

# Incident Reporting from an HTO Perspective

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## Abstract

Incident reporting systems and investigations are important sources of knowledge for the prevention of further accidents. In Sweden, there is a well established reporting system within the Swedish Air Force and the military aviation industry. A master thesis study was conducted with the purpose of finding out whether this reporting system includes HTO related work aspects or not. The study's research objectives were to explore existing HTO organisational and accident models, analyse the reporting system using the models, and suggest possible improvements to the existing incident investigation system. Methods used were literature review, case study and interviews. Three models were chosen: the HTO model (Rollenhagen, 1997), STAMP (Leveson, 2009), and HFACS (Shappell & Wiegmann, 2000). The models were analysed and then tested in a case study. Also, interviews were conducted with key individuals at Saab Aerosystems as well as at the Swedish Armed Forces' Headquarters in order to gain more insight. The study showed that some HTO related work is done at Saab Aerosystems and the Air Force. However, recommendations for an improved HTO presence in the work methods for both Saab Aerosystems and the Swedish Air Force were given.

## Introduction

In today's high-tech society there are many examples where technology moves toward a higher level of integration of several systems, which in turn increases the system's complexity dramatically. An important source for prevention of future accidents is the lessons learned from accidents and incidents which occur with systems in operation. Accident models are used to explain how accidents occur. It is questioned whether the system safety accident models of today, which have their roots in industrial safety, really do find the appropriate measures to ensure that the accidents do not happen again in these new complex and integrated systems (Leveson, 2002). Carl Rollenhagen (1997) considers the interaction between Human, Technology and Organisation (HTO) to be a good source of information when working to achieve increased safety.

Within military aviation in Sweden the importance of learning from incidents has been acknowledged for a long time. There is a working routine for analysing

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