

# Survivability and Evacuation Aspects in Final Reports

## BACKGROUND

The Fire and Cabin Safety Research Group maintained a public database of completed accident investigative reports from the US National Transportation Safety Board (NTSB), the Canadian Transportation Safety Board (TSB), and the UK Air Accident Investigation Branch (AAIB). The intent of the repository is to provide credible resources for safety improvements in the aviation industry. To form a better understanding of human behaviour during an accident evacuation sequence, a data sample was created from completed accident reports.

Over a 25-year period, only 11% of these final reports contained some description of the evacuation process, which varied considerably from one report to the next, with no details on human behaviour during the egress sequence. For example, many of these reports provided detailed summaries of the egress sequence including details of Airport Rescue & Fire-Fighting services or other assistance, any barriers to successful evacuation, and other survivability factors, whilst others simply stated that an evacuation was conducted without any supporting details.

One purpose of writing an accident report is to disseminate safety information to prevent a reoccurrence. Additionally, these accident reports should provide insight into emergency evacuations that allow for policy and procedure changes as well as aircraft design modifications. Furthermore, improved data mining using enhanced technology depends on detailed accident reports to identify industry trends and threats.

## GUIDELINES FOR CONTENT OF AVIATION ACCIDENT REPORTS

ICAO Annex 13 Chapter 6 provides guidance to States on the requirement to produce a final report at the conclusion of an aircraft accident investigation. Annex 13, Appendix 1 provides additional information on the format of the final report. Detailed guidance on completing each section and subsection can be found in the Manual of Aircraft Accident and Incident Investigation, Part IV: Reporting (Doc 9756).

The level of detail required for a comprehensive report is discretionary. Too many details might become overwhelming or obstruct the reader from understanding the true nature of the accident. Too few details will not support safety recommendations, changes in policy or procedures, or effective data mining or trend analysis.

It is generally the responsibility of the Investigator-in-charge (IIC) to develop the final report. In many cases, these reports are very detailed and provide a sufficient and succinct summary of the accident that allows an understanding of the event as well as their use in future safety initiatives.

There are also reports that lack significant details and entire sections are omitted (such as evacuation and survivability). While the content and level of detail are at the discretion of the IIC, every effort should be made to have pertinent content for each recommended section and subsection to the level of detail that is required for generating safety recommendations, changes to policies and procedures, as well as use in trend analysis.

## POSITION

When an occurrence results in an evacuation, it is essential that the final report includes a thorough study of the evacuation sequence and survivability in accordance with the provisions of ICAO Doc 9756, along with the relevant safety recommendations.