

Hot Wired

Fires near the windshield heat terminals on two Boeing 757-200s have prompted a recommendation by the U.S. National Transportation Safety Board (NTSB) for airworthiness directives requiring replacement of windshield heat terminal blocks on all 747s, 757s, 767s and 777s.

The NTSB also recommended that the U.S. Federal Aviation Administration (FAA) “complete the process begun in 2004 to approve the service bulletin for the installation of the redesigned windshield heat terminal block on Boeing 767 airplanes.”

The NTSB’s recommendations were prompted by a Jan. 25, 2004, fire on an American Airlines 757 during departure from Dallas–Fort Worth International Airport and a Jan. 21, 2004, fire on an Air Greenland 757 in Copenhagen, Denmark, as the airplane was being prepared for flight. The crew of the Dallas aircraft

declared an emergency and returned to the airport for a safe landing.

Investigations determined that both fires resulted from misalignment of a screw attaching the power wire to the windshield heat terminal block; the misalignment caused an electrical arc.

During the investigation, Boeing told the NTSB that similar events had occurred in at least four other airplanes and that the terminal block had subsequently been redesigned. The redesign was included in new production airplanes beginning in mid-2004, about the same time a related service bulletin was issued for 777s. Service bulletins for 747s and 757s were issued in 2006, but the service bulletin for 767s has not been issued because of “minor disagreements between the FAA and Boeing,” the NTSB said.

“In August 2007, Boeing informed investigators that it was making requested changes to the 767

[service bulletin] and would resubmit it to the FAA in October 2007,” the NTSB said. “The Safety Board is very concerned that the ADs [airworthiness directives] originally scheduled to be issued as early as September 2004 still have not been issued. The Board considers any kind of fire and/or smoke in the cockpit to be a serious issue that could affect other aircraft systems, lead to a loss of visibility, provide a distraction or incapacitate the crew and possibly lead to an accident.”



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Runway Check

The U.S. National Transportation Safety Board (NTSB), citing a 2006 accident in which a Comair Bombardier CRJ100 crashed during takeoff from the wrong runway in Lexington, Kentucky, U.S., has recommended action to require flight crews to confirm before takeoff that their airplane is about to enter the correct runway.

The NTSB recommendation says that the U.S. Federal Aviation Administration (FAA) should require air carriers and commercial operators, commuter and on-demand operators, and fractional ownership operators to “establish procedures requiring all crewmembers on the flight deck to positively confirm and cross-check the airplane’s location at the assigned departure runway before crossing the hold-short line for takeoff.”

The recommendation follows the NTSB’s investigation of the Aug. 27, 2006, Comair accident, in which the flight crew was told by air traffic control to conduct a takeoff from Runway 22 but instead taxied onto Runway 26 and began the takeoff roll. The airplane overran the departure end of Runway 26, which was 3,500 ft (1,068 m) long, half the length of Runway 22. Forty-nine of the 50 people in the airplane were killed, and one — the first officer — received serious injuries.

The NTSB said that the probable cause of the accident was the flight crewmembers’ “failure to use available cues and aids to identify the airplane’s location on the airport surface during taxi and their failure to cross-check and verify that the airplane was on the correct runway before takeoff.”

The NTSB also recommended that the FAA require operators to install “on their aircraft cockpit moving map displays or an automatic system that alerts pilots when a takeoff is attempted on a taxiway or runway other than the one intended.” Other recommendations called on the FAA to require enhanced taxiway centerline markings and holding positions signs at runway entrances; to prohibit issuance of a takeoff clearance until after an airplane has crossed all intersecting runways; and to tell air traffic controllers to “refrain from performing administrative tasks . . . when moving aircraft are in the controller’s area of responsibility.”



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Short-Term Safety Plan

Representatives of the U.S. Federal Aviation Administration (FAA) and the aviation community, in response to 21 serious runway incursions in the first seven months of 2007 and other related problems, have implemented a five-point, short-term plan to improve runway safety.

“Recent close calls at some of our nation’s busiest airports show that action must be taken to reduce the risk of



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runway incursions and wrong-runway departures,” the FAA said.

The plan, adopted Aug. 15, said that — within 60 days — the aviation community would begin safety reviews at the U.S. airports “where wrong-runway departures and runway incursions are the greatest concern,” would disseminate runway safety information and training throughout the industry, would accelerate the planned installation of improved airport signage and markings at major airports and would review clearance procedures for both pilots and air traffic controllers. The five-point plan also called for implementation of “a voluntary self-reporting system for all air traffic organization safety personnel, such as air traffic controllers and technicians.”

The FAA said that in addition to the short-term plan, “mid- and long-term goal areas are being pursued to address maximizing situational awareness, minimizing pilot distractions and eliminating runway incursions using procedures and technology.”

Technical Harmony

Aviation organizations in Europe and North America say they will collaborate to harmonize technical data standards in aerospace, defense and commercial aviation.

In an Aug. 13 agreement, the AeroSpace and Defence Industries Association of Europe (ASD), the Aerospace Industries Association of America and the Air Transport Association of America said that they will work together to advance the development and maintenance of the S1000D specification for the production of technical publications.

“This approach will harmonize how technical data are conveyed between the original equipment manufacturer and user community,” the three organizations said in a statement.

ASD Secretary General François Gayet said, “The cooperation on S1000D is further proof that our industries can only profit from cross-Atlantic developments where both sides have equal value in the cooperation. From the manufacturers’ point of view, all solutions that simplify through standardization [are] welcome.”

Multicrew Training

Six students have demonstrated “sound two-crew procedures” in the first phase of training based on the principles behind a proposal for multicrew pilot licensing, the Civil Aviation Safety Authority of Australia (CASA) says.

The students, who are from two Chinese airlines, are enrolled in a trial course conducted by Alteon in conjunction with the Australian Airline Academy, and monitored by CASA. The training calls for extensive use of large aircraft simulators rather than general aviation training aircraft.

“Through the use of high-quality visual flight simulators and adherence to multicrew phraseology and standard operating procedures, the ... students have demonstrated sound two-crew procedures,” a CASA report said. “This has started right from the *ab initio* stage, where the student engaged in the pilot monitoring role uses the standard calls



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of ‘altitude’ or ‘bank angle’ to prompt the pilot flying during flight maneuvers. This results in a pilot’s frame of mind that is ‘multicrew’ from day one.”

Data Monitoring for Light Aircraft

A flight data monitoring and recording system designed for light aircraft has won certification from the U.S. Federal Aviation Administration (FAA). The FAA issued a supplemental type certificate for the Aircraft Logging and Event Recording for Training and Safety (ALERTS) system developed by Air Logistics, a subsidiary of Bristow Group, and Apereo Systems — the first certificate for a monitoring system designed specifically for small aircraft.

The FAA certification will allow the ALERTS system to be installed in Bell

206s and Bell 407s. The system can store more than 100 hours of high-resolution flight data. The manufacturers said that it also contains three-dimensional flight replay and analysis software to allow for flight tracking and analysis, “including automatic analysis of flight characteristics to determine if the pilot adhered to standard operating procedures.”

Flight data recording and monitoring are among the priorities of the International Helicopter Safety Team, which has called for an 80 percent reduction in helicopter accidents worldwide by 2016.

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Runaway Trim

The U.S. National Transportation Safety Board (NTSB), citing the ditching of a Cessna Citation 525 after a loss of elevator trim control, is recommending the addition of both an aural trim-in-motion warning and contrasting-color bands on the pitch trim wheel “to provide the pilot with more timely recognition of a trim runaway condition before control forces become unmanageable.”

No one was injured in the July 22, 2003, ditching in the waters of Penn Cove, Coupeville, Washington, U.S. The pilot said that, as the airplane reached 14,000 ft during a climb to Flight Level 330 (about 33,000 ft), the rate of climb decreased. He pressed the autopilot/trim disengage switch, and the airplane’s nose pitched down. He said that, as he pulled back on the control yoke, “within seconds, it was apparent that level flight was not possible.” The pilot had difficulty moving the manual trim wheel, but — with the passenger’s help, he pulled back on the control column and was able to ditch the airplane about 900 ft (274 m) from shore.

The NTSB also recommended that the U.S. Federal Aviation Administration require tests to ensure that the maximum control forces during a pitch trim runaway in a Citation 525 meet certification requirements and also require use of a more easily identifiable pitch trim circuit breaker.

In Other News ...

Era Helicopters, with fleets in the Gulf of Mexico and Alaska, has become the first helicopter operator with a flight operational quality assurance (FOQA) program approved by the U.S. Federal Aviation Administration. The company’s FOQA program also is the first approved for any U.S. Federal Aviation Regulations Part 135 “Commuter and On-Demand” operator. ... **The International Federation of Air Line Pilots’ Associations** (IFALPA) warns that pilots operating around Ben Gurion Airport in Israel should be prepared for interrupted radio transmissions because of pirate radio broadcasts, which are frequently blocking air-ground communications. IFALPA says that the Israeli Air Line Pilots Association and the Israeli Air Traffic Controllers Association have asked the government to act to end the threat to aviation safety. ... **Australia** has authorized penalties of up to two years in prison for pointing a laser light or a similar device at an aircraft; officials say that reported cases of laser beams being aimed at aircraft have increased to about 10 a month.



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