Log 939

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: May 17, 1978

Forwarded to:

Honorable Langhorne M. Bond
Administrator
Federal Aviation Administration
Washington, D.C. 20591

SAFETY RECOMMENDATION(S)

A-78-37 through 41

On September 6, 1977, Alaska Aeronautical Industries Flight 302, a DHC-6-200, crashed into Mount Iliamna when the aircraft strayed off course en route from Iliamna, Alaska, to Anchorage. The 11 passengers and 2 crewmembers died in the accident. The National Transportation Safety Board's investigation revealed poor operational practices, poor maintenance practices, and inadequate training practices by the operator, and inadequate surveillance of the operator by the Federal Aviation Administration. Alaska Aeronautical Industries is the 12th largest commuter airline in the nation and transports more than 150,000 passengers each year. As such, the Safety Board believes that the company's operating procedures must provide a high level of safety to the public, and that FAA's surveillance must insure that adequate standards are maintained.

Operations

Alaska Aeronautical Industries' unwritten policy was that all flights operating under instrument flight rules on low or medium frequency airways would be equipped with two operating automatic direction finding (ADF) navigation receivers. This policy was based on 14 CFR 135.159, which required two independent navigation receivers appropriate to the navigation facilities to be used. On the day of the accident, an aircraft with only one ADF receiver was substituted for a properly equipped aircraft in order to meet scheduling requirements. The change was made by the senior station agent, who had no aeronautical ratings or operational responsibilities. The agent did not consult company management personnel who were responsible for scheduling aircraft. The Safety Board reviewed the company's operations manual but could find no policy to require proper navigation equipment or procedures to govern the scheduling of aircraft. Additionally, the operations manual did not address the relationship between the individual pilots and company operations officials with regard to responsibility and authority for the operational control of the flight.

The lack of management in the dispatch procedure caused all responsibility for operations to be placed with the pilot. Furthermore, company management was not even concerned about monitoring dispatch functions. The Board believes that this situation placed undue pressures on the individual pilots to complete flights, since the pilots alone were responsible for all decisions affecting the flight. Additionally, the operation provided no check by the company of the pilots' adherence to company and federal regulations or to accepted safety standards.

Other operational deficiencies included the lack of procedures to insure that NOTAM's and other information pertinent to Alaska Aeronautical's route system were transmitted to pilots, and the absence of assignment of responsibilities to key management personnel, such as the chief pilot and the training pilot.

Training

The Safety Board reviewed Alaska Aeronautical Industries' training program and found that, although it was structured to meet the requirements of 14 CFR 135.55, the administration of the program was weak. Although the training manual set forth adequate training requirements for newly hired pilots, in practice the company required less training. For example, the training manual required 6 hours of initial flight training for a newly hired pilot with no previous air taxi experience, while, according to the testimony of the chief pilot and the training pilot, the company normally administered 1 or 2 hours of initial flight training. The training pilot testified that no formal system existed to apprise pilots of information concerning company procedures and policy. Finally, the training pilot stated that, in addition to his training duties, he flew about 130 hours per month in revenue operations.

These conditions indicate that the company's training program lacked the control and supervision necessary to insure that the program was implemented as specified in their manual. Although the minimum requirements of 14 CFR 135 were found in the training manual, the Board believes that the actual conduct of the program lacks the thoroughness expected of a commuter air taxi operation.

Maintenance

Alaska Aeronautical Industries' maintenance procedures were deficient. Pilots' reports of mechanical discrepancies were written into the logbook, but were transferred at the end of the day to a "carry-over worksheet" which was retained in the maintenance department. Pilot writeups which were transferred to the "carry-over worksheet" and corrected were signed off by maintenance personnel on the worksheet; uncorrected items were carried forward. Since a copy of the worksheet was not placed in the logbook, a pilot who would fly an aircraft the following day could not inspect the logbook and, therefore, may accept an aircraft without

having available the previous discrepancy reports which had been carried over by maintenance. Since the maintenance area was not colocated with the terminal, pilots could not inspect the maintenance records of an aircraft to determine the status of carried-over items or the suitability of an aircraft for a particular flight.

The Safety Board's review of the operator's maintenance program disclosed that the spare parts in stock were not tagged to indicate their maintenance status. Serviceable parts were intermixed with unserviceable ones. The chief of maintenance testified that he was the only person who knew the condition of all spare parts; if a replacement part was needed, he would determine its condition. As a result, he believed that parts tags were not necessary. The Safety Board believes that this system could lead to the use of unserviceable parts on aircraft even though the logbook writeup would be signed off as corrected. Again, this practice demonstrates the lack of control and supervision of company management over the daily operation of Alaska Aeronautical Industries.

A review of the company maintenance records disclosed that discrepancies were signed off without corrective action; that parts were removed and installed without part numbers being recorded in the aircraft logbook; and that maintenance carry-over items listed both aircraft directional gyros as inoperative but no corrective action was accomplished because no parts were in stock.

FAA Surveillance

The Safety Board is concerned that these lax operational, maintenance, and training procedures existed without positive action by the FAA's office responsible for the surveillance of Alaska Aeronautical Industries. We recognize that this same office was responsible for about 151 other air taxi operators, with the operations inspectors and maintenance inspectors assigned to 54 and 30 air taxi operators, respectively. However, the deficiencies found must be corrected, and a positive surveillance effort must be established in order to provide a satisfactory level of safety to the public.

Accordingly, the National Transportation Safety Board recommends that the Federal Aviation Administration:

> Revise the surveillance requirements of commuter airlines by FAA inspectors to provide more stringent monitoring. (A-78-37) (Class II - Priority Action)
>
> Identify FAA offices responsible for the surveillance of large numbers of air taxi/commuter operators and insure that an adequate number of inspectors are assigned to monitor properly each operator. (A-78-38) (Class II - Priority Action)

Review the flight operations and training manuals of all commuter airlines to insure that the requirements of 14 CFR 135 are met and practiced.
(A-78-39) (Class II - Priority Action)

Amend 14 CFR 135.27 to require that flight operations manuals specify: (1) The duties and responsibilities of key management personnel, and (2) positive means to insure the control of flights by company management as well as by the pilots.
(A-78-40) (Class II - Priority Action)

Review the maintenance procedures of air taxi and commuter airlines operators to evaluate the effectiveness of those procedures and to insure adequate company control.
(A-78-41) (Class II - Priority Action)

KING, Chairman, McADAMS, DRIVER, HOGUE, Members, concurred in the above recommendations.

Francis H. McAdams

By: James B. King
Chairman

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