

Safety News

New Support for Anti-Criminalization Pact

The joint resolution opposing the criminalization of aviation accidents, originally published in 2006, has gained new backing from the International Society of Air Safety Investigators (ISASI), which added its signature to the document in January.

“The current trend of criminalizing aviation accidents has a deleterious effect on the appropriate investigation of said occurrences, the finding of contributing factors and probable causation, and the formulation of recommendations to prevent recurrence,” said ISASI President Frank Del Gandio.

The resolution originally was developed by Flight Safety Foundation, the Civil Air Navigation Services Organisation, the Royal Aeronautical Society and the Académie Nationale de l’Air et de l’Espace. Subsequently, it also was signed by the European Regions Airline Association, the Professional Aviation Maintenance Association and the

International Federation of Air Traffic Controllers Associations.

“We welcome these latest safety professionals joining in our statement of principles, and urge judges, jurors and prosecutors, like those involved in the unfortunate Concorde criminal case soon going to trial in France, to pay close attention,” said Flight Safety Foundation President and CEO William R. Voss. “We cannot afford to let the desire by some for vengeance or publicity to come at the expense of safety for all. We need to learn from accidents to prevent them, not criminally punish well-meaning professionals and thereby risk a repeat of a tragedy.”

The Concorde trial, scheduled for February, stems from the July 25, 2000, crash of an Air France Concorde during takeoff from Paris Charles de Gaulle Airport. The French Bureau d’Enquêtes et d’Analyses said the probable cause of the crash involved the passage of one of the Concorde’s tires over a titanium strip

that had fallen off a Continental Airlines McDonnell Douglas DC-10 that had taken off earlier from the same runway. As the tire broke apart, one piece struck one of the Concorde’s fuel tanks, the fuel ignited, and the burning airplane struck the ground. All 109 people in the airplane were killed, along with four on the ground. The airplane was destroyed.

French prosecutors plan to try Continental and two of its maintenance employees on involuntary manslaughter charges, as well as former officials of the French airline regulator and the Concorde division at Aerospatiale, which built the airplane.



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Aviation Policy Statement

The Australian government has issued a new national aviation policy statement, outlining more than 130 policy initiatives and pledging that safety and security will remain the no. 1 priority.

The policy calls for modernizing air traffic management with increased use of satellite technology and providing additional funding to the Civil Aviation Safety Authority (CASA) for safety surveillance and oversight. The additional funds allocated for the current fiscal year will be used to hire specialized technical staff in such areas as surveillance of helicopter operations and foreign operators that fly into Australia, and increased oversight of low-cost operations and offshore maintenance, CASA said.

The policy statement also identified seven emerging safety issues, including monitoring the effectiveness of safety management systems, aging aircraft, regulation of dangerous goods, shortages of pilots and maintenance personnel, and the regulation of unmanned aircraft systems.

In implementing the new policies, the government will “ensure Australia’s safety regulatory and investigatory agencies remain world-leading and have the skills and capabilities to maintain safety and facilitate the industry’s growth; regulation of safety will take account of best international practice ... ; [and] Australian safety agencies will explore opportunities to adopt technologies that improve safety and work with industry to implement them.”



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Incident Reporting

The General Civil Aviation Authority (GCAA) of the United Arab Emirates has begun an incident reporting program as part of an effort to centralize the reporting of aviation accidents and incidents throughout the federation.

“We recognize the need to constantly improve processes and systems for managing risks effectively,” said Ismaeil Mohammed Al Balooshi, GCAA director of aviation safety. “Centralized reporting will ensure effective communication and coordination necessary for higher records of successful incident management.”

The GCAA said that introduction of the centralized reporting system is a “milestone achievement in raising air safety standards” in the region, where growth is forecast in the aviation industry.

Advent of ADS-B

Air traffic controllers have begun using automatic dependent surveillance–broadcast (ADS-B) to manage air traffic over the Gulf of Mexico — an area without radar coverage.

U.S. Federal Aviation Administrator Randy Babbitt described the advent of ADS-B as “a significant early step toward NextGen” — the satellite-based transformation of the National Airspace System, including airports, known

officially as the Next Generation Air Transportation System. He said ADS-B is “not only more accurate than radar but comes with significant safety and efficiency benefits.”

In addition to providing for tracking aircraft by their satellite-based position reports, ADS-B will provide for more efficient routing of aircraft, and provide pilots with more accurate weather information and other benefits.



U.S. Federal Aviation Administration

Black Box Recommendations

The French Bureau d’Enquêtes et d’Analyses (BEA), citing its continuing investigation of the June 1, 2009, accident in which an Air France Airbus A330 plunged into the Atlantic Ocean during a flight from Rio de Janeiro to Paris, is recommending steps to aid in the post-accident recovery of aircraft flight recorders.

The crash killed all 228 people in the A330, which has not been located. Searchers also have been unable to find the airplane’s flight data recorder and cockpit voice recorder, both of which were equipped with regulation underwater locator beacons (ULBs), which stopped transmitting a little more than 30 days after activation.



U.S. National Transportation Safety Board

“The investigation ... confirms the importance of data from the flight recorders in order to establish the circumstances and causes of an accident and to propose safety measures

that are substantiated by the facts,” the BEA said in its second interim report on the crash. “It also brings to light the difficulties that can be encountered in [locating], recovering and reading out the recorders after an accident in the sea.”

In the accident’s aftermath, the BEA formed an international working group to review techniques that might be used to safeguard flight data “and/or to facilitate localization of the wreckage and recovery of the flight recorders.”

Citing the working group’s findings, the BEA recommended that the European Aviation Safety Agency (EASA) and the International Civil Aviation Organization (ICAO) extend to 90 days the current 30-day transmission requirement for data recorder ULBs installed in airplanes conducting overwater public transport flights.

The BEA’s additional recommendations included a call for EASA and ICAO to study requiring airplanes involved in public transport flights to regularly transmit position, altitude and other basic flight parameters. Another recommendation asked that an ICAO panel establish proposals on “conditions for implementing deployable recorders” on public transport flights.

Threats, Errors and Safety

Adverse weather is the most common specific threat to aviation safety reported by Australian pilots engaged in low capacity air transport operations — those involving no more than 38 passenger seats and maximum payloads smaller than 4,200 kg (9,259 lb), according to a report by the Australian Transport Safety Bureau (ATSB).

The report was based on responses from 167 participants in a threat and error management course; of that number, 55 pilots worked in air transport operations and 112 were involved in flight training and other types of aerial work. All 167 pilots were asked to identify “the five most common threats to operations and errors made by pilots in their industry in the preceding 12 months.”

In both flight categories, departure/arrival threats were the most common, but the most common specific threat was bad weather, including turbulence, fog, crosswinds and high temperatures, the report said.

“Communication issues” involving air traffic control (ATC) or the pilots of other aircraft also was among the top five threats identified by pilots in both groups. The report said, “Examples included pilot language difficulties, ATC command (e.g., difficult clearance, late changes) and ATC instructions.”

Cushioning the Fall

Researchers at the U.S. National Aeronautics and Space Administration (NASA) are looking for ways to reduce the destructive forces of aviation crashes. Recent efforts have focused on determining whether a “deployable energy absorber” — an expandable honeycomb cushion attached to the belly of a helicopter — can ward off damage to a helicopter in a crash.

In a recent experiment, they dropped an MD-500 — donated by the U.S. Army — from a height of 35 ft (11 m) to determine whether the destruction was lessened by the honeycomb cushion beneath the fuselage. Before researchers can reach a conclusion, they must analyze data gathered by instruments that had been installed in the helicopter for the event.

“I’d like to think the research we’re doing is going to end up in airframes and will potentially save lives,” said Karen Jackson, an aerospace engineer who oversaw the test at the NASA Langley Research Center in Hampton, Virginia, U.S.

The honeycomb cushion, developed by Sotiris Kellas, a Langley engineer, is made of Kevlar and includes a flexible hinge that enables the cushion to be packaged and lie flat until it is needed.



U.S. National Aeronautics and Space Administration

NASA said the drop test “imitated what would be a relatively severe helicopter crash,” with a flight path angle of about 33 degrees and combined forward and vertical speeds of about 48 ft (15 m) per second, or 30 mph (48 kph).

The MD-500 survived the crash “relatively intact,” NASA said. In a future experiment, the helicopter will be dropped again, without the deployable energy absorber.



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Emergency vehicles surround a US Airways Express CRJ200 that stopped in the engineered material arresting system (EMAS) area of a runway at Yeager Airport in Charleston, West Virginia, U.S., following a rejected takeoff. No one in the airplane was injured. The U.S. Federal Aviation Administration said the Jan. 19 incident was the fifth incident in the United States in which EMAS stopped an airplane after a runway overrun.

The Association of Air Medical Services and the International Society of Aeromedical Services (Australasia) have agreed to collaborate on initiatives to enhance **air medical transport** throughout the world. ... Earl F. Weener, a Foundation Fellow of Flight Safety Foundation and a former chief engineer with The Boeing Co., has been nominated by President Barack Obama as a member of the **U.S. National Transportation Safety Board**. Weener was the co-leader of the FSF Runway Safety Initiative and the FSF Ground Accident Prevention Program and the initial leader of the FSF Controlled Flight Into Terrain and Approach and Landing Accident Reduction task forces. ... **Eurocontrol** says it is moving to enhance civil-military cooperation in European air traffic management by establishing a new military liaison function within the Eurocontrol Central Flow Management Unit.

Compiled and edited by Linda Werfelman.