# Safety News

## Control-Tower Supervision

Air traffic controllers should not be permitted to work as supervisors at the same time they are performing operational air traffic control duties, the U.S. National Transportation Safety Board (NTSB) says.

In its recommendation to the U.S. Federal Aviation Administration (FAA), the NTSB cited several accidents and incidents that occurred while the supervisory controller was also performing air traffic control (ATC) operational duties.

"In many instances, a sufficient number of personnel were on duty at the time of the events such that another qualified controller could have been designated to supervise," the NTSB said. "However, ATC management's decisions concerning staffing utilization resulted in a lack of distinct supervisory oversight, thus diminishing or eliminating the effectiveness of the supervisory role."

In one of the events cited, a Eurocopter AS 350BA and a Piper PA-32R-300 collided over the Hudson River near Hoboken, New Jersey, U.S., on Aug. 8, 2009, killing all nine people in the two aircraft. At the time, a developmental controller was working in the flight data and clearance delivery positions in the Teterboro Airport (TEB) control tower, and a local controller working in ground control/arrival radar positions also was designated as controller-in-charge (CIC). Two other controllers — a qualified CIC and a front-line manager/supervisor — were on breaks at the time of the accident.

"About three minutes before the accident, the TEB local controller initiated a nonpertinent telephone call to airport operations while continuing to provide instructions to the airplane pilot, including a delayed instruction to switch to the EWR [Newark Liberty International Airport] tower frequency that the pilot read back incorrectly and the controller did not correct," the NTSB said.

In its final report on the accident, the NTSB said the probable cause was the controller's "nonpertinent telephone conversation, which distracted him from his air traffic control duties."

The NTSB noted that in another of the events cited, a controller was working alone on the midnight shift "and was therefore responsible for supervising himself." In most of the other events cited, the controller who committed

U.S. National Aeronautics and Space Administration

the error was also the CIC, the NTSB said, concluding that "the effectiveness of the supervisory role is reduced when it is performed in combination with operational duties, leading to operational errors, incidents and accidents."

The NTSB's issuance of the recommendation coincided with reports of events in which lone controllers in airport traffic control towers apparently fell asleep during the midnight shift, leaving pilots to land without controller assistance. The NTSB was investigating, and the FAA said in mid-April that it was placing an additional controller on the midnight shift at 27 control towers where that shift previously was staffed by a single controller.

## Seaplane Safety

The Transportation Safety Board of Canada (TSB), citing the fatal Nov. 29, 2009, crash of a Seair Seaplanes de Havilland DHC-2 Beaver, is calling for all seaplanes to be equipped with exits to allow occupants to deplane quickly after an accident.

The TSB also recommended that every occupant be required to wear "a device that provides personal flotation following emergency egress."

Gordon E. Robertson/Wikimedia

Six of the eight people in the accident seaplane drowned inside the aircraft, which crashed during takeoff from Lyall Harbour, British Columbia. The two others were seriously injured.

The TSB said that, from 1989 through 2010, 76 people were killed in 109 seaplane accidents. The agency also said that drowning accounted for about 70 percent of all fatalities involving aircraft that crashed and sank in water in the past 20 years.

Fifty percent of people who survived such crashes were unable to exit the aircraft and drowned inside, the TSB said.

"In this accident, two occupants were able to escape from the aircraft, but neither managed to retrieve a life vest," the TSB added. "Had they not found nearby boat bumpers to stay afloat, they could easily have drowned. It has been shown that those inside a sinking aircraft either do not have enough time to locate and don a life vest or overlook doing so. Of those who do not survive following escape, 86 percent drown."

## Volcanic Ash Planning

One year after air traffic was grounded by the eruption of Iceland's Eyjafjalajökull volcano, the aviation community staged a two-day simulation exercise to assess changes in volcanic ash contingency plans developed by the International Civil Aviation Organization (ICAO) and European authorities.

The simulation exercise — with participation from more than 70 airlines, 14 air navigation service providers, 10 national regulatory authorities, the Volcanic Ash Advisory Centre London, Eurocontrol, the European Aviation Safety Agency (EASA) and the European Commission — was designed, in part, to measure the effectiveness of a new plan based on revised ICAO guidelines for alerting flight crews when an eruption occurs and for procedures to be followed if airspace must be closed. Actual flights were not affected by the exercise.

Árni Friðriksson/Wikimedia

The previous guidelines "had proved unsuitable [during the eruption in April 2010] as they were based on a very strict precautionary principle," the European Commission said.

The April 14, 2010, eruption led to the closure of more than 300 airports, the cancellation of 100,000 flights and the grounding of 10 million passengers until the airspace was gradually reopened beginning April 20. Several more shutdowns occurred on a smaller scale during the following weeks (*ASW*, 11/10, p. 12).

The two-day exercise was based on the simulated eruption of a different Icelandic volcano and the simulated spread of volcanic ash across European airspace and across the North Atlantic.

During the first day of the exercise, different countries requested that Eurocontrol open their airspace, or institute closures or restriction, based on current national procedures. The second day, the new plans were tested, allowing airlines to decide — using a safety risk assessment accepted by their national supervisory authority — whether to conduct scheduled flights.

A continent-wide assessment session is planned in June to discuss lessons learned and possible follow-up actions.

"The intensive efforts of the last 12 months have paid off in terms of improving crisis planning and systems," said Siim Kallas, European Commission vice president responsible for transport. "But the work goes on. Volcanoes and other aviation crises are by their nature unpredictable, and each one will be different. We can never get to zero risk, but we can make maximum efforts to prepare strong systems to cope with disasters."

## Project Leader

Bob Whetsell, vice president of sales at Aerobytes, has been named project leader of Flight Safety Foundation's helicopter emergency medical services (HEMS) project.

The project, which began in 2009, is studying flight operational quality assurance in HEMS. The effort is financed by a grant to the Foundation from the estate of Manuel S. Maciel, the founder of Manny's Sonoma Aviation, a full-service fixed base operator at the Charles M. Schulz Sonoma County Airport in Santa Rosa, California, U.S.

"Our HEMS project will ultimately result in important improvement in the safety of the helicopter EMS industry," said FSF President and CEO William R. Voss.

## HEMS Goals

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Associations representing various segments of the helicopter emergency medical services (HEMS) community have adopted data-driven recommendations developed by the International Helicopter Safety Team (IHST) to improve the industry's safety record.

The associations said that leading HEMS operators already have made major investments in safety programs that are "a starting point in a long-term commitment to safer medical aviation."

Signers of the agreement represented HEMS associations in Australia, Europe and North America.

The IHST was established in 2005 with the goal of achieving an 80 percent reduction in the global helicopter accident rate by 2016. The IHST said that it is working toward that goal "by developing means of eliminating or mitigating factors that contribute to accidents based on the thorough and disciplined analysis of those accidents."

## Inspections Ordered


Canyon Blue/Wikimedia

In the aftermath of an explosive decompression and fuselage tear in a Southwest Airlines Boeing 737, the U.S. Federal Aviation Administration (FAA) has ordered inspections of about 175 similar aircraft.

The FAA issued an emergency airworthiness directive (AD) telling operators to conduct initial electromagnetic inspections for fatigue damage and then to conduct follow-up inspections.

"The FAA has comprehensive programs in place to protect commercial aircraft from structural damage as they age," FAA Administrator Randy Babbitt said. "This action is designed to detect cracking in a specific part of the aircraft that cannot be spotted with visual inspection."

The AD applies to about 175 airplanes worldwide, including about 80 U.S.-registered 737s. Most of the affected 737s in the United States are operated by Southwest Airlines, including the airplane involved in the April 1 decompression.

The decompression occurred at Flight Level 340 (approximately 34,000 ft) during a flight from Phoenix to Sacramento, California. The crew diverted to Yuma, Arizona, for an emergency landing. A flight attendant — one of 122 people in the airplane — received minor injuries during the descent. After landing, the crew discovered a 5-ft by 1-ft (1.5-m by 0.3-m) hole in the top of the airplane.

After the accident, Southwest grounded 81 of its 737s for inspections.

The FAA implemented new rules earlier this year requiring the development of inspection programs to detect widespread fatigue damage, in which small cracks form and then grow quickly and join together, sometimes causing structural damage before they are detected (*ASW*, 3/11, p. 37).

## African Priorities

Hansueli Krapf/Wikimedia

Citing a continent-wide accident rate 12 times higher than the global average for large commercial jets, the International Air Transport Association (IATA) is calling for an increased emphasis on safety in Africa.

IATA data show that Africa had an accident rate in 2010 of 7.41 accidents per million flights, compared with a 2009 rate of 9.94. The 2010 average accident rate worldwide was 0.61.

IATA noted that, for African air carriers that had undergone an IATA Operational Safety Audit (IOSA), the accident rate was more than 50 percent lower than the accident rate for those that had not.

During an IATA-sponsored conference in Lagos, Nigeria, IATA also called for development of infrastructure to support the growth of performance-based navigation (PBN), which establishes performance requirements for any given flight operation and involves a shift to satellite-based navigation and area navigation procedures. The International Civil Aviation Organization has set a goal of worldwide implementation of PBN by 2025.

## In Other News ...

Representatives of the pilots union at Air Wisconsin have stopped participating in the airline's **aviation safety action program** (ASAP), complaining that the airline was trying to "circumvent" the confidential safety-reporting effort. … The European Aviation Safety Agency (EASA) has proposed changes in certification specifications intended to better protect large airplanes and turbine engines being flown in **icing conditions**. … The Nigerian Civil Aviation Authority (NCAA) and AeroMechanical Services/Flyht of Calgary, Alberta, Canada, have commissioned the NCAA **Flight Tracking** Operations Command Centre (OCC) in Lagos.

*Compiled and edited by Linda Werfelman.*