Safety News

Fire Prompts Safety Proposals

The U.S. National Transportation Safety Board (NTSB), citing a Sept. 28, 2007, in-flight fire on an American Airlines McDonnell Douglas MD-82 during departure from St. Louis, has recommended an evaluation of all instances of uncommanded air turbine starter-valve opening events in MD-80s.

The evaluation by the U.S. Federal Aviation Administration is necessary to determine whether modifications should be ordered, the NTSB said.

The St. Louis incident occurred during the departure climb and prompted the crew to return to Lambert-St. Louis International Airport for an emergency landing. During the return, the nose landing gear did not extend, and the crew conducted a go-around while performing the emergency gear-extension procedure. None of the 143 people in the airplane was injured, but the aircraft sustained substantial fire damage.

The NTSB said that the probable cause of the accident was the failure of maintenance personnel to use an appropriate manual engine-start procedure. That failure led to "the uncommanded opening of the left engine air turbine starter valve (ATSV) and a subsequent left engine fire, which was prolonged by the flight crew's interruption of an emergency checklist to perform nonessential tasks."

The NTSB cited deficiencies in the airline's continuing analysis and surveillance system as a contributing factor.

The accident report said that, during the brief flight, the pilots observed an "uncommanded opening of the ATSV …, followed by indications of an engine fire" and several other electrical and hydraulic anomalies.

The investigation resulted in eight NTSB recommendations to the FAA, including one proposal to establish best practices guidelines for training in single and multiple emergencies and abnormal situations, and another to require principal operations inspectors "to review their operators' pilot guidance and training on task allocation and workload management during emergency situations to verify that they state that, to the extent practicable, the pilot running the checklists should not engage in additional nonessential operational tasks, such as radio communications."

A recommendation to American Airlines called for an evaluation of the company's continuing analysis and surveillance system to determine why it did not identify deficiencies in the maintenance program associated with the ATSV.

U.S. National Transportation Safety Board

Wildlife-Risk Center

Embry-Riddle Aeronautical University is establishing a center for research on methods of reducing the risks to aircraft of wildlife strikes.

The International Center for Aviation and Wildlife Risk Mitigation, to be located at the university's campus in Prescott, Arizona, U.S., is part of a larger effort to overhaul the bird strike hazard management system in the United States.

"We created this center to support data collection efforts, develop better solutions to reduce wildlife strike hazards and serve as a clearinghouse to share this information with industry and organizations that need it," said Archie Dickey, an associate professor of aviation environmental science and the director of the center.

Wildlife strikes are blamed for more than $500 million in losses for civil aviation in the United States and cause more than 500,000 hours of aircraft down time.

Dickey said several promising new methods of managing wildlife around airports include using marine radar to detect birds and mowing grass near airports to a height of 6 to 12 in (15 to 30 cm) to discourage the presence of larger birds.

In a related development, the U.S. Federal Aviation Administration (FAA) has reversed an earlier position and has made public virtually all information in its bird strike database.

Some information from the database has been available to the public since it was first collected in 1990. The FAA's action in April made public all data except personal telephone numbers and other privacy information.

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The FAA plans significant improvements over the next few months in the database, including development of a more efficient search engine. The improvements should be completed later this year, the FAA said.

The database is available at <wildlife-mitigation.tc.faa.gov/public_html/index.html#access>.

Aid to Zambian Aviation


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The AviAssist Foundation, a regional affiliate of Flight Safety Foundation, has agreed help boost European Commission support for aviation safety improvements in Zambia.

The effort, to be funded by the European Development Fund, is designed to establish priorities for improvement. The overall objective in Zambia is to "build capacity on regulatory and operational issues in the specific areas of air safety, security and traffic management," AviAssist said.

Investigative Assistance

The Australian and International Pilots Association (AIPA) and the Australian Transport Safety Bureau (ATSB) have approved an agreement under which AIPA pilots may be called upon to assist the ATSB in accident investigations.

The AIPA described the agreement as the first of its kind, and one that "recognizes the wealth of expertise that current and former pilots have and are willing to contribute to safety investigations to prevent incidents from recurring."

AIPA President Barry Jackson said the pilots "obviously have a lot to offer investigations in terms of hands-on experience and knowledge of the aircraft."


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ATSB Executive Director Kym Bills said that, when accidents and incidents occur, "the opportunity to learn from past mistakes and improve future safety could be enhanced through an agreement like this. It's a positive sign to see people with knowledge and expertise in the operating environment willing to step forward, where needed, to volunteer their time in a safety investigation."

Battery Protection

New procedures should be ordered for Boeing 757/767 crews to avoid the complete loss of battery power in case of an illuminated "STANDBY POWER BUS OFF" light, the U.S. National Transportation Safety Board (NTSB) says.

The NTSB said the U.S. Federal Aviation Administration (FAA) should require Boeing to revise the procedures and training to "include landing at the nearest suitable airport before the power is depleted, and actions to take if landing is not possible." After the procedures have been revised, the FAA should require all operators of 757s and 767s to adopt them, the NTSB said.

The NTSB said its recommendations were prompted by preliminary findings in the investigation of a Sept. 22, 2008, accident in which an American Airlines 757-200 experienced in-flight electrical system anomalies and then ran off the side of a runway during an emergency landing at Chicago O'Hare International Airport. None of the 192 people in the airplane was injured in the accident, which caused minor damage to the airplane.

The captain told investigators that the "STANDBY POWER BUS OFF" light had illuminated during the flight from Seattle to New York, and the crew — following procedures outlined in the quick reference handbook (QRH) — moved the standby power selection knob to the "BAT" position. This should have enabled the battery to provide enough standby power for 30 minutes, but several systems were inoperative, the captain said.

The crew contacted maintenance personnel, who said they could continue the flight. However, about one hour and 40 minutes later, the battery power was depleted and "numerous cockpit systems began to fail," the NTSB said.


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The crew diverted to O'Hare. As the airplane neared the runway for landing, the crew noticed that the primary and standby elevator trim systems had failed. The captain said that during the landing rollout, the thrust reversers and spoilers did not deploy properly and the brakes did not function well.

"Because of obstructions off the end of the runway, the captain elected to steer the airplane off the left side of the runway into the grass," the NTSB said.

An inspection of the airplane showed that a relay failure had left the standby electrical buses without power. "Further investigation determined that moving the standby power selector to the BAT position (per the procedures in the existing QRH) resulted in the main aircraft battery providing power to four electrical buses; it also disconnected the main battery charger from the battery, and thus the battery was no longer being recharged."

Fatigue Forum

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A group of airlines, along with the research firm Qinetiq, have established a fatigue risk management system (FRMS) forum designed to encourage discussion of fatigue issues and the best practices for developing an FRMS as part of an operator's safety management system (SMS).

SMS is required by the International Civil Aviation Organization and fatigue is considered one of the primary risks that an SMS must address.

The forum is intended to serve as a vehicle for sharing knowledge about developing and managing an FRMS, and may result in development of downloadable documents and templates to be made available for members' use. Early supporters of the forum include Air New Zealand, easyJet, Delta Air Lines, Virgin and Qinetiq.

"The benefits of managing fatigue like any other risk within an SMS are significant," Qinetiq said. "Reasons for investing in an FRMS include not only complying with flight time limitations but also to protect commercial performance through the measurement and quantification of exposure to risk from errors made as a consequence of increasing human fatigue. By understanding the nature of fatigue risk, operators may manage it effectively for continued safe operation and viability in the commercial environment."

In Other News ...

Japan and the United States have signed a **bilateral aviation safety agreement** that allows for reciprocal certification of aircraft and aviation products. … The U.K. Civil Aviation Authority has published a new *Safety Plan* outlining a "more holistic and risk-based approach to the management of safety" in the U.K. aviation system. … The Commercial Aviation Safety Team (CAST) has won the **Collier Trophy**, awarded annually by the U.S. National Aeronautic Association. CAST was praised for "achieving an unprecedented safety level in U.S. commercial airline operations by reducing risk of a fatal airline accident by 83 percent, resulting in two consecutive years of no commercial scheduled airline fatalities."

More Scrutiny for Regionals

U.S. Federal Aviation Administration (FAA) inspectors have been ordered to focus more attention on training programs at regional airlines to ensure that the airlines are in compliance with federal regulations.

In a joint statement, Transportation Secretary Ray LaHood and FAA Administrator Randy Babbitt said that their action was a response to the Feb. 12, 2009, crash of a Colgan Air Bombardier Q400 during an approach to Buffalo-Niagara International Airport in Buffalo, New York, U.S. All 49 people in the airplane and one person on the ground were killed in the crash, which destroyed the airplane.

"It's clear to us in looking at the February Colgan Air crash in Buffalo that there are things we should be doing now," Babbitt said in announcing the stepped-up inspections. "My goal is to make sure that the entire industry — from large commercial carriers to smaller regional operators — is meeting our safety standard."

Babbitt and LaHood said that, although the investigation by the U.S. National Transportation Safety Board is continuing, regulators and the industry should not wait for the final report to correct problems that already have been identified in regional airline operations.

A mid-June meeting of representatives of regional airlines, their air carrier partners, aviation industry groups and labor organizations was called to review issues affecting the industry, including pilot training and cockpit discipline. Items on the agenda included discussions of air carrier management responsibilities for crew education and support; professional standards and flight discipline; training standards and performance; and mentoring relationships between mainline air carriers and their regional partners.

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