



Weather Risk Management

Course Objectives

On December 12, 2007, the Transportation Safety Board of Canada (TSB) released its final report into the runway overrun of Air France 358 at Toronto, Canada on 02 August 2005. In their release, the TSB point out that since the Air France accident in August 2005, 10 large aircraft have gone off runways around the world in bad weather. The Chair of the TSB called for more to be done to ensure aircraft touch down safely so passengers don't get hurt. Calling the significant amount of runway overruns an unacceptable risk, most of the TSB's recommendations focus on crews and the need for clear mandatory standards, training, and procedures to help pilots make critical decisions in bad weather, particularly on approach and landing.

Weather events such as the London Heathrow fog event in December 2006, and the crippling winter storms in Canada and America, have vividly exposed the enormous impact of weather on operations. Besides interruptions to flight schedules, passenger inconvenience, and 'bad publicity' it can have a tremendous and rapid impact on both an air operator's and an airport's bottom line. In addition, there are many weather related dangers pilots face, enroute and in the airport environment, such as low level wind shear, icing and turbulence. Despite technological advances in weather forecasting, dissemination and presentation of weather related data, weather continues to be identified as a contributing factor in aviation occurrences worldwide; at all levels of the industry. Though accidents in the commercial aviation industry (i.e., transport and commuter categories) are rare, an April 2007 report by IATA indicated that 43 per cent of accidents in 2006 occurred during operations in adverse weather. In addition to accidents, there are numerous injuries to flight crews and passengers due to weather occurrences each year. For example, NASA's Aviation Safety program estimates that airlines encounter severe turbulence nine times a month, resulting in an average of 24 injuries per month. In addition to possible fatalities and injuries, weather occurrences (e.g., severe clear air turbulence, lightning strikes) can be costly in operational and financial terms. An encounter with adverse weather may result in aircraft inspections and repairs, flight deviations, increased fuel consumption, passenger inconvenience, and possible passenger accommodations and expenses, and litigation. Further, NASA's Aviation Safety program estimates the cost to the airlines from encounters with turbulence runs more than \$100 million (USD) a year, with one airline estimating that each encounter of severe turbulence costs an average of \$750,000 (USD).

Given encounters with weather hazards pose a safety and financial risk to operators (and inline with TSB recommendations) a program of investigating, and analysing weather encounters should form part of any operator's overall safety program. Applying risk management principles to weather within a systemic framework, this course will provide participants with information and guidance for developing and directing a comprehensive, systemic program to manage weather related risks; a Weather Risk Control System (Wx-RCS). Fundamentals in occurrence investigation, program organisation and structure provide the participants with the essential skills and methodology needed to develop, plan, and manage a Wx-RCS, and its incorporation into their company's existing overall safety program (i.e., SMS). Emphasis is placed on identifying and understanding weather hazards and the wide range of contributing factors through investigation using a sound framework for analysing weather related hazards and incidents. The course will also examine building a healthy safety culture (focusing on weather issues), understanding the principles of risk management and risk control systems, identifying program development strategies, and applying the knowledge toward effective program management to prevent the recurrence of weather occurrences.

Who should attend?

Individuals responsible for planning, directing or managing a safety program and supervisors who are required to supervise an accident prevention / risk management program. This includes airline, commuter, corporate fixed base operator, helicopter operator, civil aviation authority, military, government, ANS providers, etc, hospital emergency medical service, law enforcement, and airport management.

Course Particulars

- **Fee:** See website for details.
- **Location:** Halifax, Nova Scotia, Canada. - In-house also available.

For more information please contact:

John W. Dutcher
Dutcher Safety & Meteorology Services
 Toronto, Ontario, CANADA
 Mobile: +1 416 407 2454
 E: dutchersms@gmail.com
<http://www.johndutcher.com>