



# National Transportation Safety Board

Washington, D.C. 20594

## Safety Recommendation

Date: March 24, 1988

In reply refer to: A-88-32 through -36

Honorable T. Allan McArdor  
Administrator  
Federal Aviation Administration  
Washington, D.C. 20591

On February 22, 1986, a Beech G-185, N74FA, operated by K-Airways, Inc., of Kenosha, Wisconsin, crashed near Copperhill, Tennessee, during maneuvering flight in instrument meteorological conditions. The airplane, which was on an unscheduled domestic air cargo flight and which was en route to Atlanta, Georgia, from Milwaukee, Wisconsin, was destroyed by collision with trees and mountainous terrain and postcrash fire. The only person aboard, an airline transport-rated pilot, was fatally injured. The Safety Board determined that the pilot, who had a 0.158 percent blood alcohol concentration at the time of his death, became severely impaired during the flight due to a combination of alcohol intoxication and fatigue. <sup>1/</sup>

The investigation disclosed that the pilot had been convicted of seven driving-while-intoxicated (DWI) offenses during the previous 4 1/2 years, that he had abused alcohol, and that he had been alcohol-dependent during that period. Although the pilot had been examined regularly by Federal Aviation Administration (FAA) designated aviation medical examiners, the FAA did not detect the pilot's alcohol abuse and dependency due, in part, to the pilot's falsification of medical history questions concerning an "excessive drinking habit" and a "record of traffic convictions" on his applications for medical certificates. The National Driver Register (NDR) <sup>2/</sup> recorded seven driver license revocations as a result of the pilot's seven DWI convictions.

During September 1984, a city attorney in Kenosha, Wisconsin, who had prosecuted the pilot for charges related to the seventh DWI offense, filed a formal complaint with the FAA concerning the conflict between the pilot's driving record and his professional flight duties. An investigator from the FAA's Office of Civil Aviation Security interviewed the prosecutor and obtained a copy of the pilot's driving record. However, no further action was taken by the FAA. The accident in which the pilot was killed occurred 18 months later.

<sup>1/</sup> For more detailed information, read Field Accident Brief File No. 700 (attached) and Aircraft Accident Summary Report--Copperhill, Tennessee, February 22, 1986.

<sup>2/</sup> The NDR is a computerized file of persons whose driving permits have been suspended or revoked. It is maintained by the National Highway Traffic Safety Administration of the U.S. Department of Transportation. Participation of permit-issuing jurisdictions is voluntary. The NDR serves as a central repository enabling these jurisdictions to identify problem drivers who apply for original or renewal licenses.

4764/850/21

On March 13, 1986, an Embraer Bandeirante EMB-110P1, N1356P, operated by Simmons Airlines, Inc., crashed near Alpena, Michigan, <sup>3/</sup> during an instrument landing system approach to Phelps-Collins Field. The scheduled domestic commuter flight, operating as Simmons flight 1746, had a crew of two airline transport-rated pilots and seven passengers aboard. The captain was flying the airplane at the time of the accident. The airplane was destroyed by collision with trees and terrain, and the first officer and two passengers were fatally injured. The Safety Board determined that the flightcrew descended below the glide slope for undetermined reasons.

During its investigation of the Alpena accident, the Safety Board learned that the captain of Simmons flight 1746 had been arrested on four occasions for DWI during the 9-year period before the accident. He had been convicted of DWI in 1982, and of lesser offenses in at least two of the three previous incidents. Although the Safety Board could not conclusively establish alcohol impairment as a causal factor in the accident, the Board suspects that the captain's use of alcohol may have been chronic and that it had the potential to affect his professional flight duties. Toxicological examination of the captain was not conducted following the accident, and no such examination was required.

The Simmons captain had been examined semiannually by FAA-designated aviation medical examiners. Once again, the pilot had concealed his alcohol abuse by falsifying the relevant medical history questions on the medical certificate application used by the FAA as indicators of alcohol-related problems. The NDR had recorded two driver license revocations as a result of the pilot's alcohol-related convictions.

In its Guide for Aviation Medical Examiners, the FAA states that "repeated convictions related to alcohol may raise a suspicion of alcoholism. A history of arrests, including charges of driving under the influence of alcohol . . . are important indicators" of alcoholism.

In a 1976 report to Congress, <sup>4/</sup> the Comptroller General of the United States recommended that Congress provide the Secretary of Transportation authority to furnish to the FAA information contained in the NDR to aid in detecting individuals who were not qualified for an FAA medical certificate. The Department of Transportation (DOT) agreed that the NDR contained information valuable in determining the qualifications of airmen, but it said that effective use of NDR information would depend on the availability of adequate resources within the agency since extensive investigations may have to be conducted.

Based on the findings of a 1984 safety study, <sup>5/</sup> the Safety Board recommended that the FAA:

A-84-49

Seek legislative authority to use the NDR to identify airmen whose driving licenses have been suspended or revoked for alcohol-related offenses.

<sup>3/</sup> Aircraft Accident Report--"Simmons Airlines Flight 1746, Embraer Bandeirante EMB-110P1, N1356P, Near Alpena, Michigan, March 13 1986" (NTSB/AAR-87/02).

<sup>4/</sup> "The Federal Aviation Administration Should Do More To Detect Civilian Pilots Having Medical Problems," CED-76-154, General Accounting Office, Comptroller General of the United States, Washington, D.C., November 3, 1976.

<sup>5/</sup> Safety Study--"Statistical Review of Alcohol Involved Aviation Accidents" (NTSB/SS-84/03).

The FAA responded that it supports the use of all available useful information to identify individuals who suffer from alcoholism and that when it has an indication that an individual may have an alcohol problem, its Office of Civil Aviation Security has the authority to request and, at appropriate times, obtain driving records from a State or local government to initiate enforcement action. The FAA said it was reluctant to commit the taxpayers' funds to the effort required to seek statutory authority and initiate appropriate regulatory changes in this area until it was convinced that such statutory and regulatory changes would make "a real difference." Additionally, the FAA said that the allocation of personnel and other resources for conducting the extensive investigations that would be required would necessitate diverting the resources from the monitoring and management of other critical elements of the medical certification program. The FAA said that diverting such resources would weaken the program generally and would not produce the desired result of excluding from flying significant numbers of airmen who abuse alcohol. Based on the FAA's response, the Safety Board classified the recommendation as "Closed--Unacceptable Action."

A February 17, 1987, audit report 6/ issued by the Office of the Inspector General of the DOT, concluded that the FAA needs to validate the medical history information reported by airmen and other sources. The auditors compared the computer records of the FAA active airmen medical file and the NDR files. They found that of the approximately 10,300 airmen whose driving licenses had been suspended or revoked for DWI within the past 7 years, 7,850 (76 percent) did not report this information to the FAA on their medical applications. The report recommended that the FAA seek authority to utilize the NDR to identify airmen with DWI suspensions or revocations, and it cited the circumstances surrounding the Copperhill, Tennessee, accident.

The FAA officially concurred with the recommendation but said that "Data reviewed by the FAA have not validated the premise of association between adverse driving records involving alcohol and aircraft accidents." The FAA went on to say that any future action would be based on the results of a research study exploring a possible association between the two and would include matching aviation accident and toxicological data with NDR information.

On March 17, 1987, as a result of the Alpena accident investigation, the Safety Board again recommended that the FAA:

A-87-15

Seek legislative authority to use the NDR to identify airmen whose driving licenses have been suspended or revoked for alcohol-related offenses.

The FAA responded that the National Highway Traffic Safety Administration is currently proposing legislation on behalf of the DOT that will allow the FAA and other selected transportation agencies access to the NDR.

A history of alcohol abuse theoretically should be detected by the aviation medical examiner, who relies primarily on the self-reporting format incorporated into the medical history portion of the medical application and on his own diagnosis of the pilot's physical condition. The system depends on truthful responses from the applicant and the

6/ "Report on Audit of Airmen Medical Certification Program, Federal Aviation Administration," AV-FA-7-018, Department of Transportation, Office of the Inspector General, February 17, 1987.

physician's diagnostic skills and is the foundation for identification of problem airmen. It has been widely reported, and accident investigation experience has demonstrated, that this system is not effective.

The Safety Board believes that the foregoing examples demonstrate clearly the ease with which a pilot can mislead the medical examiner and the FAA and can successfully conceal alcohol abuse. The Safety Board also believes that a more comprehensive and objective method is needed to verify the accuracy of medical histories reported by professional airmen to the FAA to identify abusers of alcohol and other drugs. Such a program could be administered by the FAA with the assistance of the commercial operator. Utilization of the NDR by the FAA, augmented by more complete State driver history reviews of professional pilots by the commercial operator, would greatly enhance the ability of the FAA to detect professional pilots who abuse alcohol and other substances. Since substance abuse detection is difficult and frequently complicated by an abuser's denial, the FAA should require referral of the identified abuser to a person qualified in the field of substance abuse detection and treatment for examination and evaluation to verify compliance with the medical certification requirements of 14 CFR Part 67.

On July 6, 1986, a USAir Boeing 737 with a flightcrew of 2 pilots, a company pilot occupying the cockpit jumpseat, 4 flight attendants, and 118 passengers aboard was on final approach to Greater Pittsburgh International Airport, Pittsburgh, Pennsylvania. 7/The first officer, who was flying the airplane, suffered an in-flight incapacitation seconds before landing, which required the captain to immediately take control of the airplane. The captain safely landed the airplane, avoiding a potentially serious accident. After landing, the first officer, whose symptoms included rapid breathing, a weak pulse, cold sweats, and severe trembling, was briefly observed and treated by emergency medical personnel. He recovered and left the airport by his own means. The cause of the incapacitation was not immediately determined, and no toxicological examinations were conducted.

Subsequently, the first officer was relieved of flight duties by his employer and was referred for medical evaluation under the supervision of the FAA. The initial evaluation revealed that the incapacitation was related to fatigue, and, with the concurrence of the FAA, the first officer was returned to flight duties. The first officer was assigned to fly a scheduled trip with a captain who was a B-737 line instructor. The captain reported that the first officer displayed physical symptoms that rendered him unable to complete the most basic flight duties. Additional medical evaluations were conducted, and the first officer was diagnosed as suffering from generalized anxiety disorder, complicated by alcohol abuse. The FAA determined that the first officer was ineligible for airman medical certification due to alcoholism under the provisions of 14 CFR Part 67, and alcohol abuse treatment was recommended.

The circumstances of the Alpena accident and the Pittsburgh incident demonstrate the need for mandatory toxicological testing of surviving flightcrew members following a reportable incident or accident. The current inability to determine the presence or absence of alcohol, or any other substance that may have affected the performance of a surviving flightcrew member, emphasizes the need for such a requirement. The Safety Board believes the FAA should require commercial operators to expeditiously arrange for collection of specimens of the blood and urine from flightcrew members for toxicological examination following reportable incidents and accidents and to provide these specimens

7/ For more detailed information, read Field Accident Brief No. 5051 (attached).

to investigators. Unless such testing is performed within the first few hours following the occurrence, the results would be virtually meaningless.

The Safety Board believes an aggressive for-cause testing program, including routine testing after incidents or accidents, is practical and effective. The Safety Board views the Federal Railroad Administration's postoccurrence testing requirement as a model approach for Federal regulation to prevent substance abuse in the transportation industry.

In its investigations, the Safety Board has routinely examined the toxicological aspects of incident and accident causation. Its policy is to request toxicological specimens from surviving crewmembers and all other persons whose activities are reasonably associated with the circumstances of the occurrence, including air traffic control personnel.

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

Require commercial operators to screen pilot applicants to identify convicted abusers of alcohol and other drugs, using driver history records of the State in which the pilot is licensed to drive. (Class II, Priority Action) (A-88-32)

Require commercial operators to review at specified intervals the driver history records of in-service pilots to identify convicted abusers of alcohol and other drugs, using the driver history records of the State in which the pilot is licensed to drive. (Class II, Priority Action) (A-88-33)

Require commercial operators to report to the Federal Aviation Administration those pilots identified as convicted substance abusers for examination and evaluation by the Federal Air Surgeon. (Class II, Priority Action) (A-88-34)

Require that all pilots identified as convicted substance abusers be medically examined and evaluated by a person qualified in the field of substance abuse detection and treatment to verify compliance with the medical certification requirements of 14 CFR Part 67. (Class II, Priority Action) (A-88-35)

Require commercial operators to collect or to cause the collection of toxicological specimens from surviving crewmembers involved in reportable aircraft incidents or accidents. (Class II, Priority Action) (A-88-36)

BURNETT, Chairman, GOLDMAN, Vice Chairman, and LAUBER, NALL, and KOLSTAD, Members, concurred in these recommendations.

By:   
Chairman

3-27-78  
 Milwaukee, WI, 53224

Time (Lcl) - 0730 EST

File No. - 700 2/27/84 COFFEY/LEVIN 674 Fed. No. N745A

Accident Information  
 Name of Carrier - AIRWAYS, INC.  
 Type of Operation - COMMERCIAL  
 Flight Conducted Under - 14 CFR 135  
 Accident Occurred During - DESCENT  
 Aircraft Information  
 Make/Model - BECH 619S  
 Landing Gear - TAILWHEEL - ALL RETRACTABLE  
 Max Gross Wt - 9700  
 No. of Seats - 19  
 Description of Damage - DESTROYED  
 Cause of Accident - ON GROUND  
 Total Serious Minor None  
 Fatal 0 0 0 0  
 Crew Pass 0 0 0 0

Engine Make/Model - P&W R-985-60-140  
 Number Engines - 2  
 Engine Type - RECIPROCATING-CARBURETOR  
 Rated Power - 450 HP  
 ELT Installed/Activated - YES-UNK/NR  
 Stall Warning System - YES

Environment/Operational Information  
 Weather Data  
 Visibility - 1 SM  
 Clouds - SCT  
 Wind Dir/Speed - 060/005 KTS  
 Lowest Sky/Clouds - UNK/NR  
 Lowest Ceiling - UNK/NR  
 Obstructions to Vision - UNK/NR  
 Precipitation - UNK/NR  
 Condition of Light - BAWH  
 Airport, Proximity  
 OFF AIRPORT/STRIP

Personnel Information  
 Pilot-In-Command - [Name]  
 Certificate(s)/Rating(s) - COMMERCIAL, ATP  
 SE LAND/ME LAND  
 Age - 46  
 Flight Review - YES  
 Months Since - 1  
 Aircraft Type - C-297  
 Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT  
 Flight Time (Hours)  
 Total - 7500  
 Make/Model - 2500  
 Instrument - 800  
 Multi-Eng - UNK/NR  
 Last 24 Hrs - UNK/NR  
 Last 30 Days - 39  
 Last 90 Days - 118  
 Rotorcraft - UNK/NR

Instrument Rating(s) - AIRPLANE  
 Narrative  
 THE PILOT WAS ALERTED AT 0100 FOR 0200 FLT EN ROUTE TO MILWAUKEE, WI TO PICK UP CARGO FOR A FLY TO ATLANTA, GA. AT 0310, THE ACFT DEPTD MILWAUKEE IN VFR, EN ROUTE. THE PILOT OBTAINED WX 1 AB IFR CLNC. SOME OF HIS RWY XMSNS WERE NOT STANDARD. AT 0433, HE COMPLETED WITH ATC REQUEST FOR FREQ CHG, BUT HIS RWY XMSNS WERE NOT CLEAR. APPX 5 MIN LATER, ATC ASKED THE PILOT TO FWD FREQ AGAIN, BUT 5 CALLS WERE MADE BFR HE REPLIED. HIS LAST XMSN WAS AT 0445:481 HE DIDN'T RESPOND TO FURTHER ATC CALLS. THE ACFT CONTD CRUISING AT 11,000' UNTIL 0451. WHEN IT DESCND W/O CLNC. RADAR CONTACT WAS LOST AT 0627 CST (0728 EST). SHORTLY THEREAFTER, IT IMPACTED TREES ON A HIL. THE WITNESS REPORT LOW CLDS 1 FOP, BUT SAID THE MTN WAS VISIBLE 1 WAS NOT SURE HEH THOUGHTED BACK W/ IMPACT. ALSO, THE WITNESS REPORT LOW CLDS 1 FOP, BUT SAID THE MTN WAS VISIBLE 1 WAS NOT SURE HEH THOUGHTED BACK W/ IMPACT. THE PILOT HAD 6 C-1507 RPT, HISTORY OF ALCOHOL ABUSE, 7 PRIOR DWI CONVICTIONS (1 R HUF 1982), 1 DWI CONVICTION (1984), 1 DWI CONVICTION (1984), 1 DWI CONVICTION (1984), 1 DWI CONVICTION (1984).