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National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: March 17, 1994

In reply refer to: A-94-70 through -72

Honorable David R. Hinson
Administrator
Federal Aviation Administration
Washington, D.C. 20591

On November 21, 1991, as the result of the investigation of two commuter airline accidents,[1] the National Transportation Safety Board adopted Safety Recommendation A-91-122, which urged the Federal Aviation Administration (FAA) to:

> Issue an Operations Bulletin to the Principal Operations Inspectors (POIs) of 14 Code of Federal Regulations (CFR) 121 and Part 135 air carriers to verify that air carriers have established procedures for flightcrews to take appropriate actions when they have encountered icing conditions during a flight, to check for the presence of, and to rid airplanes of accumulated airframe ice prior to initiating final approach, in accordance with the airplane manufacturers' recommendations on the use of deice systems.

Also as the result of the investigation of the same two accidents, on July 22, 1992, the Safety Board adopted Safety Recommendations A-92-59, -60, and -61, which urged the FAA to:

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[1] NPA Inc., d/b/a United Express, flight 2415, a British Aerospace BA-3101 Jetstream, N410UE, Tri-Cities Airport, Pasco, Washington, December 26, 1989 (NTSB/AAR-91/06); and CC Air British Aerospace BA-3101 Jetstream, N167PC, Beckley, West Virginia, January 20, 1991.

A-92-59
Amend FAA Order 8400.10, Volume 3, Chapter 7, Section 2, Parts 121/135, "Weather Information Systems," Paragraph 1425, to specify that POIs ensure that operators under 14 CFR Part 135, who elect to use a weather information system, make available to flightcrews, as well as to dispatch and/or flight control personnel, weather products listed under Section 2 that are appropriate to their flight operations. POIs should ensure that initial and recurrent flightcrew training include the use of computerized weather systems, if such systems are a source of flightcrew information.

A-92-60
Issue an Air Carrier Operations Bulletin (ACOB) directing all POIs having surveillance responsibility of operators of BA-3100 airplanes to alert operators of the danger of unanticipated and abrupt tailplane stall during changes in flap configuration as a result of horizontal stabilizer ice accumulation.

A-92-61
Issue an ACOB directing all POIs to examine the meteorological training curricula of 14 CFR Part 135 operators under their purview and ensure that they provide adequate information regarding icing conditions and cold weather operating limitations applicable to their particular aircraft, as well as preflight and in-flight deicing procedures.

The FAA agreed with Safety Recommendation A-91-122 in a letter to the Safety Board, dated January 31, 1992, adding that an ACOB was being prepared to address the subject. On April 10, 1992, the Safety Board classified A-91-122 as "Open--Acceptable Response," pending the issuance of the ACOB. On October 16, 1992, the FAA responded that it agreed with Safety Recommendations A-92-59, -60, and -61 and that it would handle the issues in the ACOB, which was being drafted. On April 16, 1993, the Safety Board classified these recommendations, "Open--Acceptable Response."

On December 9, 1993, the FAA advised the Safety Board that on October 19, 1993, the FAA had issued ACOB 8-93-4, entitled, "Flight in Potential Icing Conditions and the Avoidance, Recognition, and Response to Tailplane Ice," which was responsive to A-91-122 and A-92-59,-60, and -61. The FAA enclosed a copy

of the ACOB that contained specific actions for the POIs to take regarding air carriers under their jurisdiction.

The Safety Board finds the stated actions by the FAA contained in ACOB 8-93-4 to be responsive to the intent of A-91-122 and A-92-59, -60, and -61. The specific guidance to POIs and the actions directed of them are consistent with the Safety Board's safety recommendations to improve commuter airline safety. However, information gathered during two recent commuter aircraft accident investigations has revealed that the actions directed by the ACOBs have not been accomplished as intended.

On December 1, 1993, a Jetstream 31 operated by Express II Airlines, d/b/a Northwest Airlink, crashed during a back course localizer approach to runway 13 at Hibbing, Minnesota. The 2 pilots and 16 passengers aboard died when the airplane crashed about 3 miles short of the runway. The investigation of that accident is continuing and the probable cause(s) have not been determined.

On January 6, 1994, a Jetstream 41 operated by Atlantic Coast Airlines, d/b/a United Express, crashed during an instrument landing system (ILS) approach to runway 28L at Port of Columbus Airport, Columbus, Ohio. The two pilots, one flight attendant, and two passengers died in the accident. Three passengers escaped from the airplane, which had crashed about 1.2 miles from the airport. The investigation is continuing and the probable cause(s) have not been determined.

Both accidents occurred at night in instrument meteorological conditions. Although icing conditions existed at the time in the area of both accidents, no conclusions have been drawn to suggest that airframe icing was the reason for the accidents. Nevertheless, during the investigations of these two accidents, Safety Board investigators have determined that the intent of ACOB-8-93-4 has not been satisfied.

Although the POI for Express II had received the ACOB, there was no clear evidence that he had fully accomplished the actions directed by it. Specifically, with regard to certain provisions of the ACOB, which address Safety Recommendation A-92-59 on training and accessing computerized weather information systems, the Express II POI stated that he had referenced the carrier's Operations Specifications, as well as the General Operations Manual, to determine adequacy. However, neither of these documents provide guidance on training and accessing computerized weather information systems. Further, on the accident flight, there

was an AIRMET [airman's meteorological information] issued for icing that was not part of the computerized weather package because of peculiarities in the carrier's weather access system. Also, during an interview with the POI of Express I, the "sister" carrier, it was determined that although a copy of the ACOB was available in the POI's office, he had not accomplished the items directed by it. In addition, during the interview with the POI for Atlantic Coast Airlines, the POI stated that he thought the ACOB pertained only to Jetstream 31 airplanes. As a result, he had not accomplished the actions contained in the ACOB with the carrier that operated Jetstream 41s.

Consequently, the Safety Board believes that the FAA should reevaluate its process for the dissemination of the information contained in ACOBs to verify that the intended and directed actions contained therein are actually taken.

The Safety Board has addressed previous problems with the distribution of ACOBs as the result of the Delta Air Lines Boeing 727 accident in Dallas, Texas, on August 31, 1988.[2] Specifically, in Safety Recommendation A-89-128, the Safety Board recommended that the FAA:

> Modify the ACOB distribution procedures to expedite the approval and transmission of ACOBs to the principal operations inspectors and airline officials.

In that investigation, the Safety Board found that the FAA had issued ACOB-8-88-4 as the result of a takeoff accident in 1987 involving a DC-9-82.[3] The ACOB specified actions for POIs to take regarding procedures at their airlines to prevent attempted takeoffs with the flaps retracted. That investigation revealed that the ACOB had been approved by FAA Headquarters staff in June 1988, and the FAA Flight Standards District Office (FSDO) responsible for oversight of Delta Air Lines had received it on August 30, 1988. The POI for Delta Air Lines did not receive the ACOB until September 5, 1988, and it was not mailed to the airline until September 14, 1988, two weeks following the accident, which involved a takeoff attempt with the flaps retracted.

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[2] For more detailed information, read Aircraft Accident Report--Delta Air Lines, Inc., Boeing 727-232, N473DA, Dallas/Fort Worth International Airport, Texas, August 31, 1988. (NTSB/AAR-89/04)

[3] For more detailed information, read Aircraft Accident Report--Northwest Airlines, Inc., McDonnell Douglas DC-9-82, N312RC, Detroit Metropolitan/Wayne County Airport, Romulus, Michigan, August 16, 1987. (NTSB/AAR-88/05)

On April 12, 1990, the FAA advised the Safety Board that it had established a priority system to reduce the time for the printing and distribution of ACOBs to within two weeks after adoption. As a result of that action, on October 22, 1990, the Safety Board classified A-89-128 as "Closed--Acceptable Action."

Nevertheless, the two recent investigations illustrate what appears to the Safety Board to be serious deficiencies in the FAA's system of communicating important safety-related material to air carriers that is contained in ACOBs. The Safety Board is concerned that the system of processing the information contained in ACOBs is not being given sufficient emphasis by the Flight Standards personnel responsible for the oversight of airline safety. Although the inadequate processing of ACOB 8-93-4 by the FSDOs has not been determined to be a factor in the recent accidents, apparently, neither the content of the ACOB nor the intent of its content has been satisfied. Therefore, the Safety Board urges the FAA to direct immediate guidance to all POIs that requires verification that the actions contained in ACOB 8-93-4 have been taken. Also, with the issuance of Safety Recommendation A-94-71, which is contained herein, the Safety Board has classified Safety Recommendations A-91-122, A-92-59, A-92-60, and A-92-61 as "Closed--Acceptable Action/Superseded."

The Safety Board is also concerned that other ACOBs issued in the recent past might not have resulted in the intended corrective actions. Many of the Safety Board's previous safety recommendations have urged corrective actions that were reportedly implemented by means of ACOBs that directed POIs to accomplish specific tasks. In most cases, the Safety Board has classified such recommendations as "Closed--Acceptable Action," based on a review of the guidance contained in the published ACOBs and assuming that the actions directed at POIs had been accomplished. The Safety Board has not previously attempted to verify whether the actions directed by the ACOBs had actually been taken. In view of the findings of the current investigations, the Safety Board believes that the FAA should undertake a program to review all ACOBs that have been issued in the past few years to ensure that the intended actions have actually been taken.

Therefore, the National Transportation Safety Board recommends that the FAA:

> Conduct an in-depth review of its policies and procedures for the processing of ACOBs, and develop a system to ensure that the safety information contained therein is acted on in a timely and accurate manner.

The system should include a process to verify that the actions contemplated by the ACOB are effectively implemented. (Class II, Priority Action) (A-94-70)

Issue immediate guidance to all POIs to verify that the intended safety-related actions contained in ACOB 8-93-4 have been accomplished for air carriers under their jurisdiction. (Class II, Priority Action) (A-94-71)

Take the appropriate actions to verify that ACOBs issued in the past few years have been implemented as intended. (Class II, Priority Action) (A-94-72)

Chairman VOGT, Vice Chairman COUGHLIN, and Members LAUBER, HAMMERSCHMIDT, and HALL concurred in these recommendations.

By: Carl W. Vogt
Chairman