

Note: Below are the BEA recommendations that appear in Volume II of the NTSB accident report. The recommendations begin on page 268 of the report.

4. RECOMMENDATIONS

The BEA notes with interest the disparity between the broad scope of the recommendations which the NTSB makes as a result of this accident and the selective focus of the NTSB's statements of its findings and proposed Probable Cause of this accident. Except as noted below, the BEA agrees with the NTSB recommendations.

4.1. FLIGHT CREW PERFORMANCE - STERILE COCKPIT

It is significant that the Report recommends that the FAA evaluate the need to make observance of the sterile cockpit rule mandatory for air carriers when their aircraft are holding in icing conditions regardless of altitude (4.2.8), and recommends that AMR Eagle "encourage" its captains to observe a sterile cockpit environment in icing conditions. These recommendations are in sharp contrast with the Report's incorrect "findings" that the gross distractions of this flight crew and the Captain's departure from the cockpit in known icing conditions "did not contribute to this accident". The BEA suggests that the NTSB recommend that the FAA take steps to emphasize that the sterile cockpit rule applies to all critical phases of flight, and that a critical phase of flight includes all operations in known icing conditions, regardless of altitude. This recommendation is consistent with the FAA's rationale behind the sterile cockpit rule.

4.2. PRE-FLIGHT AND IN-FLIGHT WEATHER INFORMATION

The report's nine recommendations regarding pre-flight and in flight weather information (4.11 - 4.16, 4.3, 4.2, and 4.3) seek to assure that pilots are provided, obtain, and consider all pertinent weather information both for in-flight and pre-flight planning purposes, and that further steps be taken to improve the quality of the information. The BEA agrees with these recommendations, but finds it surprising that the report makes no mention in its findings of the failure of, the Company to provide the flight crew of Flight 4184 with AIRMET information which specifically forecasted icing conditions along their route of flight, and the complete absence in the CVR transcript of any effort by the flight crew to update their weather information while enroute and during their hold. The BEA suggests that the NTSB recommend that the FAA and American Eagle/Simmons take steps to enforce the Airman's Information Manual (AIM) requirement that flight crews "report icing conditions to ATC/FSS."

4.3 PIREPS

The BEA also suggests that the NTSB recommend that the FAA take steps to enforce FAA Order 7110.65, Air Traffic Control, which requires that ATC solicit PIREPS regarding "icing of light degree or greater." The failure of the flight crew to provide a PIREP to ATC, and the failure of ATC to solicit a PIREP from the flight crew, and the critical effects of these failures in contributing to this accident are ignored by the report in its findings and recommendations. It is insufficient to simply suggest, as does report Recommendations 4.31 that the definition of PIREP information should be amended.

4.4. AIRCRAFT CERTIFICATION - FREEZING DRIZZLE/RAIN

The report's five recommendations regarding aircraft certification (4.17 - 4.21) properly call for more accurate determination of the parameters affecting ice accretion. However, if the recommendation to expand the icing certification envelope to include freezing drizzle/freezing rain conditions "as necessary" is meant to imply that the NTSB believes aircraft should now be certified for operations in these dangerous conditions where the risks to aircraft are still relatively unknown, instead of focusing on improved detecting and avoidance of these conditions, the interests of aviation safety are not being served. Regarding the report's recommendation for certification test programs and certification criteria, these issues are addressed in Recommendation 3 of the Special Certification Review Report of the FAA and DGAC. The BEA therefore suggests that this recommendation be adopted by the NTSB to replace the current recommendation on this subject.

4.5. CERTIFICATION AND CONTINUING AIRWORTHINESS UNDER THE BAA

The BEA believes that with respect to the report's three recommendations to the FAA regarding certification and monitoring of continued airworthiness of aircraft operating in the U.S. (4.25 to 4.27), the

NTSB recognizes that the concern is not with the BAA itself, but instead with the procedures being used for the mutual exchange of significant incident, accident, and other airworthiness information pursuant to either the BAA or other formal or informal agreements between the FAA and DGAC. The BEA suggests that the report recommend that the NTSB and the FAA take steps to assure that all pertinent information from accident and incident investigations conducted by the NTSB or FAA involving a foreign manufactured aircraft, including all facts and analyses of incidents and accidents and other airworthiness information, is provided on a timely basis to the exporting country's airworthiness authority so that it can monitor and insure the continued airworthiness of aircraft certified by it as the primary certification authority.

The recommendation the report makes to ATR is written so as to imply that there is a "hinge moment reversal problem" with the aircraft that has not been resolved. The BEA disagrees with this implication. The actions taken as a result of the post-accident investigation and test program, including those addressed to flight crews and the modifications of the boots, addressed and resolved the issue. The BEA also does not believe that this issue is unique to ATR. Rather, it applies to all turboprop aircraft, as evidenced by the recent FAA proposed Airworthiness Directives on this subject, which apply to virtually every model of turboprop aircraft in the world. The BEA encourages the further work being done by ATR to consider redundant safety measures to protect against inadvertent encounters with icing conditions beyond Appendix C certification standards.

4.7. AMR EAGLE

Based on the lack of cockpit discipline, the BEA suggests that the report recommends that the FAA and AMR Eagle take all necessary steps to prevent the recurrence of such conduct. In this regard, AMR Eagle's operating and training procedures should be fully reviewed and corrected if necessary, so as to address such conduct. The BEA agrees with the report recommendation that the FAA require air carriers to provide standardized training that adequately addresses recovery from unusual events and unusual attitudes (4.29). Based upon this accident, the BEA supports the report recommendation that AMR Eagle takes steps to immediately institute a training program to address these issues with its flight crews.