to establish the influence of Red Army operational thought and practice on the development, and nature of US Army doctrine. It does this by comparative analysis of the Soviet 1936 *Provisional Field Regulations for the Red Army* and the American 1993 *Field Manual (FM) 100-5 Operations*.

The thesis concludes that the strategically defensive nature of American doctrine and the historically tactical emphasis of the US Army slowed American recognition of the operational level, and its application, operational art. American recent historical experience also played a large part in this. A more significant conclusion is that Soviet, and especially Red Army doctrine and practice had a large impact on the formulation and eventual nature of American operational doctrine. American operational thought crystallised due to the threat of a major conflict against the Soviet Union and its allies in Europe during the Cold War. This was helped by the thorough study of Soviet historical and contemporary operational thought, by organisations and individuals both within and without the US Army.

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# Introduction

The operational level of war is one of the most important concepts of military operations. It provides the critical linkage between strategy and tactics. It is applicable to the full range of military activities from high intensity combat to peace support operations. American recognition of the operational level of war developed in the early 1980s. The United States (US) Army first officially encapsulated this when it published its *FM 100-5 Operations* Field Manual (FM) in 1982. The concept of the operational level of war, and its application, operational art, have remained important in all American Army field manuals since the early 1980s and there are no signs that this is likely to change in the near future.

The Soviet development of operational art was unique. Soviet recognition of the operational level preceded American developments by some 40 years. It was based to a large extent on operational experience gained by the Tsarist Army in the First World War and the Red Army in the Russian Civil War. Thus when Soviet writers came to describe the operational phenomenon, they could call on first hand experience, along with a rich historical background. The Americans had only flirted with warfare at the operational level before the 1980s.

The obvious question to be answered was why had the Americans missed the boat in terms of this concept? In other words, why had it taken the American Army almost 40 years longer than the Soviets to come up with a clear doctrinal definition of the operational level?

The American operational approach was similar in many regards to the Soviet approach. This was especially evident in the shared emphasis on manoeuvre warfare theory and especially deep operations. Yet there is little explanation in secondary works about the possible linkage between the Soviet and the American operational schools.

The thesis aims to answer two key questions. The first is why is it that the US Army did not recognise the operational level of war and its application operational art? The second is how much did US Army operational doctrine borrow from Soviet operational thoughts and concepts.

The initial chapters of this thesis will examine the development of Soviet operational thinking by looking at some of the key events that shaped the Red Army. They will also look at the contribution of some of the most important Soviet military theorists. The fourth chapter will provide a detailed examination of the 1936 Soviet Field Regulations. These regulations were a distillation of Red Army practical experience and careful thinking about the form and requirements of future war. Chapter five will examine the experience of the mobile group concept during the Great Patriotic War. This is important as it shows one of the concepts that would form the cornerstone of Red Army post-war doctrine. Chapters six and seven will show the further development of Red Army doctrine in the context of the Cold War. The lion's share of Chapter seven will look at some important Soviet operational war fighting techniques. An understanding of post-war Red Army doctrine is critical to understanding the main potential enemy that faced the US Army as it emerged, battered, from South East Asia.

Indeed, the nature of the enemy would to a large degree shape the development of American operational thought and doctrine. Thus, chapters eight and nine will examine the development of US Army operational thought and doctrine. Chapter ten will look in detail at the 1993 *FM 100-5 Operations*. This manual represented the most complete American field manual that was concerned primarily with conventional combat operations. It retained much of the emphasis on deep operations and contained many elements of manoeuvre warfare theory.

A much more detailed analysis of Soviet and American operational thought is contained in the penultimate chapter. This chapter looks in detail at the differences and similarities between the Soviet 1936 *Provisional Field Regulations for the Red Army* and the American Army 1993 *FM 100-5 Operations* manual. The chapter will compare and contrast Soviet and American deep operation and command and control theory. It will also examine the use of artillery and long-range fires and the use of turning movements, along with differing attitudes to the issue of combined arms. This comparison will show how American operational concepts were influenced by Soviet doctrine and practice. This work ends with a conclusion that will discuss the main findings.

This thesis set out to answer two main questions. The American failure to codify the operational level of war prior to the 1980s was due to their recent experiences of war. It also appears that American recognition of the operational level was held back due to their strategically defensive posture during the Cold War.

It is also clear from the research carried out on this project that the Red Army did have a large influence on American operational theory. This influence was conveyed directly

and indirectly. The Americans were forced to develop an operational concept due to the inherent nature of their potential enemy in Europe after World War Two, and especially during the Cold War. This forced the US Army to develop concepts of depth, both offensively and defensively which were critical to operational level warfare. The influence was also notable in the education of US Army officers in Soviet warfare theory during the early 1980s.

## Chapter 1

# World War One

The Russian experience of the Great War was very different from that of most of its allies. As Winston Churchill pointed out 'In the West the armies were too big for the country, in the East the country was too big for the armies.'<sup>1</sup> In comparison to the Western Front, the war on the Eastern Front was typified by manoeuvre, flanking movements, encirclements and supply problems. The movement of armies on this Front had been likened to pendulums. One army would be able to make gains in territory while pushing the other army back. More often than not, the situation would reverse itself, with the defending army this time on the offensive. While this was true to a certain degree in the West, it was on nowhere near the same scale or pace in the East.

This chapter will examine some of the most important engagements of the Eastern Front, and will further bring out the general theme of Eastern Front operations. It is interesting, and instructive to note the lack of mention of the First World War in the works of the Soviet theorists of the 1920s, especially in comparison to the Russian Civil War. This has a lot to do with the politics of the situation. The Army of the Tsar, as we shall see, was certainly not a model armed force.

The armed forces of Tsar Nicholas the Second were a reflection of the Russian society they fought to protect. Russia at this stage was primarily a feudal society. In 1914 around 30,000 leading families controlled the countryside, and therefore the economy. The officer class was mainly drawn from these families. As with Russian life in general, the army did not base its positions or promotions on merit. This is not to say of course that there were no good officers in the army, however, there were many empty uniforms. This was paralleled by the general apathy of the Army. A rather extreme example of this was the fact that in May 1916, the Staff College at St. Petersburg was closed fifteen times due to 'public holidays.'<sup>2</sup> Moreover the system did not encourage

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<sup>1</sup> Terraine, John, *White Heat. The New Warfare 1914-1918*, London: Leo Cooper, 1982. p.112.

<sup>2</sup> Clark, Alan, *The Eastern Front 1914-18 Suicide of the Empires*, Gloucestershire: The Windrush Press, 1999. p.14.



individual officers to better themselves or to improve the quality of their subordinates. The non-commissioned officers (NCOs) were drawn primarily from the owners of smallholdings semi-attached to the larger estates. While this produced hardy and stoic soldiers, the vast majority were illiterate. The rank and file came from labourers on the large estates.<sup>3</sup> Apart from the obvious qualitative deficiencies in men, the Russian army was not really equipped to fight modern warfare. The lack of a good transport system would let the Russians down on numerous occasions. In comparison to the Germans, who had 16.7 kilometres of rail line per 160 square kilometres of territory, the Russians had only one.<sup>4</sup> Moreover, Russia had not developed north – south railway lines. This meant that large formations of men and material could not be transferred rapidly between fronts as the Germans could.

Artillery was another area that would cause the Russians considerable hardship. In comparison to the Germans, the Russians had too few pieces, and many of these were outdated. Above divisional level, artillery was commanded by an entirely separate chain of command; moreover, artillery administration, supply and procurement were handled by civilians.<sup>5</sup> Russian aviation also suffered due to lack of numbers, types of aircraft and non-existent support systems. Russian supply problems began to show in 1915. By then, Russia was beset by shortages in all areas of military production and transport. While many countries felt shortages of material, Russia suffered more keenly because of the existing poor state of its industry and communication networks.

Tannenberg is the battle that shook up the Russian army and introduced it to warfare in the 20<sup>th</sup> Century style. It was the final battle in an operation to encircle and destroy the German VIII Army, initially commanded by General Prittwitz. For this task the Russians had assembled two armies. The 1<sup>st</sup> Army, under Rennenkampf would push west into East Prussia from the general direction of Vilna, on a line parallel to the Pregal River. At the same time, 2<sup>nd</sup> Army, under General Samsonov would attack north from Russian Poland and would try to encircle Prittwitz's forces. Prittwitz correctly determined that Rennenkampf would be first to attack. He therefore concentrated the majority of his forces to the north of the Masurian Lakes, oriented to the east. He

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<sup>3</sup> Clark, p.10.

<sup>4</sup> Clark, p.18.

<sup>5</sup> Clark, p.14.

intended to engage Rennenkampf to the west of Gumbinnen. This careful plan was disrupted when Francois, the commander of I Corps decided, largely on his own, to preempt the Russians moving west towards the set engagement area of Gumbinnen. This attack gained around 3000 Russian prisoners, and certainly gave the Russians something to think about.<sup>6</sup> This, much to the annoyance of Prittwitz, had the effect of halting Russian progress. This was confirmed by an intercepted Russian message. Another intercept shortly afterward brought more serious news; it stated that the other arm of the Russian pincer, the 2<sup>nd</sup> Army, was making good progress north. This forced the hand of Prittwitz, it was decided that at first light the next morning, three corps would attack eastward to try and decisively engage the Russians, who had paused after their initial encounter with I Corps.<sup>7</sup> The German attack however, was poorly coordinated and was effectively beaten back by the Russians.

Meanwhile, to the south, the Russian 2<sup>nd</sup> Army was making good progress. The German High Command promptly relieved Prittwitz and replaced him with General Hindenburg. A new plan was put into effect. The vast majority of all three corps involved in the battle at Gumbinnen would be moved, via the excellent German railway service, to the south where they could attack, and hopefully envelop Samsonov's 2<sup>nd</sup> Army. What allowed the Germans to make such a decision was another intercepted transmission. The transmission informed all listeners on the limit of advance that Rennenkampf intended, and that ultimately he would not be able to support in any way the 2<sup>nd</sup> Army in the south.<sup>8</sup> This allowed the Germans to leave a holding force to the north of the Masurian Lakes. A further radio intercept, this time from Samsonov indicated that he would continue to the north, right into the trap about to be sprung by Hindenburg.

One of the first acts of the battle of Tannenberg was the annihilation of the 2<sup>nd</sup> Army's right flank. It was attacked from the east, and then shortly afterwards from the north. Both attacks were flank ones as 6<sup>th</sup> Corps moved eastwards to confront the attack. However, they were caught and badly mauled by the advance guard of General Below, who was attacking from the north. In effect, the Russian 2<sup>nd</sup> Army's right wing had been

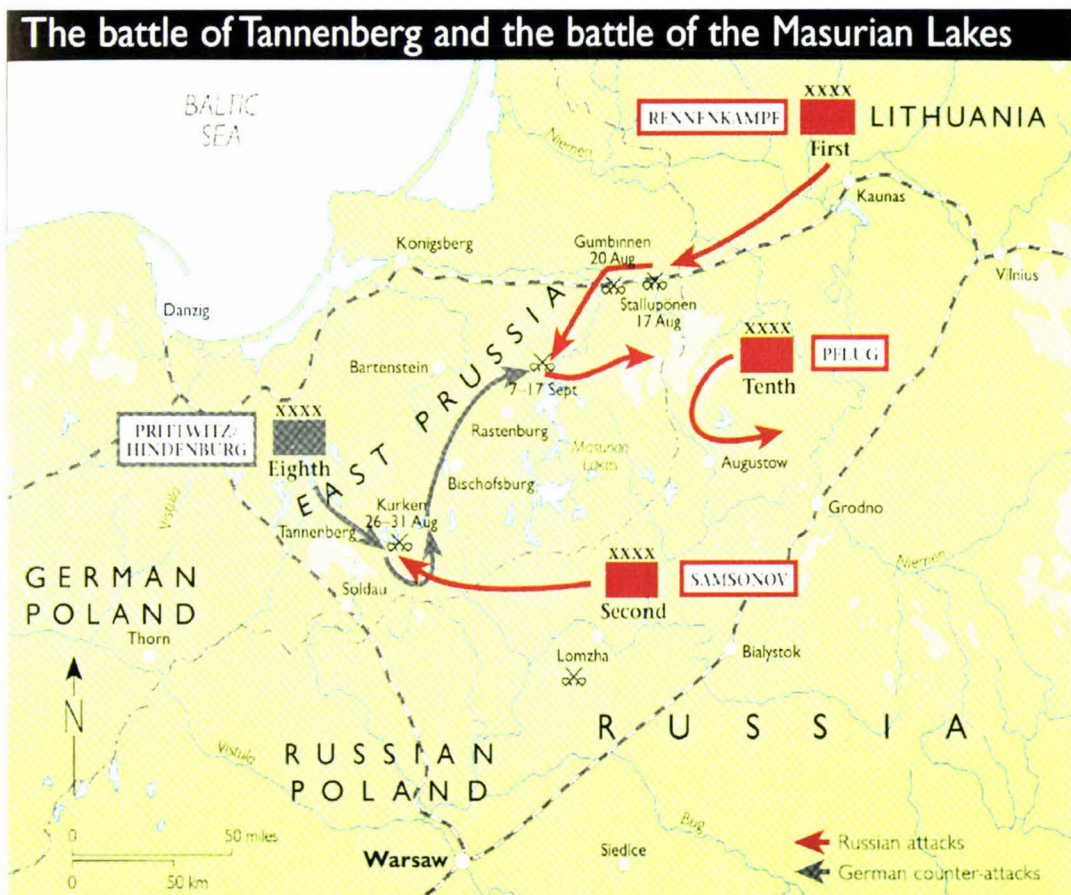
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<sup>6</sup> Clark, p.26.

<sup>7</sup> Jukes, Geoffrey, *The First World War, The Eastern Front 1914-1918*, Oxford: Osprey Publishing, 2002. p.19.

<sup>8</sup> Jukes, p.20.

amputated. While this was bad enough, what made the situation worse was that the remaining corps still moving north further into the German trap, did not know that this had happened. 2<sup>nd</sup> Army now had no protection to the east. Two days later, the German I Corps under Francois attacked and enveloped the Russians from the east. This was the start of the battle which would more or less exterminate the 2<sup>nd</sup> Army.



Map.1. The Battle of Tannenburg and the Battle of the Masurian Lakes.  
 (Source Jukes, Geoffrey, *The First World War, The Eastern Front 1914-1918*, Oxford: Osprey Publishing, 2002. p.23.)



The second major action of the Russian Army to be examined was the Brusilov offensive. Brusilov was a fairly successful commander with a forceful personality. He advocated the use of a general offensive along the whole line. He believed, and rightly so, that the weakest part of the Central Powers line were the Austrians in the south.<sup>9</sup> He would therefore concentrate the main attack in this sector. His main concern was that the German Army would be able to reinforce the Austrians if they crumbled, using their excellent railway system. It was therefore necessary to make a supporting attack against the Germans further to the north to keep them tied down.

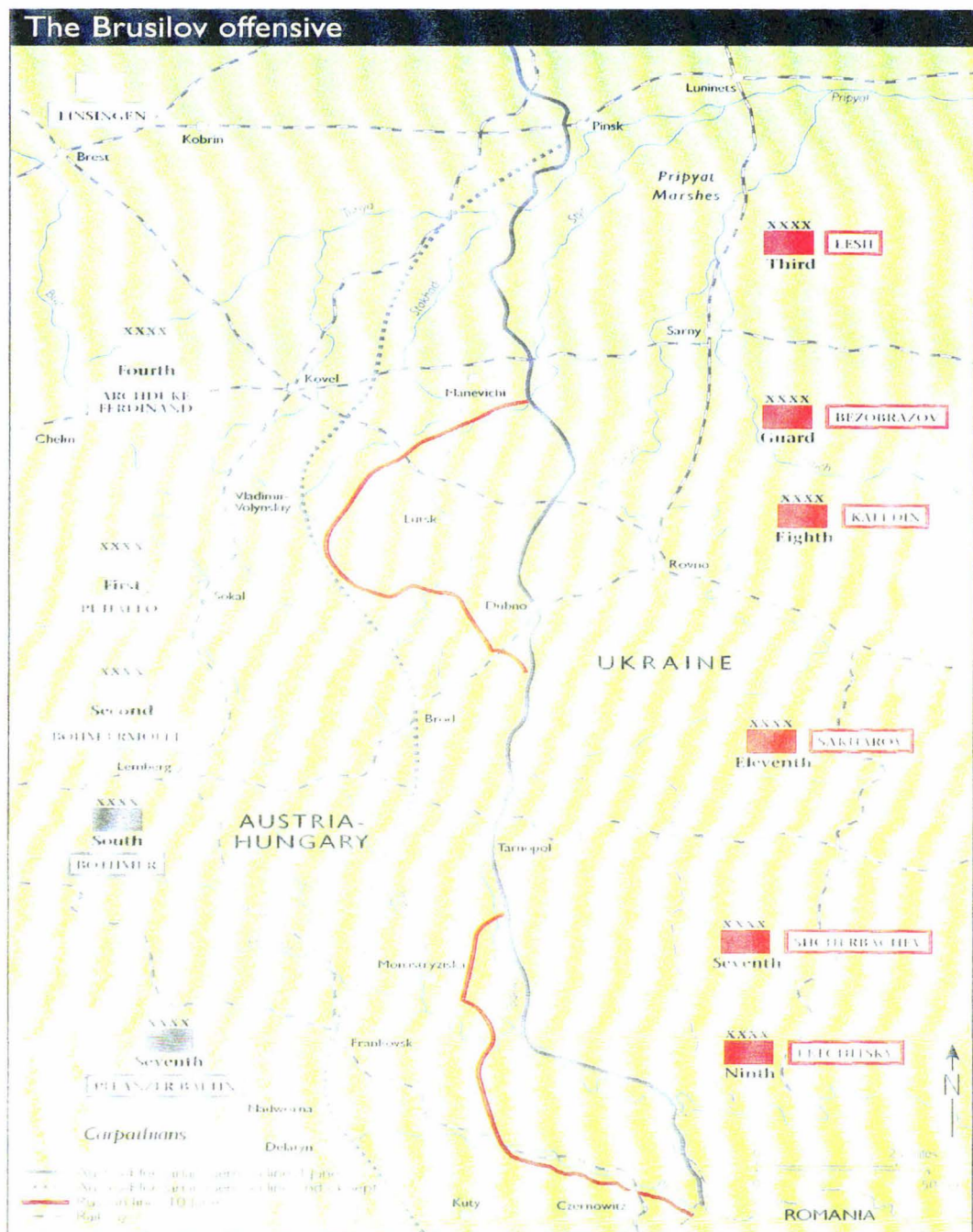
Brusilov's plan depended on the ability of the Russian Army to carry out a coordinated attack against the Austrians in the south and the Germans in the north. As we shall see, this was beyond the Russian Army. The Russian commander to the north was General Evert. He was very reluctant to have much to do with Brusilov's offensive. Due to an appeal from the western allies, the offensive was to start before Evert was ready. This did not please Brusilov, however there was nothing he could do about it, save for praying that Evert would stop dragging his feet and support his attack.

The attack began on 4 June 1916. Within a week the Russian army had caused the collapse of the Austrian army on a front of around 320 kilometres.<sup>10</sup> As was expected, the German Army began to move south with its Army Group reserve. The time was ripe for the attack of Evert. In reality his attack was over a week late and was not of the scale imagined. Thus in the south, Brusilov's forces continued forward against strengthening defences. Due to the failure of Evert's attack, the Imperial Russian High Command (STAVKA) sent reinforcements south to try to keep up the momentum of Brusilov's attack. While this could be said to be reinforcing success, it was not the correct decision. The reinforcements were slow in arriving, especially when compared to the speed with which the Germans had reinforced the Austrians in the south. The operation was eventually called off as Russian casualties began to mount. This was to be the last major operation that the Russian Army would undertake prior to the revolution.

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<sup>9</sup> Stone, Norman, *The Eastern Front 1914-17*, New York: Charles Scribner's Sons, 1975. p.245.

<sup>10</sup> Clark, p.80.



Map.2. The Brusilov Offensive.  
 (Source Jukes, Geoffrey, *The First World War, The Eastern Front 1914-1918*, Oxford: Osprey Publishing, 2002, p.43.)

I have examined two major operations of the Russian Army in the First World War. These engagements show some of the major limitations under which the Red Army was forced to fight, and the lessons that were learned from the fighting.

One of the most important lessons was the need for good communications. Communications takes into account the ability of commanders to communicate with their troops, with other commanders on their level and their superiors. It is also extremely important to be able to do this in a secure fashion. An example of this was Samsonov's 2<sup>nd</sup> Army at Tannenberg. There was virtually no signals organisation in the 2<sup>nd</sup> Army. The Army had only 25 telephones in total.<sup>11</sup> Moreover, cipher keys were not distributed to all formations making them almost useless. Good lines of communication are also extremely important for moving men and material around the theatre of operations. The obvious comparison here is with the German Army and the magnificent railway system which effectively allowed them to work on interior lines against the Russian Army. The Russians had no answer to this problem. Russian troops often found themselves short of necessary supplies, ammunition and reinforcements. They also had to fight in many situations exhausted after long route marches. Only the advances of technology in Russia would allow this situation to be corrected. Many of the theorists in the early 1920s focussed heavily on the limitations of technology and the general backwardness of Soviet Russia in these regards. This will be examined further later on.

If the lack of technical know how was missing anywhere it was in the field of aviation. Russian Army aviation was conspicuous by its absence, and failed to influence ground operations. Proper use of aircraft for reconnaissance purposes may have prevented some of the disasters inflicted on the Russian Army. This was the result of many factors. The first was the lack of coordination between the flyers and the ground forces. Russian aircraft had comparatively short ranges and therefore were confined to a limited region from their airfields. The Russian Army made no attempt to construct forward landing areas for the aircraft, which could then have supported the ground forces. Another reason for the lack of air support that Russian ground forces were extremely trigger-happy and would shoot at any aircraft without trying to establish its identity.<sup>12</sup> These

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<sup>11</sup> Terraine, p.117.

<sup>12</sup> Terraine, p.119.



factors showed a misunderstanding of the technology involved, its possibilities and its limitations.

The ability of the Russian Army to fight a coordinated battle was highly dubious. Both Tannenberg and the Brusilov offensive failed due to two formations working essentially as two separate entities, instead of as a coordinated whole. Communications were of course a huge part of this, but it was also symptomatic of the bankrupt nature of the regime and the Russian society as a whole. The introduction of a meritocracy, or close enough to one, would help enormously in this area.

Thus far I have examined some of the obvious failings of the Russian Army in World War One. It is necessary to look at the lessons taken from this conflict. The first was the influence and the possibilities of technology. From this flowed much of the ability of the Russian Army to transform itself into a modern army. There was a realisation that foot speed was woefully inadequate on the modern battlefield. This was especially so for an army trying to effect a decisive defeat on the enemy. An army retreating would almost invariably have a faster rate of withdrawal than the attacking force. This was due to the fact that they could rely on rail transport, and reserves to fall back and prepare a strong static defence based on favourable terrain. The process of a breakthrough would have to be repeated by an army now further from its railheads, supplies and its own reserves. What was needed was a force mobile, yet powerful enough to effect a breakthrough of a strong enemy defence. When this had occurred it would fight to envelop the enemy and destroy him. Armour had made its proper debut at Cambrai in 1917 and showed its potential. Likewise coordinated action with aircraft, and indeed the navy would have to become standard. The emphasis writers such as Triandafilov and Tukhachevsky put on the implications of technology illustrate an important point. It was an acknowledgment that the days of the strategy of a single point were well and truly over. No longer could a country win a conflict with a victory in a single battle. One needed only to look at Tannenberg to see this point.

The second lesson of importance not touched on already was the need to modernise the country as a whole. This was seen as absolutely necessary for the Soviet Army to become a modern one. Like most other countries involved in the war the Russians had shortages. The Russian forces had, during 1915 especially, toiled under atrocious supply

conditions. The Russian Chief of Staff reported to the French Ambassador ‘...we are not producing more than 24,000 shells a day. It’s a mere pittance for so vast a front! But our shortage of rifles alarms me even more. Just think! In several infantry regiments that have taken part in the recent battle *at least one third of the men had no rifle.*’<sup>13</sup> It was realised that a modern army had to be supported by modern industrial society. It is one thing to produce rifles and horse drawn artillery, it is quite another to produce, and support armour, self-propelled artillery and useful aircraft.

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<sup>13</sup> Clark, p.66.



## Chapter 2

# The Russian Civil War

The civil war had a huge influence on the Soviet way of war. This is somewhat predictable; the creation of a new system of state influenced not only the way the Army would prosecute future war, it also changed the very foundations that the Army was based on. This chapter will look at both the military art of the civil war, as it contributed to the development of operational art, and the way in which the new Soviet state looked at war in general. This unique way of looking at war would influence the way Russia fought until the breakdown of the Soviet Union in 1990.

As we have seen in the previous chapter, military operations on the Eastern Front of the Great War often took the form of large pendulous swings with forces racing back and forth across the battlefield. This theme was to be repeated in the Civil War. However the Civil War was much more complicated than the First World War. The Soviets were forced to fight on multiple fronts simultaneously. These included operations against the Allies in the east, against Vrangeli in the Crimea and the Tauride, against the Cossacks in the Don and the Kuban, and most importantly against the Polish under Pilsudski. Yet, if the Civil War was more complicated than the First World War, it threw up some of the same lessons. These included the need for coordination of action, the need for mobile, yet powerful forces, and the importance of logistics. The Civil War also evolved over time from the early railway style warfare during 1917 and 1918, to full-scale manoeuvre warfare in the later years. The most interesting part of this warfare was the use of large-scale forces, particularly cavalry, employed under centralised control over hundreds of kilometres.

Probably the most important campaign for the development of Soviet operational art was Tukhachevsky's campaign to the Vistula. It is often stated that armed forces learn more from defeat than they do from victory. This is certainly the case with the 'Miracle of Warsaw'. The campaign ended with the defeat of two *fronts* fighting independently against the Polish Army. The Poles had a reasonably well-constructed Army led by

intelligent and by and large competent commanders.<sup>14</sup> The Red Army acknowledged this only privately.<sup>15</sup> The Polish campaign was debated for many years. The two most prominent contributors were Marshal Tukhachevsky and A. A. Svechin. These two theorists would draw two different conclusions from the campaign, and would eventually combine to produce a construct incorporating a modified view from each. More importantly they would describe an intermediate level of war that would heavily influence the Red Army.

Lenin viewed the capture of Warsaw and the destruction of the Polish state as the next step in the continuing revolution. Many also considered it the doorway to Western Europe and especially Germany which was in a state of chaos for obvious reasons. Moreover many Soviets, including Tukhachevsky, believed that any pressure on Warsaw would precipitate a Bolshevik rising such as that seen in Russia three years earlier.<sup>16</sup>

The Red Army had reached its peak, both in strength and structure.<sup>17</sup> It had fought for three years in many different theatres and directions. It also had the main White forces safely bottled in the Crimea, and could turn its main strength against the Poles. The Red Army fielded two main Army Groups against the Polish. Western Army Group (WAG), containing 3<sup>rd</sup>, 4<sup>th</sup>, 15<sup>th</sup> and 16<sup>th</sup> Armies, as well as III Cavalry Corps. The other was South Western Army Group (SWAG) that contained 12<sup>th</sup> and 14<sup>th</sup> Armies, along with I Cavalry. Importantly South Western Army Group was also responsible for covering Vrangeli's army in the south, and also the threat of Rumanian intervention. The Army Groups were split, naturally enough, by the Pripiet Marshes. This made strategic sense for fighting in the Ukraine and Russia, but when the fighting moved to Poland proper it would contribute to the defeat of both Army Groups.

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<sup>14</sup> Mawdsley, Evan, *The Russian Civil War*, Boston: Allen & Unwin, 1987. p.257.

<sup>15</sup> Red Army commanders described Polish units as "so many children born of the same mother, but conceived of different fathers." More privately Trotsky stated: "we have operating against us for the first time a regular army led by good technicians." – Mawdsley, p.257.

<sup>16</sup> Davies, Norman, *White Eagle Red Star The Polish Soviet War 1919-20*, London: Mac Donald & Co. Ltd, 1972. p.131.

<sup>17</sup> Reese, Roger R., *The Soviet Military Experience A History of the Soviet Army 1917-1991*, London: Routledge, 2000. p. 45.

Trotsky's famous proclamation "Proletarians to horse" contained sage political and military advice.<sup>18</sup> The application of cavalry was one of the defining features of the Civil War. Horse cavalry was employed successfully by most of the protagonists. Cavalry had been quite a failure in the First World War; however the Civil War had returned its importance. Cavalry was used in raiding parties in small numbers, used for reconnaissance and against the flanks of enemy formations. Cavalry retained its shock impact against infantry, especially when attacking from the rear or flank. It was even more useful when attacking rear area enemy units, such as headquarters and logistics. The most important aspect of cavalry was its mobility. It was still the most mobile force on the battlefield. Even though armoured cars were being used, their numbers were small and they were unreliable both mechanically, and in terms of their ability to traverse tricky terrain. This is not to say that cavalry was an invincible force on the battlefield. The introduction of machine guns and fast firing artillery had had a major impact on cavalry operations in all theatres of war. Instead, cavalry was only used in certain circumstances. Their inherent mobility gave them the opportunity to be used where enemy forces were weak, or in the depth of enemy formations where defences were more or less non-existent.

An excellent example of the potential of cavalry was Mamontov's raid against the Red Army's Southern Front. General K.K. Mamontov, a Don Cossack, commanded the Fourth Don Cavalry Corps. Fourth Corps contained around 7,500 Sabres.<sup>19</sup> Mamontov's idea was to select a weak point in the Reds front and drive into the depth of his formation, wrecking as much havoc as possible before rejoining friendly lines. Success depended on establishing the location of weak areas in the Red Army's line so that his force could pass through it unmolested. Mamontov used air reconnaissance to find badly defended 'gaps' and was therefore able to achieve his goal. This was quite a remarkable combined arms achievement. What is more remarkable is the effect that this raid had on the Red's 8<sup>th</sup> Army. The raid caused massive panic and confusion in the rear areas that were poorly defended. Even though Mamontov's Corps was reduced somewhat as it crossed back into friendly lines, it had accomplished a great deal. It had

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<sup>18</sup> Mawdsley, p.219.

<sup>19</sup> Kipp, Jacob, *Two Views of Warsaw: The Russian Civil War and the Soviet Operational Art, 1920-1932*, in ed. Hennessy, Michael A., and, McKercher, B. J C., *The Operational Art: Developments in the Theories of War*, Westport: Praeger Publishers, 1996. p.56.

taken the Red Army harsh measures, both political and military, to get the rear areas back into a state of order. The importance of this was not lost on the Red Army, or indeed the higher political echelons; the Fourth Don Cavalry Corps had made the 8<sup>th</sup> Army virtually useless as a fighting formation, without engaging in large-scale combat with major Red Army units. This caused the formation of the soon to be famous *Konarmiya* and a general rethink of Soviet policy on cavalry.

The effectiveness of cavalry could be seen from the start of the campaign against the Poles. The Red Army had suffered some setbacks from Pilsudski's attempt to gain and hold large areas of the Ukraine. The Red Army had been pushed 240 kilometres east and been driven out of Kiev.<sup>20</sup> Yet, soon SWAG, under Egerov was ready for a counter attack. SWAG was assigned the main force of the Red Army, Budenny's First Cavalry Army, popularly called the *Konarmiya*. This formation initially contained three cavalry divisions, an armoured car battalion, an air group and its own armoured train.<sup>21</sup> Later this formation would be boosted to include five cavalry divisions and an independent cavalry brigade. The *Konarmiya* was used in Egerov's attack against Kiev. The cavalry gave the Red Army's the ability to turn the Polish flanks and in coordination with the other formations in SWAG, was able to give the Polish the impression that they could be surrounded and reduced. It must be noted that at this time the Polish forces included almost no cavalry formations.<sup>22</sup> The psychological impact of cavalry was shown to be extremely important. Cavalry could easily turn the flank of enemy infantry formations, as well as striking at the rear. The results of this operation by the Red Army, and the general success of its cavalry made the Polish aware of its potential and began to constitute their own cavalry forces. Hence, the next major battles between the Polish and the Red Army would be fought on a more even footing, with disastrous results for the Reds.

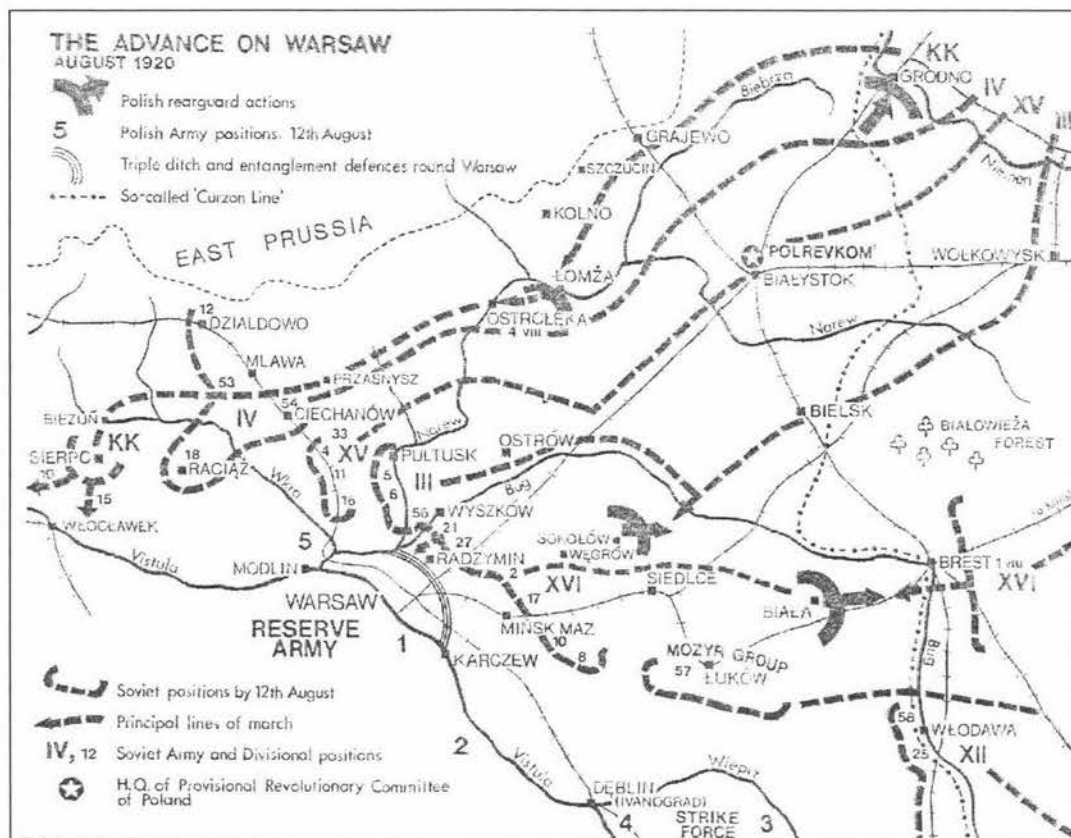
WAG opened the offensive proper on 4 July 1920. Although WAG was after a decisive defeat of the enemy, they could only act as a ram, which had the effect of pushing the Poles westward. This was accomplished by the good work of III Cavalry Corps which

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<sup>20</sup> Mawdsley, p.250.

<sup>21</sup> Mawdsley, p.220.

<sup>22</sup> Some confusion may arise here. Mamontov's Fourth Don Cavalry Corps was not a Polish formation, but a Cossack one.



Map .3. The Advance on Warsaw, August 1920.

(Source Davies, Norman, *White Eagle Red Star The Polish Soviet War 1919-20*, London: Mac Donald & Co. Ltd, 1972. p.196.)

were continually able to turn the northern flank of the Poles. WAG captured Minsk on 11 July, Vilna on 14 July, Grodno on 19 July and Brest-Litovsk on 1 August.<sup>23</sup> By the second week of August, WAG had reached the Vistula River on a front running 320 kilometres. III Cavalry Corps and 4<sup>th</sup> Army were actually to the north-east of Warsaw and had cut the railway between Warsaw and Danzig.

At this juncture, SWAG had been committed to an attack against Lvov. This was a huge problem, as WAG had counted on SWAG to threaten Lublin, which would have drawn off Polish forces from the protection of the capital. Instead, SWAG had become heavily involved at Lvov, and could not contribute to any action against the Polish capital.

<sup>23</sup> Mawdsley, p.253.





raid was typical of the raiding operations carried out by both sides during mid and late 1920.

Pilsudski had managed to secretly group five divisions to the south of Warsaw. On 13 August, with no threat emanating from the south, he drove northeast into the left flank of WAG. Pilsudski's divisions had achieved complete surprise over the WAG. By 22 August WAG had been utterly routed. It had lost 5,000 killed, and over 50,000 prisoners. The WAG was pushed back to the Niemen River, where it could only call on seven of its original 21 divisions. Things did not improve for WAG, even after it had been re-supplied and reconstituted. It was beaten at the battle of Niemen between 20 and 28 August and was forced to retreat further by the Polish forces.

The Poles had also heavily engaged SWAG. I Cavalry Corps was surrounded when it was separated from 12<sup>th</sup> Army between 30 August and 3 September. A large cavalry battle was fought on 31 August, with I Cavalry taking many casualties, although they were able to break out and head east. This led to a general Polish advance, and by the end of September, the Red Army had been pushed off Polish territory, and was losing ground in the Ukraine. It would seem that Pilsudski's caution saved the Reds from a larger defeat.

The Polish campaign showed many of the problems that had plagued the Russian Army during the First World War. This is hardly surprising as means of communication and technology had moved only so far since the War's end. The major problem again was communication between Red Army forces. In the Polish theatre of operations, the Red Army essentially fought two separate operations. This led, as it had done at Tannenberg and again during the Brusilov offensive, to defeat by coordinated enemy action. Red Army High Command was obviously overwhelmed with coordinating the actions of two army groups. And when Kamenev did try to rescue the situation by sending forces of SWAG north to reinforce WAG, they were delayed by the transmission of information and the physical distance they had to cover.

There were also major problems with the structure of the Red Army. For instance, SWAG was responsible for a huge tract of territory. Not only did this include the Polish direction, it was also responsible for ensuring Rumania could not intervene. Moreover,

it had to fight the battle in and around the Crimean peninsula. SWAG commander Egerov was trying to control essentially two *fronts* separated by many hundreds of kilometres. It is perhaps no wonder that he was unable to exert decisive control of the situation when it was most needed.

Again it was seen that the defender held the mobility advantage over the attacker, as it had in the First World War. The Red Army was unable to affect a decisive defeat on the Poles. Instead WAG acted like a giant ram, pushing the Polish back to the Vistula. This was due to stubborn Polish counter attacks, but more importantly the ability of the Poles to escape from any sort of decisive blow or envelopment type operations. This offensive had once again highlighted the vulnerabilities of over-extended armies. One Soviet writer described the 'Miracle of Warsaw' as not being Pilsudski's counter attack, instead it was the fact that WAG had come as far as it had, essentially without logistic support. Therefore, Tukhachevsky's forces that strove to break into the Polish capital were exhausted, short of supplies and ravaged by disease. Sustaining an operation over long distances was still a large problem for the Red Army; even under 'War Communism' production of essentials fell well short of First World War production levels.



## Chapter 3

# Generation of the Soviet Operational Paradigm

Both the First World War and the Civil War had shown, without a doubt, that the days of the single point strategy were at an end. Many factors led to this. The advances in technology, and the fielding of million man armies had increased the physical space needed for them to operate. It was therefore impossible to achieve a decision on the strategic level, with a single battle. In a series of lectures given by Tukhachevsky in 1923, he concluded that:

Since it is impossible, with the extended fronts of modern times, to destroy the enemies army in a single blow, we are obliged to try to do this gradually by operations which will be more costly to the enemy than to ourselves.... In short, a series of destructive operations conducted on logical principles and linked together by an uninterrupted pursuit may take the place of the decisive battle that was the form of engagement in the armies of the past.<sup>24</sup>

The disaster of the Polish campaign had come as a real shock to the Red Army. It had then been undone by a combination of bad planning, a lack of coordination and a brilliant counterattack by Pilsudski. Triandafillov correctly noted in 1926 that ‘The centre of gravity of a series of operations lies not at their beginning, but at their end.’<sup>25</sup> This shock generated great and thoughtful debate about future war. Many of the protagonists in this debate were former Russian Imperial officers. The majority of these were young and had extensive combat experience in both the First World War and the Civil War. Tukhachevsky, Shaposhnikov, Svechin and Triandafillov were among the most important contributors. Although they shared similar experiences, the way in which they interpreted them varied.

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<sup>24</sup> Schneider, James J., Introduction, in Triandafillov, V. K., *The Nature of Operations of Modern Armies*, Oregon: Frank Cass, 1994. p.xxx.

<sup>25</sup> Schneider, p.xxxi.

Marshal Tukhachevsky wrote his work *The Campaign Beyond the Vistula* in 1923. He asserted that the most important objective for an armed force was the annihilation of enemy men and material:

An operation is the organised struggle for the destruction of men and material of the other. Not the destruction of some hypothetical, abstract nervous system of the army, but the destruction of the real organism - the troops and the real nervous system of the opponent, the army's communications, must be the operational goal.<sup>26</sup>

The opposing view was most coherently put forward by Boris Shaposhnikov and Svechin. Shaposhnikov wrote an anti-thesis to Tukhachevsky's *The Campaign Beyond the Vistula*. He took issue with many points on the campaign, including the failure of Tukhachevsky's 'Revolution from without', and more importantly his campaign planning.<sup>27</sup> He critiqued the Vistula campaign for its overestimation of Red Army forces and their capabilities. He also pointed out the failure of the Red Army to achieve annihilation of the enemy in the opening battles. This led to the 'ram' effect, the over extension of the Red Army and its vulnerability to counter attack. He believed that the Red Army had pushed past the point of culmination, that is, past the point of diminishing returns.

Shaposhnikov also wrote on the significance of communication. Most importantly he described the failings of the Red Army to pass information from the highest echelons (strategic HQs) to the fighting units. For how could divisions and corps fight a coordinated battle if they did not understand the overall objective of the Red Army? A.A. Svechin was probably the most important writer of the time. He was the first to describe the term 'Operational Art'. In 1923 and 1924 Svechin lectured at the Military Academy of the Soviet Army. He taught that operational art was the link that bridged the gap between strategy and tactics. Unlike Tukhachevsky, Svechin wrote more from the strategic level. He also wrote more objectively than Tukhachevsky who considered himself a committed revolutionary.

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<sup>26</sup> Kipp, p.53.

<sup>27</sup> Tukhachevsky considered himself a committed revolutionary. He believed that the proletarian poles would rise up and revolt during his campaign to the Vistula, hence the 'Revolution from without'.

Svechin's work on operational art was generated by the failure of tactics to give sufficient meaning and control to troops in theatre warfare. Further, changes in the technology of war fighting, the industrialisation of society and the advent of mass armies had replaced the strategy of a single point with a succession of tactical engagements. In this way he distanced himself from Tukhachevsky's strategy of annihilation. Svechin held that the annihilation strategy was inherently risky. What if the enemy could not be decisively defeated? Even if a decisive victory were obtained, would it guarantee an end to the conflict? For Svechin the doctrine of annihilation reeked of the strategy of a single point. Instead, he opted for successive operations with limited goals to achieve the intent of commanders at the strategic level. 'combat actions are not self sufficient but rather are the basic materials from which operations are composed... Normally the path to final aims is broken up into a series of operations.'<sup>28</sup> He then stated that 'Operational art, arising from the aim of the operation, generates a series of tactical missions and establishes a series of tasks for the activity of rear area organs.'<sup>29</sup> It was clear to Svechin that the three levels of war were interconnected. His famous quote bears testimony to this. 'tactics makes the steps from which operational leaps are assembled; strategy points out the path.'<sup>30</sup>

Thus a new field of military study was identified. Operational art, from the mid 1920's began to be *the* subject taught. Indeed Triandafillov stated that the core problem of modern strategy was the conduct of the individual operation. But how did this fact shape the way that the Red Army intended to fight in a future war? By the mid 1920's, successive operations were generally agreed to be the centrepiece of operational thinking. Tukhachevsky stated 'Since it is impossible, with the extended fronts of modern times, to destroy the enemy's army at a single blow, we are obliged to try to do this gradually... In short a series of destructive operations conducted on logical principles and linked together by an uninterrupted pursuit may take the place of the decisive battle.'<sup>31</sup>

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<sup>28</sup> Glantz, David M., *Soviet Military Operational Art: In Pursuit of Deep Battle*, London: Frank Cass, 1991. p.23.

<sup>29</sup> Glantz, p.23.

<sup>30</sup> Glantz, p.23.

<sup>31</sup> Schneider, p.xxx.

Movchin was one of the first writers to formally outline the possible structure of an operational campaign for future war fighting. He believed that the campaign would consist of three main phases. The first phase would consist of border operations aimed at the tactical defeat of enemy defensive formations. The second phase would consist of a series of exploitation operations and the third phase would be aimed at the decisive defeat of the enemy. Triandafillov constructed a similar plan for an operational campaign. Phase one would consist of a breakthrough operation of enemy tactical defences. The attacking formation would defeat enemy forces and drive to a depth of around 30 kilometres. This would take around five days. This phase would shatter enemy tactical defences and allow the commitment of forces into the enemy rear areas. Phase two would consist of exploitation of the tactical situation and the pursuit of enemy forces. He believed that the enemy would suffer most during this time as it fell back in disorder. This phase would last for around 20 days and would drive some 200 kilometres into the enemy rear areas. The third and final phase of the operation would see friendly forces drive a further 30 to 50 kilometres into the enemy rear. This would take five to six days.

Tukhachevsky in his 1924 work *Questions of Higher Command* set out his main ideas concerning successive operations. This work in particular showed many of the concepts that would appear in the Red Army Field Regulations of 1936. Tukhachevsky believed the planning of an operational campaign was very important. He differentiated between the first operation in a campaign and subsequent operations. The initial operation was important because it set the tone for the successive engagements; guaranteeing the success of the initial operation allowed further operations to be planned. This in itself is an important concept, and is one that shows the lessons of the lack of planning from both the First World War and the Vistula campaign. This was similar to the chess theory that states a player should think three steps ahead of his present turn. The ability to plan further or successive operations would shorten the planning and decision cycle, which would ensure retention of the initiative.

A way to ensure the success of the initial operation was to concentrate superior forces at certain points. 'On the main axes forces must be concentrated as closely as the regulations for battle drill permit. On secondary sectors, by contrast, they must be kept

spread out.’<sup>32</sup> This was very similar to the German concept of *Schwerpunkt*.<sup>33</sup> The commander would set out a direction of main effort. The majority of forces and combat support forces would be concentrated on that direction or axis. This would create, in Tukhachevsky’s words, an ‘irresistible battering ram.’ Success could then be assured by the massing of overwhelming combat power. He also noted that surprise and good communications at the tactical level would make the tactical task much easier.

He then turned to the attitude of the enemy. He described this as important to the success of the operation. An enemy that stayed to fight in a positional defence could be destroyed where he stood. Tukhachevsky noted that this was unlikely to be the case (especially as the mobility differential was still likely to favour the defender). More usually the enemy would attempt to save his forces and retreat. This was the main reason for the successive operations. If an enemy chose retrograde actions, he would be steadily diminished by the combat actions of the attacker and the disorder inherent in a retreat. Thus successive operations would be continued until the enemy was trapped by some obstacle, or could not continue to give up space. At this time he could be destroyed in a decisive battle.

Tukhachevsky stated that these successive operations must be linked so closely that they almost become extensions of a single operation. A favourable result in the initial battle put the initiative squarely with the attacker. Successive operations maintained the pressure on the enemy and prevented the enemy gaining freedom of movement, both geographically, and in terms of time. A pause would allow the defender time to reconstitute forces and set up strong defences on good lines. The attacking army would then have to fight another breakthrough type operation, which the odds of winning would almost be fifty-fifty. What Tukhachevsky was describing was the importance of momentum on the battlefield. The use of successive operations allowed no time for the enemy to rest and reconstitute forces. At the same time the enemy was reduced by continued combat actions in pursuit and exploitation operations.

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<sup>32</sup> Tukhachevsky, M. N., Questions of Higher Command, in, Simpkin, Richard E., *Deep Battle*, London: Brassey’s, 1987. p.88.

<sup>33</sup> *Schwerpunkt* is a German term that translated to roughly, ‘point of main effort’. Though as with many translations, it is often hard to capture, in English, the precise meaning.

In his next section Tukhachevsky described the main forms of operations. The two most important operations were the breakthrough and the turning movement.<sup>34</sup> Tukhachevsky stated that these forms of operations were related. There could usually be no turning movement without a breakthrough, and, breakthrough on its own was rather pointless unless a turning movement followed it. This was an interesting comment about future war as Tukhachevsky saw it. The need for a breakthrough suggested that future war would not have as many open flanks as the First World War or the Civil War. This was probably also influenced by the fact that the Red Army would be fighting more organised and larger armies than it had previously.

Together the breakthrough and the turning movement facilitated encirclement and destruction of the enemy. This was something that, by and large, the Red Army had been unable to do in its recent conflicts. In the ideal case the envelopment should be of the double type, though Tukhachevsky admitted that this would not always be possible. Instead a single envelopment should be attempted, especially if the enemy forces could be trapped against some natural obstacle. If the enemy became aware of this, then pursuit, both inline and parallel would be implemented to keep the pressure on the enemy. It was imperative to keep the enemy force under constant threat of attack, or better yet encirclement, hence the parallel pursuit.

One of the most important works during this time was Triandafillov's *The Nature of Operations of Modern Armies*. Triandafillov was concerned with the nature of future war. His work was divided into two parts. The first was a discussion of the development of modern armies. He examined, in some detail, the main technological changes post the First World War. He also looked at the force structures of prominent European armies. His examination of technological changes was based very much on scientific methods. From his discussion, he went on to speculate about the further development of these, and other weapons that would have an impact in future war. 'One absolutely must be aware both of contemporary achievements in military equipment and trends in the further development of every type of weapon. Otherwise one cannot understand those changes that may occur in the organisation of armies in the near years.'<sup>35</sup>

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<sup>34</sup> Tukhachevsky, p.92.

<sup>35</sup> Triandafillov, V. K., *The Nature of Operations of Modern Armies*, Oregon: Frank Cass, 1994. p.9.



Importantly he devoted some time to the recent and future development of armour on the battlefield. He noted that tanks should have greater importance not just at the tactical, but more importantly, at the operational level. 'Military technology was tasked to provide new, more mobile, faster tanks with a greater radius of actions to replace mobile, barely manoeuvrable, short range (constrained radius of actions) tanks. This new tank must not only participate in a relatively fast moving attack as it accompanies the infantry into combat, but in all phases of pursuit beyond the field of battle as well.'<sup>36</sup>

Thus far we have examined briefly the outline that a future campaign composed of successive operations might take. This however was a method of fighting at the tactical level. It was restricted most of all by the technical limitations of the time. There was a realisation that to fully exploit the operational level, the mobility of all forces would have to be increased significantly. Another important consideration was the ability of Soviet industry to provide a stable economic platform and modern communications systems. Mechanisation of forces and a modernisation of the rear would allow the extension of successive engagements to the operational level.

The Soviet theorist's description of the operational level of war and its implementation in Field Regulations would serve the Red Army extremely well. The operational level of war was connected initially with successive operations and later deep battle and deep operations.

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<sup>36</sup> Triandafilov, p.21.

## Chapter 4

### *Provisional Field Regulations for the Red Army 1936*

This chapter will detail the main points of the Red Army Field Regulations of 1936 (PU-36). These regulations replaced the *Provisional Field Regulations for the Red Army 1929*.<sup>37</sup> As has been mentioned previously, the Ustav represented the most advanced set of regulations of the pre-war period. However, it was not until the later periods of the Great Patriotic War that the theories contained within PU-36 were put into practice.

The Field Regulations were shaped by the experiences of the Red Army in the First World War, the Civil War, and, hard thinking by Soviet theorists about the shape of future war. This chapter will examine the PU-36 in the context of a modern definition of manoeuvre warfare. As I intend to show, the PU-36 contained many themes that are consistent with what theorists describe as manoeuvre warfare. It does of course have the typical Soviet influences within it. It is also provided the base for Soviet doctrine that would emerge in the late 1970s and early 1980s. To begin, this chapter will outline some of the important general principles listed in the regulations as a way of setting the tone and allowing a more detailed look at the main themes.

#### **General Principles**

The general principles of the PU-36 provide a good starting place for an examination of the Field Regulations. The first and most important point (at least politically) is that the Red Army served the state. The second part of the first principle reveals a great deal about the way the Soviets intended to fight a war. That is; any attack on the Soviet state would be repelled and the fighting would be shifted onto the enemy territory. It is not hard to see why this is the case. The Russians had had plenty of experience with invasions throughout their history and were keenly aware of the devastation that occurred because of this; the experiences of the First World War and the Civil War were

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<sup>37</sup> Ustav is a Russian word that translates roughly to 'manual'.



reason enough. Out of this, and motivated by political factors comes the second major principle of the Red Army.

The Ustav stated that the two basic objectives in a war are, firstly gaining a decisive victory, and secondly, achieving the total destruction of the enemy. This point and the preceding one show the extreme nature of the political system that controlled the armed forces. This was to a large extent based on Marxist and Leninist theory. Frunze stated that. 'The tactics of the Red Army were and will be impregnated with activity in the spirit of bold and energetically conducted operations. This flows from the class nature of the workers and peasants army and at the same time coincides with the requirements of military art.'<sup>38</sup> War would not be a conflict between two opposing armed forces. Instead it would be a fight to the death between two competing systems of government; namely communism and imperialism. The belief was that the class nature of war would push hostilities to their extreme. War would be decisive. It would end with the destruction of the Imperialist system of government. To be able to complete this task, the Soviet Army espoused an extremely offensive orientation.

Such thinkers as Frunze, Voroshilov and Gusev expressed the offensive as a particularly proletarian principle. An emphasis on offensive military operations was a necessity both militarily and ideologically. Militarily, offensive operations would drive combat into enemy territory and would ensure that the Red Army maintained the initiative. Ideologically, it would culminate with the defeat of the bankrupt imperialist nations, and a continuation of the revolution.

The third major principle of PU-36 was that forces must be concentrated in crucial areas so as to give superiority over the enemy. Concentration of forces is of course an age-old military concept. Moreover it has become one of the most important concepts in manoeuvre warfare theory. The Red Army treatment of concentration is very similar to the German theory of *Schwerpunkt*, or point of main effort. Although the Soviets did not stress the concept of 'reconnaissance pull' as the Germans did, the basic principle

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<sup>38</sup> Frunze, M. V., *Izbrannyye Prizvedeniya (Selected Works)*, Moscow: Voenizdat, 1950. p206.

was the same.<sup>39</sup> That is, to create local superiority over the enemy in important sectors. It realises that an army had only a limited amount of resources and consequently that it cannot be of uniform strength across its entire line. It was therefore important to designate areas that were important, and to reinforce them, at the same time leaving areas of secondary importance to fend for themselves. In relation to the German style of 'reconnaissance pull', it has been suggested that the Soviets use a style known as 'command push'. This will be discussed further in the command section.

The fourth principle followed on from the third principle; it stated that the massing of forces was not enough to guarantee success. It was extremely important that different branches worked together. This was, in modern parlance, combined arms warfare. This principle permeated the field regulations strongly. The Ustav was very specific about the importance of cooperation at all levels between the different service branches. Moreover, the forces of different areas must also work in cooperation. 'the combat operations of troops in different areas must be coordinated.'<sup>40</sup> It is curious that this important maxim was given but one line in the general principles. At all levels of operation this was critically important. This was especially so at the operational level where two or more *fronts* would be used to encircle large enemy groupings.

The element of surprise is another of the enduring principles of war. Yet it has come to be strongly associated with Soviet style warfare. The Soviet concept of *Maskirovka* (*Maskirovka* is most simply defined as a set of processes designed to mislead, confuse, and interfere with accurate data collection regarding all areas of Soviet plans, objectives, and strengths or weaknesses) was used to stunning effect in many operations in World War Two, one of the most notable being Operation Bagration.<sup>41</sup> The Ustav declared, 'Surprise paralyses'.<sup>42</sup> It linked surprise with camouflage and speed. Surprise

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<sup>39</sup> Reconnaissance Pull is a concept associated with maneuver warfare. It states that decisions about where to focus the main effort of an operation should be based on information provided by forward reconnaissance forces. The recon forces will look for areas in the defense that are poorly defended. These areas are also known as 'gaps' in the enemy's defence.

<sup>40</sup> People's Commissar for Defence of the USSR, Provisional Field Regulations for the Red Army, 1936. p.2.

<sup>41</sup> Smith, Charles L., "Soviet Maskirovko", in, *Aerospace Power Journal*, Spring 1988. p.1.

<sup>42</sup> PU-36, p.2.

relied on good organisation, mobility, use of terrain and keeping track of enemy aircraft. There were obvious, if not explicit links to tempo of operations. The Ustav identified surprise as an important factor in the tempo of operations. It also suggested that surprise could be achieved by the use of new weapons and techniques of warfare not yet revealed to the enemy.

The fourth principle mentioned above advised that it was extremely important for branches of the Red Army to work closely with one another. This point is expanded upon in considerable detail. 'The development of any branch of the service in combat must be preceded by a consideration of its characteristics and strengths. Any branch will be used in close cooperation with the others, making full use of all its capabilities.'<sup>43</sup> This was given considerable space in the general principles section, and therefore must be considered a very important principle. It went to great lengths to explain the different weapons systems, their importance and contribution on the battlefield, and how they may be used in conjunction with one another to best effect.

The development of the concepts of deep battle and deep operations were an important part of the pre-war theory. The general principles stated, 'Modern combat material makes possible the simultaneous destruction of the enemy at all echelons.'<sup>44</sup> This was a direct reference to the deep battle paradigm. It outlined the techniques used in the destruction of the enemy, such as flanking movements, occupation of enemy rear areas, cutting off retreat routes, surrounding the enemy and bringing about his total destruction.

The next major point concerned command and control in combat. It stated that 'Clearly and precisely expressed tasks are the best guarantee for coordination in the subordinate troop units and branches. Once a decision is made it must be executed resolutely and energetically irrespective of all the difficulties that may occur in battle.'<sup>45</sup> These statements sum up the command and control philosophy of the Ustav. In simple terms, command decisions were to be based on careful reconnaissance by commanders. Once decisions had been made, subordinates would doggedly carry out their orders. It was the

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<sup>43</sup> PU-36, p.3.

<sup>44</sup> PU-36, p.5.

<sup>45</sup> PU-36, p.6.

commander's duty to know at all times the position of the enemy and make decisions according to changes in the situation. It does however specify the importance of personal initiative at lower levels of command. The ability to use this point constructively on a fast moving battlefield seemed inhibited though. 'Every such initiative, if appropriate, must be fully supported by the superior and used in furthering the general combat objective.'<sup>46</sup> It seemed to suggest that there was little room for a subordinate to make a mistake, as would often happen in these situations. It would be a large stretch of the imagination to call this type of command style 'Directive Control'.

The general principles end with a discussion of the importance of the rear as a means of supporting combat actions. It noted that even the best tactical decisions could not bring about victory if not supported with the necessary materials. It also acknowledged the vulnerability of the friendly rear in 'modern' combat. This was a very logical realisation as deep battle and deep operations deliberately target enemy rear areas. It is only common sense that friendly rear areas are as important to the Red Army as they were to any potential enemy.<sup>47</sup>

The above is a very brief overview of the general principles that the Red Army believed were important in securing victory. All of the above points are expanded upon in considerable length in the remainder of the regulations. The following portion examines in greater detail some of the important points mentioned above.

### **Principles of Command**

Command is one of the most important facets of how an army operates. The Ustav incorporated a lot of material under the title of command, this perhaps is indicative of the importance that the Red Army placed in the commander – subordinate relationship. The regulations listed the following factors as those that the Red Army considered important for command.<sup>48</sup>

- Careful reconnaissance of the enemy
- Decision making appropriate to the situation
- Assigning tasks to the troops and organisation of their interaction

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<sup>46</sup> PU-36, p.6.

<sup>47</sup> PU-36, p.7.

<sup>48</sup> PU-36, p.30.

- Monitoring the execution of these tasks
- Timely transfer of information to subordinates, neighbours and superiors
- Quick reaction to changes in the situation
- Personal initiative
- Organisation of security
- Function of the rear services

The importance of reconnaissance was highlighted again and again in the Ustav. In Chapter Two, reconnaissance was listed first among all operational support tasks. Reconnaissance was performed in the Red Army by troops specifically designed for that purpose (be it air or ground forces) and by all troops engaged in combat operations. Reconnaissance by aircraft was most important for operational level activities and was of course very useful in tactical activities also. Reconnaissance also comprised radio interception operations. At the individual level it was the duty of every soldier to be on the lookout for useful information at all times, this included information from prisoners and enemy dead.

The Ustav outlined the important points in deliberate reconnaissance operations.<sup>49</sup>

- The reconnaissance objective- what is to be reconnoitred and until what time.
- The components of the reconnaissance force.
- The method of information transfer (radio, air, motor, dismounted messenger etc)
- Duration and relief of the reconnaissance unit.
- Reserves of men and material should additional reconnaissance become necessary as a result of combat action.

The Ustav showed the importance of reconnaissance in all phases of war. A reconnaissance battalion from a division would perform both close and distant reconnaissance functions for the division. In distant reconnaissance, divisional reconnaissance forces would precede the main force by around 25-30 kilometres.<sup>50</sup> Smaller scout squads from inside the reconnaissance detachment would precede it, but would remain close enough to be supported by heavy machine gun fire if in contact with

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<sup>49</sup> PU-36, p.9.

<sup>50</sup> PU-36, p.11.

the enemy. For near reconnaissance operations, reconnaissance battalions would often be reinforced with infantry and more often with artillery assets to allow them to actually occupy an enemy position. This would allow them an insight into enemy defensive dispositions and activities. If in contact with an enemy, the reconnaissance detachment (battalion) could then be reinforced by two artillery detachments and tanks (at least one platoon). This would provide the reconnaissance battalion the protection and firepower to carry on its reconnaissance tasks. This was just one example of the type of reconnaissance operations the Red Army would be expected to carry out during combat operations. Reconnaissance would be performed simultaneously by other land, air and electronic means.

What is notable is the considerable flexibility of reconnaissance forces specified in the regulations. The reinforcement of reconnaissance forces by artillery and even armour was testament to the realities of 'modern' battle and the fact that in contact situations, reconnaissance units must be strong enough to continue their activities. This is extremely important for the deep battle and deep operations style of warfare. The ability of commanders to keep up momentum of operations would be directly proportional to the amount of information gathered about the enemy situation and intentions.

The ability of a commander to make appropriate decisions was of supreme importance. This is of course, a blatantly obvious statement. However, the Ustav described in considerable detail the factors that would influence a commander in making correct battlefield decisions. For example, when considering the direction or axis of the main attack, the commander should consider:<sup>51</sup>

- The importance of the chosen target to the enemy battle or march formation overall. The commander should direct the main assault against that part of the enemy which would make the entire enemy battle formation collapse;
- Useful terrain features for providing cover for approaching infantry and tanks, for artillery fire and observation posts, for uninterrupted combat support and for the opportunity of cutting off the enemy's retreat routes;
- Whether and where there are difficult obstacles for the attacking tanks in enemy territory.

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<sup>51</sup> PU-36, p.38.



Once a decision had been made the commander would issue his orders. The commander would ensure that they clearly expressed the general mission of the combat team or major unit. A typical battle order would consist of five paragraphs.<sup>52</sup>

Paragraph 1. Give details of enemy dispositions and activities based on the most recent reconnaissance.

Paragraph 2. Provides the mission of neighbouring units and provides boundaries for coordination of action.

Paragraph 3. Gives the overall battle objective of the combat team or major unit, and the tasks derived for the subordinate units. Also specifies attachments such as support weapons, and gives direction to artillery, tanks and chemical troops which have been placed under their command.

Paragraph 4. Gives the location of the highest command post and the direction of its movement, this also provides the 'axis' of the communications network.

Paragraph 5. Gives information concerning supply.

It is interesting to look at the stance taken by the regulations on the subject of initiative. The Ustav stated that initiative was of extreme importance. However, as we shall see, the Soviet concept of initiative varies from that of most western armed forces. The Soviet concept of initiative is connected more with preparations prior to a battle than initiative or risk taking during it. They believed that reconnaissance, staff planning, massing of forces and speedy, violent and detailed execution of orders would assure victory. A commander's purpose during battle was to monitor subordinates, i.e. to make sure that they were carrying out their orders.<sup>53</sup> It further seemed that command during combat was very much the purview of major unit leaders. The two most important tasks during combat were reconnaissance of the enemy and the monitoring of friendly forces. The manual stated that staff officers for major units must be able to observe the whole battle area, and from this information, decisions were made in battle.

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<sup>52</sup> PU-36, p.39.

<sup>53</sup> PU-36, p.40.

An interesting point of note was that the mission of the next highest headquarters was only distributed to a very limited number of people, on a separate order, and if it was written down, it was destroyed after it had been read.<sup>54</sup> This illustrates some points about the style of command in the Red Army. This was certainly not a manoeuvrist style of command in the way that it is traditionally known. Red Army commanders, especially from set piece battles made the majority of decisions, such as that of the main effort, based on extensive reconnaissance in all its forms. Orders from higher commands were passed through clearly defined channels. Orders were carried out to the letter and with full effort.

### **Security**

The Red Army took security very seriously. This was ultimately the commanders' responsibility. Security in the regulations was broken down roughly into three types; march (or pre-combat) security, output security and combat security.<sup>55</sup> March security consisted of ensuring march columns were not surprised by enemy ground or air forces. Output security consisted mainly of restricting the flow of sensitive information by non-secure means. The Ustav spends considerable time explaining procedures for setting up secure command networks. It stressed the responsibility of the commander to establish contact with his superiors, his neighbouring units and other detachments by any means possible.<sup>56</sup> Signals could be transmitted in various forms. These included radio, the use of motor vehicles, aircraft, horse messengers, as well as the use of flags, sound signals and pyrotechnics. There was considerable attention paid to the use of radio.<sup>57</sup> Radio transmission use was only allowed during the start of attacks and when operations were mobile, for instance in the case of a breakthrough into the depth of the enemy. Due to the danger of interception or direction finding, radio use was prohibited for defensive operations as well as when friendly troops were assembling prior to an operation. Moreover, all radio transmissions were to be made in code. The reasons for the zealous communications security flowed from historical experience; it could be argued that the failed operations at Tannenberg and again during the 'Miracle of Warsaw' were caused by insecure radio transmissions. Combat security will also be examined in depth later.

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<sup>54</sup> PU-36, p.39.

<sup>55</sup> PU-36, p.13.

<sup>56</sup> PU-36, p.41.

<sup>57</sup> PU-36, p.43.



However as with reconnaissance, it was noted that it was the responsibility of all Red Army soldiers to make security a priority.

### **The Red Army in the Attack**

Given the Red Army's preoccupation with offensive warfare, it is hardly surprising the amount of depth the Ustav goes into on the subject. In general, 'In joint operations by all branches and services, offensive operations must have the objective of simultaneously overwhelming the depth of the enemy defence.'<sup>58</sup> The manual also stated the importance of concentration of forces and material. 'That is why an attack requires a combination of the most powerful personnel and resources and the preparation of an overwhelming superiority in the direction of the main effort'<sup>59</sup> Thus the attack must be a coordinated maximum effort by all parts of the Red Army.

The attack could be initiated from many positions. These included a long distance march against an enemy defensive zone, an attack against an enemy zone while already in contact, when the enemy had made the transition to the defence in a meeting engagement or when the enemy was conducting a retrograde operation.<sup>60</sup> Most of these situations follow the same themes throughout, for instance the advance guard is used to screen the main body of friendly forces, and the reconnaissance effort must be coordinated to suit the needs of commanders. In all attacking situations the Red Army put particular emphasis on the encirclement and destruction of the enemy. It stated that the Army, 'should not strive for producing an enemy retreat, but rather an encirclement of his personnel and the confiscation of his material.'<sup>61</sup> It also noted that envelopment required speed and audacity, while at the same time fully securing one's own external wings.

The regulation listed the main means of accomplishing a successful attack.<sup>62</sup>

- by air attack against reserves and the rear areas of the enemy defences.
- by artillery attacks against the entire depth of the enemy tactical defence zone
- by tank penetration into the depth of the tactical defence zone

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<sup>58</sup> PU-36, p.52.

<sup>59</sup> PU-36, p.52.

<sup>60</sup> PU-36, p.52.

<sup>61</sup> PU-36, p.55.

<sup>62</sup> PU-36, p.52.

- by infantry penetration, accompanied by escort tanks, into enemy positions
- by advancing mechanised and cavalry units into the far areas of the enemy
- by large scale use of smoke screens to conceal friendly movements and to confuse the enemy in less important areas.

The importance of the advance guard cannot be underestimated in the Red Army style of warfare. 'The advance guard must act in a courageous, independent and resolute manner and must destroy the enemy advance guard and advance detachments before the enemy main force has a chance to organise itself.'<sup>63</sup> The advance guard for a formation would usually be made up from approximately one quarter to one third of the whole. It would be heavily reinforced with combat support assets and armour. These could include up to half of the main body armour, and a similar amount, proportionally, of the artillery. They also contained large amounts of engineering troops.

The main tasks of the advance guard were guaranteeing the mobility of the main body, the destruction of enemy security forces, reconnaissance and screening the main body.<sup>64</sup> Guaranteeing the freedom of movement for the main body usually entailed the destruction or neutralisation of enemy obstacles, minefields, as well as natural terrain problems. This was the primary reason for the large number of engineering troops that were assigned to the advance guard. Along with the destruction of the obstacles, the guard would also need to be strong enough to quickly destroy any enemy troops who are defending them. These forces would not usually be of sufficient strength to impede the advance of a large formation, however obstacles, both man-made and natural covered by fire, could delay a friendly formation that was not prepared to deal with it.

An important function of the advance guard in offensive operations was the destruction of enemy security forces. These were likely to be stronger in terms of troops and material than the detachments that covered obstacles. This was one of the most important reasons for the unusual strength of the advance guard. The advance guard must be powerful enough to quickly destroy enemy security forces while the main body of the formation prepares to make its decisive attack. This was important for two main reasons, the first was to hide the deployment of the main body of the formation from the

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<sup>63</sup> PU-36, p.54.

<sup>64</sup> PU-36, p.55.

enemy security forces, and therefore the enemy main body, or defensive position. The second and related reason was the need to gather information on the enemy main body. The advance guard would, after having destroyed the enemy security forces, proceed against the main enemy formation. This served numerous purposes. Because of the strength of the advance guard, it stood a good chance of effecting at least a partial penetration of the enemy main position, but more importantly, it would provide important information on the location and strength of the enemy main positions. Information gathered by the advance guard could influence the commander in decisions about the main effort of an attack; it could highlight some critical enemy weakness or vulnerability that may be exploited.

As discussed above, one of the most important functions of the advance guard was to provide reconnaissance of the enemy dispositions while denying the same to the enemy. Yet the advance guard only formed one part of the reconnaissance complex that provided Red Army commanders with battlefield intelligence. Reconnaissance was extremely important to allow commanders to make correct decisions in the planning process and during an engagement. Reconnaissance must be given clear definite tasks, and as with other battlefield assets, should not be spread evenly over the front, which would produce a generalised, and therefore useless picture. Indeed Tukhachevsky wrote that 'The means of reconnaissance require the same concentration of one's efforts in the crucial sector, as is done for organising combat.'<sup>65</sup> On the other hand, the amount of reconnaissance in a given area must not give away the direction of main effort. Instead a definite middle ground must be reached where reconnaissance is tailored to meet the needs of the commanders while being inconspicuous enough to deny the enemy forewarning of intentions.

The most important areas that reconnaissance supplies information about are:<sup>66</sup>

- the defence echelons in depth
- the existence of barrier zones and sectors
- location of security troops

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<sup>65</sup> Tukhachevsky, M. M., *Izbrannyye prizvedeniya* vol. 2, p.83 in, Sergeyev, Ya., *Works of Marshal Tukhachevskiy Recalled on His 90<sup>th</sup> Birthday*, Moscow: Voenno-Istoricheskiy Zhurnal, no. 2, Feb 1983.

<sup>66</sup> PU-36, p.53.

- organisation of the reserves
- presence of a rear area defence zone, and
- location of resupply routes

The most important parts of the reconnaissance effort pertained to the identification of enemy tank barriers, anti tank weapons and the fire system of the enemy infantry.

We have already examined the function of the advance guard in attacking situations. While the advance guard was in contact with enemy security forces, the main body of the attacking force deployed into combat formation. During this time it was important to maintain security, which took into account the usual factors. It was important for both the main body and the advance guard to realise that during this stage the enemy may have attempted to counter attack forward of his defence zone. The attempt would have to be destroyed immediately in a meeting engagement by decisive and audacious action. Moreover, the Ustav suggested that inherent in this situation was the possibility of following the enemy into his defence after his counter attack had been beaten off. This was an example of the principle of *Aktivnost*, in other words, when an opportunity was presented, it must be quickly and violently capitalised upon with utmost effort. In this case, the main body, and /or the advance guard could capitalise on the confusion of the retreating enemy to effect a penetration, or a further penetration of the enemy tactical defence zone. The Ustav identified flanks and unit boundaries as inherently weak areas in the enemy defence. Attacks into these areas, and especially flank attacks would allow the formation to strike deep into the enemy rear, at artillery positions, HQs and communications. This however was a fleeting opportunity, and it was more likely that the penetration of an enemy defence zone would have to be undertaken.

The penetration of an enemy defence zone was carried out by combined arms offensive actions. Each part of the combined arms team had its role set out clearly, both in the Ustav and in orders received on the battlefield. Red Army infantry would work closely with 'escort vehicles' (light tanks armed with heavy machine guns).<sup>67</sup> These would be responsible for physically attacking the enemy tactical defence zone. Tactical aircraft and artillery would support these attacks. Artillery was used more in the tactical defence

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<sup>67</sup> PU-36, p.64.

zone, while air attack usually tried to influence the battle by attacking targets deeper in the defence.

The Red Army considered artillery to be the most important neutralization weapon. The artillery was split roughly into two groups. The first group was called the 'Artillery group for long range effects'.<sup>68</sup> This was usually constituted from corps artillery, and any long-range artillery in its subordinate units. The main task of the long-range artillery was the destruction of enemy artillery.<sup>69</sup> It was also to attrite or suppress enemy anti-tank weapons; it was to fire on enemy reserves and important targets in the depth of the enemy tactical defenses such as road intersections. Another important role was the destruction of anti-air batteries, especially when friendly tactical aircraft were operating. The second major artillery grouping was called the 'Group for infantry or cavalry support'.<sup>70</sup> This artillery, having by its nature a shorter range, was constituted from divisions and any subordinate formations. As its name suggests, this group had as its main role the protection of maneuver elements. The main task of support artillery at the beginning of an operation was to destroy or suppress enemy anti-tank weapons and machine gun nests. It was also responsible for escorting the advancing infantry. The commanders of the close range artillery, and its sub groupings were obligated to comply with the will of the infantry and tanks forces that they supported, even though they were not under their specific command.

The other main branch of the neutralization weapons was aviation. Aviation was to attack targets that could not be reached by the other branches. It was used in a variety of missions, but was considered by ground commanders to be an extremely valuable resource, certainly not something that should be used piecemeal. Hence, aviation when it was used had to be concentrated in time against high payoff targets. Such targets would include enemy artillery, enemy reserves; it would support friendly long-range tank groups and would also be used against a counterattacking enemy.<sup>71</sup>

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<sup>68</sup> PU-36, p.34.

<sup>69</sup> PU-36, p.61.

<sup>70</sup> PU-36, p.34.

<sup>71</sup> PU-36, p.35.

Thus artillery, and to a lesser degree, aviation was seen by the Red Army as a means of destruction or suppression of threats to the maneuver units. The construct of establishing two main artillery groupings meant that close range artillery sub groups could be allocated directly to the commanders of battalions. These groupings could concentrate on support, while the long range artillery took care of enemy artillery and targets deeper in the enemy's tactical defense zone.

In keeping with this theme Red Army armor was also split into two main groupings. The first group was responsible for the close support of infantry. Its main goal was to destroy or suppress enemy machine gun nests, which could hinder the advance of the infantry.<sup>72</sup> The second main grouping for tanks was the long-range tank groups. These were usually heavier tanks with more powerful armament. Their task was to exploit the success of the attack and carry it into the depth of the enemy. The enemy's artillery, reserves and HQs were the main targets for the long-range tanks. The tanks would also be used in pursuit and encirclement operations.

An interesting note on the use of tank forces was that, under ideal conditions they should never be used to combat enemy tanks. This was the task of anti-tank guns and artillery. This allowed Red Army tanks to be used with more freedom. They did not have to chase enemy armor over the battlefield, instead they could be used to great effect in direct support of infantry and at longer ranges in the depth of the enemy defense. It was of course recognized that tank vs. tank combat would take place; however it was by no means preferred.

The Red Army was deeply concerned with the advantages of combined arms tactics. They did however realize that, due to the state of technology this was easier said than done. This was noted by the PU-36. It stated that prior to preparing an attack, a division commander's main task was securing the cooperation between the assault infantry, the armor and the artillery groups in support of his division.

The Red Army considered long-range tanks to be their most important asset. The long-range tank groups had the tasks of penetrating to the depth of an enemy defence and of

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<sup>72</sup> PU-36, p.33.



destroying his reserves, his HQs, his artillery and to cut off main retreat routes. The Ustav described two possible uses for long-range tank groups. The first was an attack led by the tank forces, in which the infantry could capitalise on the confusion created in the enemy by such an attack. This approach was especially useful when the terrain constituted good 'tank country' or when there was a lack of enemy anti-armour weapons. The second was the more likely approach, especially against a set enemy defence. This involved the use of infantry with escort vehicles (light tanks), supported by artillery in making the initial attack. The main purpose of the attack was to remove any anti-tank obstacles or weapons from the path of the long-range tanks. The long-range tanks then made use of the infantry's gains, leapfrogging it, and penetrating into the enemy's defensive depth. The Soviet approach to the use of their armour was flexible and depended much on the enemy, terrain and context.

### **The Meeting Engagement**

The meeting engagement was considered the type of engagement that would occur most often on the 'modern' battlefield. Recent experience such as the Civil War had shown this to be the case. This was also the case as the meeting engagement was the type of operation that the Red Army sought to fight. In other words, commanders would try as much as possible to manoeuvre their forces to a position of advantage to be able to annihilate the enemy formation or major groupings. The Ustav defined a meeting engagement as being characterised by a rapid deployment of troops from march to battle formation and an immediate attack of the enemy where he was met.<sup>73</sup> The aim of the meeting engagement was to break the enemy formation up, encircle it and destroy it by the use of all arms in cooperation.

Reconnaissance was of extreme importance in the meeting engagement for three main reasons. The first was to give forewarning of a contact situation and to stop the march formation being surprised before it was able to deploy for combat. The second main function was to identify the enemy's location, composition, intention and activity. Thirdly, reconnaissance provided information on the suitability of terrain for operating in both march and combat formations. This task was carried out constantly, as finding the optimum routes for movement of columns facilitated speed and momentum.

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<sup>73</sup> PU-36, p.44.

During or just prior to contact situations, reconnaissance provided information on the suitability of ground for the deployment to combat formation and the subsequent manoeuvre of forces in relation to the enemy. The suitability of ground for tank operations would influence the decisions of the commander.

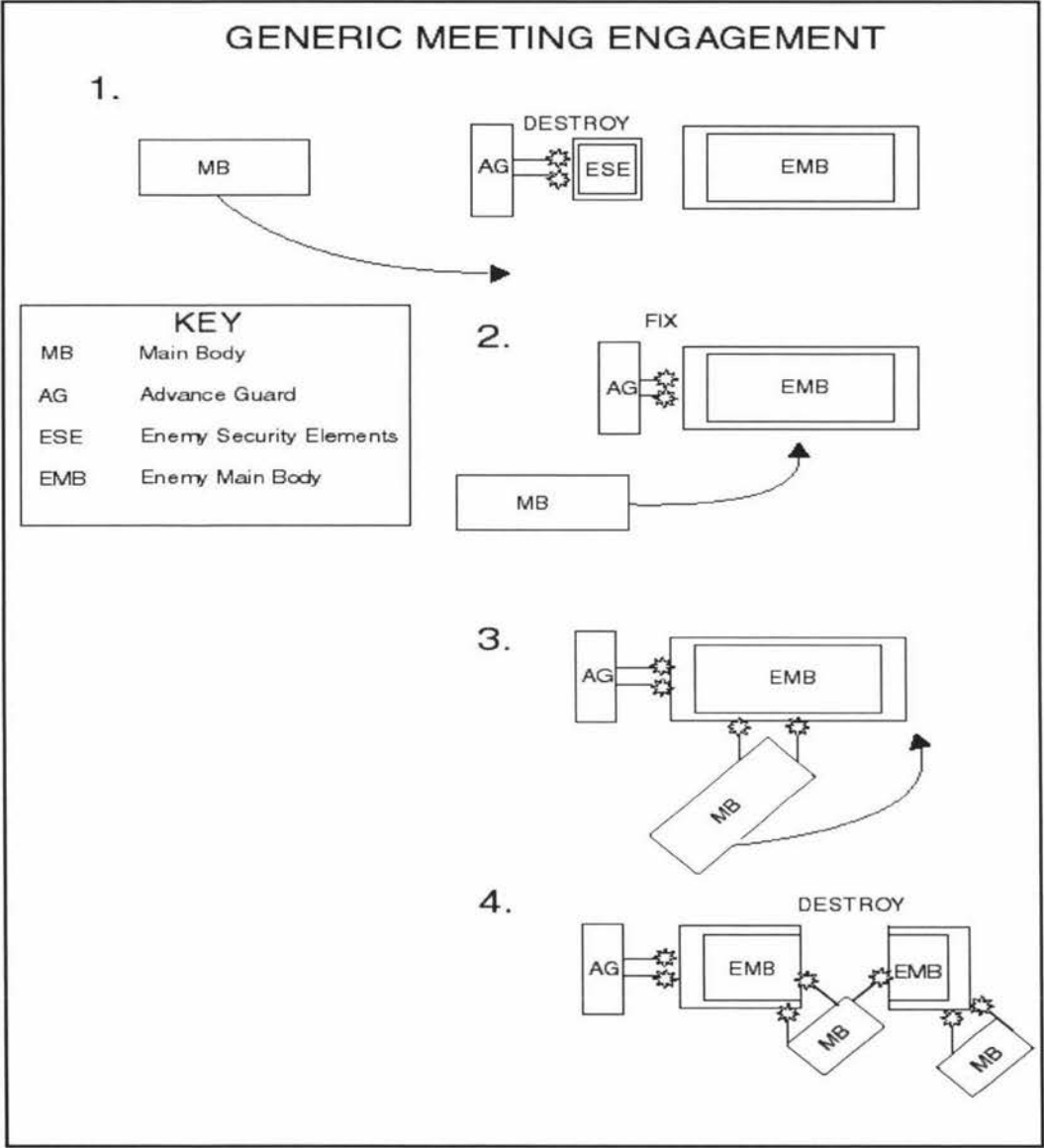


Figure.1. Generic Meeting Engagement.

The manual wisely noted that during a meeting engagement it was unlikely that reconnaissance would be able to provide the commander with complete situational awareness. In the meeting engagement reconnaissance data would only have a short



shelf life due to the movement and interaction between enemy and friendly forces. The manual then stated that the commander must make the best out of the situation and could not wait to gain more information than could realistically be expected, as this would lead to loss of the initiative.<sup>74</sup> From the information provided, the commander must decide how to engage the enemy. In other words, he must decide the point of main effort for his forces. He must also ensure cooperation between his branches and services so that they may be used to their best effect.

Speed was another important facet of the meeting engagement. The Ustav noted that 'Anticipating the enemy in deployment, opening fire, and shifting to the attack is of decisive importance.'<sup>75</sup> It continued, 'Therefore, daring and boldness, seizing the initiative, and decisiveness of actions subduing the enemy are required of commanders at all levels.'<sup>76</sup> This was a realisation of the importance of tempo, especially in the dynamic situation of the meeting engagement. The side that held the initiative forced the other side to become purely reactive, and was not likely to be able to complete its assigned tasks. Speed therefore was extremely important in a meeting engagement. It was facilitated by a timely transfer from march formation to combat formation. The composition of the march formation was then of decisive importance. This allowed the maximum amount of fire to be brought to bear on the enemy formation in the shortest possible time; it also forced the enemy onto the defensive, pushing him into a reactive state of mind.

The meeting engagement had, as its aim the encirclement of the enemy formation. This was achieved by the use initially of air forces against the enemy columns. The enemy was then attacked from the flank and the rear with mechanised forces and cavalry. This was followed closely by the engagement of the enemy formation by combined arms with the aim of encirclement and destruction. In the ideal situation the enemy would be reduced before it had time to deploy to its own combat formation. This was primarily achieved by tactical air forces. The Ustav noted, quite rightly, the important impact that tactical air forces, and in particular fighter-bombers could have on enemy movements,

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<sup>74</sup> PU-36, p.45.

<sup>75</sup> PU-36, p.44.

<sup>76</sup> PU-36, p.45.

especially when congested in a march formation. It also specified that enemy artillery was the most important enemy asset to be neutralised.

One of the most important assets for a commander in a meeting engagement was his advance guard. The advance guard played the role of screening the main body in a meeting engagement. The advance guard allowed the main body to deploy and attack the desired portion of the main enemy body. It could then be thought of as supplying freedom of movement to the friendly main body, while denying the same to the enemy. This allowed the advance guard to destroy any enemy forward detachments or advance guards to allow the main body freedom of action. Again speed of this part of the operation was extremely important, the goal being the destruction of the enemy advance formations before the enemy main body could support them. If however, the enemy commander chose a defensive posture after the initial engagement, the task of the advance guard was the destruction of the enemy's security troops. A further mission for the advance guard was to make contact with, and establish the position of the enemy's main defence sector. In this regard it was a type of reconnaissance in force.

The importance the Red Army placed in the concept of the advance guard is seen in its structure. The advance guard was heavily reinforced with armour, artillery and engineers. For instance the advance guard would often contain up to 50 percent of the artillery of the main body. This placed it in an extremely flexible position. It could influence the initial battles of the advance guard; it could then also be used to support the attack of the main body. Engineers were also very important and the advance guard would often contain a significant number of engineers. They had varying tasks depending on the phase of operations. In the attack, or during a meeting engagement, they would provide clear routes for the main body which would maintain the momentum of the manoeuvre. In the pursuit phase they would produce obstacles to cut retreat routes for enemy forces. On the attack they would be responsible for clearing obstacles such as minefields and other fortifications.

Because meeting engagements were inherently chaotic, command and control would become very difficult. The Ustav stressed the use of initiative by all commanders in a meeting engagement due to their inherent dynamic nature and the resultant loss of unity of command. 'For this reason, individual column commanders must show great

independence and initiative and must ruthlessly attack the flanks of enemy march columns...The mandatory objective of any commander in a meeting engagement must be the complete encirclement and confiscation of enemy material.’<sup>77</sup>

The meeting engagement then was typified by dynamic manoeuvre of forces to encircle and destroy an enemy formation. Meeting engagements would be the most important form of engagement. It would typically occur deep in the defence of an enemy after a breakthrough to tactical and then operational depth. Manoeuvre, speed, momentum and command and control would all be extremely important for success in a meeting engagement.

### **Red Army in the Defence**

Predictably, the Red Army did not place as much emphasis on the defence as it did on the meeting engagement or the attack. The Soviet way of looking at war stressed that, in the end, pure defence was never going to win a conflict and it was certainly not going to keep pushing the revolution forward. Pure defence then did not fit into the typical Soviet style of war. This is not to say that the defence is not an important facet of war. The Ustav described the objectives of the defensive phase of war as:<sup>78</sup>

- preservation of forces on a wide front for the benefit of the attack in the crucial direction
- gaining time for preparing forces for the attack;
- gaining time in less important sectors until the attack in the crucial sector has succeeded;
- retain possession of a zone (of areas, terrain sectors, and roads);
- attrition of the attacking enemy pending the transition of friendly forces to the attack.

As can be seen from the objectives, the purpose of the defence was to assist in the transition to offensive operations. It was also used during defensive operations in ancillary sectors, which were incapable of or unwilling to mount offensive operations for whatever reasons. The use of defensive operations supported offensive operations on the main axes, or bought time for the organisation of the same. ‘A defence which is

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<sup>77</sup> PU-36, p.51.

<sup>78</sup> PU-36, p.73.

combined with a quasi-attacking advance or which is followed by an attack, particularly into the flank of a weakened adversary can lead to total victory over the latter.’<sup>79</sup>

It did however mention the retention of terrain as a goal of defensive operations. While this would seem to be contrary to the concept of focussing on the enemy and not terrain, it was an awareness of the realities of warfare prompted perhaps by the necessity of maintaining a secure and productive rear base of production.

The Ustav gave advice about defending against an attack made in depth. ‘Under modern conditions a defence must withstand superior forces which attack the entire depth of the defence position with a single assault.’<sup>80</sup> Red Army forces then, would need to build a strong defence capable of defeating an infantry attack at the front lines, while preventing penetration of enemy tank or mechanised forces into the depth of their defence. The Red Army would also have to be prepared to defeat an enemy armoured or mechanised attack if it had penetrated their tactical defensive zone. ‘Modern defence is primarily an antitank defence.’<sup>81</sup> The main means of defeating armoured vehicles, as in the offence was the use of anti-tank artillery, artillery, and the separation of the armour from its infantry components.

### **Defence Areas**

A divisional defence area constructed by the Red Army would consist of multiple zones including a depth defence zone, extending 12-15 kilometres from the forward line. The first defence area would consist of an engineer constructed defence zone in front of the true defence zone. This could be made up of field fortifications or even chemical weapons. It would be held by small infantry detachments with supporting artillery. This forward defence zone could be up to 12 kilometres distant from the main forward line.<sup>82</sup> The second main defence zone was the combat advance guard. This would usually consist of individually reinforced strong points between one and three kilometres in front of the main defence zone. The next zone was the main defence zone and would include the majority of the defending force, as well as the reserve. The final zone was

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<sup>79</sup> PU-36, p.74.

<sup>80</sup> PU-36, p.74.

<sup>81</sup> PU-36, p.74.

<sup>82</sup> PU-36, p.75.

the rear area defence zone. The purpose of the forward defence zones was to mislead the enemy as to the exact location of the actual defence zone. For this reason they would never parallel the main line of the actual zone. The forward detachments would seek to shape the enemy by fire, manoeuvre and deception, so as to deny true information about the disposition of friendly forces.

The enemy should not just be misled as to the location of the main defence zone. The distribution and depth of the forces was important, as well as the location of the antitank reserve. Indeed these were some of the most important decisions that commanders had to make.

One of the main themes of the defence was the anti-tank defence. Tanks were seen as the most decisive weapon on the battlefield; therefore decisions regarding the deployment of the anti-tank weapons were of great importance to commanders at all levels. To deal with the threat of enemy armour, specialist anti-tank areas were designated. These consisted of anti-tank direct fire weapons, infantry and heavy machine guns. The Ustav made the point that the separation of enemy armour from its supporting infantry was of the utmost importance. It stated that defending infantry in trenches are quite protected from enemy armour, and could even be effective against it using a variety of close combat techniques. The task of destruction, or at the very least suppression of enemy infantry was the task of heavy machine guns firing from concealed positions in the anti-tank areas. Thus the main task of destroying enemy armour in the antitank areas was conducted by the anti-tank guns; with the infantry playing a secondary role. Heavy machine guns and infantry in well-fortified and concealed positions provided the protection of the anti-tank guns. These positions were designed to be able to fire to all points of the compass. However they were not inherently mobile. Indeed, 'The antitank areas weapons do not depart from their antitank area and defend it in all directions'.<sup>83</sup> While this may be common sense, it suggests that the Red Army expected to fight defensively in its own depth.

This being said, it was certainly not a passive defensive style of warfare. Interestingly the Ustav used the term 'Active Defence' to describe it. As mentioned earlier, the

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<sup>83</sup> PU-36, p.83.

defence was thought of in terms of providing the necessary conditions for the renewal of offensive operations. 'The organisation of an active defence should become evident from the plan for the forthcoming transition of [sic] the attack.'<sup>84</sup> Limited pre-emptory attacks using combined arms formations would strive to disrupt enemy forces in their forming up positions. Likewise, artillery would fire 'counter preparation missions' against enemy communications, armour and infantry formations.

Another important component of the 'Active Defence' style was the counterattack.<sup>85</sup> Ideally, counterattacking formations would be used once an enemy formation had become attrited and or broken up into its composite arms. In other situations, the counterattacking forces would be used against enemy armour or mechanised formations that had penetrated into the depth of the defence. It should also be noted that these forces were not simply reserves. They were forces designated for the purpose of counterattack against a weakened and overstretched enemy force.

Reconnaissance was also an extremely important facet of Red Army defensive operations. These were carried by all reconnaissance assets, and especially by aircraft. Thus the Red Army combined mobile and positional defensive styles to counter the type of deep attacks that they expected to face from enemy forces.

By 1936 the Red Army had adopted a set of Field Regulations that showed traces of maneuver warfare. Trouble was brewing however and just a year later, Stalin would purge the Red Army, leaving only a shadow of its former self.

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<sup>84</sup> PU-36, p.85.

<sup>85</sup> PU-36, p.85.

## Chapter Five

### The World War Two Mobile Group

The experience of the Red Army in the Great Patriotic War could be split into three main parts. The first was characterised by poor performance and many set backs. One of the main reasons for this, as suggested above, were the purges that Stalin inflicted on the Red Army from 1937 to 1941. A US military attaché summed up the situation well in 1937, ‘The recent execution of eight former commanders of high rank in the Red army and the suicide of a ninth are evidence of a crisis in the military forces of the Soviet Union which is probably more serious than any disturbance in the Red Army since the revolution.’<sup>86</sup> German Army commander Von Beck stated, “On the eve of the greatest of wars, the Red Army had been decapitated.”<sup>87</sup>

This set the scene for the disastrous defeats suffered by the Red Army in the early war period. The second period saw a return to the study of pre-war doctrine in response to the setbacks suffered. This study along with the experiences gained in combat operations set the Soviets in good stead and they were able to fight effectively against the Germans in the last stage of the war.

The treatment of the Second World War contained above is extremely superficial, however a thorough examination of this subject is beyond the scope of this work. Instead this chapter will examine some of the important points concerning the use of the mobile group concept in combat operations. This is important in the context of this work as it shows the experience that the Soviet post war theorists drew on to extend and fully realise the mobile group concept. V. G. Reznichenko stated that ‘these [mobile] groups and detachments together with airborne troops used for the first time in the

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<sup>86</sup> Glantz, David M., *Stumbling Colossus: The Red Army on the Eve of the Modern War*, Kansas: University Press of Kansas, 1998. p.29.

<sup>87</sup> Glantz, *Stumbling Colossus: The Red Army on the Eve of the Modern War*, p.31.



Battle of Moscow have provided experience for the improvement of the theory of deep combat operations.’<sup>88</sup>

World War Two mobile groups were extremely flexible formations. They could be reinforced with artillery, engineers, and chemical troops depending on the specific circumstances. They would typically be supported by 50 to 70 percent of the *front*’s aviation assets. In other words they could be tailored to fit tactical and operational needs. This tailoring was also reflected in the change from homogenous tank units to combined arms or mechanised formations for the mobile group. When anti-armour weapons became more widespread and effective in the Second World War, the homogenous tank mobile groups were changed for mechanised or all-arms units. This retained the advantages of speed and added protection for the heavy armour by way of increased artillery and mechanised units.

Mobile groups were almost always found in the Soviet second echelons. A tank army, acting as the mobile group of a *front* would produce densities between 30-100 tanks per kilometre on the main axes of attack. This produced massive numerical superiority on the main axes; moreover the mobile groups were unlikely to meet very stiff resistance due to the efforts of the preceding first echelon. In earlier war operations, mobile groups had been committed too early and had had to fight their way through static defences. This resulted in the mobile group being heavily reduced during their fight through the tactical defence zone.

In a typical situation, the mobile group of an army would consist of a tank or mechanised corps. This group would attack to a depth of 25-40 kilometres. After this point the exploitation duties would be handed on to the mobile group of the *front* - usually a tank army - which sought to develop success to the enemy’s operational depth. One of the most important entities in the mobile group was the forward detachment. The forward detachment had many similarities to the advance guard. The task of the forward detachment was to guarantee the speed of advance for the mobile group. It did this by pre-empting enemy forces before they could set up strong defences on favourable lines. Tempo was important; the forward detachment would force battle on the enemy even if

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<sup>88</sup> Bort, Robert E., “Air Assault Brigades: New Element in the Soviet *Desant* Force Structure”, in, *Military Review*, October 1983. p.30.



it were not in the most favourable position to do so. It also had the job, as did the advance guard, of reconnaissance for the main body. Finding the first line of enemy defence, giving warning of meeting engagements and guarding against counter attacks were all tasks performed by the forward detachment. In some instances the forward detachments could be used on axes differing from the main force of the mobile group. This was intended to confuse the enemy, hopefully with the effect of producing dilemmas for enemy commanders on the committal of operational reserves.

Pursuit was an extremely important part of the mobile groups mode of operation. Led by its forward detachments, the mobile group could pursue the enemy in line and in parallel.<sup>89</sup> Pursuit would be conducted by day and by night to keep pressure on the enemy formations. The continual movement forward of the mobile groups produced the necessary conditions for meeting engagements. These would be conducted against a retreating enemy, against enemy operational or tactical reserves or against an enemy moving laterally across the battlefield.

The mobile group was not designed to make a hole through a static and well-prepared defence. Instead it was committed when a gap in the enemy defence had been created or discovered. Surprise, as usual with Soviet operations, was crucial. The enemy was not given any clue of the groups impending committal. Usual heavy air and artillery strikes were reserved until after the group's committal so as not to provide the enemy with clues to the sector of commitment.

One of the most hotly debated facets of the mobile group concept was the timing of its commitment to battle. Again flexibility was the key here. Much depended on the strength of the enemy and the success of friendly break-in forces. For example in Operation Bagration, II Guards Tank Corps, acting as the mobile group for the 11<sup>th</sup> Guards Army was to be committed on the first day of the operation and was actually used to help breakthrough the German's tactical defence zone. The commitment of the 5<sup>th</sup> Guards Tank Army, the mobile group of the *front* was to be committed on the fourth day of the operation. However, in the actual operation II Guards Tank Corps was only committed to the battle on the fourth day of the operation, as the necessary conditions

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<sup>89</sup> People's Commissar for Defence of the USSR, Draft Field Regulations for the Red Army, 1944. p.112.

for its commitment had only been met at that time. In general though, the earlier the mobile group was launched, the faster objectives could be secured. It was also beneficial to launch the mobile group earlier rather than later so that enemy operational reserves could not be bought to bear in a decisive manner. However, if it was committed too early, it ran the risk of having to force its way through an incomplete penetration of the enemy tactical defensive lines. What the mobile group needed, more than anything else, was a clear route through the enemy tactical defence lines. This would enable the mobile group to break into the operational depth of the enemy before his operational level reserves could be bought to bear.

Experience from World War Two showed that break-in attacks by all arms formations tended to bog down at around the five kilometre point. The second echelon all arms formations were then needed to regain the momentum. However these formations tended to get stuck in the second or third German defence zones. In other words, the Russian Army was often unable to create a clean enough gap for the uncontested commitment of the mobile group. Instead the mobile group was used to try and breach the second and third tactical defence zones. The upshot of this was that the mobile group became a spent force if, or, when it succeeded in breaking through the tactical defence zones.

Even in ideal situations mobile groups often did not live up to their potential. For example, support of the mobile group by air and artillery assets was lacking. There were even problems associated with the coordination between the infantry and tanks of the mobile group. The problems associated with the air and artillery support of the mobile group were both mechanical and institutional. The nature of the mobile group meant that it often outran the range of its supporting artillery. Although there were some attempts to motorise large portions of Soviet artillery, these were more or less paying lip service to great ideas. Similarly air support remained inadequate. The reason for this was the centralisation of air assets by the Soviet Army. Also the stigma attached to calling for air support in the Soviet Army was unusual, and certainly a curiosity to Westerners. Thus the mobile group lacked two of the most important neutralisation weapons on the battlefield.

The mobile group was then forced to rely on its organic assets and was consequently especially vulnerable to enemy artillery. The all arms nature of the mobile group was further diminished by the fact that the supporting infantry were at a terrible disadvantage in terms of armoured protection. The infantry was forced to ride on the backs of tanks or in soft skinned vehicles. This meant they had to dismount when under artillery attack, further slowing the progress of the mobile group as a whole. If the armour units pushed on without infantry support they were vulnerable to infantry anti-armour weapons and anti-tank guns. This had the obvious effect of transforming tactical battles into protracted affairs, all the time robbing the mobile group of momentum.

By the end of the Second World War the concept of the mobile group had evolved to a sophisticated level. It was, in essence, the realisation of the deep operational theories of Triandafillov and Tukhachevsky. However, as in the 1920s, technology, especially with regard to movement rates, was still the limiting factor of the mobile group. The full mechanisation of Red Army infantry and the introduction of rotary wing flight would go a long way to maximising the potential of the mobile group concept.

## Chapter 6

# Return to Conventional Operations

Red Army numbers did not diminish significantly despite the end of the Second World War. However, shortly after Stalin's death in 1953, Khrushchev began to reduce the size of the military. Between 1953 and 1958 the Soviet Armed Forces were reduced dramatically. Khrushchev's main reasons for this were the fielding of large nuclear forces by the Soviet Union and the 1955 Geneva Conference had done away with the need for large standing armies.<sup>90</sup> Khrushchev was in the process of pruning more units and men from the armed forces when the erection of the Berlin Wall precipitated an international crisis.

However the most important factor in this period for the Red Army was Khrushchev's declaration of a revolution in military affairs. Sokolovskiy echoed this in *Military Strategy*. The fielding of nuclear weapons, and more advanced delivery means prompted a re-evaluation of the relationships between strategy, operations and tactics. 'Thus strategy, which in the past was nourished by the achievements of tactics and operational art, now is given the possibility to attain, by its own independent means, the war aims regardless of the outcome of battles and operations in the various areas of armed conflict.'<sup>91</sup>

During this period the development of operational art suffered. It is quite easy to see why. The conventional linkage between strategy, operational art and tactics had been all but destroyed. At the operational level, nuclear weapons blurred the boundaries between attack and defence and had significantly extended the effective depth of the battle space.

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<sup>90</sup> The 1955 Geneva Conference is also referred to as the Summit Conference. It was attended by the leaders of the United States, the Soviet Union, Britain and France. It was an attempt to bring the East and West closer together by tackling subjects such as German reunification, nuclear issues and disarmament more generally. It was not particularly successful.

<sup>91</sup> Sokolovskiy, V. D., Excerpts from *Military Strategy*, in, Thibault, George Edward, *The Art and Practice of Military Strategy*, Washington DC, National Defense University, 1984. p.292.

Also the usual dialectic between front and rear areas lost its meaning because both front and rear were equally vulnerable to complete destruction by nuclear means.

Tactics were also heavily affected. Operational art and strategy could now have a direct influence on tactics outside of the normal flow. Manoeuvre could now mean the surprise use of nuclear weapons, or the movement of forces into positions less vulnerable to nuclear fire. The massive increase in firepower had not been reciprocated by advances in troop protection or mobility on the battlefield, suggesting that nuclear weapons did not fit into the traditional tactical framework. This dictated new strategies for the tactical level.

Therefore by the early 1960s the Soviets considered that any war against an imperialist coalition would be decided by the massive and decisive use of nuclear weapons. This type of war would make ground forces all but redundant. A Soviet Marshal stated that 'One of the important positions of this doctrine is that a world war, if it nevertheless is unleashed by the imperialist aggressors, will inevitably take the form of nuclear rocket war, that is, such a war where the main means of striking will be the nuclear weapon and the basic means of delivering it will be the rocket'<sup>92</sup>

The concentration on massive nuclear operations also had an impact on the Red Army. Heavy armour formations became most important. It was believed that tanks would be best suited to sweep through an enemy formation that had been devastated by a nuclear strike. 'Ground troops with the aid of aviation will perform important strategic functions in a modern war: by rapid offensive movements they will completely annihilate the remaining enemy formations, occupy enemy territory, and prevent the enemy from invading one's own territory.'<sup>93</sup>

In practical terms, operational level forces would deploy in greater breadth and depth than they had in the past. Tank heavy forces would attack in the first echelon and would exploit gaps created by nuclear fire. Attacking Red Army units would use pre-combat formations to allow high tempos of operation. They would only deploy into combat

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<sup>92</sup> Scott, Harriet F., *The Soviet Art of War: Doctrine Strategy and Tactics*, London: Westview Press, 1982. p.157

<sup>93</sup> Sokolovskiy, p.293.

formation against a particularly strong defence, though this seemed unlikely in a nuclear environment. Most formations would be led by forward detachments.

The period of concentration on nuclear strategy to the detriment of the traditional military art was not destined to last long. One of the first steps in the process was the removal of Khrushchev from power in 1964. Another important factor was the American change from 'Massive retaliation' to 'Flexible response'. These facts moved the Soviets away from 'single option' nuclear operations and led them to examine the conduct of initial periods of future conflicts that would perhaps remain free of nuclear weapons.<sup>94</sup> They also began to run exercises that paralleled this theoretical study. The most prominent was Operation Dnieper. This exercise culminated in a large scale crossing of the Dnieper River. More importantly, it was the first exercise that contained an initial non-nuclear period. These studies and exercises however always contained the proviso that the conflict would eventually become nuclear. Thus by the early 1970s consideration was again being given to the use of conventional forces in conjunction with and separate from, nuclear forces.

In 1965 Savkin produced one of the most important works of this period entitled *Questions of Operational Art in Soviet Military Works 1917-1940*. This work heralded a return to the study of the purged generation of military thinkers and brought about a renewed interest in deep operations and the operational level of war.

Although nuclear means were still considered the most important entity on the battlefield, much work was done on the employment of combined arms conventional forces. This was important on both the nuclear and the non-nuclear battlefield. On a non-nuclear battlefield the importance of combined arms warfare, mobility, tempo, surprise and initiative were as important as they had been on the battlefields of the past. On a nuclear battlefield the importance of combined arms was increased immeasurably as nuclear means, such as nuclear equipped artillery, became available to tactical ground forces. The embracing of aircraft, especially rotary wing, by the Red Army also

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<sup>94</sup> 'Flexible Response' was a policy introduced by President J. F. Kennedy in 1961. It moved away from the 'Massive Retaliation' of President Eisenhower. Flexible response introduced the idea of using conventional forces and limited nuclear means instead of total nuclear war.



contributed to the importance of combined arms. Mobility and tempo were also extremely important, both to defend against and exploit the effects of nuclear weapons.

By the mid 1970s the Red Army had set out strategies to not only fight in a nuclear scared environment, but to win in a full nuclear fight.<sup>95</sup> The Red Army placed emphasis on deep operations, the use of operational manoeuvre groups, forward detachments, airborne operations and anti-nuclear manoeuvre. These were examples of a common trend in Soviet military thinking. That is the need to learn from military history, at the same time taking into account current technological means to formulate strategies and tactics for the use on future battlefields. Indeed Marshall Tukhachevsky stated in 1930 that 'It is not only essential to study the experience of the past, but also to find new scientific methods which would serve to strengthen the defense [sic] capability of the Red Army.'<sup>96</sup> It is also important to note that the development of these strategies was not carried out in a vacuum. Soviet military thinkers studied the Arab-Israeli wars and the Americans South East Asian experience amongst many others.

Much of the writing after the mid 1960s concentrated on the application of deep battle and the operational level of war in relation to warfare in a nuclear environment. In his important work *Tactics*, Reznichenko defined the operational art:

Operational art is the binding link between strategy and tactics. Guided by the requirements of strategy, operational art investigates the character of contemporary operations, the regularities, principles and methods of their preparation and realisation; the organisation, capabilities, and principles of application of strategic units; questions of operational support of all types and of the principles of control of troops in operations and their rear support.<sup>97</sup>

The definition offered by Reznichenko was a general one, and was therefore applicable to any form of combat. He went on in his discussion, to relate how the introduction of nuclear weapons in a conflict would change the traditional connection between strategy

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<sup>95</sup> Nuclear scared refers to the fact that commanders on both sides had to consider the possibility that nuclear weapons use could be authorised at any time.

<sup>96</sup> *Krasnaya Zvezda* (Red Army newspaper) of the Leningrad Military District, 14 March, 1930.

<sup>97</sup> Reznichenko, V. G., *Tactics*, Springfield: National Technical Information Service, 1967. p3.

operational art and tactics. 'Now, unlike the past, the highest category of the military art...renders a direct and immediate influence on the lowest category of the military art.'<sup>98</sup> In other words the use of nuclear weapons had the effect of reducing the status of the operational level of war.

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<sup>98</sup> Reznichenko, p.6.

## **Chapter 7**

### **1980s Soviet Army Doctrine**

The Soviet Union faced two main challenges in this period. The first was being able to defeat NATO in Europe in a conventional confrontation. The second was the problem of nuclear warfare. The defeat of NATO in Europe, or China in Asia for that matter, was a problem that could be solved by the application of the theories of deep battle and deep operations constructed prior to the Great Patriotic War. This is not to say that Soviet pre-war doctrine was simply thrust back into service. Instead the study of pre-war doctrine, the study of the latter part of the Great Patriotic War, and the influence of modern technologies created methods applicable to the modern conventional European battlefield.

The second problem of course was more complicated and could not be based on the application of historical study. Both NATO and the Soviets could never be certain that a conflict would become nuclear. This caused considerable problems, especially concerning the transition between the conventional and nuclear phases of a conflict. Therefore the Soviets spent much time considering how to fight in a nuclear scared, and a full nuclear environment. The extension of this was the structuring and equipping of Soviet forces.

Thus the Soviet General Staff was faced with the challenge of coming up with a feasible strategic and operational plan that would diminish the threat of NATO's tactical nuclear capability, while causing the rapid collapse of NATO's political and military systems. This chapter will examine modern (mid 1980s) Soviet operational art and tactics primarily in relation to a major conflict in Central Europe.

#### **Soviet Operational Level War Fighting**

As discussed above, the nuclear era heralded a new type of warfare. The next easily definable period in Soviet theory and doctrine was known as the post-nuclear period. This was somewhat of a misnomer, as nuclear weapons had certainly not vanished from the potential battlefield. Instead this period related to a time when the Soviets admitted

to the possibility of a major war in Europe that would begin with a non-nuclear phase of operations. This was an important first step in refocusing on the importance of conventional warfare. Parallel with this trend was the trend to increase the combined arms feel of Red Army formations. There was a move towards balancing out the infantry/ armour ratios, as well as strengthening the quality and quantity of Red Army artillery. This was sensible, if a major conflict was to break out, the Red Army may have been forced to rely on traditional break-in operations. Therefore neutralisation means, mainly artillery, were extremely important. It would also be necessary for units to deploy from march to combat formations. It was therefore important that the units could use artillery, infantry and armour in a combined arms fashion to the best effect. They could not rely on a nuclear carpet to pave the way for unimpeded forward progress, instead they would more often have to dismount and fight.

In a major conflict the Soviets would have conducted theatre strategic operations with the forces of several *fronts*, according to a single concept or plan within continental Theatres of Military Operations (TVDs).<sup>99</sup> A theatre strategic operation would involve simultaneous and successive operations by *fronts*, which would have conducted two or more operations in succession, with brief pauses, or even without pauses. Along with *front* operations, the operations of a TVD would include nuclear strategic and tactical operations, air operations, anti-air operations, naval operations and landing operations.

In a nutshell, the objective of Red Army main forces (*fronts* and armies) was to penetrate NATO tactical defence zones as quickly as possible to allow operational level formations (OMGs) access to the NATO rear. *Fronts* would work in cooperation with other *fronts*, naval and air forces towards a single strategic, or several operational objectives. A *front* would usually consist of one or two echelons, an exploitation echelon (OMG), rocket and artillery forces, *front* air forces, anti tank reserves, Special Forces, amphibious forces and mobile obstacle detachments, along with a complex logistical infrastructure. The penetration of NATO tactical defence zones would lower the likely use of NATO tactical nuclear weapons. The Soviets also believed that they

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<sup>99</sup> Glantz, p.222.

had the advantage of lowering the effectiveness of NATO precision-guided munitions, especially from tactical air forces.<sup>100</sup>

Echelonment was a particularly Soviet construct. It was historically used as a way of providing forces with momentum and depth in offensive operations. The echelonment practice was a flexible one. The use of strategic echelonment was dependent on the situation, principally concerning the nuclear environment and the strength of the enemy's defence. In a nuclear conflict, or one in which enemy forces were weak defensively, the Red Army would deploy its *fronts* in a single strategic echelon, with a small combined arms reserve (possibly one or two armies). In cases where the enemy was weak or lacked strong operational reserves, the Soviets would lead the attack with an OMG. The Red Army would echelon more deeply at the strategic level when enemy defences were particularly strong.

The impact of nuclear weapons forced the reduction in the importance and even existence of echelons. The Soviets realised that they might have a short 'window' of opportunity before NATO forces resorted to nuclear weapons. The best way to make use of this 'window' was to drive deep into NATO territory as quickly as possible. (This was of course not the only reason for this tactic, however it gained more importance because of the destructive potential of nuclear weapons.) This also reduced the effect of conventional interdiction by NATO aircraft and long-range artillery. The single echelon technique, along with anti-nuclear manoeuvre would reduce the effects of nuclear weapons upon Soviet fielded forces as there would be no second echelon that would be vulnerable to nuclear strikes as it moved towards the front lines.

### **1980s Operational Manoeuvre Group**

A 1980s mobile group (OMG) would have consisted of a balanced formation. The return to a more conventional doctrine refocused the Red Army on the need to fight in a combined, or all arms manner. Reznichenko, writing in *Voyennaya Mysl'* [Military Thought] in 1973 stated that, 'The significance of combined-arms combat in the accomplishment not only of tactical but operational missions as well increases

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<sup>100</sup> Glantz, p.227.

particularly sharply under conditions where conventional weapons will constitute the principal means of destruction.<sup>101</sup>

It should be noted that the OMG concept was essentially a differing use of existing formations. A *front* level OMG would have consisted of a reinforced tank army. This would contain approximately 1400 tanks. On a smaller scale, an Army level OMG would have consisted of an armoured division.

An Army level OMG would have deployed slightly to the rear of the first echelon, in the sector that a breakthrough appeared most likely. Depending on the situation and the strength of the enemy, the OMG would be committed to battle between the first and third days. In situations where Soviet forces were facing very weak enemy opposition, the OMG may have actually led the advance. In a nuclear environment, the OMG would also be called on to lead the advance. The principle of interchangeability allowed tactical nuclear weapons to take the place of the break-in force. This gave many advantages. It almost guaranteed the complete and timely destruction of enemy tactical defences. The OMG could then be committed early and with considerable surprise. This would allow it to break into the operational depth of the enemy before operational level reserves could be deployed against it.

While the main focus of the OMG was to move quickly into the enemy's operational depth, it would have been assigned certain tasks. In some situations it would have attempted to prevent the withdrawal of enemy forward forces, while at others it would try to obstruct the forward progress of the enemy's operational reserve. It could also have been tasked with attacking specific targets, the destruction of which would quicken the collapse of the military and political infrastructure of the enemy. Nuclear weapons and delivery means would provide one of the most important targets for an OMG. Other targets would have included the enemy's communication systems, air defence assets, logistics systems and the capture of important terrain.<sup>102</sup>

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<sup>101</sup> Scott, Harriet F., *The Soviet Art of War: Doctrine Strategy and Tactics*, London: Westview Press, 1982. pp.236-237.

<sup>102</sup> Bort, p.26.



The OMG, when committed would be preceded by a forward detachment. These detachments had much the same function as the advance guard in the 1936 Field Regulations. It would guarantee freedom of movement for the OMG by reconnaissance, by pre-empting enemy reserves and by capturing key terrain or installations. OMGs as a general rule would deploy in two pre-combat formations. This was the preferred formation that allowed the OMG to move at the highest possible speed and therefore have the highest momentum possible. It would only deploy to combat formation if it was forced to engage in large-scale combat, for example against enemy operational reserves. Thus the task of the forward detachment was to prevent the enemy from being able to impose heavy combat on the main body of the OMG as this would rob it of momentum.

The OMG concept did have some notable weaknesses. One was the huge amount of real estate that the OMG would take up, especially in a European context. This posed problems of command and control, especially at choke points. The Soviet ability to keep such a formation secret was uncertain at best. The ability of Soviet commanders, especially at regiment and brigade level was certainly questioned by Western defence writers. Separate raiding activities by elements of the OMG would put emphasis on independent command and initiative. Whether the Red Army commanders were up to this is something that will never really be known.

The most obvious threat to the OMG as a formation, and a lynchpin of the *front's* forces was the tactical nuclear weapon. In a nuclear environment, the OMG would have been a prime target for NATO tactical nuclear weapons. This could be thought of in terms of interchangeability. The enemy's tactical nuclear weapons could be thought of as his operational reserve. Therefore the advantage gained by the use of one's side's nuclear weapons, and the increased tempo that went with it was to a large extent negated by the counter use of nuclear weapons. This was indeed a difficult problem, however, one way of avoiding the devastating effects of tactical nuclear weapons was embedding one's own troops inside enemy territory as quickly as possible. European nations were likely to be hesitant when authorising nuclear fire on their own territory.

Conventional weapons could also have reduced the effectiveness of the OMG. One of the most important was the minefield. We have discussed the problems presented by the

sheer mass of the OMG, and the fact that, as far as possible it would move in pre-combat or march formation. This made the OMG vulnerable to mines, especially those that were remotely delivered. The use of FASCAM (Family of Scatterable Mines) type munitions would not necessarily inflict huge physical damage to the OMG, but would have the effect of slowing the speed of the formation, or even bringing it to a halt while breaching operations were conducted.<sup>103</sup> The delay would allow the committal of NATO tactical air forces or possibly nuclear weapons. It would also allow strengthening of subsequent defensive lines in the NATO depth and the commitment of operational level reserves to counter the OMG threat. The ability of NATO to use FASCAM, tube and rocket artillery and tactical air forces (including attack helicopters) on the OMG was dependent on the ability of the NATO forces to identify the formation in a timely manner.

### **Desant**

The Soviet word *Desant*, roughly translated in English means to descend. However this description does not cover the full Soviet meaning of the word. The Soviets defined *desant* as troops intended for landing, or which have already landed, on enemy-occupied territory, for the purpose of conducting combat operations.<sup>104</sup> Though we shall examine mainly airborne forces in this section, Soviet *desant* operations were not limited to this type. Other forms of *desant* included amphibious landing operations and *spetnatz* operations.<sup>105</sup>

The Red Army considered air-landing operations extremely important. They came to represent another echelon in Soviet operational warfare. The Red Army led the way in terms of air landing forces during the Cold War, both in size, mission type and equipment. Unlike the American Air Cavalry divisions in Vietnam, Red Army airborne forces were heavy by comparison. They combined mobility and firepower allowing

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<sup>103</sup> FASCAM are minefields that are deployed by artillery or other airborne means.

<sup>104</sup> *Dictionary of Basic Military Terms (A Soviet View)* Washington D.C., Superintendent of Documents, US Government Printing Office, 1965. p.67. in Bort, Robert E., "Air Assault Brigades: New Element in the Soviet *Desant* Force Structure", in, *Military Review*, October 1983.

<sup>105</sup> *Spetnatz* are Soviet Special Forces troops that specialise in many rear area covert operations.

them to be relatively self-sufficient. This was especially important in their operational-strategic level roles.

Many of the important writers of the 1920s and 1930s dealt with the possibilities, and more critically the limitations of forces inserted in important areas by aircraft. In writing a preface to Fuller's *The Reformation of War*, Tukhachevsky noted the lack of writing on what he called 'Airmechanisation'. The PU-36 Field Regulations mentioned the use of airborne forces succinctly. 'Parachute infantry troops are useful for disrupting the enemy command and rear area services. In conjunction with troops attacking at the frontline they can play a decisive part in the total defeat of the enemy in the area concerned.'<sup>106</sup> Early tests using airborne forces proved unworkable for those proposing the ideas, and absolutely terrifying for the troops carrying them out; some early ideas involved strapping hapless troops to the wings of multi engine bombers.<sup>107</sup>

Apart from the obvious difficulties of the early period, the important question in airmobile forces was their mobility when dismounted from their transport. The American experience in Vietnam showed the vertical envelopment potential of light forces. However, the jungle terrain and the lack of low-level air defence threats hid some of the inherent weaknesses in the air mobility concept.

The main concern was the reduced mobility once a formation was landed. It then became very vulnerable to any sort of motor or mechanised enemy force. It had to fight without heavy anti-armour weapons and lacked the ability to generate medium organic firepower. These problems did not put the Soviets off. They had a sound theoretical appreciation of the opportunities provided by airborne forces. It was only a matter of time before the technology allowed them to field airmobile formations that could influence the battle at the operational, and even strategic level.

The Soviet Army had the largest airborne force in the world during the 1980s. In 1983 the *vozdushno-desantnyye voyska* (VDV) numbered between 50,000 and 60,000

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<sup>106</sup> PU-36, p.4.

<sup>107</sup> Miller, Russell, *The Soviet Air Force at War*, New Jersey: Time Life Books Inc., 1983. p.74.

troops.<sup>108</sup> It was considered one of the premier establishments of the Red Army and therefore benefited in gaining the best recruits and equipment. VDV forces were designed to operate at all levels. By the mid 1980s, VDV forces were capable of landing a brigade-sized force up to 500 kilometres behind NATO's front lines. However for a number of reasons this would be the absolute maximum range. Tactically, VDV forces could land one or two battalions at an important site, such as a river crossing. The maximum ranges observed in Soviet exercises for these types of operations ranged from 15 to 20 kilometres beyond the FLOT. Operationally, a *front's* Air Assault Brigade (AAB) would deploy between 20 to 100 kilometres behind the Forward Line of Own Troops (FLOT).

The mission types for the AAB would be many and varied, but it appeared that first and foremost, its main task would be the support of an OMG. This support was achieved in a number of ways. Directly, the AABs would be responsible for maintaining the momentum of the OMG at various stages of its advance. Important tasks included seizing key terrain points such as river crossings, crossroads and restricted terrain. The seizure of these areas, by force, or by pre-emption, would allow the OMG to retain its march formation and thus its momentum.<sup>109</sup> Indirectly, the AAB would be used to attack the same type of targets that an OMG would have been assigned. One of the most important tasks for the OMG was the destruction of NATO tactical nuclear weapons systems. Other targets included command and control systems, unit headquarters, air defence establishments and logistical targets. Along with this raiding function, the elements of the AAB would be used to delay the progress of enemy operational reserves and generally create panic and confusion in NATO's rear area.

Let us examine the equipment contained in an AAB and we will then be able to understand its importance on the Cold War battlefield. Each AAB would contain around 80 rotary wing aircraft. The main types were the Mi-24 Hind and the Mi-8 Hip. The Hind, not having an exact equivalent to this day, could carry a squad of soldiers as well as being equipped with an anti-tank and fire support capability. It could thus be thought

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<sup>108</sup> Bort, p.22.

<sup>109</sup> Bort, p.30.

of as either a tank or an Infantry Fighting Vehicle (IFV) in ground terms.<sup>110</sup> The Hip was primarily a transport aircraft, but could be armed with a sizable amount of free fire rockets. Thus it was both a battle taxi and a fire support weapon. Thus the AAB had most of the important attributes of a tank or combined arms formation. It had a heavy anti tank capability; it could protect troops as they were moved to battle and it could provide its own fire support.

The attributes discussed, plus the inherent attributes of rotary wing transport gave it some important capabilities. It could achieve a tempo many times greater than any ground force. It was not dependent on roads to attain its maximum mobility. It could also move troops in a dispersed formation but fight concentrated. As with any formation, it did have weaknesses. The survivability of helicopters on the Cold War battlefield was questionable. This was mainly due to the proliferation of low-level air defence assets fielded by both sides. Easily concealable Man Portable Air Defences (MANPADs), or, even as we have seen in more recent times, light anti-armour weapons, could have inflicted high losses on helicopter formations. Much the same could be said about infantry fighting vehicles during the Cold War; i.e. one soldier with a light anti-armour weapon could destroy a light armoured vehicle and quite possibly its squad of soldiers.

The AABs became a potent force at the operational level. Like the OMG, its task was to insert itself into the depth of the enemy and, if nothing else, create havoc in the NATO rear. In some regards it could be looked at as a forward detachment of the OMG, in that its task was to facilitate the forward movement of the OMG by pre-empting or destroying enemy forces and any man-made or natural barriers.

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<sup>110</sup> Spick, Mike and Quarrie, Bruce, *An Illustrated Guide to Tank Busters*, London: Salamander Books, 1987. p.41.

## Chapter 8

### American Developments

A history of the US Army by Russell Weigley stated that:

From the Civil War onward, the United States won its major wars mainly by overwhelming its enemies with superior weight of numbers and resources. Superior strength flooded over the enemy's armed forces, eroding them through attrition and finally annihilating them...American soldiers became habituated to the advantages of wielding overwhelming power. The assurance of possessing greater resources than the enemy's encouraged the Army to adopt a strategy and even tactics of direct, head-on confrontation, to crush the enemy where he was strongest and thus bring all his defenses tumbling down.<sup>111</sup>

This quote is a perfect encapsulation of American warfare. One could argue that it is still very much applicable to the modern world. This however was not the case in Vietnam. While the Americans could still develop overwhelming firepower, they could not win the conflict. The reasons for this are many and varied, however the loss in Vietnam provided incentive to reform all aspects of the US Army.

Much is made of the doctrinal renaissance experienced by the American Army after the morass of the Vietnam War. This has a lot to do with the 1991 Persian Gulf War. This war was seen as a validation of the United States Army. This validation was multifaceted. It included technology, force structure and doctrine. New technologies had played an important role in the conflict; it was the first proper outing for the so-called 'Big Five.'<sup>112</sup> Similarly, the force structure, which included a mix of heavy and light divisions showed both flexibility and firepower. Perhaps the biggest leap for the Army was in its doctrine, it was also the most important. The AirLand Battle doctrine was a

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<sup>111</sup> Weigley, Russell F., *History of the United States Army*, London: BT Batsford, 1984. p.577.

<sup>112</sup> The 'Big Five' was the name given to five high technology acquisitions made by the US Army. These included the M1A1 Abrams Main Battle Tank, the M2 Bradley IFV, the AH-64A Apache Attack Helicopter, the UH-60 Blackhawk helicopter and the Patriot Anti-Aircraft system.



product of hard military thinking about what form future war in Europe might take. It was also the product of debate in forums and publications, both military and civilian. Journals such as *Military Review* and *International Security* (to name two) created an atmosphere conducive to the development of a new doctrine. The debate raised the question of the merits of manoeuvre warfare. Unlike the Soviet literature which tended to mirror official Soviet policy, the American doctrine at all levels was unable to escape healthy criticisms. The end result of this process was the formulation of the AirLand Battle doctrine. This doctrine aimed, first and foremost, at the defeat of the Warsaw Pact in Europe. But perhaps its most important contribution was the defining of the operational level of war. This chapter will trace the development of the American operational level of war, and the doctrine that accompanied it. It will examine the major influences that created the change in American military thinking.

## **TRADOC**

In 1973 the US Army set up the Army Training and Doctrine Command (TRADOC). TRADOC was set up as a result of the STEADFAST reorganisation of the Army.<sup>113</sup> Continental Army Command (CONARC), TRADOC's predecessor, was responsible for the numbered armies, most major US Army installations as well as training, readiness and education. Under the reorganisation, CONARC ceased to exist and its function was taken over by TRADOC and the Armed Forces Command. TRADOC's main tasks were doctrine, training, establishing tactical units and defining material requirements. TRADOC's establishment was critical to a military experiencing change at all levels.

TRADOC's first task was to reinvigorate the Army after its lacklustre South East Asian experience. However the study of the 1973 Middle East conflict pushed the problem of doctrine into the limelight. This would be the main effort of TRADOC for its first two years, however it was also involved in bringing the material standards of the Army up to scratch.

## **Development of the 1976 FM**

The US Army 1976 *FM 100-5 Operations* was probably the most important FM in the development of the post-war World War Two Army. This is ironic because of the

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<sup>113</sup> STEADFAST was an initiative directed by General Creighton Abrams, Chief of Staff of the Army, to try and solve command and control problems in the US Army.

criticism the FM received immediately after it was published. It was however this criticism that set the US Army on a journey of self-discovery and would finally introduce concepts applicable to the operational level of modern war.

Anyone who has read US military history will be familiar with General William DePuy. This man, more than any other was responsible for the 1976 FM. DePuy had served with distinction in World War Two. He served with the 90<sup>th</sup> Infantry Division; a formation that had a rather mixed time of things. It was a new and inexperienced division and its first assignment, breaking out of the Normandy beachhead, saw it suffer many more casualties than it should have. After changes of leadership, the division went on and saw action during the Falaise Gap operations and later in the Battle of the Bulge.

The factors that influenced DePuy during the war were varied. He was most impressed with the German Army and especially its excellent tactical formations and discipline. In particular he was impressed with the German panzer grenadiers and their style of warfare. This would become important later. He also gained much experience with the possibilities and challenges posed by armoured warfare. For DePuy, World War Two retained the continuity of historical trends in warfare.

This was not the case for his next combat experience. He saw his experiences in Vietnam as an aberration. This is not to say that he did not learn anything from his time in Vietnam. He spent two years with MACV (Military Assistance Command Vietnam) and another year as the commander of the 1<sup>st</sup> Infantry Division. The time spent with the 1<sup>st</sup> Infantry Division allowed him to evaluate his ideas in a less than conventional environment. Of course some of the most important ideas such as combined arms, speed and intelligence were reinforced as being critical to any battlefield.

His tactical style was focused on the destruction of the enemy. As commander, DePuy used small forces to find and fix the enemy, while manoeuvring larger forces to complete their destruction. There were two main factors for DePuy to think about. The first was finding enemy forces. The Vietnamese battlefield was unlike Europe and concealment and cover was easily found in most places. Once the enemy had been found, DePuy used his mobile forces to quickly intervene in the action before the enemy had a chance to slip away, or be reinforced. The most obvious means for this was the

helicopter. The development of helicopter operations was influenced both positively and negatively by the Vietnam experience. It gave commanders such as DePuy the ability to manoeuvre in the vertical plane and bring firepower, albeit light infantry, to bear in a timely manner on the enemy. However the stigma attached to the failure of Vietnam overall would significantly retard the potentials of US airborne operations after the conflict.

The second main factor for DePuy's consideration was the use of combined arms, and more specifically, the integration of air delivered firepower. The challenges posed by the Vietnam conflict required excellent communication between ground and air forces. The air forces were dependent on the infantry to find targets and provide reliable information on where to put ordnance. The particularities of the Vietnamese terrain were a big factor in this. Further, the management of the airspace over the battlefield was all-important. During an operation, the fast movers, forward air controllers, helicopters and artillery shells would all be vying for airspace.

DePuy was also influenced by some of the things that were generally associated with the Vietnam conflict. He believed that some officers had developed an over emphasis on supporting fire which led to a decline of infantry skills. It appeared to some that all ground force problems could be fixed by the liberal use of indirect or air delivered firepower.

Thus DePuy had experienced two of the most important conflicts the American Army had been involved in. One was a conventional campaign against a modern army practising a form of manoeuvre warfare. The other was against a sometimes-conventional enemy in jungle terrain. Obviously these are extremely different conflicts. The third major conflict that influenced DePuy, and therefore the American military was the Yom Kippur War of 1973.

The Yom Kippur War would introduce a 'new lethality' to the modern battlefield. Yom Kippur was as much a wake up call to the Americans as it was to the Israelis. The new lethality was the result of the fielding of advanced weapons systems, the use of which reinforced the principles of combined arms warfare. One of the most important weapons was the Sagger Anti-Tank Guided Missile (ATGM) used by the Egyptian infantry. This

man-portable, suitcase sized weapon could destroy a tank. Thus when Israeli armoured forces tried to repel the Egyptian attack, they were met by a barrage of Sagger missiles and were driven back. Likewise when the Israeli Air Force, tried to intervene in the ground battle, Egyptian low and medium level air defences drove them off. The situation only reversed itself when the Israelis started attaching infantry to the attacking armour units and the ground forces started getting involved in the battle for air superiority.

The conclusions from this conflict were important on the tactical level; it demonstrated how combined arms tactics were necessary to defeat a modern army. It also showed the interdependence of air and ground forces. At a higher level however, the conflict showed that the Americans could expect to fight a modern army (both in equipment and doctrine) outside of the predominant European battlefield. Moreover, inspection of Soviet made vehicles and equipment used by the Egyptians and Syrians showed qualitative improvements over their US counterparts. It appeared that the US, mainly due to Vietnam had missed the best part of a generation of advances in armoured warfare technology.

US forces fighting on a modern battlefield could also expect to have to contest the superiority of the air. The US Air Force (Army Air Force prior to 1947) had not fought a hard battle for air superiority since the middle of World War Two. Unlike Vietnam they would not have the ability to go where they wanted to, and would have to fight hard, both in the air and against ground based air defence forces for the privilege of over-flying the main battle area. This of course had huge implications for the Army. They could not expect to receive the excellent CAS and interdiction support they received in Vietnam, Korea and the Second World War.

### ***FM 100-5 Operations 1976.***

The 1976 Field Manual (FM) was a break from the FMs of the past. It was different both in its substance and in its written style. Its substance was focused on the European battlefield to the exclusion of any other type of conflict. It also was the first to downplay the advantages of offensive warfare, and even of counter attack. This was due to the single focus nature on the European battlefield.

The manual was also the first to exclude the principles of war. In this regard it tended to instruct the Army how to fight in a particular conflict, not how to fight conflicts in general. It was perhaps more instruction than true doctrine. Along the same theme, the manual focused on force ratios and analysis of weapons systems. It discounted the inherent human nature of warfare. For example it expressed soldiers as simply crews for weapons systems, instead of thinking soldiers with weapons systems. Most importantly the 1976 FM disregarded the operational level of war. The manual concentrated solely on tactical war fighting. This was certainly interesting considering the operational level focus that the Soviets had. This theme came through strongly in the 'win the first battle' approach.<sup>114</sup> The win the first battle concept was both a practical instruction and a realisation that American forces had often been unprepared for its conflicts. The *FM 100-5 Operations* 1976 noted that:

The first battle of our next war could well be its last battle...The United States could find itself in a short intense war, the outcome of which may be dictated by the results of the initial combat. This circumstance is unprecedented. We are an army historically unprepared for its first battle. We are accustomed to victory wrought with the weight of material and population bought to bear after the onset of hostilities. Today the US Army must above all else, prepare to win the first battle of the next war.<sup>115</sup>

In general the 1976 FM was very tactical and technical in nature, based on a systems analysis approach to warfare, while discounting the traditional principles of warfare. It failed as a doctrine to gain acceptance from the majority of the Army. Its importance was not in what it contained, but in the type of discussion it stimulated. This discussion was not limited to military personnel; many civilians took up the challenge of criticism and the search for a more sound traditional military approach to doctrine, and most importantly, a focus beyond the tactical level of warfare.

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<sup>114</sup> Herbert, Paul H., *Deciding what has to be done: General William E. DePuy and the 1976 Edition of FM 100-5 Operations*, Kansas: Leavenworth Papers no. 16, June 1988. Chapter One.

<sup>115</sup> US Department of the Army, *Field Manual (FM) 100-5, Operations*, Washington: US Government Printing Office, May 1976. p. 1-1. in, Evans, Dr Michael, *The Primacy of Doctrine: The United States Army and Military Innovation and Reform, 1945-1995*, Directorate of Army Research and Analysis, Army Occasional Paper, Canberra, August 1996.

A further limitation was the fact that the doctrine had to be compatible with German doctrine. In this regard, DePuy was the man for the job as he had a good understanding of German concerns and understood their tactical style. Indeed the German connection to *FM 100-5* was quite strong. DePuy was impressed with German tactical theory, especially its *panzer grenadier* tactics. The German concept of panzer grenadiers involved the use of infantry, in armoured fighting vehicles, in close cooperation with armour. The infantry would try, as much as possible, to remain with their fighting vehicles to retain good tactical mobility. When forced to dismount, they would use the firepower of the infantry fighting vehicles to suppress the enemy, while the infantry would advance to small arms and grenade range to destroy the enemy. The grenadier's main task was to clear anti-armour weapons when these threatened friendly armour. The *Bundeswehr* had carried this concept into its modern state. Technology matched this concept, for in 1971, the German Army fielded the Marder IFV.<sup>116</sup> This vehicle was similar to the Soviet BMP (*Bronevaya Maschina Piekhota*). It combined the tactical mobility of tanks with reasonable armoured protection for its soldiers. More importantly it provided a reasonably heavy firepower punch that could defeat all but the heaviest armour.<sup>117</sup>

### Active Defence

Since the early 1950s the US Army had used two main types of defence. These were mobile defence and positional defence. However neither of these seemed appropriate in the European theatre. The US simply did not have enough forces to fight a positional type defence. On the other hand, due to political limitations, it was unable to trade time for space in the conventional sense. This was the major problem for the writers of doctrine. The Army had to essentially fight outnumbered and win, but do it without giving up much, if any, territory.<sup>118</sup> DePuy's new doctrine therefore had not only to defeat Warsaw Pact forces, but also had to fit in with the US Air Force and the German armed forces. DePuy believed the solution to this problem was 'Active Defence'. The main points of active defence were:

1. All available forces in the forward battle area without sizeable reserves.

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<sup>116</sup> *Bundeswehr* is the German Army.

<sup>117</sup> Spick, Mike and Quarrie, Bruce, *An Illustrated Guide to Tank Busters*, London: Salamander Books, 1987. p.136.

<sup>118</sup> Collins, John M., *American and Soviet Military Trends Since the End of the Cuban Missile Crisis*, Washington D.C.: Georgetown University, 1978. p.169.



2. Fighting hard in the covering force area to reduce momentum of enemy forces and force committal of second echelons.
3. Detection of enemy main effort and lateral reinforcement of units to achieve more favourable force ratios at the decisive point.

Active Defence split the battlefield up into three main sectors. The first was the covering force area. The covering area extended forward of the main battle area, towards the enemy. The units involved in the defence of this zone had the task of revealing the enemy's intent, strength and direction of movement. It was also hoped that the covering forces could delay the enemy to buy time for the movement of friendly main forces. Once the main effort had been identified, US commanders would move formations laterally to plug potential gaps before they could be exploited. They hoped to create better force ratios at the decisive point before the enemy could engage them. It was believed that good use of terrain and high technology weapons would provide the ability to stop the enemy and retain the general shape of the forward edge of the battle area (FEBA). FM 71-100, *Armored and Mechanized Division Operations*, stated:

The concept of the active defense is to defeat the attacker by confronting him with strong combined arms teams fighting from battle positions organized in depth. As the enemy attack moves into the defended area, it encounters fires of increased intensity delivered from the front and especially the flanks. The defender constantly shifts forces to take maximum advantage of the terrain, and to put himself in a favourable posture to attack.<sup>119</sup>

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<sup>119</sup> FM 71-100, *Armored and Mechanized Division Operations*, Department of the Army, Washington, D.C., 29 September 1978. p.5-2. in, Doughty, Robert A., *The Evolution of US Army Doctrine, 1946-76*, Kansas: Combat Studies Institute, 1979.

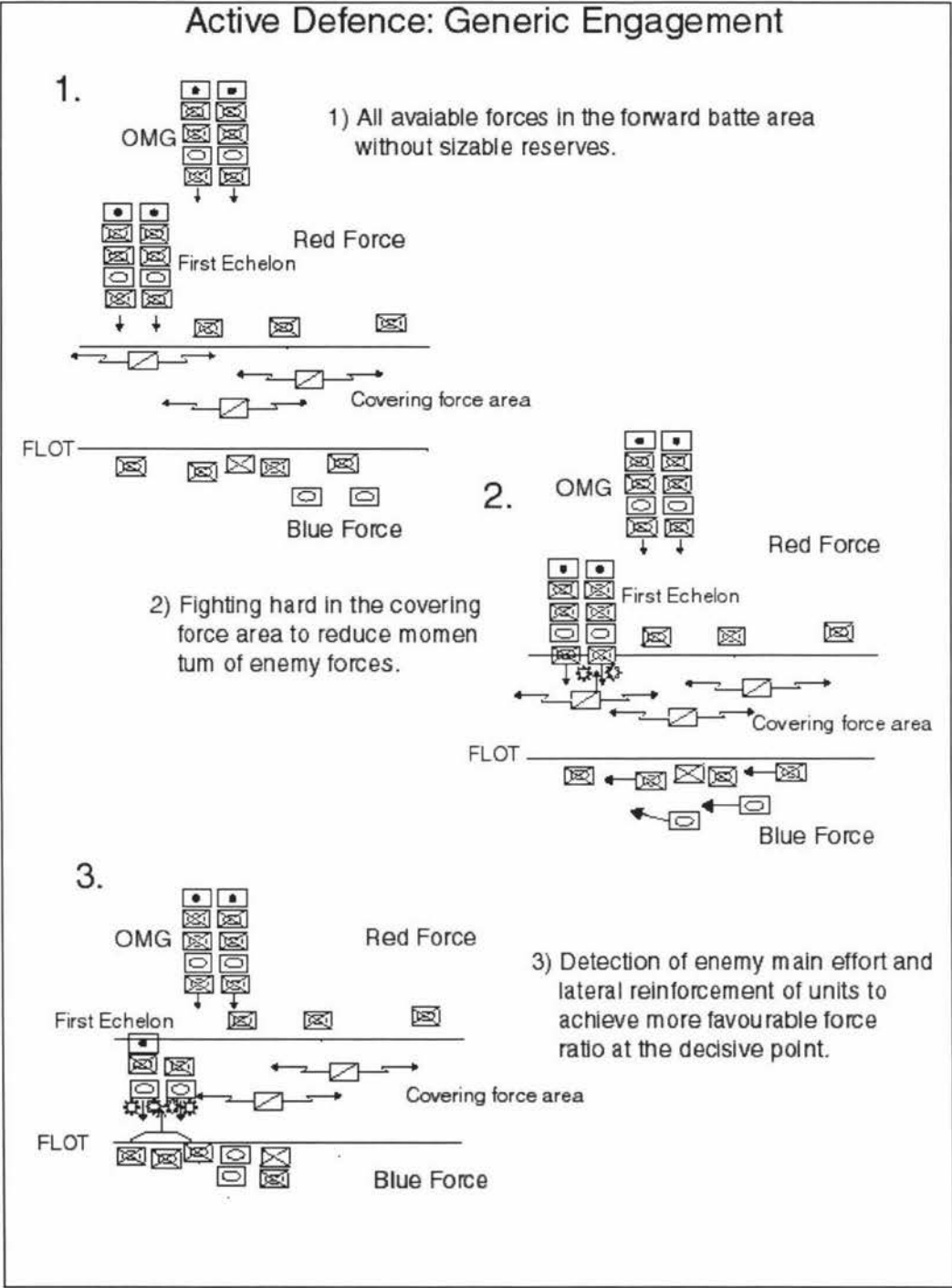


Figure. 2. Active Defence: Generic Engagement.

Active Defence then called for a shift to the offensive, i.e. a counterattack when the enemy had been reduced to a reasonable degree. However with this came the warning that counterattacks threw away the inherent advantages of the defence, and especially the importance of terrain. The mathematics of the situation would surely have made a viable counterattack rare to say the least. The manual stated that the defender would need at least one third of the attacking force to be able to repel an attack. Moreover it stated that for a successful attack, the attacker must have an advantage of 6:1. Therefore, before being able to contemplate a counterattack on an enemy on its main axis, the US forces would have to more or less wipe out the opposing force. The emphasis on force ratios as determinants for battlefield decisions was one of the most significant failings of the manual.

### **Tactical Air Command and the AirLand Battle**

Chapter Eight of the 1976 FM ushered in a new concept that would eventually become the future doctrine for the US Army. Recent experience and studies of other conflicts suggested that cooperation with the Air Force would be extremely important for any doctrine, especially one that was focussed, on the ground level at least, on tactical matters. Further, in the European theatre, NATO tactical air forces were needed to make the whole 'fight out numbered and win' philosophy possible. The Army it seemed was content to leave the majority of the operational level war fighting to the Air Force. The manual devised a scheme which would merge air and ground operations to cover the battlefield. The battle space forward of the FEBA would be split into three areas. The first would cover five kilometres forward of the FEBA. This area represented the limit of Army direct fire weapon systems.<sup>120</sup> This area was the domain of the Army only. It was in this area that the Army could bring its massed firepower to bear most efficiently on enemy combined arms formations.

The next area extended 50 kilometres forward of the initial zone. This area was the domain of both the Army and the Air Force. While outside the range of direct fire weapons, the Army could still influence the battle mainly with its own aircraft and indirect fire such as tube and rocket artillery. The battlefield beyond 50 kilometres was

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<sup>120</sup> These included systems such as main tank armament, anti-armour missiles and anti tank guns.

the main responsibility of the Air Force, with interdiction missions being the main output.

The Air Force also contributed many other vital outputs throughout the battle space. One of the most important, especially in terms of the Active Defence doctrine, was the ability to collect intelligence, which would allow ground force commanders the ability to determine main enemy efforts and forces. The other main outputs the Air Force provided were electronic warfare, close air support and air logistics.

A further important area that demanded the talents of both ground and air commanders was the battle for air superiority. The suppression of enemy air defence assets was most important here. Soviet forces were well equipped with self-propelled air defence forces that were integral to their formations. These would have posed a serious threat to NATO close air support and near interdiction missions. At a greater depth, Soviet air defences consisted of heavier, but still mobile air defence systems. The mission of freeing the air space from ground based anti-air weapons needed to be a joint effort between the Air Force and the Army.

#### **Flaws in *FM 100-5 1976***

Critique, both constructive and otherwise was not long coming after the release and dissemination of the 1976 FM. It was not hard to see why. Setting aside the actual content, even the tone of the manual seemed overly technical and disregarded important historical military principles. It was not a product of many years of experience; it was instead a tactical instruction guide to fighting the Soviets in Europe during the 1970s.

The Active Defence style of war dominated the manual. Indeed one of the major complaints was the lack of emphasis on offensive operations. It was not describing how to win, instead simply, how not to lose. The defensive tone of the manual suggested giving up the initiative in combat and fighting in a strictly reactive style. This was understandable within the confines of the Cold War period, though it ensured a short shelf life for the manual.

The Active Defence doctrine was flawed in more than one way. It concentrated on winning the first battle by reinforcing laterally with forces already deployed in the main

battle area. The ability to shift large formations across European terrain in a timely matter was suspect to say the least. Of course this was dependent on being able to find the main axis of Soviet attack, and being able to transmit this information. The lateral movement of forces by US commanders would have proved ideal for Soviet commanders who were well trained in the meeting engagement. Any defensive movement, especially that which was likely to be especially constricted by time and terrain, negated the advantage of the defence, which was basically the crux of the Active Defence style.

Even if the first battle had been won by the US forces, the Soviet employment of echelons and mobile groups (OMGs) may have given US commanders problems when these forces reached the front lines. This was perhaps the best indication that there was no understanding of the operational level of war. Soviet theory of the time was changing from heavily echeloned formations to multi pronged attacks followed by the committal of operational level formations. The US manual concentrated on winning the first battle against the first echelon, but made no account of the threat posed by a mobile group that was likely to be at least a division in size. It appeared that some writers had designated the operational level of war as incompatible with defensive operations. Active Defence tried to compartmentalise the battlefield into tactical level actions that could be won using attrition based tactics. While there was lateral movement of forces, there was little or no movement of forces longitudinally.

The lack of focus on the operational level in the 1976 FM is hard to understand. The manual identified the Soviet armed forces as the most probable opposition force in a European conflict. The Soviet focus on the operational level of war should have been easy to pick up. Much of the Soviet literature concerning historical and (then) current trends on operational level doctrine was available in the West. One of the important points emphasised in the manual was to understand your enemy. It appears that the writers either did not understand the Soviet emphasis on the operational level or did, but decided not to include it. The second option seems rather far-fetched.

The lack of focus on operational matters was probably a product of inconclusive operational thought during World War Two, and a total lack of the same in the Vietnam War. Examples are often given of operational consciousness in the American Civil War,

and MacArthur's landing at Inch'ŏn. But apart from these examples there was very little else. American study of the Second World War was dominated by a fascination of *Wehrmacht* tactics. While the Germans exhibited excellent tactical skills (the very same that impressed DePuy and the TRADOC writers), they seemed to have had a rather limited appreciation of the operational level.

Vietnam was the odd conflict out in the experience of the US Army. It had no real front lines and operational art took on a much more dilute form. There was no real measure of success for US forces even though they consistently won main force battles against the North Vietnamese Army. The point was of course, that there was no linkage between these battles and the strategy that the US government was attempting to realise. It seemed that the non-linear fashion of the Vietnam conflict shrouded any attempt to come to terms with the operational concept.

The lack of operational thought and the defensive nature of the European battlefield led to a doctrine that was theoretically and practically unsound.

## Chapter 9

# American Operational Thought

### The Move to the AirLand Battle Doctrine

By 1978 it had become clear to many that the current *FM 100-5 Operations* had serious flaws. The road to the realisation of an operational paradigm was a rather complex one. As such I will summarise the two most important components. The first was the huge amount of material and debate generated by the 'civilian reformers'. The second was the change of leadership at TRADOC.

The so-called 'civilian reformers' were made up of a large group with many different backgrounds and experiences. Among the most prominent were William Lind, Steven Camby, and Edward Luttwak. In the period between 1978 and 1982 a huge amount of work was done in trying to find solutions to the problems posed by the 1976 FM, and more widely to the strategic reality of Europe.

The most important contributor in the early period was William Lind. He questioned the Active Defence doctrine in terms of its lack of depth and reserves as well as its tactical orientation. He argued that the doctrine showed a complete misunderstanding of the importance of manoeuvre and therefore a gross misunderstanding of the Soviet operational concept. This led to one of Lind's greatest contributions; that was the importance of depth. Further research of Soviet operational concepts led to the identification of the concept of pre-emption of depth and therefore the necessity of simultaneity to combat the Soviet system. Other reformers added to the mix the importance of the operational level and importantly associated it with manoeuvre style warfare.

Edward N. Luttwak's article, appearing in *International Security* in 1980 was entitled 'The Operational Level of War'. In this article he examined the traditional American emphasis on attrition warfare techniques, including the use of overwhelming firepower and the importance of logistics to the development of the tactical situation. He noted



that there was a gap between the levels of strategy and tactics in American military thinking. As many Soviet writers had done some fifty years earlier, Luttwak stated that:

The operational level of war... is or ought to be of greatest concern to the analyst.<sup>121</sup> He also gave his definition of the operational level. 'In the operational dimension, by contrast, schemes of warfare such as blitzkrieg or defense in depth evolve or are exploited. Such schemes seek to attain the goals set by theatre strategy through suitable combinations of tactics.'<sup>122</sup>

This definition, coming prior to the 1982 FM further created debate, however the thoroughness of his article was impressive. Luttwak did not stop at a definition, in fact the lions share of the article was devoted to linking the operational level of war with 'relational-maneuver'. 'Relational-maneuver' contained many attributes consistent with manoeuvre warfare. He studied German Blitzkrieg operations and also examined the Lapland defence theory of the Finns.<sup>123</sup> From this he isolated three critical elements of 'relational manoeuvre'. These were the avoidance of an enemy's strengths, the importance of deception and the concept of momentum. The link then between the operational level and relational warfare was due to the fact that the 'decisive level of warfare in the relational-maneuver manner is the operational, that being the lowest level at which avoidance, deception and dominance of momentum can be brought together within an integrated scheme of warfare.'<sup>124</sup>

It was not however all one-way traffic. There were those both within and without the American military who fought to defend the Active Defence doctrine. However by 1982 this group had been beaten by the reformers who were now armed with a more complete understanding of the faults of the Active Defence doctrine, and perhaps more importantly a greater understanding of Soviet operational methods.

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<sup>121</sup> Luttwak, Edward, N., "The Operational Level of War", in *International Security*, Vol. 5 no. 3 1980/1981. p.61.

<sup>122</sup> Luttwak, p.61.

<sup>123</sup> The Lapland defence concept would see the Finnish Army defeat a Red Army attack by the destruction of their combat support and combat service support elements rather than their powerful armoured and mechanised forces. Thus the Finns would avoid the main strength of the Red Army while attacking a perceived weakness.

<sup>124</sup> Luttwak, p.73.

The hectic debate had set the tone for a change in the official doctrine of the US Army. What was needed now was a leader who could steer the energy created by the debate in a useful direction. This leader was found in General Donn A. Starry. During 1977 TRADOC leadership had been passed to General Starry who had also been influential in writing the 1976 FM. Since that time he had commanded V Corps in Germany. During those years he gained an appreciation of some of the impracticalities of the Active Defence doctrine. He also realised that the operational level of war was sorely missing from US doctrine.

In November 1978 Starry initiated a major study called the Battle Development Plan. This was undertaken at the same time TRADOC staff began to question the validity of DePuy's Division Restructuring Project. This prompted the Division 86 project which looked at the structuring and operation of the Army's heavy divisions. This study was soon extended to Army 86, which included other Army divisions, and importantly, looked at the operations of echelons higher than divisions. This was an important step in the inclusion of an operational level of war in US doctrine.

The new studies, as well as the lively debate began to bear fruit. There was a realisation in TRADOC that the battlefield would have to be extended to cope with the operating mode of Soviet forces. Starry introduced this concept in his 1981 article 'Extending the Battlefield.' This article showed the influence of Soviet operational theory.

His article was concerned most of all with the problems of a multi-echeloned Soviet attack. The article suggested extending the battlefield in three main areas. These were an extension in depth, an extension in time and an extension of the involvement of higher-level formations (notably Corps and Armies) in the employment of acquisition and targeting assets. The extension of the battlefield in terms of depth was fundamental to the concept. Indeed it was described as a necessity and not a luxury.<sup>125</sup> 'The need for deep attack emerges from the nature of our potential enemies- their doctrine and their numerically superior forces.'<sup>126</sup>

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<sup>125</sup> Starry, Donn A., "Extending the Battlefield", in *Military Review*, March 1981. p.32.

<sup>126</sup> Starry, p.34.

To be able to prosecute the deep attack, Starry described three tools. The first was interdiction. This involved the use of artillery, tactical air forces and Special Operations Forces. The second tool was offensive electronic warfare and the third was deception. The second and third tools hinted at the real goal of deep attack. This was the creation of opportunities for friendly action, and not in the physical destruction of forces not yet in contact. This would allow friendly forces to regain the initiative through offensive action.

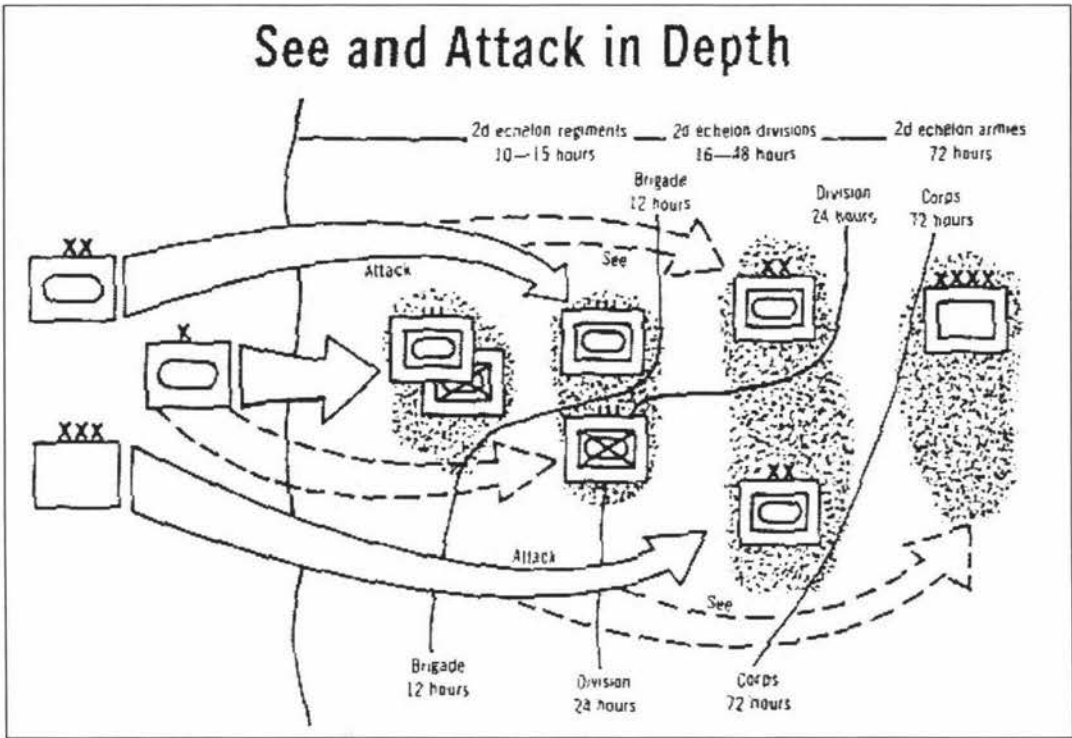


Figure. 3. See and Attack in Depth.  
(Source Starry, Donn A., "Extending the Battlefield" in *Military Review*, March 1981. p.36.)

This led to the concept of *windows*. The goal of deep attack was then to create *windows* of opportunity for friendly forces. The deep attack would have to be tightly coordinated with the close battle. The close battle was still regarded as the decisive one, and therefore attacking targets not specifically related to the accomplishment of the close battle constituted frittering away scarce resources. Without close cooperation between the close battle and the deep attack, *windows* of opportunity would not be created, or, even if they were created, units in the close battle would be unprepared to exploit them.

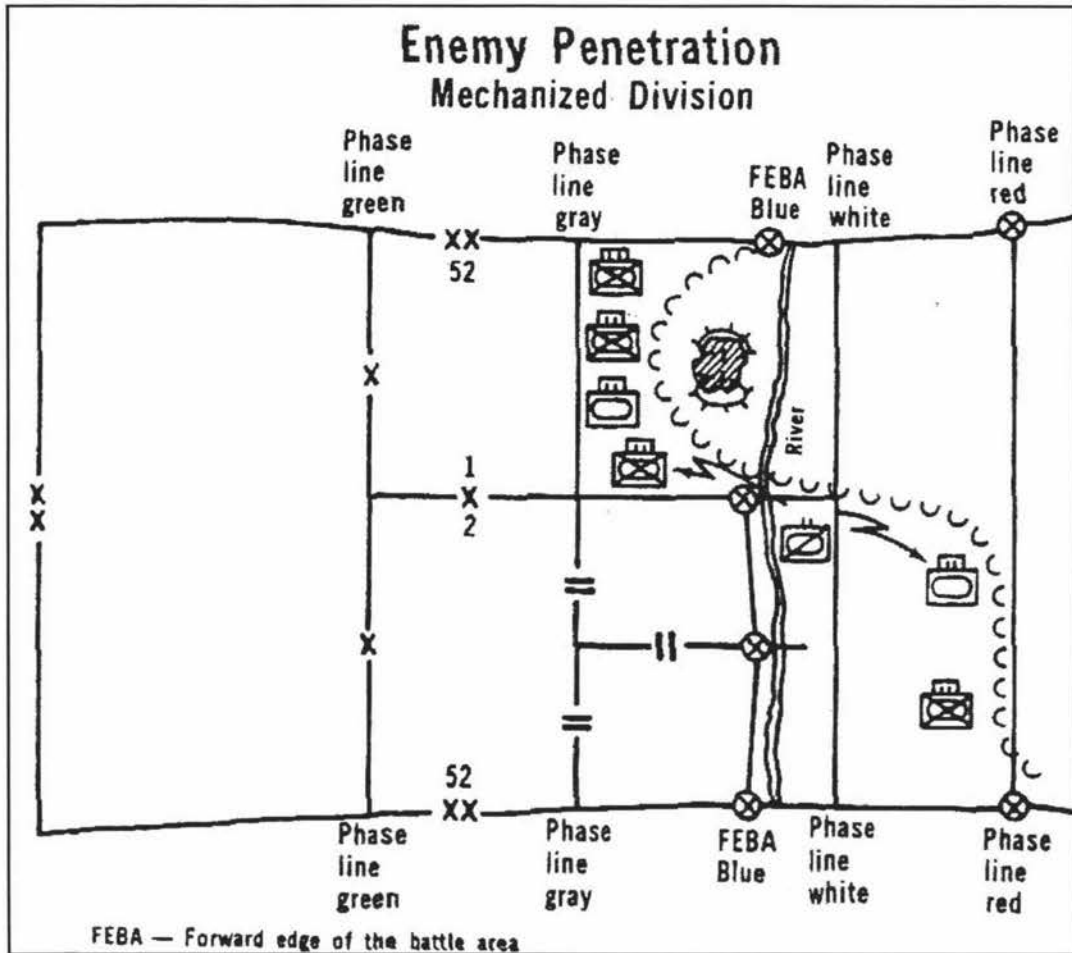


Figure. 4. Enemy Penetration: Mechanised Division.  
(Source Wass de Czege, Huba, and Holder, L. D., "The New FM 100-5", in *Military Review*, July 1982. p.68.)

The article emphasised that depth on the battlefield should not be thought of only in terms of distance. Instead depth could be thought of in terms of time from the FLOT. There was also a duality involved for commanders at all levels. For instance, a Corps commander would have to be able to 'see' the enemy 72 hours deep, but had to attack another enemy formation that was 24 hours deep. Similarly, a division commander would have to 'see' the enemy between 12 and 24 hours deep, but was responsible for attacking enemy formations under 12 hours deep. This obviously would involve major cooperation at all levels and excellent command and control facilities.<sup>127</sup>

<sup>127</sup> Starry, p.36.

One of Starry's main concerns was the ability to be able to detect, identify and target enemy forces for deep attack. Intelligence and reconnaissance then became extremely important. It also became harder as the Army would be relying on Air Force assets to provide the majority of the data on Soviet formations in depth.

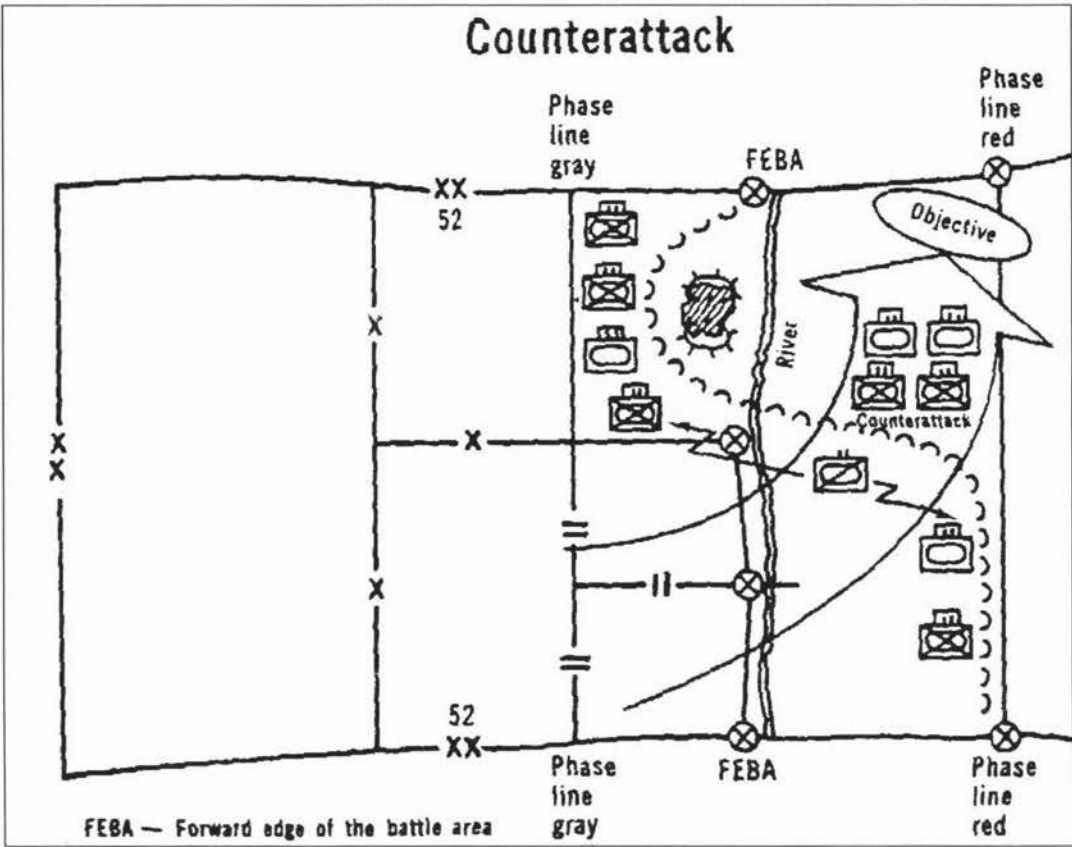


Figure. 5. Counterattack: Mechanised Division.  
(Source Wass de Czege, Huba, and Holder, L. D., "The New FM 100-5", in *Military Review*, July 1982. p.69.)

Thus the 1982 FM showed massive influence by the Soviets, indeed, Starry in his keynote article states it. It is also the absolute importance of deep attack. Starry described deep attack as a necessity and not a luxury. The identification of depth past the tactical level as being important was one of the largest steps in the American recognition of the operational level. The Soviet influence came from the identification of the Soviet emphasis on mass and momentum and their particular style of

echelonment. Without the concept of depth, NATO could see no chance of winning even the first battle, and certainly not the follow on battles that were sure to occur.

Other facets of the 1982 FM showed very similar characteristics to Soviet theory. The 1982 manual emphasised the importance of initiative and gave instruction on how to attain it in battle. *Windows* could be utilised to seize the initiative by offensive action. Offensive action then became all important, as it had been in the PU-36. Similarly, the introduction of synchronisation into the 1982 FM showed the importance of cooperation and coordination, especially in the deep battle. In this way the US Army could gain maximum advantage from using its high technology deep attack assets. The identification of the necessity of simultaneous operations was further away, but the Army was certainly heading down that track.

It is worth noting that the development of the 1982 manual was significantly different from the 1976 version. The 1976 FM had been to a large degree a closed effort. The 1982 edition on the other hand was introduced to the Army, and to many in government departments by a series of briefings carried out by the TRADOC staff. Moreover, there was wide circulation of a draft of the manual in 1981. Thus feedback could be given and the acceptance of the manual by the Army was more likely than it had been in 1976.

The move to the 1986 version of the ALB doctrine was less of a step than that between the 1982 and 1976 versions. The manual was an attempt to clarify some of the issues in the 1982 version. The most important was a more thorough handling of the operational level of war. There were also slight changes in the imperatives, although the tenets, and the general tone of the FM remained largely the same.

Much of the criticism of the first iteration of the ALB doctrine focussed on deep attack and the apparent over emphasis on offensive operations. The 1986 manual set out to clarify those points. It also attempted to clarify more precisely the actual role of doctrine; stressing that doctrine and strategy were completely different. This point was made necessary by the robust discussion of nuclear, biological and chemical weapons in the 1982 edition.



It is at this stage that Triandafilov and Tikhachevsky resurface. The School of Advanced Military Studies (SAMS), was set up in 1983 for the further education of graduate officers under the auspices of TRADOC.<sup>128</sup> SAMS contained two main programs. The first was the Advanced Military Studies Program. This was designed for majors and had as its primary purpose preparing them for division and corps staffs. The second was the Advanced Operational Studies Program. This was designed for Lieutenant Colonels and taught war at the strategic and operational levels.<sup>129</sup>

As well as educating officers in higher military art, SAMS in 1985 was tasked to help with the revision of the 1982 manual. At the same time Dr Bruce Menning set up the Soviet Army Studies Office (SASO). It soon formed a close relationship with the SAMS. It provided lecturers and much source material for theoretical teaching within SAMS. It is interesting to find that at this time two textbooks used by the school were, *The nature of Operations of Modern Armies* by Triandafilov and Tikhachevsky's *New Questions of War*. It is of course hard to imagine exactly the type of impact that this had on the students, however the fact remains that the students had read these classic Soviets works, and were therefore to some extent influenced by the concepts contained within. Moreover, some of the most important personalities in the formulation of the 1986 and 1993 FMs graduated from SAMS. Many in the US Army after the First Persian Gulf War touted establishments such as SAMS being indicative of the 'new' enlightened Army. Many of the US Army commanders in the First Persian Gulf War had been through the SAMS curriculum.<sup>130</sup>

### **The Operational Level**

The operational level of war set out in the 1982 FM was, 'the theory of larger unit operations. It also involves planning and conducting campaigns. Campaigns are sustained operations designed to defeat an enemy force in a specified space and time with simultaneous and sequential battle.'<sup>131</sup>

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<sup>128</sup> Scales, Robert H., *Certain Victory The US Army in the Gulf War*, Virginia: Brassey's, 1994. p.27.

<sup>129</sup> *TRADOC Annual Command History 1994*, TRADOC Military History Program. Chapter 7.

<sup>130</sup> Scales, p.28.

<sup>131</sup> Hall, Wayne M., "A Theoretical Perspective of AirLand Battle Doctrine", in, *Military Review*, March 1986. p.38.

The manual stated that the destruction, or threat of destruction of the enemy was the main aim. This was corrected in the 1986 iteration: 'The principal task of theatre commanders and their subordinate commanders is to concentrate superior strength against enemy vulnerabilities at the decisive time and place to achieve strategic and policy aims.'<sup>132</sup> Thus the destruction of the enemy was replaced by achieving a certain goal set out by the strategic echelon. Another difference was the emphasis on attacking the enemy's vulnerabilities. It should be noted that weaknesses and vulnerabilities are altogether different.

The 1986 FM introduced the centre of gravity concept:

Operational art thus involves fundamental decisions about when and where to fight and whether to accept or decline battle. Its essence is the identification of the enemy's operational center of gravity - his source of strength or balance - and the concentration of superior combat power against that point to achieve decisive success.<sup>133</sup>

The 1986 manual also gave advice about how to translate the operational concept into practical action. In this regard, the manual posed three questions aimed to provide a focal point for the operational planner:

1. What military conditions must be produced in the theatre of war or operations to achieve the strategic goal?
2. What sequence of actions is most likely to produce that combination?
3. How should the resources of the force be applied to accomplish that sequence of actions?

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<sup>132</sup> US Department of the Army, *FM 100-5 Operations*, Washington: US Government Printing Office, May 1986. p.9. in, Naveh, Shimon, *In Pursuit of Military Excellence: The Evolution of Operational Theory*, London: Frank Cass, 1997. p.306.

<sup>133</sup> Naveh, p.307.

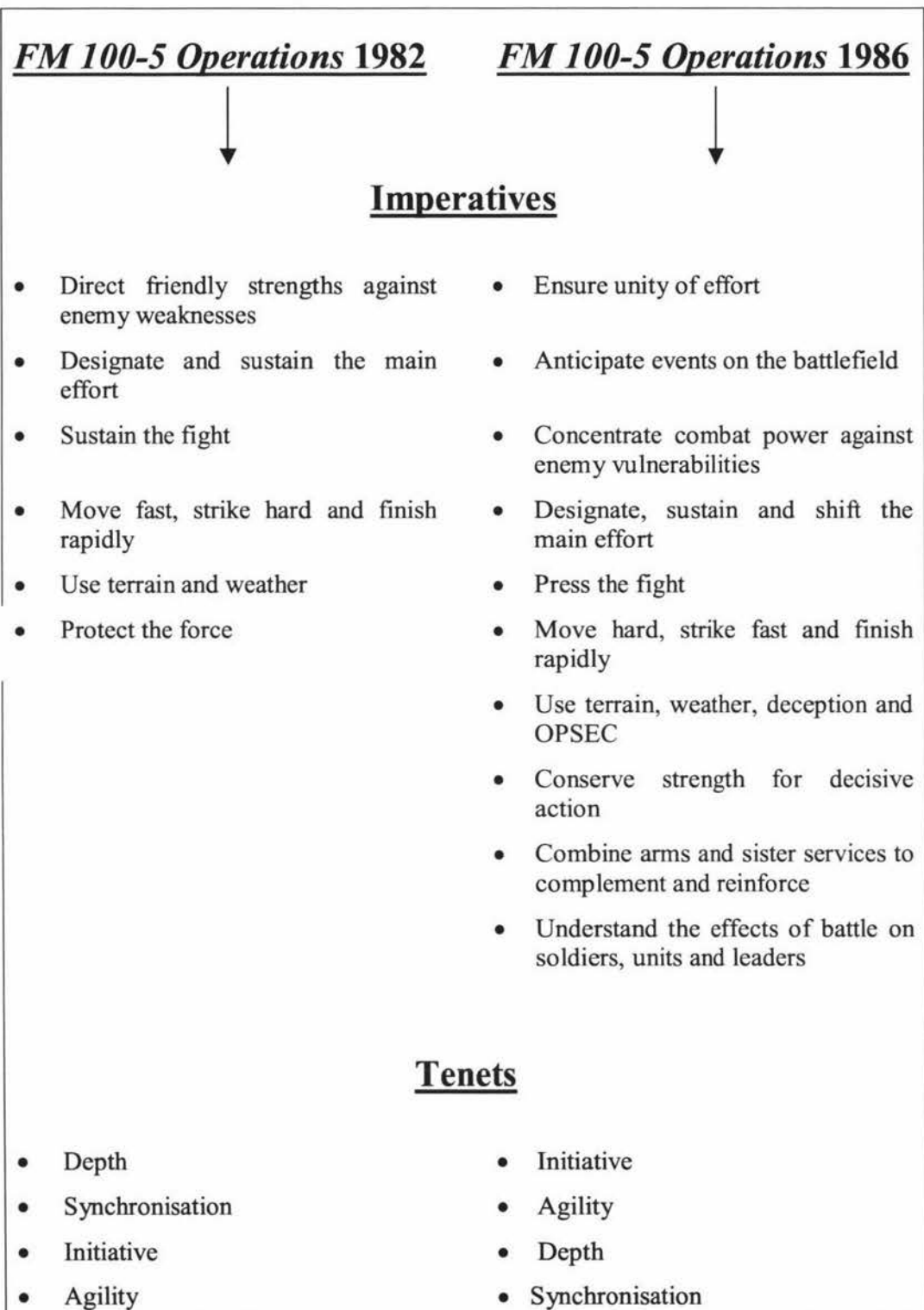


Figure .6. Tenets and Imperatives, *FM 100-5 Operations* 1982, 1986.

### ***FM 100-5 Operations 1986***

It is possible to see that the list of imperatives had changed somewhat from the 1982 edition. The first noticeable change was in the wording concerning the concentration of combat power. From a manoeuvre warfare standpoint, weaknesses and vulnerabilities are not quite the same. Robert Leonhard equated vulnerabilities with an enemy's centre of gravity. On the other hand, he stated that a weakness would not lead to the collapse of the enemy system, but should be looked at as a route to the enemy vulnerability.<sup>134</sup> However, not all weaknesses would lead to an enemy vulnerability, and as such would not be critical to the stability and existence of the enemy system. Instead, certain weaknesses that lead to vulnerabilities would have to be identified and attacked. Combat power should not be wasted on efforts that would not lead to the enemy's vulnerabilities. The 1986 version also stated that strength should be conserved for decisive action. This reinforced the point about attacking only vulnerabilities and not wasting resources on attacking enemy weaknesses that may not provide the desired result.

The inclusion of deception and operational security marked a step forward for the imperatives. The Red Army had historically stressed security and deception in their operations. While it would be improper to say that the Americans had neglected these ideas before the 1986 FM, the inclusion in the imperatives was perhaps a realisation that to fight out-numbered and win would require a significant amount of deception and very tight operational security.

It was perhaps surprising that the 1982 edition did not include a point concerning the importance of combined arms. DePuy's 1976 FM heavily emphasised the use of combined arms, especially at the tactical level to defeat modern mechanised forces. The 1986 definition however focused on the importance of combined arms, and combined services. This was due to the confidence placed in the Air Force to be able to influence the deep battle.

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<sup>134</sup> Leonhard, Robert, *The Art of Maneuver: Maneuver-Warfare Theory and AirLand Battle*, Novato: Presidio Press, 1994. p.167.

The final imperative on the 1986 list is also interesting, mainly because it was not present in the 1982 list. It stated that it was necessary to understand the effects of battle on soldiers, units and leaders. There was a definite move away from the force ratio approach contained in the 1976 FM. This was replaced with a more balanced appraisal of the importance of human and non-human factors in warfare. Leonhard suggested that the inclusion of this point was a good thing, but stated that it implied that it could only be applied to friendly forces, and therefore missed hitting the bull's eye.<sup>135</sup> I suspect that this is a little harsh, and that it would be common sense to apply the same principles to the enemy force.

### **AirLand Battle Combat Operations**

This section will outline some of the issues associated with the AirLand Battle doctrine. The ALB doctrine of 1986 had been heralded as the coming of age of American doctrine. Its supporters highlighted the inclusion of the operational level of war, and more generally of manoeuvre warfare theory. They also applauded, as they should have, the return to a more traditional study of the human factors of warfare. Indeed Clausewitz would have been proud.

It is interesting to look back on the AirLand Battle doctrine. It would not have been obvious to the writers of the manual that the Cold War would have ended just four years after the publication of the manual, and would almost immediately outdate a lot of the AirLand Battle concept, even in light of the Persian Gulf War. One of the most interesting questions to pose is would the doctrine have worked in a European conflict, or was it 'saved by the bell' because the Cold War ended.

The American concept of deep battle was interesting, especially in regards to the Soviets who had espoused the idea since the mid 1920s. ALB doctrine relied heavily on tactical air forces to create *windows* in the Soviet forces heading towards the close battle area. The ability of tactical air forces, in a non-nuclear environment, to slow down enemy follow-on forces would seem to be shaky at best. If looked at in a purely manoeuvre warfare context, the application of airpower by itself deep into Soviet territory would pose the Red Army with a problem. It would not however pose them

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<sup>135</sup> Leonhard, p.168.

with a dilemma. Manoeuvre theory states that the use of combined arms is an absolute necessity. This is true at all levels of war. This is of course suggesting that NATO tactical air forces would have been in a position to be able to deliver their firepower without interruption. It is naive to suggest that the tactical air forces of NATO would have been able to gain air superiority and exploit it before the commitment of Soviet operational formations.

The ability to gain at least some use of the airspace deep in Soviet territory was necessary on three levels. The first, as discussed, was the need to create *windows* for friendly ground forces to defeat Soviet first echelon formations in detail. The second was the need for aircraft to gather intelligence about the battlefield. This information was vital for the ability of ground commanders to plan for and carry out operations. Without the ability to see deep into Soviet territory, that is in time as well as in space, the ALB concept became untenable. The third was the emphasis placed on helicopter operations. These took two main forms; air mobility operations and attack helicopter operations. While the main battle for control of the sky would have taken place more than 1000 feet (ft) above ground level, a similar parallel battle would have certainly raged below 1000ft over the FLOT and indeed the entire depth of the battlefield. The helicopter, in both main roles was an important part of the combined arms team, however, it is again naive to think that its operations would have been able to be carried out without serious loss. Indeed the Soviets recognised that, cross FLOT operations would see 'sizeable loss rates' among helicopters.<sup>136</sup>

Another rather fundamental assumption of the ALB was the Soviet use of echelonment. It seemed likely that the use of heavily echeloned forces would not have occurred against a relatively weak and very shallow NATO defensive organisation. There was even more reason for not using echelonment in a nuclear environment. The Soviet tactic of echelonment found most use when confronting a German defence in depth during the Second World War. Against a shallow NATO style defence with limited operational level reserves, the use of singular heavy echelons, attacking over a wide front and seeking the early commitment of operational level formations would have created problems in two main areas for NATO. The first was that tactical air forces would be

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<sup>136</sup> Bort, p.35.



chasing formations that did not exist in the Soviet rear. The second was the Soviets would have attempted to breach the line in as many places as possible. This would have significantly complicated designating main efforts for defending forces and as a consequence made economy of force operations extremely risky.

A component of the deep battle that was mentioned in the FM was the use of manoeuvre forces. It appears that this concept was only given lip service and would not have been a feasible course of action, at least in the context of NATO in Europe. It is easy to see why this was the case, both in terms of military realities and political limitations.

By the time the next Army operations field manual had been published, the military and political considerations influencing the US Army had changed considerably. The threat of a Warsaw Pact invasion receded as fast as the Berlin wall crumbled. The big test for the US Army in this period was the Persian Gulf War. This conflict has been seen by many as a validation of the efforts of the Army to modernise both technologically and doctrinally. The ALB concept worked well and it did so conducting offensive and not defensive operations. While the Persian Gulf War constituted the main test for the Army, it had also been involved in some successful contingency operations.

The formulation of the 1993 *FM 100-5* was an attempt to adapt to the new challenges posed by the post Cold War world. To some extent these were just as taxing as squaring off with the Soviet Army. *Field Manual 100-5 Operations* 1993 included for the first time discussion and direction concerning Operations Other Than War (OOTW). This would prove an important addition as the remainder of the 1990s would prove.

The next chapter will examine, in greater detail the 1993 *FM 100-5 Operations* with a view to comparing and contrasting it with the Soviet Field Regulations of 1936.

## Chapter 10

### *FM 100-5 Operations 1993*

*FM 100-5 Operations 1993* contained the following list of imperatives:

- Direct every military operation toward a clearly defined, decisive, and attainable objective.
- Seize, retain and exploit the initiative.
- Mass the effects of overwhelming combat power at the decisive place and time.
- Employ all combat power available in the most effective way possible; allocate minimum essential combat power to secondary efforts.
- Place the enemy in a position of disadvantage through the flexible application of combat power.
- For every objective, seek unity of command and unity of effort.
- Never permit the enemy to acquire unexpected advantage.
- Strike the enemy at a time or place or in a manner for which he is unprepared.
- Prepare clear, uncomplicated plans and concise orders to ensure thorough understanding.

While the imperatives of the 1993 FM appear quite similar to the 1986 FM, there were some important differences. The most obvious was the seemingly subtle change in wording on the subject of mass and concentration. The 1986 FM stated that combat power must be massed against enemy vulnerabilities. The 1993 FM on the other hand stated that 'effects' must be massed. The idea behind this was that mass on the battlefield is inherently vulnerable. The ability to achieve concentration of effects seems limited to indirect fire weapons, and therefore excluded the majority of US Army weapons systems. Moreover, it also implied that combined arms warfare did not figure highly. Massing the effects of artillery strikes would provide the enemy with a problem that could be solved by digging a hole in the ground. However, if forces are massed, (infantry and armour in this case), the enemy would be presented with a dilemma he cannot solve. If he stays in his hole he is bayoneted or fragged by a grenade. If he ventures out he is vulnerable to the artillery strike. If we examine the same principle at a higher level we find similar problems. The fundamental flaw is that almost all direct fire

weapon systems are limited to a maximum range of five kilometres.<sup>137</sup> Thus for a tank company to mass its effects it must, by its nature, be massed. The same can be argued for all levels of command.

An interesting imperative left out of the 1993 FM is to 'Designate, sustain and shift the main effort.' This imperative seemed to encapsulate manoeuvre type theory. Its removal seemed curious as none of the other imperatives; either on their own, or in combination really covers the same ground.

A further noteworthy removal related to the use of combined arms. It is hard to understand why that is. Perhaps it was considered so fundamental that it didn't really need to be there. Soviet military literature constantly expounded the virtues of combined arms warfare. Perhaps there was a feeling that the 1986 definition did not go far enough, especially with the new focus on joint operations.

## **Tenets**

### **Initiative**

'Initiative sets or changes the terms of battle by action and implies an offensive spirit in the conduct of all operations.'<sup>138</sup> The manual retained the link between offensive action and initiative. It also linked initiative with tempo and the commander's intent. During offensive operations, it stated that the enemy must be thrown off balance with powerful strikes, and should never be allowed to recover from the initial strikes. Measured risks were acceptable and even encouraged to retain the initiative and keep the enemy off balance. Initiative was also important in defensive operations as it allowed the defender to turn the tables on the attacker. Initiative could be used to dictate terms to the attacker, effectively controlling the battle.

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<sup>137</sup> The five kilometre range stated is about the maximum range for most anti armour guided missiles such as TOW. Normal engagement ranges are considerably shorter than this. Tank main armaments are most effective out to 3000 metres.

<sup>138</sup> US Department of the Army, *FM 100-5, Operations*, Washington: US Government Printing Office, May 1993. p.2-12.

The tenet of initiative was also linked to mission style tactics. 'In battle, initiative requires the decentralisation of decision authority to the lowest practical level.'<sup>139</sup> There were some major deficiencies with this concept. The first was acknowledged by the manual, 'decentralisation risks some loss of synchronisation.'<sup>140</sup> In other words, decentralisation could sometimes lead to loss of coordination and cooperation at higher levels. The second major concern was the lack of situational awareness of leaders at lower levels who were empowered to make important decisions based on a less than full understanding of the situation. This argument was crucial to the debate about mission tactics and will be followed up later in this chapter.

### Agility

'Agility is the ability of friendly forces to react faster than the enemy and is a prerequisite for seizing and holding the initiative.'<sup>141</sup> The concept of agility was closely related to tempo in two main ways. It included the ability of forces to move spatially and concentrate at the vital time and place. Agility was also applied to mental processes, from reaction times to operations planning. The FM noted that foresight and awareness of ones operating environment provided the base for maintaining agility in any situation.

Thus by the use of great agility, commanders could expect to be able to concentrate before the enemy. It also allowed the commander to pre-empt the enemy in other situations. Agility in both thinking and action was therefore important to getting inside the decision cycle of the enemy. The manual stated that friction was the antithesis of agility. It noted that friction could never be entirely eliminated from the battlefield, but could be minimised by commanders who acted in a timely and appropriate manner.

OOTW are also mentioned. Agility is a concept that could be applied to any situation, and especially time critical ones. Disaster relief and peacekeeping operations are given as examples of the relevance of agility in OOTW.

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<sup>139</sup> *FM 100-5, Operations* 1993, p.2-12.

<sup>140</sup> *FM 100-5, Operations* 1993, p.2-12.

<sup>141</sup> *FM 100-5, Operations* 1993, p.2-13.

## Depth

‘Depth is the extension of operations in time, space, resources, and purpose.’<sup>142</sup> The 1993 approach to the tenet of depth was quite similar to the 1986 edition, even though the Soviet threat of echeloned forces had, by this stage, diminished considerably. The concept of depth was used to attack the enemy simultaneously and where necessary, sequentially across the area of operations. It stated that the most important component of the depth tenet was the ability to be able to see deep and influence operations throughout the battlefield. Here the Army was again dependent on the support of other services in deep operations.

Another hangover from the ALB doctrine was the concept of attacking forces to their depth. ‘In offensive and defensive tactical actions, commanders fight the enemy throughout the depth of his disposition with fires and with attacks on his flanks and rear. They attack committed and uncommitted forces and synchronise the attack of enemy artillery in depth with close operations.’<sup>143</sup> The last part of this quote is interesting, in that it relates to the attack of a specific weapons system.

In general though, it described depth as enabling momentum in the offence and elasticity in the defence. ‘Depth allows commanders to sustain momentum and take advantage of all available resources to press the fight, attacking enemy forces and capabilities simultaneously throughout the battlefield.’<sup>144</sup>

## Synchronisation

‘Synchronisation is arranging activities in time and space to mass at the decisive point.’<sup>145</sup> Synchronisation was an important concept in the FM due to its link with mass. However, the manual noted that this was not the only reason for its importance. Synchronisation could be used at all levels and in all situations where there was more than one component in the system. Thus synchronisation described the cooperation and coordination between two or more manoeuvre units, between manoeuvre units and fire units or between service components. At a higher level, an operational commander

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<sup>142</sup> *FM 100-5, Operations* 1993, p.2-14.

<sup>143</sup> *FM 100-5, Operations* 1993, p.2-14.

<sup>144</sup> *FM 100-5, Operations* 1993, p.2-14.

<sup>145</sup> *FM 100-5, Operations* 1993, p.2-15.

would synchronise two or more major operations in a theatre. One operation may have acted as a decoy while the other operation comprised the main effort. Massing effects therefore did not always relate to a specific location. Synchronisation may have included components that were separated geographically, but were synchronised by the commander's intent. 'Synchronisation thus takes place first in the mind of the commanders and then in the actual planning and coordination of movements, fires, and supporting activities.'<sup>146</sup>

Synchronisation became critical in force projection operations and OOTW, especially when part of the task was setting up infrastructure to support Army operations. Intelligence, logistics, force build up and infrastructure access were just some of the important components of force projection operations. This particular concept proved important for Desert Storm and Desert Shield where American forces had to set up the infrastructure to sustain high tempo operations in an inhospitable region.

The manual summed up synchronisation as the maximum use of every available resource to ensure success. It stated that the ability to synchronise operations and forces rested on a clear statement of the commander's intent.

### **Versatility**

'Versatility is the ability of units to meet diverse mission requirements.'<sup>147</sup> Versatility as a tenet was an interesting one, and one that marked a definite swing in focus from the Army in Europe, to a more flexible force. Operations such as Just Cause, and Provide Comfort, along with Desert Shield and Desert Storm, introduced the Army to a wide variety of operations outside of conventional linear warfare.

The concept of versatility showed appreciation for the wide spectrum of operations in which the Army would likely find itself engaged. This tenet foreshadowed the 'Full Spectrum Operations' that was to be the cornerstone of the 2001 Operations FM.<sup>148</sup>

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<sup>146</sup> *FM 100-5, Operations* 1993, p.2-16.

<sup>147</sup> *FM 100-5, Operations* 1993, p.2-17.

<sup>148</sup> US Department of the Army, *FM 3-0 Operations*, Washington: US Government Printing Office, June 2001. p.1-47.



‘Versatility is to the decathlete as agility is to the boxer.’<sup>149</sup> To attain versatility, the Army had to be able to perform a wide variety of missions, and perhaps as importantly, to be able to switch between mission types in a timely fashion. The manual also suggested a modular approach to the organisation of its forces. The Army had to be able to organise in different combinations of units. It suggested that Army forces, instead of deploying by major formation would be deployed instead by necessity, with the proviso that this could change in a short space of time, with a consequential change in the components of a force.

### **The Operational Level**

As with US Army manuals since 1982, the 1993 FM recognised three levels of war. The construct of the levels of war provided a framework for ordering activities. ‘The levels of war-strategic, operational, and tactical- help commanders visualise a logical flow of operations, allocate resources, and design tasks.’<sup>150</sup>

The most important level for military operations was the operational level of war:

At the operational level of war, joint and combined operational forces within a theatre of operations perform subordinate campaigns and major operations and plans, conduct and sustain to accomplish the strategic objectives of the unified commander or higher military authority.<sup>151</sup>

The manual stressed the difference between the operational level of war and operational art:

Operational art is the skilful employment of military forces to attain strategic and/or operational objectives within a theatre through the design, organisation, integration, and conduct of theatre strategies, campaigns, major operations and battles.<sup>152</sup>

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<sup>149</sup> *FM 100-5, Operations* 1993, p.2-17.

<sup>150</sup> *FM 100-5, Operations* 1993, p.6-3.

<sup>151</sup> *FM 100-5, Operations* 1993, p.6-4.

<sup>152</sup> *FM 100-5, Operations* 1993, p.6-5.

More simply, the manual stated that operational art was the art of employing major units to attain the goals of strategic echelons. At a more practical level, it provided guidance to the commander by giving a set of conditions that must be met. This helped the commander avoid unnecessary engagements. The manual then posed three questions to aid in attaining the desired strategic ends.<sup>153</sup>

1. What military conditions will achieve the strategic objectives in the theatre of war or theatre of operations?
2. What sequence of actions is most likely to produce these conditions?
3. How should the commander apply military resources within the established limitations to accomplish that sequence of actions?

### **The Centre of Gravity Concept**

‘The centre of gravity is the hub of all power and movement upon which everything depends. It is the characteristic, capability, or location from which enemy and friendly forces derive their freedom of action, physical strength, or will to fight.’<sup>154</sup>

The concept of the centre of gravity allowed the commander to mass effects against the enemy’s main source of power. However the enemy’s centre of gravity may not be readily identifiable and could also change during a campaign. Moreover, it may be abstract, i.e. something that is hard to attack by conventional means. Therefore the commander must constantly reappraise the enemy’s centre of gravity throughout the campaign.

Linked to the centre of gravity concept was the concept of decisive points. ‘Decisive points are not centres of gravity; they are the keys to getting at centres of gravity.’<sup>155</sup> Again decisive points could vary widely with each situation, however, unlike the centre of gravity concept, there could be many decisive points on the battlefield. It was therefore the responsibility of the commander to examine all decisive points and figure out which were most likely to lead to the enemy’s centre of gravity. Once the most important decisive points were identified, commanders would allocate resources to attack them.

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<sup>153</sup> *FM 100-5, Operations* 1993, p.6-5.

<sup>154</sup> *FM 100-5, Operations* 1993, p.6-13.

<sup>155</sup> *FM 100-5, Operations* 1993, p.6-14.

## The Battle Space Concept

‘Within a given battle space, commanders must understand the effects of geography and terrain, appropriately apply the use of organic capabilities and integrate joint and combined assets that can be brought to bear against the enemy.’<sup>156</sup>

The battle space concept was a tool for commanders to help them understand the environment they were working in. This was quite an abstract concept, but one that finds similarities in some of today’s computer games and simulations. Even such games as ‘Command and Conquer’ show this concept. The player must be aware of the region he is fighting in. He must understand his weapons systems and their capabilities; moreover, he must also understand the weapon systems and capabilities of his naval and air forces. He always seeks to gain information about the enemy and his intentions. In these games, the map starts off blank except for the small unit from which everything begins. As the player builds more units and observation devices, his view of the surrounding world increases. From the manual, ‘Battle space is a physical volume that expands and contracts in relation to the ability to acquire and engage the enemy.’<sup>157</sup>

While it is tempting to continue with the computer game analogy, let us now examine the battlefield in a less abstract way.

The battle space concept would be used practically to give the commander full situational awareness. It would allow the commander to order his forces and assets to gain battlefield dominance by the most efficient use of his battle space. ‘Commanders use the concept of battle space to help determine how the terrain and all available combat power can be used to dominate the enemy and protect the force.’<sup>158</sup>

The battle space section also mentioned an interesting point which, although it is treated extremely succinctly, is very important none the less. This was the ability of a commander to understand not only the effects and capabilities of his own force, but to understand the capabilities of the enemy’s. The Soviets emphasised this point in their treatment of combined arms warfare. This allowed the Soviets to use each weapon system or formation to its best effect. This could only be accomplished with a complete

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<sup>156</sup> FM 100-5, *Operations* 1993, p.6-24.

<sup>157</sup> FM 100-5, *Operations* 1993, p.6-24.

<sup>158</sup> FM 100-5, *Operations* 1993, p.6-24.

understanding of technology. In effect, it was looking at the battlefield from the tactical level upwards. The American concept of battle space seems to have a similar theme.

### **Combat Operations**

This manual retained the ALB belief in the importance of deep operations. The manual also retained the ALB concept of breaking up the battlefield into three areas: the close, the deep and the rear. The manual acknowledged that in any conflict these areas are existent, but they may not be contiguous. In other words there may be considerable gaps between close and deep areas. In lower intensity warfare this was often the case and planning had to take into consideration areas that may not be occupied during various times.

To be able to use this construct to its full potential the manual noted the need for commanders to think about operations in depth in terms of friendly and enemy forces in time, space and purpose.

Simultaneity and synchronisation played a large part in the deep battle. The manual stated that simultaneous operations were preferable to sequential operations, because sequential operations were inherently attrition based.

Thus the enemy must be attacked simultaneously by fire and manoeuvre forces to the depth of his formations. In the defence, these operations aimed to rob the attacker of momentum, tempo and his will to fight. Synchronisation played its role in the form of cooperation between fire and manoeuvre forces and with secondary efforts such as electronic warfare and deception.

### **Deep Operations**

‘At the tactical level, commanders design operations in depth to secure advantages in later engagements and to protect the force.’<sup>159</sup> The manual stated that successful deep attack would upset the enemy’s tempo and coherence. Deep operations then not only targeted physical forces, but also impacted on the ability of the enemy to carry out coherent and synchronised combat actions.

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<sup>159</sup> *FM 100-5, Operations* 1993, p. 7-21.

Deep operations also provided protection and freedom of manoeuvre for friendly forces in close operations. This was similar to the concept of attacking follow on forces, though it is stated in the manual more generally. The concept of creating *windows* of action was still important to give freedom of manoeuvre to the close battle. Counter fire was mentioned as being especially important to the protection of friendly close operations. The concept of counter fire involves reducing the enemy's long-range fire system. This includes not only his weapon systems, but also his command and control of fire systems and fire direction and detection systems. This concept will be examined in greater detail below.

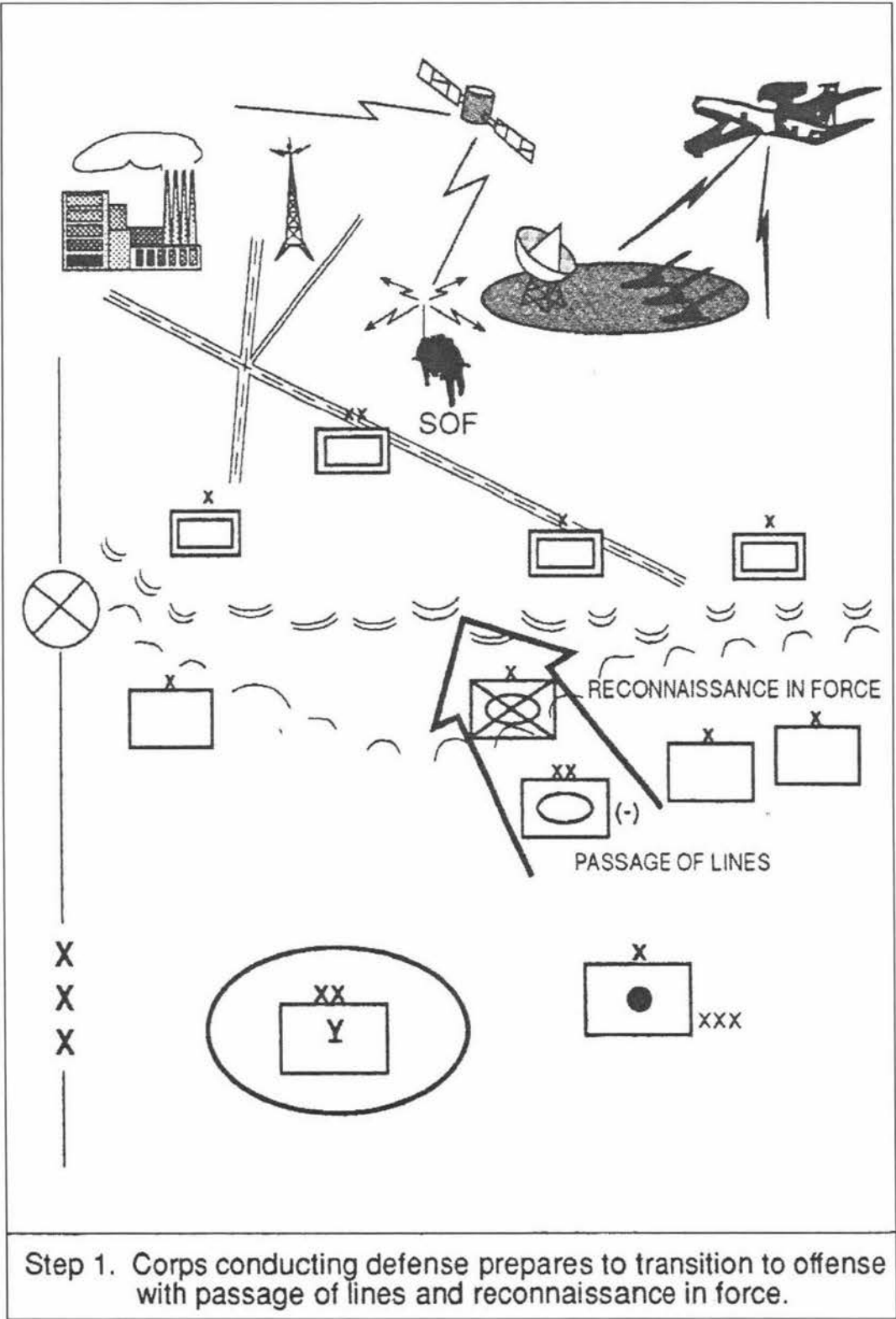


Figure.7. Corps Attack Operations, Step One.  
(Source, US Department of the Army, *FM 100-5 Operations*, Washington: US Government Printing Office, May 1993. p.7-10.)

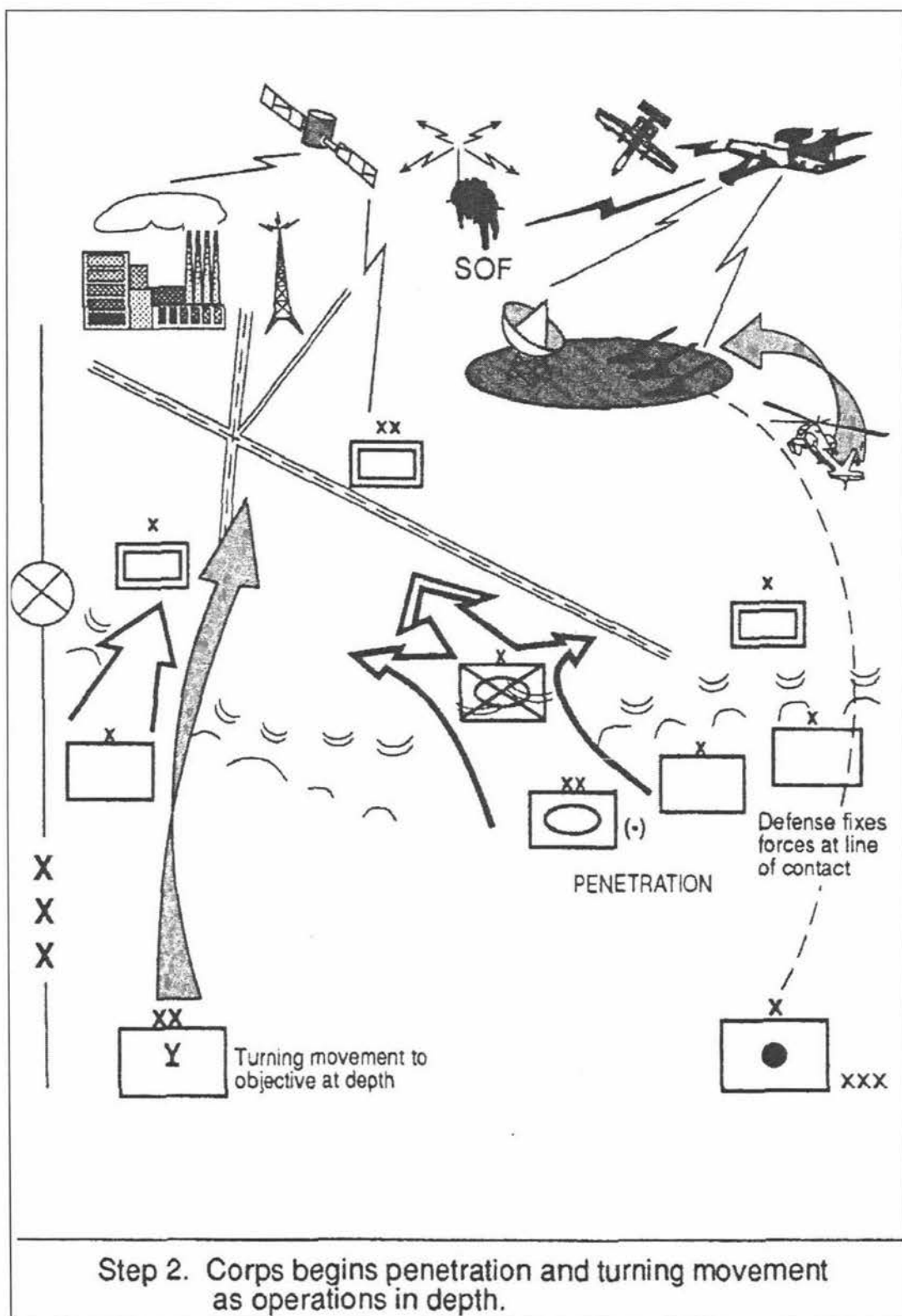


Figure.8. Corps Attack Operations, Step Two.  
 (Source US Department of the Army, *FM 100-5 Operations*, Washington: US Government Printing Office, May 1993. p.7-11.)



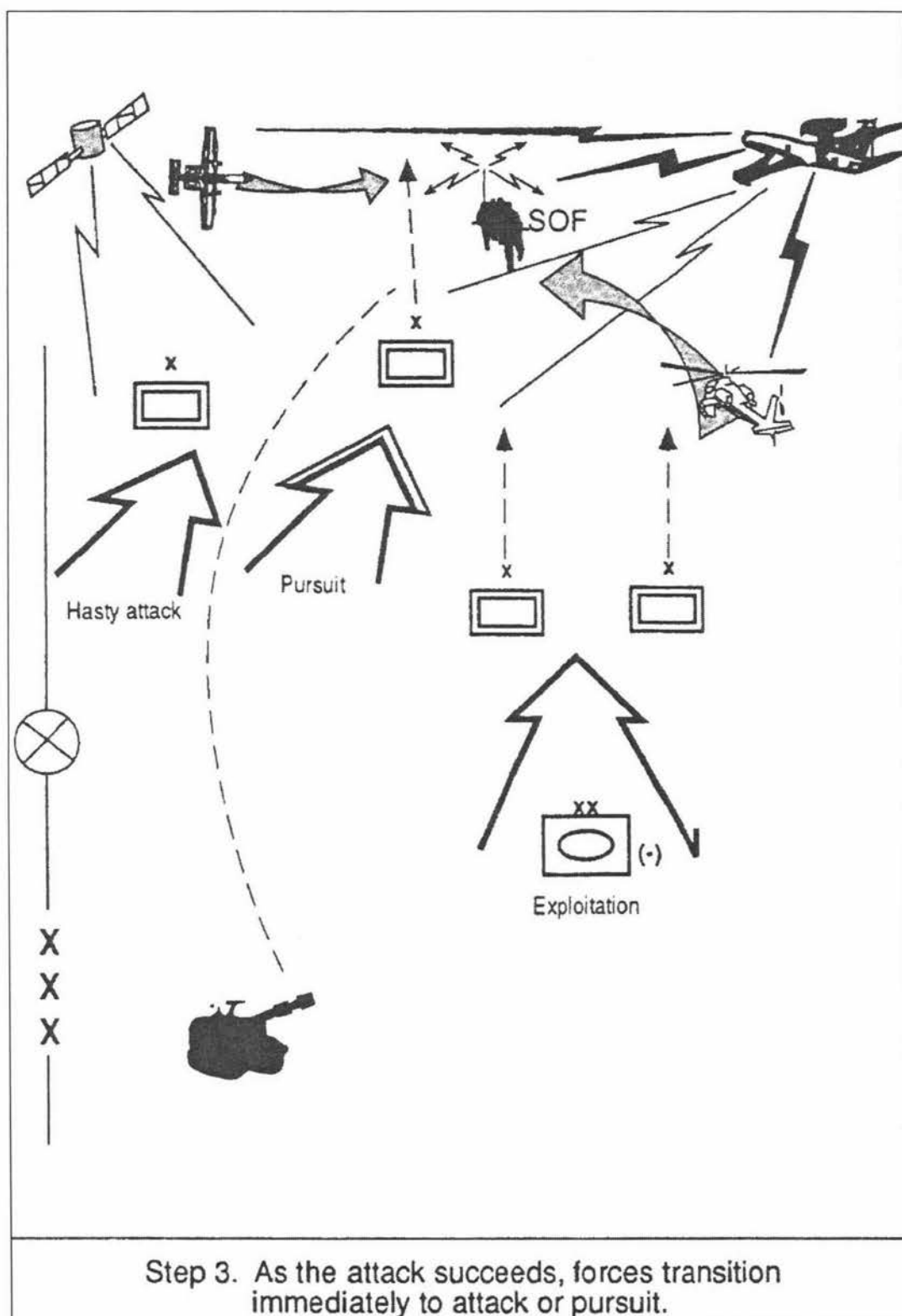


Figure.9. Corps Attack Operations, Step Three.  
 (Source US Department of the Army, *FM 100-5 Operations*, Washington: US Government Printing Office, May 1993. p.7-16.)

The manual suggests that deep operations should be carried out by ground and air forces, or a combination of these. It interestingly stated that this attack should be carried out as 'interdiction' by air and ground forces.<sup>160</sup> Use of the term interdiction is interesting as it suggests more of a raid function than a conventional attack to gain ground or defeat a certain enemy grouping of capability. It is hard to know if the manual is implying this. It would be easy to equate this with the use of special operations type forces that would work together with air forces to raid and destroy important enemy systems or infrastructure.

### **Close Operations**

'Close combat is normally required for decisive and lasting effects in the battlefield.'<sup>161</sup> This reinforces the previous point about deep operations being consigned mainly to extremely light ground forces and tactical air forces. The crux of close operations was fire and movement in the tactical context. It advocated concentrating forces and massing effects at the main effort. Reconnaissance forces had the task of finding gaps in the enemy's formations as well as providing covering forces and guards for main forces. Once an attack was committed, forces pressed the fight with the aim of overwhelming the enemy as quickly as possible.

The primary function of the reserve was to provide a powerful force at the decisive time. As in defensive operations, it also provided a hedge against uncertainty. Thus important decisions for the commander included the time of committal of the reserve, its strength and the location.<sup>162</sup>

Defensive close operations were divided into three broad areas. The covering force area had the task of slowing enemy units and stripping them of reconnaissance and security elements. The covering force area also had the important task of identifying the enemy main effort, thus providing the friendly commander with the ability to make timely and accurate decisions about the employment of friendly forces. The defence in the close operations area consisted of designating a main effort, synchronising forces to support it, then shifting the main effort to another area or formation should the situation warrant

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<sup>160</sup> *FM 100-5, Operations* 1993, p. 7-21.

<sup>161</sup> *FM 100-5, Operations* 1993, p. 7-22.

<sup>162</sup> *FM 100-5, Operations* 1993, p. 7-23.

it. In the close battle, manoeuvre units would delay, defend, screen and attack in the defensive phase. Commanders at the tactical level had many options as this manual recommended the use of offensive operations in the defensive phase of war.

The final component of close operations was the reserve. The manual stated that reserves were important as they allow the commander to seize the initiative by offensive action. It went on to note that reserves had to be constantly regenerated to 'provide a hedge against uncertainty.'<sup>163</sup> It also suggests, though not particularly strongly, that reserves should be used to 'reinforce and expedite victory rather than to prevent defeat.' This seems unnecessarily complex; surely a better statement would have been something similar to 'reinforce success, not failure'. However the intent is basically the same.

Thus close operations, taken as a whole incorporated security and reconnaissance assets in the covering force area, main manoeuvre forces acting in the main battle area, and reserves that were committed to strike decisively and to maintain or regain the initiative.

### **Rear Operations**

The rear was an important part of the battle space. The rear provided protection, freedom of action and sustainability of friendly forces.<sup>164</sup> An unprotected rear area was problematic, as it would allow the enemy to influence command and control, logistics, fires and the movement of reserves. In force projection operations the rear area was important, especially during the build up of forces. The manual, again leaning towards the non-linear battlefield, warned that the rear area may not have been contiguous with the close area, however protection of the rear area was important regardless of its location relative to the other areas of operation.

The protection of the rear area relied to a large degree on defeating the enemy's long-range fires. This related to deep operations such as counter fire and deep interdiction by friendly forces.

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<sup>163</sup> *FM 100-5, Operations* 1993, p. 9-11.

<sup>164</sup> *FM 100-5, Operations* 1993, p. 9-11.

## **Army in the Offence**

'The offensive is the decisive form of warfare.'<sup>165</sup> This manual continued with the offensive approach taken by American doctrine since the mid 1980s. It included some notable manoeuvre warfare concepts:

The ideal attack might resemble a torrent of water rushing forward and expanding its channels around major resistance. It should move fast, follow reconnaissance units or successful probes through gaps in enemy defences, and shift its strength quickly to widen penetrations and reinforce its successes, thereby carrying the battle deep into the enemy's rear.<sup>166</sup>

This type of attack contained many manoeuvre warfare elements. It bypassed enemy strength, exploited success by its reconnaissance forces and sought to fight the battle in the enemy's depth. Indeed Triandafilov would have been proud. The style of avoiding enemy strengths was quite consistent with Soviet techniques. This of course revolved around the race for depth as a means of inducing shock into the enemy.

The manual also stressed that decisive points, the keys to the enemy's centre of gravity, must be translated into decisive objectives that commanders could focus on. The PU-36 is similar in this regard. It was, however, aimed more at the tactical-operational level. 'It is advisable to direct the assault against that part which would make the entire enemy battle formation collapse.'<sup>167</sup> Instead of looking at the enemy as a whole, the PU-36 looks for the formations' centre of gravity and seeks to attack it.

## **Characteristics of the Offence**

The manual listed four characteristics of offensive operations. These were surprise, concentration, tempo and audacity. There is probably no simpler truth in warfare than the importance of surprise. 'Commanders achieve surprise by striking the enemy at a time or place or in a manner for which it is not physically or mentally ready.'<sup>168</sup> Surprise could take many forms. Attacking the enemy when or where he does not expect were fundamental, however surprise could also take into account the force of an

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<sup>165</sup> *FM 100-5, Operations* 1993, p.7-0.

<sup>166</sup> *FM 100-5, Operations* 1993, p.6-34.

<sup>167</sup> PU-36, p.38.

<sup>168</sup> *FM 100-5, Operations* 1993, p.7-2.

attack or its boldness. The effect of surprise would influence the whole of the enemy system. It could shock his command and control systems, his ability to react and his whole defensive concept. The manual gave as examples of surprise the Egyptian attack on the Bar Lev Line and the outflanking of the Iraqi defences by VII and XVIII Corps in the first Persian Gulf War.

The manual stated that concentration on the battlefield was the 'ability to mass effects without massing large formations and is therefore essential for achieving and exploiting success.'<sup>169</sup> It stated that the physical concentration of forces equals vulnerability on the battlefield. This point suggests that assembling combat power at the decisive point was certainly more complicated than just being at the right place at the right time. Instead the commander would have to use deception, dispersion, concentration and attack to fulfil the requirements of mass. Concentration was also important in joint and combined operations.

Concerning tempo, the manual stated, 'Commanders seek a tempo that maintains relentless pressure on the enemy to prevent him from recovering from the shock and effects of the attack.'<sup>170</sup> It stated that tempo was a combination of mass and speed. It was linked to almost all other fundamentals. It created and maintained surprise and had the result of allowing the friendly force freedom of action and protection. The tempo section described the 'reconnaissance pull' process, and the importance of tempo. Tempo allowed the attacker to retain the initiative and ultimately gain success, as the defender's actions were irrelevant to the situation.

The final fundamental of offensive operations was audacity. It seemed that this was added almost as an afterthought as it was not as well fleshed out as the previous fundamentals. The section gave an example of audacity during armoured cavalry operations in the First Gulf War. Audacity was self-explanatory and was necessary, especially for forces that are operating with a numerical disadvantage. 'Commanders should understand when and where they are taking risks but must not become tentative in the execution of their plan.'

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<sup>169</sup> *FM 100-5, Operations* 1993, p.7-3.

<sup>170</sup> *FM 100-5, Operations* 1993, p.7-5.

### **Army in the Defence**

The manual described an aggressive defensive style. Moreover, it stated that the defensive was not an end in itself, 'Military forces defend only until they gain sufficient strength to attack.'<sup>171</sup> A commander would choose defensive operations as an option for many reasons. Those given in the FM were the need to buy time, to hold an important piece of terrain, to support friendly forces attacking in another area and to reduce enemy forces.

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<sup>171</sup> *FM 100-5, Operations* 1993, p.9-1.

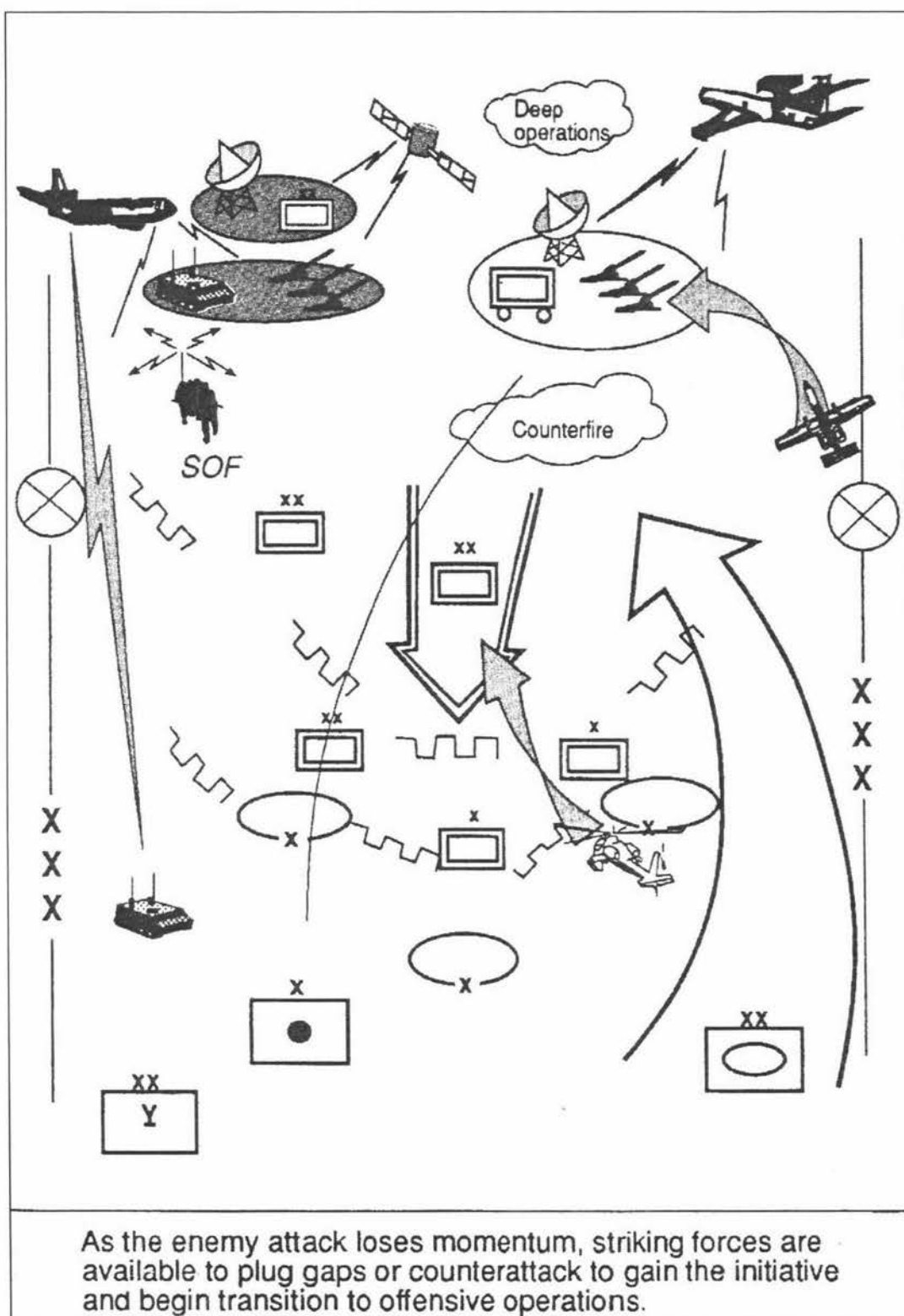


Figure.10. Mobile Defence.

(Source US Department of the Army, *FM 100-5 Operations*, Washington: US Government Printing Office, May 1993. p.9-7.)



There were five main characteristics of defensive operations. These were preparation, mass and concentration, security, disruption and flexibility. Security of forces was guaranteed through the use of deception and physical means in the defence. Security also covered forces that were specifically designed to provide security of the force. These forces would collect intelligence about the enemy and his intent. They were also important as they had the ability to disrupt the momentum of attacking forces early in the battle.

The manual stated that disruption of the attacking enemy was imperative. It suggested that the best place to target the enemy with disruption was the attackers tempo and synchronisation. The paragraph on disruption suggested a mix of manoeuvre and attrition thinking. Tempo and synchronisation are inherently human characteristics. Tempo is the battle for the maximum use of time, occurring often more in thought than in physical actions. Synchronisation is related as it describes the combination of effects which require planning and coordination. The manual however did not go so far as to relate disruption to the defeat of the enemy. The description of disruption was based on the destruction of cooperation and control, but did not suggest ways that it may lead to victory.

As in offensive operations, the manual stated that the defender must mass his effects at the point of decision, and where necessary shift the mass from one point to another in accordance with the situation. Economy of force operations were relied on in secondary sectors to allow the maximum use of available forces. The manual noted the risk of massing on the battlefield due to the threat posed by nuclear, chemical and biological weapons. It suggested that deception and concealment must be used to lower the risk of heavy losses from those weapons.<sup>172</sup>

There were two main defensive patterns outlined in this manual. These were area defence and mobile defence. Area defence usually required defending forces to retain important terrain and destroy the attacker by fires from interlocking positions. Mobile defence usually involved drawing the enemy into a position where he is vulnerable to

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<sup>172</sup> *FM 100-5, Operations* 1993, p.9-5.

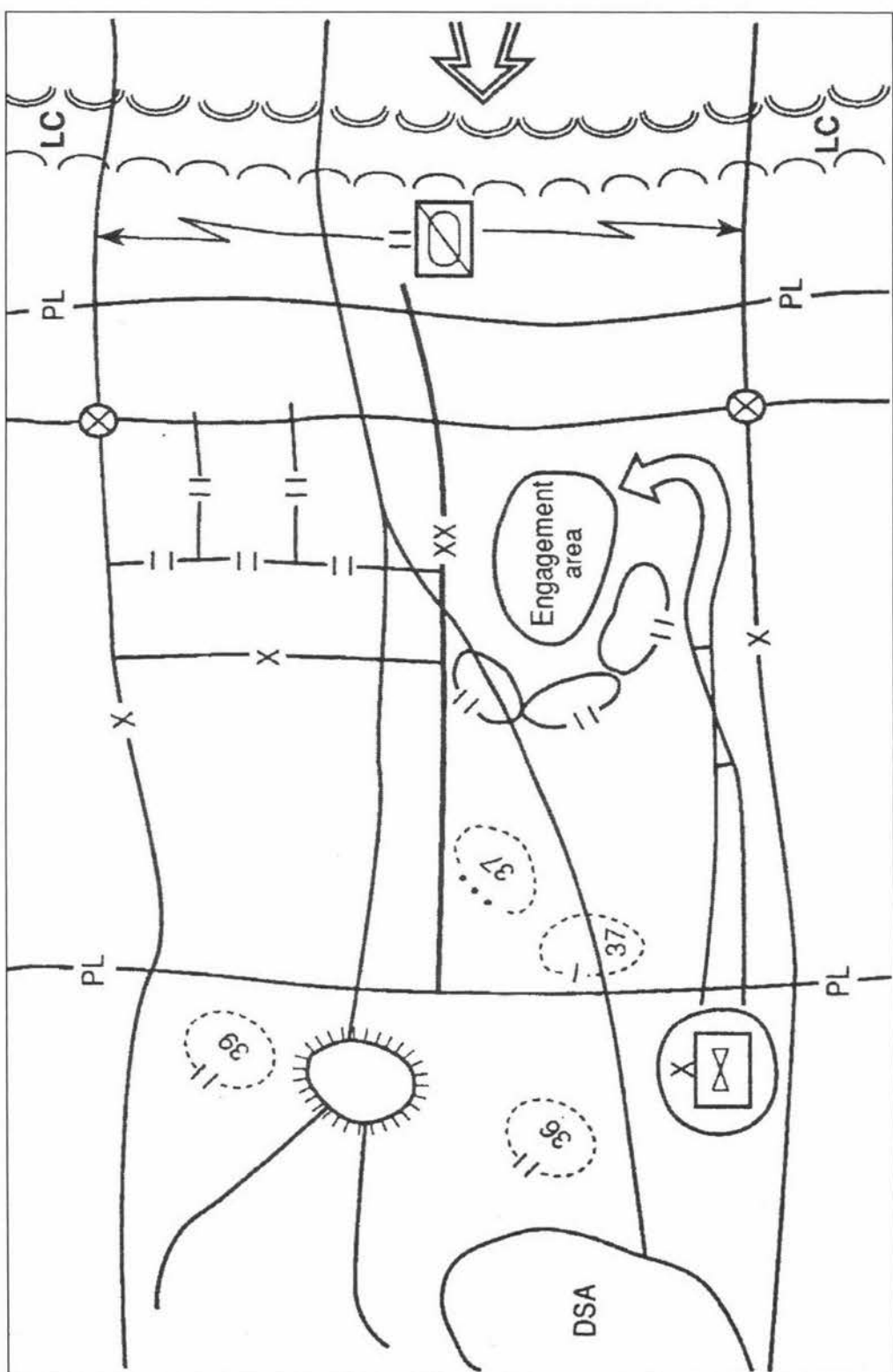


Figure.11. Static Defence

(Source US Department of the Army, *FM 100-5 Operations*, Washington: US Government Printing Office, May 1993. p.9-9.)

decisive counter attack by reserve forces. However, both forms of defence employed static and mobile elements.

In a mobile defence, only the smallest possible force was reserved for passive defensive operations. The majority of the combat power was focussed on striking the enemy as he was attempting to defeat the friendly passive defence forces. Therefore the commander would use deception, depth (both defending depth, and attacking the enemy throughout his depth) and mobile forces to disrupt the attackers coherency and slow his tempo of operations. Defence in depth, and good use of terrain was used to over-extend the enemy and place him in a position where friendly forces could counterattack successfully. The use of counterattack would allow the friendly force to regain the initiative.

Area defences also employed mobile elements, but these were usually fewer in number and acted in a different manner. An area defence would be specified when important terrain had to be held or when an area defence acted in conjunction with mobile defences in different areas. For instance, a sector that was designated as a supporting effort would use an area defence as an economy of force operation. In general, area defences used static forces to produce a framework of mutually supporting positions. The commander would use mobile forces to conduct local counter attacks to plug gaps.

In the majority of cases most defensive operations would consist of passive and active forces. These forces would fight in joint and combined arms styles. The defender had to be able to reduce the attacker while aiming to impact his vulnerabilities.

## Chapter 11

# Doctrine: Differences and Similarities

### General Principles

The 1993 American FM marked the end of the ALB concept. It could be seen as a mid-way point between the conventional warfare focus of the 1986 ALB and the Full Spectrum Operations approach of the 2001 manual. It is therefore fitting to compare and contrast the 1993 FM with the 1936 Ustav of the Soviet Army.

This chapter will compare and contrast the two manuals in the areas of operational theory, command and control styles, deep operations, and, general style of warfare. Most would assume that the manuals would contain many more differences than similarities. This is natural, as the American Army and the Soviet Army could not be built on more different political and social bases. However, the manuals contain many similarities.

A natural starting point is to compare the general principles of the PU-36 and the 1993 *FM 100-5*. This is slightly complicated by the succinct nature of the American principles and the rather long and more complex Soviet ones. I will therefore paraphrase the PU-36 principles to allow comparison with the American ones.

The PU-36 sets out the following general principles:

- The Red Army serves the protection of the workers' and farmers' socialist state.
- Red Army combat operations will always be oriented toward the annihilation of the enemy.
- It is impossible to be equally strong on all fronts.
- It is mandatory that cooperation be established between all branches of the service deployed in the same area at all echelons; the combat operations of troops in different areas must be coordinated.
- The types of combat operations will depend upon the character of the different phases of the war.

- Surprise paralyzes. That is why combat operations must be conducted with maximum speed and camouflage.
- The deployment of any branch of the service in combat must be preceded by a consideration of its characteristics and strengths.
- Full familiarity with it [the Red Army's weaponry] and proficiency in its use are the most important duties of all leaders and soldiers.
- Modern combat material makes possible the simultaneous destruction of the enemy at all echelons.
- Defences must be insurmountable to the enemy, no matter the strength of his attack in any direction.
- Clearly and precisely expressed tasks are the best guarantee for success in battle.
- Combat security protects the troops against sudden attacks by aircraft, tanks, landing operations of all types, chemical warfare agents, cavalry and infantry.
- The complexity and intensity of modern combat have raised the role and importance of the fighting man to a great height.
- Winning the worker and peasant masses of the enemy army and the population of the theatres of military operation over to the side of the proletarian revolution is the most important condition of victory over the enemy.
- To a considerable extent, modern combat is a fire contest between the belligerents.
- The saturation of modern combat with artillery and automatic weapons results in an exceptionally large expenditure of ammunition.
- Every battle must be supported by the requisite material.

The *FM 100-5 Operations* sets out the following principles which are of course expanded on in the manual:

- Direct every military operations toward a clearly defined, decisive, and attainable objective.
- Seize, retain and exploit the initiative.
- Mass the effects of overwhelming combat power at the decisive place and time.
- Employ all combat power available in the most effective way possible; allocate minimum essential combat power to secondary efforts.
- Place the enemy in a position of disadvantage through the flexible application of combat power.

- For every objective, seek unity of command and unity of effort.
- Never permit the enemy to acquire unexpected advantage.
- Strike the enemy at a time or place or in a manner for which he is unprepared.
- Prepare clear, uncomplicated plans and concise orders to ensure thorough understanding.

In comparing the two, it is necessary to strip away some of the political content of the Soviet regulations as it did not add much to the war fighting doctrine. It does however influence the Soviet Army in the way it intended to fight. As examined in earlier chapters, the nature of the Soviet's political system instilled an offensive nature to Red Army operations. This was confirmed in the PU-36:

A constant urge to fight the enemy with a goal of defeating him, must be the basis of the training and the conduct of any leader and soldier in the Red Army. The enemy must be attacked in a resolute and courageous manner wherever he is found, without being given specific orders to that effect.<sup>173</sup>

The American approach to offensive action was based more upon the physics of war. It was not linked with the political situation but was linked instead to the initiative in warfare. The first principle in *FM100-5 Operations* is the 'Objective'. This stated that 'The ultimate military purpose of war is the destruction of the enemy armed forces and will to fight.'<sup>174</sup> PU-36 reads very similarly; 'Red Army combat operations will always be oriented toward the annihilation of the enemy.'<sup>175</sup> Moreover, 'Combat results in; a) the destruction of the enemy's animate forces and material; b) the impairment of his morale and ability to resist.'<sup>176</sup> Hence we see that both doctrines intended to attack not only the enemy's physical forces, but also his will to fight.

Both manuals stressed that offensive warfare was the only way to the defeat an enemy, in other words that defensive operations were not going to defeat an enemy by themselves. 'Any battle—offensive as well as defensive—has the goal of defeating the enemy. But only a resolute attack in the main direction of effort... results in total

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<sup>173</sup> PU-36 p.2.

<sup>174</sup> *FM 100-5, Operations* 1993, p.2-8.

<sup>175</sup> PU-36 p.2.

<sup>176</sup> PU-36 p.2.

destruction of enemy forces and material.’<sup>177</sup> The American manual contains similar sentiments. ‘Offensive action is the most effective and decisive way to attain a clearly defined common objective.’<sup>178</sup> Further, ‘Commanders adopt the defensive only as a temporary expedient and must seek every opportunity to seize the initiative’<sup>179</sup> Thus we see that both FM’s are quite similar in their regard to offensive action. While the Soviets do not stress the link with initiative so strongly, it is certainly implied.

Both sets of general principles agreed on the importance of mass and concentration. The American manual stated that concentration on the battlefield was the ‘ability to mass effects without massing large formations and is therefore essential for achieving and exploiting success.’<sup>180</sup> The Soviet manual stated that ‘To ensure success it is necessary to shift forces and material so as to gain a decisive advantage over the enemy in the crucial area.’<sup>181</sup> The noticeable difference between the two is that the American manual stated that effects and not physical forces should be massed. There are a variety of reasons for this. It could be argued that this is a hangover from the Cold War when large formations were vulnerable to tactical nuclear or chemical weapons. The Soviets grappled with this problem and came up with a slightly different method during the Cold War. They used anti nuclear manoeuvre, in other words concentrating large formations only at the last possible moment.

Due to the Americans strategically defensive outlook during the Cold War, massing effects was the preferred option because they could not use manoeuvre to the same degree as the Soviets to defeat the threat of weapons of mass destruction. Another influence on the American approach had been the advances made in technology. Long-range fires and better cooperation with air and naval forces allowed American forces to better see the battlefield, and subsequently to hit the enemy hard without being within direct fire weapons range.

Both manuals agreed, more or less on the related subject of economy of force operations. Both realised the need to concentrate forces and or effects on the main

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<sup>177</sup> PU-36 p.2.

<sup>178</sup> FM 100-5, *Operations* 1993, p.2-8.

<sup>179</sup> FM 100-5, *Operations* 1993, p.2-8.

<sup>180</sup> FM 100-5, *Operations* 1993, p.2-9.

<sup>181</sup> PU-36, p.2.



direction or effort and subsequently the need to deploy only those forces necessary to hold the enemy back in other sectors.

The weight given to the element of surprise in the principles is interesting to contrast. While both manuals identify surprise as necessary, the American manual listed surprise as second to last in its list of principles. On the other hand, the Soviet manual lists surprise at number six out of 17 general principles. Both manuals linked surprise with speed and deception. They also mentioned the effect that surprise could have on tempo. Both manuals also highlighted the main threats to achieving surprise. PU-36 stated that enemy air activity was the main threat to this. *FM 100-5* stated that the main threat arose from the plethora of modern surveillance equipment which presumably took into account everything from battlefield radars to satellites.

Security featured in both sets of principles. *FM 100-5* stated that security was a result of the commander's efforts to protect his own force. Protection of the force was accomplished by knowing the enemy and understanding his operating methods. The PU-36 seemed slightly more focussed on a lower level as it stressed the importance of reconnaissance for the security of the force.

The command and control situation in the manuals is interesting to examine. *FM 100-5* examined command and control under the headings of 'Unity of Command' and 'Simplicity'. However this part of the manual did not really give any clue as to the style of the superior subordinate relationship. It did however state that operations should be conducted with a single purpose in mind. All elements had to work within the intent of the next highest echelon. Unity of purpose and unity of effort came together to make up unity of command. These ensured that operations were conducted to fulfil a specific aim with maximum effort and cooperation between all elements. Under the 'Simplicity' heading, the manual stated that 'Simple plans and clear, concise orders minimise misunderstanding and confusion.'<sup>182</sup>

The PU-36 stated that 'modern' weapons and combat equipment made for difficult situations in terms of command and achieving coordinated actions. The regulations then

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<sup>182</sup> *FM 100-5, Operations* 1993, p.2-11.

stated that simplicity was the best policy. However it went further in its clarification of the subordinate superior relationship. 'Clearly and precisely expressed tasks are the best guarantee for coordination in the subordinate troop units and branches. Once a decision is made it must be executed resolutely and energetically irrespective of all that may occur in the battle situation.'<sup>183</sup> While this seemed to be the stereotypical concept of Soviet command, the manual stated that personal initiative in lower level commanders was important. This style then seemed to be somewhere between directive control and detailed control. It stated that when initiative was used, it must be fully supported by the commander and should be within the commander's concept of the operation. It is hard to see how this would work in reality, and as the Second World War showed, the ability or even desire to use initiative by low-level leaders seems to have been generally low.

### **Principles of command**

One could argue that studying command principles in FMs is a waste of time. Certainly this impression arises from reading American FMs that endorse the use of directive control. It seems that this concept is one of the most talked about but seldom used concepts in warfare. This trend would seem likely to continue, as communications get more flexible and diverse allowing more centralised command.

The Soviets were also guilty of such practices. While in many places the PU-36 stated that initiative was all-important, it often contradicted itself. Moreover, anecdotal evidence would suggest that any deviation from set orders would earn the perpetrator a one way ticket to the penal battalion where one could expect to perform such duties as mine clearance by stamping one's feet. Regardless of these facts, this section will examine the American and Soviet responses to the problems of command and control contained within the *FM 100-5 Operations* 1993 and PU-36.

PU-36 stated that the most important principles of command are:

- Careful reconnaissance of the enemy,
- Decision making appropriate to the situation,
- Assigning tasks to the troops, and the organisation of their interaction,
- Timely task allocation and monitoring,

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<sup>183</sup> PU-36, p.6.

- Quick reaction to changes in the situation,
- Demonstrating personal initiative,
- Organisation of security,
- Liaison of all types,
- Functioning of rear area facilities.

The American FM contained no such list, and indeed did not have a section of the manual that was specifically devoted to command. However, it is possible to identify American command thinking. American command theory was based on the use of directive control. That is where one can deviate from the chosen plan as long as one stays within the commander's intent. The commander's intent gave unity of effort and synchronisation to all subordinate efforts. 'The commander's intent describes the desired end state. It is a concise expression of the purpose of the operation and must be clearly understood two echelons below the issuing commander.'<sup>184</sup>

The manual stated that 'mission orders are often the best'<sup>185</sup> In other words, mission orders specify what is to be done, not how it is to be done. Therefore what is important is the end state, not how to get there. The manual stated that detailed type control tends to inhibit the potential for initiative in battle. As initiative was one of the five basic Army tenets, it is easy to see why this was important. To foster initiative in battle, decision-making authority must be at the lowest level possible. However, the manual stated that this required well-trained subordinates, and perhaps most importantly, superiors who were willing to take risks.

Another important factor was that plans and their execution would vary as battle conditions changed. The commander would refocus his effort when a subordinate found a more suitable gap, or when a previous one closed. 'Commanders designate a point of main effort and focus resources to support it. They are ready to shift it rapidly without losing synchronisation of effects as the attack unfolds.'<sup>186</sup>

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<sup>184</sup> *FM 100-5, Operations* 1993, p.6-11.

<sup>185</sup> *FM 100-5, Operations* 1993, p.6-10.

<sup>186</sup> *FM 100-5, Operations* 1993, p.7-4.

This is perhaps where the fields of American and Soviet command theory diverged. The ability, and even desire of the Soviets to shift points of main effort rapidly seems dubious. The Soviets instead relied on reconnaissance to find gaps before an operation had begun. It is hard to see why, unless this was so, that reconnaissance was listed before correct decision making in the Ustav. Thus instead of relying on their ability to find gaps under dynamic situations, the Soviets preferred to find or make gaps, then attack them with such force, and at such tempo as to be able exploit them before they could be closed.

Yet it is untrue to say that the Soviets had no concept of initiative. I would argue however that their concept was different from the Western approach. The Ustav stated 'Combat operations are most successful when the commanders of all ranks have been trained to use courageous initiative. Personal initiative is of decisive significance.'<sup>187</sup> Yet just over the page, commanders are also instructed that 'Once a decision has been made, it is executed without deviation.'<sup>188</sup> It seemed that the Soviet understanding of initiative was more concerned with preparation prior to combat, and the energetic, detailed following of orders in combat. This is reinforced by the Soviet obsession with secrecy. The manual stated that when preparing a battle order, the mission of the next highest headquarters was not included. Instead, details of the mission of the next highest unit were limited to a very few people. This fact would have made it hard for subordinates to deviate from a plan by using their initiative (as the West knows it) during a battle while keeping within the commander's intent.

Thus initiative in the Soviet sense was demonstrated in staff work and reconnaissance before a battle and the active following through of detailed orders during it. This is not to say that the Soviets, once set on a course of action would be inflexible. During Operation Bagration for example, mobile groups were often committed to battle at times and places different from the original plan. It is instructive to look at command information flows in both manuals. The Soviets, as we have seen, placed importance on staff work prior to a battle to assure victory. They also used staff officers for tasks such as reconnaissance of the enemy. This suggests that the information flow from major commanding units was in a downward direction only. In other words, because the staffs

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<sup>187</sup> PU-36, p37.

<sup>188</sup> PU-36, p38.

and commanders took it upon themselves to be able to see the full battle, they had all the information they needed to make informed decisions about what their subordinate units should be doing.

The American approach to command tends to work both ways. It relied more on the initiative shown by low-level commanders in battle. It asserted that the people who are actually fighting held the best understanding of the battle. They were the most capable of weighing up risks and had the best view of what the enemy was actually doing, and more generally how the situation was developing.

Thus we come to a point of difference in the meaning of initiative in the Soviet military lexicon. It would not be much of a stretch to equate the American meaning of initiative with the term activity. The Soviet term that relates nearly to activity is *Aktivnost'* or combat activity. 'Success in a battle or operation is achieved by the side which, all things being equal, acts more actively and resolutely, takes the initiative, and holds it firmly.'<sup>189</sup> This concept differed from initiative, though initiative did play an active role in it. The concept was demonstrated in the manual even though it was something that was so fundamental to the Soviet system that it was almost wasting space to include it. Examples of this included the manual specifying 'reckless advance' and mandatory exploitation of gaps.<sup>190</sup> 'Any breach cut into the enemy defense must immediately be exploited to further the penetration into the depth of the enemy. Commanders at all levels are obliged to penetrate through every breach, regardless of whether this leads them into a new direction from the previous one.'<sup>191</sup> Moreover, it stated that 'During combat action in the depth zone, hesitation, waiting for orders or consideration of the neighbour are extremely dangerous. Courage and reckless advance confuse the defense and impact on the enemy's power to resist.'<sup>192</sup>

What comes through in these quotes is the extreme importance placed on quick, offensive actions over all others on the battlefield. This approach could be used to dictate terms to the enemy even when Soviet forces were defensively postured. In other

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<sup>189</sup> Savkin, V. E., *The Basic Principles of Operational Art and Tactics (A Soviet View)*, Moscow, 1972. p.241.

<sup>190</sup> PU-36, p.66.

<sup>191</sup> PU-36, p.66.

<sup>192</sup> PU-36, p.66.

words, offensive action would steal the initiative no matter what the enemy was doing. If an enemy was to counterattack during a Soviet offensive, this counter attack would be met by an immediate and vigorous all arms counter-counter attack.<sup>193</sup>

Command and control systems are one of the most obvious placed were the Soviet and American practices are dissimilar. The American FM supported the use of directive control while the Soviet manual contained examples of both detailed and directive control styles. It is hard to argue that Red Army doctrine had a large influence on American command and control theory. What has been shown however is that the Red Army did very early acknowledge the subject of directive control. While it did it embrace the subject, it is nonetheless interesting to find this 'modern' concept in Soviet pre-war doctrine.

### **Defensive Operations**

Both manuals combined positional and mobile defence styles. They both noted the importance of the protection of rear areas in being able to continue to defend. The Soviets expected to receive the same sort of attack that they wanted to inflict on an enemy. That was a simultaneous attack to the depth of the their formation by mechanised and armour forces as well as aircraft and *desant* style attacks. The American manual contained similar themes. The FM stated that the rear had an important part to play in its own protection. In other words the rear area could in some situations overlap with the close battle zone and that combat troops may not have been available to intervene. It was then up to rear area forces to retain their own freedom of action.

The Soviets stated that if enemy mechanised forces had penetrated into their rear area, it was the task of the rear area organs to protect themselves. The task of the forward combat troops was certainly not to turn around and pursue an enemy that had penetrated; instead its task was to close the gap in the front line and separate the enemy mechanised elements from its supporting forces. Rear area troops would then have to look after themselves as much as possible while the enemy mechanised forces would be destroyed in depth by aircraft and army level reserves.

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<sup>193</sup> PU-36, p.66.



The 1993 FM and the 1936 PU-36 both held that the defence was only a measure to be used when attack, for whatever reason could not be used. It was not an end in itself. This had been discussed already.

### **Concepts of Depth**

Deep operations were an integral part of both manuals. We have already examined the development of the American and Soviet concepts of depth on the battlefield. It could be argued that the respective concepts of depth had originated from the concepts put forth by Tukhachevsky and Triandafillov and encapsulated in the 1936 Field Regulations. While the concept was complete, the practical means to do this would only develop to their fullest extent in the OMGs and *desant* concepts of the 1980s. This concept however was one of the driving forces behind the need to identify the importance of depth. However the Americans, due to the strategy of the Cold War were required to think in more defensive terms and therefore the American concept of depth was angled more at massing effects and not so much forces; it certainly did not include major attacking movements across international borders.

The Soviet concept of simultaneity is an interesting one. It is linked to the ideas of deep strike, and had as its main aim the disruption of enemy command and control. It also had the effect of achieving a break in the continuity between the strategic and operational level of command of the enemy, attrition of enemy forces and denying the enemy the ability to conduct retrograde operations (i.e. to slip away). This was achieved, as he have discussed earlier by attacking the enemy throughout his depth at as many places as possible. The Soviets placed supreme importance on attacking the enemy to its entire depth, especially in offensive operations. 'Offensive operations must have the objective of simultaneously overwhelming the entire depth of the enemy defence.'<sup>194</sup> This was accomplished by the use of tactical aircraft, tube and rocket artillery, infantry and escort tanks in the tactical zone; this was followed by the introduction of mechanised and cavalry units into the rear areas of the enemy. If we then look at the traditional dialectic between the ordinary (holding) force and the extraordinary (or mobile) force, we see that the holding force is not there just to satisfy

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<sup>194</sup> PU-36, p.52.



the conditions for the commitment of the mobile force. Instead the holding force played as important a role as the mobile force. Some American theorists read the Soviet concept slightly differently. They believed the task of the holding force was to pass the mobile group into the depth of the enemy, instead of being an integral part of the overall concept. Again this can be likened to the creation of a problem or a dilemma. The first case described sees the enemy faced with a dilemma, as it must combat the enemy in depth and in width, therefore creating mental paralysis, along with the evident problems of enemy troops in your rear areas. The second description aims at width and then depth, thus creating only a problem for the enemy, but not a dilemma.

This is perhaps one of the reasons for that the Active Defence doctrine was doomed to fail. Active defence seemed to assume that the Soviets would push forward in only a few places. This was not the case. Instead the Soviets would have attacked across the front in strength in as many places as possible. Deciding on economy of force operations in such an environment would have proved impossible for the US Army command and control systems.

The official American concept of depth was different again. In its section on operational level war fighting, the 1993 FM stated that offensive operations should aim for 'the deepest, most rapid and simultaneous destruction of enemy defences possible.'<sup>195</sup>

Thus both manuals stated the importance of attacking the enemy to the depth of his defences simultaneously. However the wording gives away the American concept as one that does not fit the traditional meaning. The Soviets use the word overwhelm while the Americans use the word destruction. These are very different terms and it seems that the American understanding is based on the physical destruction of enemy and his material by attack. The use of the word 'overwhelm' in the Soviet version shows a greater cognition of the factors of warfare. In other words, by creating the dilemma of simultaneous attack or strike, in breadth as well as depth, the physical destruction of the enemy was almost incidental if the enemy mind (control systems) was unable to function as usual.

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<sup>195</sup> FM 100-5, *Operations* 1993, p.6-35.

The American concept of depth shows a less advanced understanding of the concept of depth and breadth with regard to creating operational shock in the enemy. The American concept could almost be accused of being attrition based, though the stigma associated with such a statement would be unjustified in this case. However, it is clear that American cognition was influenced greatly by the Soviet concept of depth. The need to adopt a clear definition of depth was a result of the perceived operating method of the Soviet forces. The US Army was also likely influenced by the study of Soviet literature, both pre and post-war that constantly referred to the importance of attacking the enemy to his depth.

### **Turning Movements**

The 1993 FM listed the turning movement as one of the important forms of manoeuvre. This form of manoeuvre has long been acknowledged in the Soviet school of warfare. However it was Sun Tzu who first gave this idea prominence. The turning movement concept has to do with the force dichotomy concept and the relationship between its two components. Sun Tzu stated that each force should contain two parts; an ordinary force and an extraordinary force. In more modern parlance these could be thought of as a mobile force and a holding force. This was indeed how Soviet writers interpreted it. The Soviet theory of deep battle and more importantly deep operations was an attempt to put this theory into practice. The mobile force would advance into the depth of the enemy and create leverage from the point where it was connected to the holding force. The mobile force would attempt to drive deeper than the centre of mass of the enemy formation. The centre of mass of an enemy was different than its centre of gravity. It could then use this leverage to envelop the enemy and if possible encircle him. This concept was also found in the Soviet treatment of the encounter battle where the advance guard of a force held the enemy while the main body became the mobile force and attacked the enemy from a position of advantage, often from the flank or rear.

The American treatment of the turning manoeuvre was dissimilar and less developed than the Soviet version. 'The attacker secures key terrain deep in the enemy's rear and along its LOCs by manoeuvring around the enemy.'<sup>196</sup> The manual suggested that the mobile force would often consist of relatively light airmobile forces and that it would

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<sup>196</sup> *FM 100-5, Operations* 1993, p. 7-19.

focus on terrain and not on the enemy. This constituted a major difference from the Soviet version which concentrated on the enemy force and not on terrain. Soviet forces conducting a turning movement were more likely to be heavy or mechanised formations. If we look, as some have done, at the physics of the situation, we can see that the Soviet version relied on the leverage produced by the physical connection made between the mobile force and the holding force. If, as the American manual suggested, the turning movement is the task of light airborne forces, there was no physical connection between the holding force and the mobile force. While this may be taking a somewhat industrial approach to the problem, it seems a valid one.

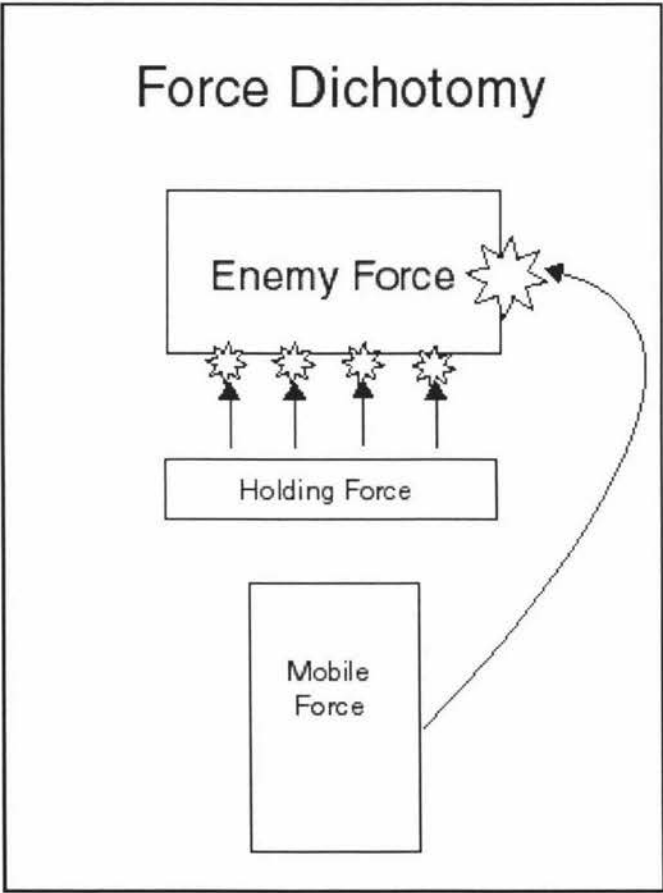


Figure.12. Force Dichotomy.

Another way to examine the American use of manoeuvre forces is to look at the importance placed on the reserve force. We have looked previously at the Soviet mobile

group concept and the importance placed by Soviet commanders on the commitment of the formation to battle. The Americans seemed to have a similar approach to their reserves. It is possible then to see that this formation could perhaps represent the extraordinary force in American theory. However, again, there are differences from the Soviet concept. Soviet follow on echelons and mobile groups start an operation with a clearly defined task and precise orders, as is the typical Soviet fashion. American reserves typically would not have the same pre-assignments. The Americans instead relied on interpreting the operation and making decisions about the commitment of the reserve during the operation. 'As tactical success is achieved, the choices for employing reserves become more certain.'<sup>197</sup> It is also interesting to look here at the physics of the situation. One can imply from the discussion above that American operational reserves must have a higher mobility than usual 'line' units. This is because prior to the operation, the decision about where to commit the reserve had not been made. Therefore to exploit success, or leap onto a fleeting opportunity the reserve must be able to move very quickly while still having enough combat power to defeat the enemy at the decisive point. The Soviets solved this problem by pre-positioning their mobile groups in a sector where their forces 'would' achieve a breakthrough that would allow exploitation of success in a timely manner, and with heavy combat power.

The Soviet and American concepts of turning movements appear, in the manuals at any rate to be quite similar, though the difference show themselves in the practical application of the running movement.

### **Importance of Artillery and Long-range Fires**

The Soviet manual put extensive trust in the ability of its artillery forces. Most are aware of the handsome dividends this paid for them in the latter parts of the Second World War. The Americans also stated the importance of long-range fires in the 1993 FM. It is perhaps more surprising that the Soviets insisted on the importance of artillery, given their penchant for the manoeuvre approach during its earlier conflicts. The Americans on the other hand have a long history of attrition thinking which has seen the use of massed artillery to bludgeon the other side into defeat. None the less, it is

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<sup>197</sup> *FM 100-5, Operations* 1993, p.6-35.

important to see how the American concept of long-range fires differed from the Soviet one.

As we have seen in the above section, the depth concept was important to both the Soviets and the Americans. This concept provided both sides with freedom of action while denying it to the enemy. The ALB approach to deep battle rested largely on long-range fires, either artillery or air delivered. This was both a political and practical necessity. The change to Force Projection operations somewhat balanced the tables and allowed offensive action by ground forces and airborne forces. At any rate, the manual implies in many places that the artillery must engage and neutralise enemy artillery, engage and destroy (or at the very least delay) enemy uncommitted forces and support the close battle. The artillery units were going to be extremely busy. The reliance on friendly artillery to destroy enemy artillery is an interesting prospect, but one that fits well within the typical American way of war.

The development of this concept seems unclear. Logical thinking would suggest it did not originate from the Cold War when Soviet Artillery means had quite an advantage over American artillery forces in quantity, if not quality. Perhaps then it takes advantage of the fact that after the Cold War, the Soviet Union, or any other potential adversary could not field sufficiently strong artillery forces (both in guns and fire locating means) to threaten American forces.

Whatever the reason, the principle of destruction of artillery by artillery (sometimes called counterfire) does not satisfy the maxims of manoeuvre warfare. The Soviets on the other hand used artillery in a more manoeuvrist way. However they still agreed on the use of artillery to destroy enemy artillery. The main difference being that artillery is only one of the systems used to neutralise enemy artillery. The Soviets maintained two different types of artillery. The long-range groups task was first and foremost the destruction of enemy artillery. This was however not its only function. It was used to target enemy command and control nodes, enemy reserves and important movement points in the enemy's depth. Thus it provided protection for the mobile group (later OMG) by disrupting the enemy's ability to decisively engage it. More importantly, enemy artillery was also the main target of tactical air strikes and indeed the mobile

group itself. The mobile group then could be said to be providing its own protection from enemy artillery fires in two ways.

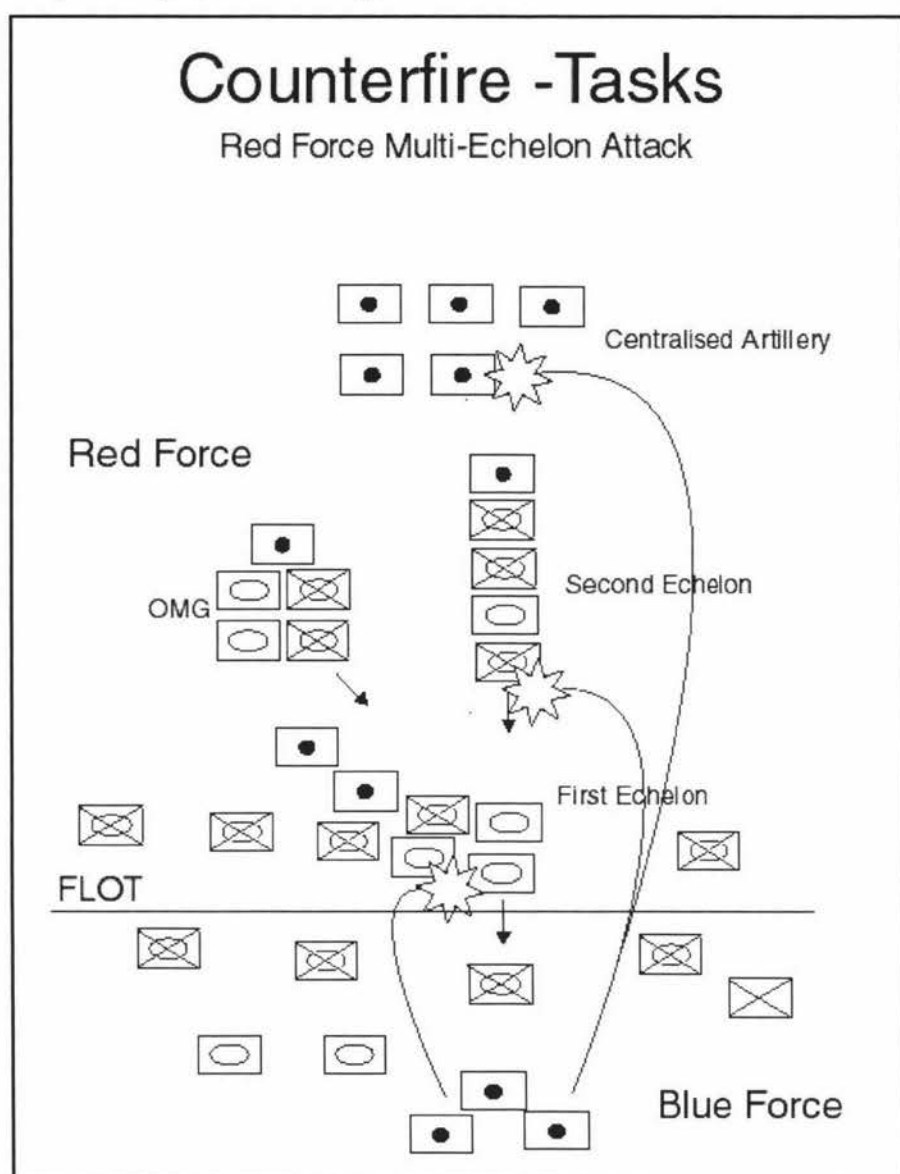


Figure.13. Counterfire-Tasks

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destruction of enemy artillery. This was however not its only function. It was used to target enemy command and control nodes, enemy reserves and important movement points in the enemy's depth. Thus it provided protection for the mobile group (later OMG) by disrupting the enemy's ability to decisively engage it. More importantly, enemy artillery was also the main target of tactical air strikes and indeed the mobile group itself. The mobile group then could be said to be providing its own protection from enemy artillery fires in two ways. The first was the importance placed on tempo of operations. This would effectively allow the mobile group to get inside the loop of the enemy command and control systems, especially their ability to call in accurate and timely long range artillery. The second method was the physical destruction of the enemy artillery by the mobile group itself.

Short range Soviet artillery protected friendly tanks and infantry as they moved into the attack by destroying enemy anti-tank guns and machine gun nests in the tactical battle. Thus Soviet artillery's main task was allowing manoeuvre forces freedom of manoeuvre.

Though I have stated that the use of artillery for the destruction of enemy is inherently 'poor form' in the manoeuvre warfare context, it is perhaps interesting to look at it a slightly different way. The use of Soviet artillery to target enemy artillery (remembering that only a portion of Red Army artillery would be used for this task) is paralleled by the use of US Army artillery in that regard after the end of the Cold War. The Soviets in the Cold War and prior to that were playing to their strengths in their attitude to artillery. The amount of artillery deployed by the Red Army meant that it could attack and destroy enemy artillery without depriving manoeuvre forces of their support. The US Army in the post Cold War would have had an advantage over an adversary in quality and possibly even quantity of artillery. Hence, US forces would find themselves in a position to be able to fight the counterfire battle and still have the ability to support their manoeuvre forces. In other words, also playing to their strengths. This was certainly the case in the 1991 Persian Gulf War. In many cases Iraqi artillery out-ranged US artillery forces. However, the US artillery was equipped with advanced fire finding radars that allowed extremely quick targeting of Iraqi gun lines. Counter battery work (counterfire) then was extremely effective, and perhaps more importantly, efficient in relation to other means of destruction. For instance, tactical air forces, for a variety of



reasons, had a hard time finding and deploying munitions on Iraqi artillery. This is quite an interesting comment on one of the 'maxims' of manoeuvre warfare theory, and one that should be applied judiciously, especially in asymmetrical warfare.

The American long-range fire concept had some things in common with the PU-36. The FM stated the importance of counterfire, as did the PU-36 though it did not use that term. From this discussion it is clear that due to the Soviets overwhelming firepower advantage, the use of high technology to prosecute the counterfire battle was a necessity for American artillery. Ironically, this increased in the post Cold War World when the US Army would continue to emphasise technology over manoeuvre in the long-range battle.

### **Combined Arms**

As we have discussed above, the 1986 imperative stating the importance of combined arms was removed from the 1993 manual. While this was not representative of a huge change in American tactical policy, it is interesting as it represented a deeper fundamental mindset in the American Army. The Soviets, in their regulations showed a similar approach.

The Soviets view of combined arms contained in the PU-36 was quite advanced. Indeed, in the General Principles section the Ustav goes into considerable depth on the importance of combining branches to achieve the best effects. 'Any branch will be used in close cooperation with the others making full use of all its capabilities.'<sup>198</sup> From this point, the Ustav takes each branch of the Red Army and gives a reasonably detailed description of its strengths and weaknesses. For example: 'Tanks have great mobility, great firepower, and tremendous assault capability. However, in making use of these valuable combat capabilities, consideration must be given to the technical limitations of the material, the physical performance of the crews, and the maintenance and repair facilities.'<sup>199</sup> The Ustav also gave instruction on combining branches to achieve best effect. 'Mechanized [sic] combat teams consisting of tanks, self-propelled artillery, and infantry on personnel carriers are capable of accomplishing independent missions either

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<sup>198</sup> PU-36, p.3.

<sup>199</sup> PU-36, p.3.

separated from the other branches or in cooperation with them.’<sup>200</sup> In all situations unity of command is retained by strict command relationships.

The 1993 FM shows a similar approach though it was slightly different in its presentation. ‘Army forces prefer to fight as a combined arms team.’ Further, ‘Combined arms warfare produces effects that are greater than the sum of the individual parts.’<sup>201</sup> The manual stated that the goal of combined arms warfare was the paralysis of the enemy. ‘The goal is to confuse, demoralise, and destroy the enemy with the coordinated impact of combat power.’<sup>202</sup>

As the PU-36 did, the 1993 FM described the strengths and weaknesses of the Army’s tactical units and how these should be combined. ‘Mechanized infantry has the same mobility as armor forces, but less firepower and protection. Armour and mechanised infantry train and fight as a team to defeat enemy armored forces.’<sup>203</sup>

Thus we can see that the approach contained in each manual was very similar indeed. Combined arms forces have consistently been of extreme importance to the Red Army. They have especially utilised this concept in operational level formations. An example of this was the use of fixed wing aircraft to transport BMD IFVs deep into the enemy’s rear.<sup>204</sup> The Soviets had to a large extent solved the problem of the lack of mobility once airborne troops had dismounted from their transport. It allowed them to fight in a combined arms style in the enemy rear.

While this may not have had a direct influence on the development of American combined arms theory, it certainly did emphasise the ability of the Red Army to strike deeply and powerfully into NATO’s rear areas. This then enforced the importance of rear area security to the Americans. This of course had been one of the most important military maxims of the Soviets.

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<sup>200</sup> PU-36, p.4.

<sup>201</sup> *FM 100-5, Operations* 1993, p.2-5.

<sup>202</sup> *FM 100-5, Operations* 1993, p.2-5.

<sup>203</sup> *FM 100-5, Operations* 1993, p.2-43.

<sup>204</sup> BMD, a Red Army amphibious airborne infantry fighting vehicle similar to, but smaller than the BMP. It could be dropped, using a parachute by Red Air Force transport aircraft.

In terms of American combined arms theory, it was General DePuy who introduced the extreme importance of combined arms. He quoted however the Germans and their *panzer grenadier* concept as his main source of inspiration. This was perfectly natural as the Americans looked favourably on the tactical ability of the Wehrmacht.

### **The Operational Level**

Comparing and contrasting the Soviet and American operational thought is a little harder to do as the Soviet manual does not contain a section devoted to the subject. This highlights one of the biggest differences between the manuals. The American manual, while giving a precise definition of its concept of operational art gives only generalised advice to the commander who would be required to use operational art to fight at this level. The Soviet manual on the other hand gives very detailed advice to the war fighter. In comparing and contrasting the two definitions of the operational level and operational art it is necessary to keep in mind their development. The Soviet development of operational art was intimately connected with deep battle and later deep operations. Moreover it had in view large scale linear The American analysis of operational art has focussed on definitions and not so much on particular methods of war fighting.

It is often stated that the simpler of two solutions is inherently the best. With this in mind, Svechin's immortal statement seems the best articulation of the levels of war. That is; 'tactics makes the steps from which operational leaps are assembled; strategy points out the path.'<sup>205</sup> Svechin's statement, even taken out of context appears to pass the test of time very well. However, a more appropriate statement of his to look at, and compare with the American definition is perhaps 'We call the operation that act of war, during which struggling forces without interruption are directed into a distinct region of the theatre of military operations to achieve distinct intermediate aims. The operation represents an aggregate of very diverse actions: the compilation of plans; material preparations; concentration of forces in jumping off positions; the erection of defensive structures; completion of marches; the conduct of battle by either immediate envelopment or by a preliminary penetration to encircle and destroy enemy units, to

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<sup>205</sup> Glantz, p.23.

force back others forces, and to gain or hold for us designated boundaries or geographic regions.’<sup>206</sup>

The 1993 FM describes operational art in a very similar way. ‘The operational level is the vital link between national- and theatre- strategic aims and the tactical employment of forces on the battlefield.’<sup>207</sup> Further, ‘Operational art is the skilful employment of military forces to attain strategic and/or operational objectives within a theatre through the design, organisation, integration, and conduct of theatre strategies, campaigns, major operations and battles.’<sup>208</sup>

Breaking them both into their component parts we see quite a similar approach. Both state that operational art directs forces to attain certain goals in a specific theatre of military action.

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<sup>206</sup> Glantz, p.23.

<sup>207</sup> *FM 100-5, Operations* 1993, p. 6-5.

<sup>208</sup> *FM 100-5, Operations* 1993, p. 6-5.

## Conclusion

This thesis has aimed to elucidate the development of Soviet and American operational concepts. It has shown why the American development of the operational level happened considerably later than it did for the Soviets. It has further, through the use of comparative analysis, shown the influence of the Soviet school of operational thought on the development of US Army doctrine.

Before a proper comparison could be made however, it was important to understand the forces that brought the operational level to the fore. The Soviet experience was traumatic. The two main influences on Soviet doctrine were the First World War and the Russian Civil War. The Soviet's First World War experience differed greatly from the Western one. The conflict brought with it many lessons, especially concerning the nature of modern warfare. Quite similar lessons were also thrown up in the Russian Civil War. This, combined with the inherent principles of Communism, would provide a lasting influence on Soviet warfare theory.

The real period of development for the Soviets came in the mid 1920s. Young Red commanders from the Civil War now had the tools to come up with answers to the questions posed by the demands of modern warfare. The literature of this time was amazing, both in quantity and quality.

The dynamics of modern war suggested the need for a level of warfare between the age-old paradigm of strategy and tactics. This gap was soon filled, and it was linked to a certain style of warfare that had as its main goal, the defeat of the enemy system through deep battle and later deep operations. This style of warfare was first codified in 1929, and more completely in 1936. Thus the PU-36 was a practical representation of the Soviet style of war and their attitude toward operational art. The PU-36 contained many of the concepts that are associated with manoeuvre warfare theory. These included the emphasis on concentration at the main effort, the focus on the enemy and not terrain, combined arms warfare and the importance of initiative and tempo. In other ways the regulations did things in a typically Soviet fashion. Command and control in this manual was often of a contradictory nature. Though one can to a certain extent read

between the lines, it is interesting to note that the Soviets did dabble with the directive control style, even if only theoretically.

The good work done by the regulations was destroyed by the purges of 1937 and a great opportunity was lost. The result of this was the substandard display by the Soviets in the early period of the Great Patriotic War. However, by 1943 the Soviets had begun to look back at the principles of deep battle and deep operations with considerable interest. The use of mobile groups and forward detachments during the later parts of the war was a return to the principles laid out in the pre-war literature and field regulations.

The introduction of the nuclear weapon had a large impact on the Red Army. As happened in America, the Army became the poor child of the armed forces as resources were funnelled into nuclear means. This had an effect on the development of American operational thought; ironically it was the Soviets who most clearly elucidated this idea. They stated that the traditional linkage between strategy, operations and tactics had been fundamentally altered by nuclear weapons. This was only properly rectified when the nuclear atmosphere changed around the end of the 1960s. Thus the Soviets once again were tasked with coming up with practical means to defeat a very capable enemy in conventional operations. Once again there was much interest in the principles laid out in the pre-war field regulations, especially the PU-36.

Understanding the Cold War methods of the Red Army are critical to understanding the development of American doctrine. The Americans had, after a torrid time in Vietnam, reverted their attention to Europe and the threat posed by Soviet and Warsaw Pact forces. Indeed the formulation of an operational theory was to some degree retarded by the Vietnam experience. There was no clear link between strategy and tactics. In other words, tactical battles were won, but the war was lost. This was only remedied by the more conventional threat posed by the Soviets in Europe.

The formulation of the 1976 FM 100-5 *Operations* was extremely important for American doctrine. It was very much a how to fight guide. It was overwhelmingly defensive in tone and was based exclusively on the tactical level. DePuy brought much of the tactical brilliance of the German Army into the manual. This is perhaps where the German influence on the American Army was strongest.

The 1976 FM was important, not so much for its content, but because it created open and fluent debate on the principles of the manual. The debate was a major contributor to the solution of the deficiencies and tactical orientation of the manual. It also pushed the US Army towards a manoeuvre based doctrine that would give them a better chance to fight outnumbered and win.

In some ways the formulation of the 1976 FM was similar to the impact the Civil War had on the Red Army in the 1920s. It generated a large amount of thought and literature concerning the direction Army doctrine should take.

An understanding of the Soviet operational concept would be required for the Americans to harness the momentum generated by the 1976 FM. This was a necessity for the development of American operational thought. The Americans could not call on a rich historical background when contemplating the leap to an operational doctrine. This was compounded by a continuing fascination with firepower, to the detriment of manoeuvre.

The Soviet influence that can be seen most clearly is the concept of depth. Depth in the Soviet system sought to introduce operational level formations into the depth of the enemy to create leverage, shock and in the end paralysis of the enemy's military and political systems. The concept of depth however worked in both directions. The Soviets, while emphasising depth forward of the contact line, also, initially at least, emphasised depth by echeloning forces inside their own territory. This gave the Soviets momentum and flexibility. Nevertheless, the Americans picked up on the importance of deep operations. The solution to the defensive problem posed to NATO was to attack enemy fielded forces and systems prior to them reaching the front lines. In this regard, the American AirLand Battle concept sought to work on interior lines by separating the Soviet echelons from each other and defeating them as they attacked piecemeal.

The work on Soviet theory was carried out by many entities. The main US Army effort to learn more about the Soviet system was due to General Starry as head of TRADOC. He was the best man for the job as his two years of experience as V Corps commander brought out many of the inconsistencies of the Active Defence doctrine.



Another example of the Soviet influence was the fact that the works of Triandafillov and Tukhachevsky began to become set texts in some American Army institutes. The most important one here was SAMS, which contributed to the revision of the 1986 FM. It is hard to dismiss this as irrelevant; many of the US officers who served in the First Persian Gulf War had gone through the SAMS course.

Apart from the work undertaken by the Army, the civilian reformers had an important role to play. This can be seen by looking at the works of William Lind, Steven Camby and Edward Luttwak. Luttwak in particular gave an excellent definition of the operational level of war, though he expressed this from experience gained examining the German operational approach.

The results of the comparison between the 1936 Field Regulations and the 1993 *FM 100-5 Operations* show a certain similarity in concept but show certain differences in practice. This is perhaps to be expected, as the Soviet and American systems were so inherently different from each other.

The main aim of this thesis has been to determine the reasons for the failure of the US Army to codify the operational level of war prior to the 1980s. It has further evaluated the influence of the Soviet operational school on American Army doctrine. From the study of Soviet and American operational techniques we see that while the specifics of some concepts vary, the styles of operational warfare are quite similar. The Soviet threat in Europe during the Cold War drove the development of American operational thought and doctrine. This combined with the careful study of Soviet operational theory led the American Army to develop a similar operational style.

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# LIST OF ABBREVIATIONS

AAB	Air Assault Brigade (Soviet)
ALB	AirLand Battle doctrine
ATGM	Anti-Tank Guided Missile
BMD	A Red Army amphibious airborne infantry fighting vehicle similar to, but smaller than the BMP. It could be dropped, using a parachute by Red Air Force transport aircraft.
CAS	Close Air Support
CONARC	Continental Army Command
CS	Combat Support
CSS	Combat Service Support
FASCAM	Family of Scatterable Mines. These are mines delivered usually from artillery, tactical aircraft or helicopters.
FEBA	Forward Edge of the Battle Area
FLOT	Forward Line of Own Troops
FM	Field Manual
HQ	Head Quarters
IFV	Infantry Fighting Vehicle
LOCs	Lines of Communication
MACV	Military Assistance Command Vietnam
MANPAD	MAN Portable Air Defence
NATO	North Atlantic Treaty Organisation
NCO	Non Commissioned Officer
NVA	North Vietnamese Army
OMG	Operational Manoeuvre Group
OOTW	Operations Other Than War. These include peace support operations or civil emergencies.
SAMS	School of Advanced Military Studies (US Army)
STAVKA	Russian Imperial High Command
SWAG	South Western Army Group (Russian Civil War)
TAC	Tactical Air Command (US Air Force)
TRADOC	Training and Doctrine Command (US Army)



TVD	Theatres of Military Operations
VDV	<i>vozdushno-desantnyye voyska</i> , Red Army Airborne forces
WAG	Western Army Group (Russian Civil War)

# GLOSSARY

Marder IFV	German made infantry fighting vehicle.
Mi-8 Hip	Soviet/Russian Transport and fire support helicopter.
Mi-24 Hind	Soviet/Russian helicopter gunship. Can transport soldiers also.
OODA	The Observe, Orientate, Decide, Act loop was devised by Colonel Boyd (US Air Force) after study of air combat, specifically dog fighting, during the Korean War. The OODA loop is important as it sets a benchmark for the time taken to complete a task or react to a situation. If one fighter aircraft can complete the OODA loop faster than its opponent, he will win the fight as the opponent's reactions become irrelevant to the situation. This loop can be applied to all forms of warfare and indeed many other pursuits such as sport.
PU-36	<i>The Provisional Field Regulations for the Red Army 1936.</i>
STEADFAST	An initiative directed by General Creighton Abrams, Chief of Staff of the Army, to try and solve command and control problems in the US Army during the 1970s.

# GRAPHICS INDEX

## Generic Unit Symbols



Infantry



Fixed Wing Aircraft



Artillery



Rotary Wing Aircraft



Mechanised Infantry



Air Assault



Reconnaissance



Armoured Recon



Armour



Enemy

## Levels of Command

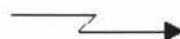
XXXX	Army
XXX	Corps
XX	Division
X	Brigade
III	Regiment
II	Battalion
I	Company
...	Platoon



Unit Position



Future Unit Position



Screening/ Recon Operations



Unit Boundary