

A STUDY OF AIRCRAFT ACCIDENTS AND INCIDENTS

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ABSTRACT

Depending on the country an aircraft belongs to, and depending on the airline safety politic, the safety of a flight varies. Most of the airlines comply with the basic safety standards required by the ICAO. Among these airlines, some have decided to comply with their own safety standards (in addition to safety standards required by the ICAO)and increase their safety level, although costs are higher.

There are many factors that contribute to the safety rating of an airline including, but not limited to, accident history, maintenance and operational procedures, types of training programs, age of fleet, management, and specific routes flown. In addition, many accidents are caused by circumstances beyond the control of the airline, including, operations and instrumentation at airports. Air Traffic Controller errors, collisions with other aircraft that are at fault, sabotage, manufacturer's design flaws, weather or just plain bad luck. This study examines the failing of all technologies, human performance and limitation and human interface. Human being a one element of complex system and is the last barrier that stops the sequence of events from causing an accident. By identifying the factors involved in accidents and incidents appropriately, that can be eliminated or reduced to a minimum the effected causes and that is the main endeavor of this study.

In this study scope was limited to commercial schedule operations which carries maximum take-off mass above 2500kg. Military operations, cargo operations and flying clubs were excluded.

This dissertation is presented through five chapters. Beginning with Introduction, History of Aviation, Accidents and Incidents with causes for Accidents and Incidents are covered. A comprehensive literature survey was conducted together with finding published data on accidents and incidents of aircraft. Chapter 3 covers the evaluation of the passenger aircraft with its safety records.

Finally analysis of the accidents and incidents are presented with conclusions arrived at.