



Friday, October 5, 2007

### **NTSB Determines Cause of Runway Overrun at Chicago Midway**



In a Board meeting on October 2, the National Transportation Safety Board determined that the probable cause of a fatal runway overrun at Chicago's Midway Airport was the pilot's failure to use available reverse thrust in a timely manner to safely slow or stop the airplane after landing. This failure occurred because the pilots' first experience and lack of familiarity with the airplane's autobrake system distracted them from thrust reverser usage during the challenging landing.

On December 8, 2005, Southwest Airlines (SWA) flight 1248, a Boeing 737-7H4, (N471WN), ran off the departure end of runway 31 center (31C) after landing in a snow storm at Chicago Midway International Airport (MDW), Chicago, Illinois. The airplane rolled through a blast fence, an airport perimeter fence, and onto an adjacent roadway, where it struck an automobile before coming to a stop. One occupant in the automobile was killed, one received serious injuries, and three others received minor injuries. Eighteen of the 103 persons on board the airplane received minor injuries and the airplane was substantially damaged.

As outlined in the Board's report, the investigation revealed that as the crew neared their destination the pilots received mixed braking action reports for the landing runway. The flight crew used an on-board laptop performance computer (OPC) provided in the cockpit of SWA's airplanes to calculate expected landing distance. They entered multiple scenarios including wind speed and direction, airplane gross weight at touchdown and reported runway braking action. Observing OPC indications that they would stop before the end of the runway with either fair or poor braking action, they decided that they could safely land at MDW.

However, as stated in the report, the accident pilots were not aware that stopping margins displayed by the OPC for poor runway conditions were in some cases based on a lower tailwind component than that which was presented. Also, the accident pilots were not aware that the stopping margins computed by the SWA OPC incorporated the use of thrust reversers for their model aircraft, the 737-700, which resulted in more favorable stopping margins. Therefore, the Safety Board concluded in the report that had the pilots known this information, the pilots might have elected to divert to another airport.

Contributing to the accident were Southwest Airlines' failure to provide its pilots with clear and consistent guidance and training regarding company policies and procedures related to arrival landing distance calculations; programming and design of its on board performance computer, which did not present critical assumption information despite inconsistent tailwind and reverse thrust assessment methods; plan to implement new autobrake procedures without a familiarization period; and failure to include a margin of safety in the arrival assessment to account for operational uncertainties.

Contributing to the accident was the pilot's failure to divert to another airport given the reports that included poor braking action and a tailwind component greater than 5 knots.

Also, contributing to the severity of the accident was the absence of an engineering materials arresting system (EMAS), which was needed because of the limited runway safety area beyond the departure end of runway 31C.

### **Safety Board Represented at NBAA Convention**



**Butch Wilson (SORA) and Bob Swaim (AS-40) representing the NTSB**

Outreach is one of the most important duties for every NTSB investigator, and once again, members of the Office of Aviation Safety demonstrated their prowess at communicating the Safety Board's mission, capabilities, and accomplishments to the aviation community. The Board's participation in this year's National Business Aircraft Association (NBAA) convention, held in Atlanta, Georgia, which is also home to one of our regional aviation offices, was a huge success for all involved. NBAA is one of the largest aviation associations in the world, and its members include most of the major airframe, engine, and avionics manufacturers, as well as numerous service providers. Although the convention was intended primarily for businesses to display, market and sell their products and services, NBAA welcomed our participation, and attendees expressed a significant amount of interest in our agency's mission and message. Visitors to our convention booth included numerous executives and safety professionals, and their interests ranged from the accident investigation process itself, to the specifics of recent Board investigations. NTSB representatives at this prestigious event included Butch Wilson and Eric Alleyne from the Atlanta office; Alex Lemishko, Bob Swaim, and Nathan Hoyt from headquarters; David Muzio from Ashburn; and Vice Chairman Robert Sumwalt.

## ***NTSB Assists in MWA Emergency Exercise***



***A fire to simulate an aviation disaster served as one of the emergency exercises***

The Metropolitan Washington Airports Authority (MWA) conducted an emergency exercise at Ronald Reagan Washington National Airport on Saturday, September 15. The drill is required by the FAA for all Part 139 airports. The exercise was designed to test the airport's emergency operations plan and provided hands-on training to airport and mutual aid emergency response personnel. The exercise featured fire, surviving victims, a large debris field, a helicopter rescue, and water recovery operations.

Several NTSB personnel participated in or observed the drill. Erik Grosf (TDA) was the NTSB representative during the planning stages and while on scene. He also arranged for the NTSB Training Center to lend wreckage to MWA for the drill, allowing FBI and police training in recovery and documentation. Bridget Serchak (PA), who serves on the Arlington County Red Cross Disaster Action Team, staffed the Red Cross' Emergency Response Vehicle near the "crash" site. Nora Marshall (AS-60), Member Hersman, Nancy Lewis and Reshan Beal ((M-DAPH) observed the drill.



***Member Hersman and Erik Grosf discuss the emergency drill with an FBI agent***

## ***Vice Chairman Speaks to New Airline Captains***

While in Atlanta attending the NBAA convention, Vice Chairman Sumwalt addressed a class of upgrading captains at Atlantic Southeast Airlines (ASA). "I've been in the same seat that you are in," he told the audience. "When I upgraded to captain, my primary goal was to be a good, safe captain." He emphasized the important role that an airline captain has towards ensuring safety. He discussed recent regional air carrier accidents where the Safety Board found that unprofessional flight crew conduct contributed to the accident.

"Ultimately, being an airline captain is all about leadership," said the Vice Chairman. "You have tremendous authority, and with that authority comes a great responsibility." He presented a set of useful guidelines that he used during his 32-year piloting career. "These guidelines will go a long way to keep you from meeting the NTSB on a professional basis," he said.

## ***Member Hersman Keynotes Cessna Safety Day and Speaks to MCSAC***

Member Hersman addressed approximately 150 attendees at Cessna's Safety Day in Wichita on September 21. She discussed some of the Safety Board's most recent accident investigations involving business jets, as well as highlighting the Board's recommendations to prevent runway incursions.

While in Wichita, Member Hersman had the opportunity to visit plant facilities for Cessna, Bombardier Learjet, and Hawker Beechcraft. Her site visits were coordinated by representatives of General Aviation Manufacturers Association (GAMA). On her way to Wichita, Member Hersman stopped in Columbus, Ohio, for a briefing at NetJets. She was able to tour the company's operations center and maintenance facility.

Earlier in the month, Member Hersman spoke to the Motor Carrier Safety Advisory Committee (MCSAC) on September 13 at DOT Headquarters in Washington. The MCSAC is a group of experts from the motor carrier industry, safety advocates, and safety enforcement officials, appointed by the FMCSA Administrator to provide advice and recommendations on motor carrier safety programs and motor carrier safety regulations. Member Hersman's speech focused on Safety Recommendation H-99-6, improving motor carrier operations, an issue that has been on the Board's Most Wanted List since 2000. MCSAC voted unanimously to recommend to the FMCSA that the agency implement this recommendation. Julie Perrot assisted in preparing Member Hersman's speech and hand-out materials.

## ***NTSB Wireless Telecommunications Enter the 21st Century***

Wireless telecommunications at NTSB has taken a giant step forward! As announced in Management Advisory MD-2007-020 - Distribution of Wireless Blackberry Devices on July 26, 2007, the Administrative Services Division (AD-10) has completed the distribution of upgraded Blackberry 8703e devices to those individuals designated by their Office Directors. The upgraded Blackberry incorporates several features that were requested by NTSB staff during the testing phase, including a speakerphone function. Response to the new technology has been overwhelmingly positive, and staff have noted improved productivity in the field. Several training sessions have been held to help orient new users to their devices and gain the maximum benefit from the devices. A new Wireless Telecommunications Operations Bulletin (ASD-GEN-005) has been posted, and will be officially announced by a Management Advisory.