



National Transportation Safety Board

Washington, D.C. 20594
Safety Recommendation

Date: November 24, 1993

In reply refer to: A-93-161 through -168

log # 2463

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

On October 26, 1993, about 1552,¹ N82, a Beech Super King Air 300/F, owned by the Federal Aviation Administration (FAA) and operated by the Flight Inspection Area Office (FIAO) at Atlantic City, New Jersey, was destroyed due to an in-flight collision with terrain near Front Royal, Virginia. All three crewmembers received fatal injuries. The airplane had departed the nearby Winchester Regional Airport in visual meteorological conditions (VMC). However, witnesses indicated that instrument meteorological conditions (IMC) prevailed at the accident site, which was about 15 miles from the departure airfield. An instrument flight rules (IFR) flight plan to Newport News, Virginia, was on file in the Air Traffic Control (ATC) system, but the flight plan had not yet been activated. The flight was operating under the provisions of Title 14 Code of Federal Regulations (CFR) Part 91.

The airplane originally departed Atlantic City International Airport, New Jersey, about 1330, and had completed a flight inspection of the instrument landing system runway 32 localizer at Winchester about 1540. The trip to Newport News was to be a routine point-to-point flight to an overnight stop in preparation for flight inspection missions scheduled for the next day.

¹All times herein are eastern daylight time, in accordance with the 24-hour clock.

The airplane was not equipped, nor required to be equipped, with a cockpit voice recorder, a flight data recorder, or a ground proximity warning system.

ATC recorded communications indicate that the accident occurred while the airplane was awaiting a clearance to proceed IFR to the final destination. The pilot reported to the local ATC sector,

We're over Linden VOR at 2 thousand, can you get us a little higher, VFR on top, and we'll be on our way.

Elevation of the Linden VOR is 2,472 feet mean sea level (msl). On-site investigation revealed that the airplane initially struck a tree-covered ridge about 5 nautical miles east of the VOR about 1,900 feet msl. Witnesses reported that the ridge line was obscured by a cloud cover at the time of the accident. Other witnesses observed the airplane circling near the accident site and in proximity to terrain with elevations up to 2,388 feet msl.

Although the investigation is continuing and the probable cause has not been determined, the performance of the flightcrew raises such serious concerns that the Safety Board believes the FAA should take immediate action to remedy.

In addition to investigative work at the accident site, Safety Board investigators conducted interviews at the Atlantic City FIAO, at the FAA Flight Standards District Office Certificate Management Office in Fort Worth, Texas, and at the unit headquarters, the Office of Aviation System Standards (AVN) in Oklahoma City, Oklahoma.

Investigators also obtained from the FAA, a System Safety Survey, which was conducted in 1989 following a fatal accident on November 2, 1988, which involved N44, a Rockwell 1121A turbojet airplane operated by the Atlantic City FIAO.² The survey was conducted at the request of AVN and the Associate Administrator for Aviation Standards and utilized Flight Standards Service (AFS) operations inspectors. The survey cited numerous (409) operational and maintenance observations and highlighted the need to increase emphasis on the safe

²For more detailed information, read Aircraft Accident Brief--NTSB File No. 1059, case MIA89MA023, Oak Grove, PA

operation of FAA aircraft. AVN stated that as a result of the survey, it requested assistance from AFS in the development and surveillance of the FAA flight program.

AVN stated in November 1990, in FAA Notice 4040.36, that FAA aircraft would be operated and maintained in compliance with applicable Federal Aviation Regulations (FARs) to ensure a level of safety equivalent to that of the aviation industry. The Notice went on to state that FAA aircraft "shall be operated in compliance with Parts 91, 121 and 135 of the FAR."

One year later, AVN stated in FAA Order 4040.23 that its aircraft were to be certificated, operated, and maintained in accordance with the FARs. However, in that Order, the Director of AVN retained the right to determine "applicable regulations." Manuals for flight inspection operations and maintenance activities (training was not included) were developed through the cooperative efforts of AVN and AFS personnel. Again, however, the Director of AVN retained the authority to determine final acceptability of the manuals and subsequent revisions.

According to AFS personnel, Operations Specifications have not been published for FAA flying activities. An implementation schedule and final date for compliance with an oversight and surveillance program has not been established by AVN, AFS, or other senior FAA authorities. A positive method to resolve deficiencies or enforcement/disciplinary action suitable to AFS is not in place. Required National Flight Standards Program Work Functions (FAA Order 1800.132) activity in accordance with required surveillance in the Program Tracking and Reporting System 14 CFR for a Part 135 commercial operator is not established for FAA flying activity and traditional surveillance by Flight Standards field office inspectors did not exist at the time of the accident.

During interviews at the Atlantic City FIAO, investigators were told by other crewmembers that the pilot-in-command (PIC) involved in the accident had demonstrated poor judgment on previous flights. He reportedly:

Continued on a visual flight rules (VFR) positioning flight into IMC,

Performed a "below glidepath check" in IMC when VMC conditions were required by FIAO requirements,

Conducted VFR flight below clouds at less than 1000 feet above the ground in marginal weather conditions,

Replied to an ATC query that the flight was in VMC when it was in IMC, Conducted departures without the second-in-command's (SIC) knowledge of essential flight planning information, i.e., IFR/VFR/en route filing/weather briefing/ultimate destination or routing,

Departed on positioning flights without obtaining weather information or filing an appropriate flight plan, and

Refused to answer an SIC query regarding their violation of VFR requirements. A complaint was brought forward to the Flight Operations/Scheduling Supervisor (FO/SS) for management resolution of this matter; however, no action was taken. Those interviewed indicated that other complaints were handled in a similar manner.

Investigators reviewed the AVN Flight Inspection Operations Manual in an effort to better understand the organization. They found that an Assistant Manager position was authorized at each FIAO. The position description included the responsibility to hear and resolve complaints and grievances. The Assistant Manager positions at the FIAOs have not been staffed. At Atlantic City, the FO/SS resolved complaints and grievances as part of his responsibilities for effective operations, standardization, and regulatory compliance. Investigators learned of numerous deficiencies that were brought to the attention of the FO/SS. These issues and complaints were reportedly not resolved nor brought to the attention of the Manager. Moreover, it appears that conflicts between crewmembers resulted in preferential scheduling by the FO/SS to ensure that the PIC involved in the accident under investigation flew only with SICs who were tolerant of his behavior. Lack of action by the FO/SS reportedly discouraged crewmembers from further expressing concerns or complaints or reporting additional incidents.

The organizational structure of each FIAO provides one supervisor for the PIC pilots and electronic technicians (ET) and a separate supervisor for the SICs. This organizational structure provided an atmosphere that resulted in a breakdown of the professional aircrew concept. An SIC supervisor stated that when the current organization was put in place, it immediately became, "us and them, PIC versus SIC." Investigators learned that the SIC, by virtue of his job description and responsibilities, is a secondary participant in the FIAO flight mission. Flight assignments for SICs were normally spaced four to five weeks apart. SIC flight time was about one third of that accomplished by the PICs. The PIC role is perceived, and functioned at unit level, to extend well past the flight operation and

into administrative supervision including appraisals, promotions, upgrade potential, and reassignments.

During FIAO interviews, one unit supervisor stated that, "Cockpit Resource Management (CRM) is nonexistent." The FIAO Manager indicated that, although CRM training had been initiated at some time in the past, lack of funding caused it to be incomplete. He stated that there was no active CRM program at the FIAO. When the AVN staff was queried about CRM, investigators were informed that a program suitable to the needs of the FIAO mission was in the early stages of development.

The AVN organizational structure has a Senior Flight Safety Officer position at the headquarters. The position is filled by a qualified individual with a flight operations inspector background. There are also additional duty Flight Safety Officer positions at each FIAO. Although the responsibilities of incident and accident investigation are part of the flight safety function, AVN did not make these individuals part of the Safety Board's investigation of this accident. Instead, AVN and the Atlantic City FIAO each provided an individual with ET experience (non-pilot background) to assist in the investigation.

Preliminary investigative findings indicate that, although there are many elements of change within AVN, some of the negative management and organizational flight safety observations identified in the 1989 System Safety Survey were still present at the time of the accident on October 26, 1993. Shortcomings were acknowledged by AVN upon receipt of the survey; however, sufficient and timely corrective actions were not implemented.

The Safety Board is concerned that the basic elements of flight operations and flight safety management that the FAA expects of air carrier and commuter operators are not presently established in the FIAO flight operations mission. The Safety Board is further concerned that these same basic elements of flight operations safety management may not be present in the other FAA regional and headquarters units that conduct flight operations utilizing over 55 public-owned aircraft and a variety of leased assets. The Safety Board believes that timely corrective actions are necessary to ensure that flying missions of AVN operate at a level of safety equivalent to that of the aviation industry.

Therefore, as a result of the investigation of this accident, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Require all Office of Aviation System Standards flight operations to file flight plans for all flights and to activate Instrument Flight Rules flight plans before takeoff to the maximum extent possible. (Class I, Urgent Action) (A-93-161)

Direct the Office of Aviation System Standards to evaluate the use of a Flight Dispatch program to assist in the management of FAA flight operations. (Class II, Priority Action) (A-93-162)

Institute Cockpit Resource Management Training, as outlined in FAA Advisory Circular 120-51 at each Office of Aviation System Standards flight operations unit. (Class II, Priority Action) (A-93-163)

Incorporate Aeronautical Decision Making techniques and skills as presented in FAA Advisory Circular 60-22 into the Office of Aviation System Standards aircrew training program. (Class II, Priority Action) (A-93-164)

Direct the Office of Aviation System Standards to evaluate the recommendations in the 1989 System Safety Survey relating to the second-in-command responsibilities and flying proficiency and to establish duties as appropriate. (Class II, Priority Action) (A-93-165)

Direct the Office of Aviation System Standards to implement an appropriate management/supervisor structure to ensure that a method of resolving conflicts, grievances, and incident reporting exists at the appropriate management level in each Flight Inspection Area Office. (Class II, Priority Action) (A-93-166).

Direct the Office of Aviation System Standards to elevate the Flight Safety Program requirements and the Senior Flight Safety Officer (SFSO) position within the organization to receive the level of attention presented in the responsibilities stated in the Flight Inspection Operations Manual and FAA Order 4040.9D, i.e., direct coordination between the SFSO and the Director of the Office of Aviation System Standards (as identified in the 1989 System Safety Survey). (Class II, Priority Action) (A-93-167)

Direct the Office of Aviation System Standards and Flight Standards Service (or the Associate Administrator for Aviation Standards and the Associate Administrator for Regulation and Certification) to negotiate and implement, by an established date, a surveillance system for FAA flight operations that is at least equal to that of the air carrier industry as previously agreed to in 1990. (Class II, Priority Action) (A-93-168)

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

John A. Hammerschmidt for

By: Carl W. Vogt
Chairman