Management of Threats and Errors in Normal Operations of Assistant Controllers

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Abstract

"To err is indeed human, so to err is normal."

Human errors are usually pronounced in accident or incident reports. Seldom does one pay enough attention to these errors during daily normal operations as these either go unnoticed or unreported for whatsoever the reasons may be. Therefore, the causes of these errors and also the system threats prevalent in the daily operations may not be fully contained. On the other hand, problematic situations that are successfully tackled by human skills are quite often treated as less important than they really are.

The job of an assistant controller (AC) is one of the important domains in air traffic management (ATM). The AC work together with air traffic controllers as team members and they do have direct and indirect contributions to the safe, orderly and efficient flow of air traffic. In this study, the threats, errors and potential undesired states occurring with AC during normal operations will be recorded by a methodology, which is new to Hong Kong Air Traffic Control (ATC). This methodology, called Normal Operations Safety Observation (NOSO), is built on the Threat and Error Management (TEM) framework. The results will generate a broad outline on what sorts of threats, errors and undesired states an AC can be facing during normal operations. The relative frequencies of occurrence of these conditions will be presented separately in tables and figures. The AC's potential vulnerabilities and capabilities to cope with these threats, errors and undesired states will be discussed together with a suggested ranking. It is envisaged that an analysis of the data collected will aid the development and evaluation of safety defence measures in ATM and further support the applicability of this data collection methodology in other ATM operations and subsequent researches.

KEYWORDS:- Normal Operations Safety Observation, Threat and Error Management, Safety Management, Air Traffic Control

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The research undergoes an ethical consideration from Massey University that the research strictly follows the Code of Ethical Conduct for Research (Massey University, 2006).

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