



National Transportation Safety Board

Washington, D.C. 20594
Safety Recommendation

Date: May 14, 1992

In reply refer to: A-92-29

Mr. George Pickett
President
Atlantic Southeast Airlines, Inc.
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On April 5, 1991, Atlantic Southeast Airlines, Inc., (ASA) flight 2311,¹ an Embraer EMB-120, N270AS, crashed during a landing approach to runway 07 at the Glynco Jetport, Brunswick, Georgia. The flight was a scheduled commuter flight from Atlanta to Brunswick, Georgia, operating under the provisions of Title 14 Code of Federal Regulations (CFR) Part 135, and was being conducted under instrument flight rules. The airplane was operating in visual meteorological conditions at the time of the accident. The airplane was destroyed; and the two pilots, the flight attendant, and all 20 passengers received fatal injuries.

The National Transportation Safety Board determined that the probable cause of this accident was the loss of control in flight as a result of a malfunction of the left engine propeller control unit which allowed the propeller blade angles to go below the flight idle position. Contributing to the accident was the deficient design of the propeller control unit by Hamilton Standard and the approval of the design by the Federal Aviation Administration (FAA). The design did not correctly evaluate the failure mode that occurred during this flight, which resulted

¹For more detailed information, read Aviation Accident Report--"Atlantic Southeast Airlines, Inc., Flight 2311, Uncontrolled Collision with Terrain, an Embraer EMB-120, N270AS, Brunswick, Georgia, April 5, 1991" (NTSB/AAR-92/03)

in an uncommanded and uncorrectable movement of the blades of the airplane's left propeller below the flight idle position.

The investigation revealed that the flightcrew spent the night before the accident on a layover in a hotel and had been scheduled to be off duty for about 8 hours. This scheduled "reduced rest" period provided the crew with 6.5 hours, or less, of rest from the time they checked into their hotel until they received their wakeup calls. The rest time of ASA flightcrews, including the pilots of flight 2311, complied with the reduced rest provisions of 14 CFR Part 135. The FAA, upon publishing the flight time limitations and rest requirements for Part 135 scheduled operations in 1985, referred to the use of the reduced rest provisions of the regulation and stated:

The purpose of the rest reduction is to allow scheduling flexibility for the benefit of air carriers, pilots, and the flying public. Although this rule allows for scheduling a reduced rest, it does not allow for any reduction of the minimum reduced rest or the minimum compensatory rest under any circumstances. Therefore, in order to benefit fully from this flexibility, an air carrier should schedule realistically to avoid any possible flight schedule disruptions. The FAA expects that most air carriers will schedule at least 9- to 11-hour required rest periods. But in those instances when air carriers need to schedule a shorter rest or when rest must be reduced because actual flight time has exceeded scheduled flight time, the rule allows for some scheduling flexibility.

The FAA further stated that:

The FAA wants to stress that the goal of these revisions is to prevent fatigue....It is the responsibility of both the operator and the flight crewmember to prevent fatigue, not only by following the regulations but also by acting intelligently and conscientiously while serving the traveling public. This means taking into consideration weather conditions, air traffic, the health of each flight crewmember, or any other circumstances (personal problems, etc.) that might affect the flight crewmember's alertness or judgment on a particular flight.

During the rulemaking process, airline and airline association representatives assured the FAA that the reduced rest provisions of the proposed regulation,

necessary to provide an air carrier with the flexibility to cope with operational delays, would be applied by air carriers on a contingency basis and that they would not be used to routinely develop daily schedules.

The reduced rest provisions of the regulation allow an air carrier to shorten the rest period of a flightcrew to accommodate operational delays when they are encountered. However, a review of the duty and rest time of the accident flightcrew and other ASA pilots indicated that reduced rest periods were scheduled for about 60 percent of the layovers in day-to-day operations. A review of other commuter airlines indicated a similar tendency to schedule duty cycles that would require reduced rest schedules.

The Safety Board notes that the FAA has recently commissioned a working group to study the flightcrew duty time for operations conducted under 14 CFR Part 135. The working group is expected to convene officially after May 1992, and it will be part of the Aviation Rulemaking Advisory Committee.

Although the circumstances of this accident established that flightcrew fatigue was not a factor, the Safety Board is concerned that ASA, not unlike other commuter air carriers, scheduled reduced rest periods for about 60 percent of the layovers in its day-to-day operations. The Safety Board believes that this practice is inconsistent with the level of safety intended by the regulations, which is to allow reduced rest periods as a contingency to a schedule disruption, and that it has the potential for adversely affecting pilot fitness and performance. Therefore, the Safety Board believes that ASA should discontinue the scheduling of reduced rest periods in flight operations.

As a result of its investigation of this accident, the National Transportation Safety Board recommends that Atlantic Southeast Airlines:

Discontinue the scheduling of reduced rest periods in flight operations; and, in the interest of flight safety, utilize reduced rest periods for operational contingencies consistent with the intent of 14 CFR 135.265.
(Class II, Priority Action) (A-92-29)

Also, as a result of the investigation, the Safety Board issued Safety Recommendations A-92-25 through -28 to the Federal Aviation Administration and A-92-30 to the Regional Airline Association.

The National Transportation Safety Board is an independent federal agency with the statutory responsibility "...to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations" (Public Law 93-633). The Safety Board is vitally interested in any actions taken as a result of its safety recommendations and would appreciate a response from you regarding action taken or contemplated with respect to the recommendation in this letter. Please refer to Safety Recommendation A-92-29 in your reply.

Acting Chairman COUGHLIN, and Members LAUBER, HART, HAMMERSCHMIDT, and KOLSTAD concurred in this recommendation.

By: Susan M. Coughlin
Acting Chairman