

**Abstract**

This thesis is an evaluation of a computer based analysis method based on CREAM. The intention is to evaluate if, and in what respect a computer based tool, based on a theoretical foundation, can improve air safety investigations. Theoretical concepts that describe the safety investigations principles are discussed to provide a knowledge foundation for the experiment. Two events in an actual aircraft incident are analysed, with the CREAM based software tool I had developed and are compared to the official transport safety bureau report. Via a questionnaire the 12 investigator participants gave their opinion on the relevance of specific problems related to investigations. In the comparison these problems are discussed.

The results show that a CREAM based analysis creates an audit trail from data to explanation and can guide the investigator to a “new view” perspective on human performance.