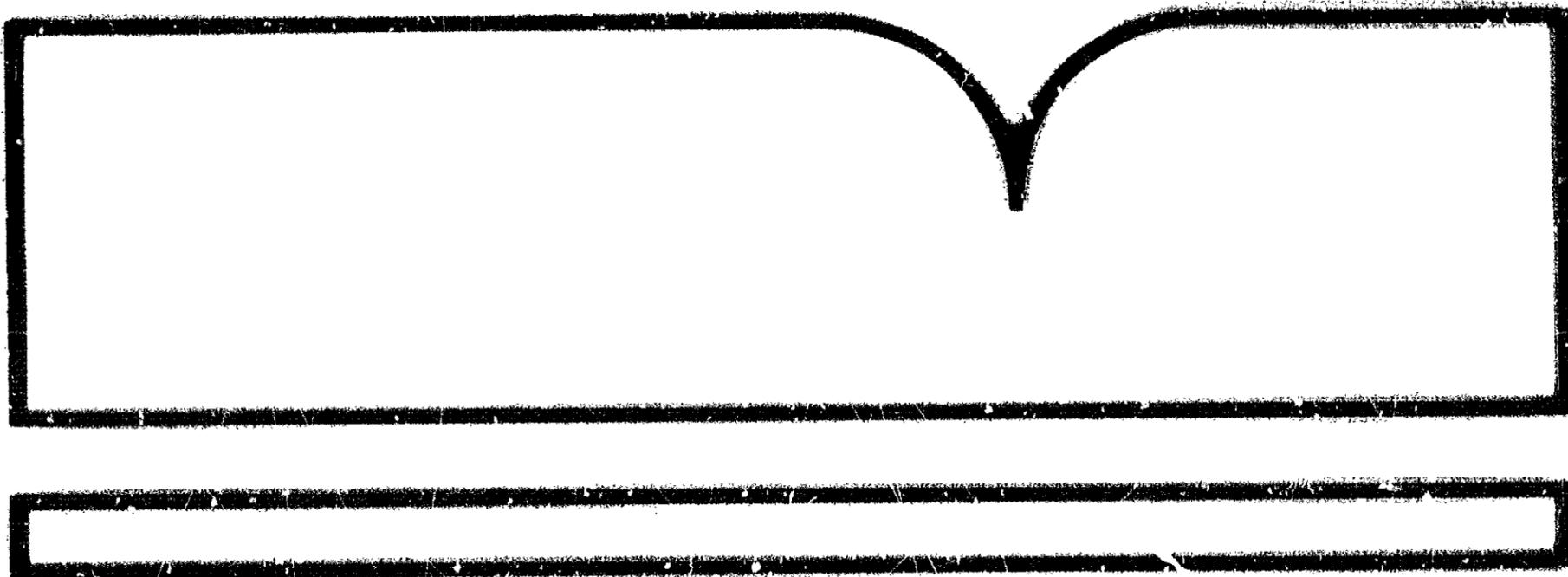


PB88-910407

Aircraft Accident/Incident Summary  
Report-Copperhill, Tennessee  
February 22, 1986

(U.S.) National Transportation Safety Board  
Washington, DC

30 Mar 88



U.S. Department of Commerce  
National Technical Information Service

**NTIS**

TECHNICAL REPORT DOCUMENTATION PAGE

1. Report No. NTSB/AAR-88/02/SUM	2. Government Accession No. PB88-910407	3. Recipient's Catalog No.	
4. Title and Subtitle Aircraft Accident/Incident Summary Reports		5. Report Date March 30, 1988	
		6. Performing Organization Code	
7. Author(s)		8. Performing Organization Report No.	
9. Performing Organization Name and Address National Transportation Safety Board Bureau of Accident Investigation Washington, D.C. 20594		10. Work Unit No. 4764	
		11. Contract or Grant No.	
		13. Type of Report and Period Covered Aircraft Accident/Incident Summary Report, 1986	
12. Sponsoring Agency Name and Address  NATIONAL TRANSPORTATION SAFETY BOARD Washington, D. C. 20594		14. Sponsoring Agency Code	
15. Supplementary Notes			
16. Abstract  This report is a summary of an aircraft accident investigated by the National Transportation Safety Board. The accident location and date is Copperhill, Tennessee, February 22, 1986.			
17. Key Words  on-demand air taxi operations; instrument flight rules; alcohol abuse		18. Distribution Statement This document is available to the public through the National Technical Information Service, Springfield, Virginia 22161	
19. Security Classification (of this report) UNCLASSIFIED	20. Security Classification (of this page) UNCLASSIFIED	21. No. of Pages 8	22. Price



**National  
Transportation  
Safety Board**

Washington, D.C. 20594

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## **AIRCRAFT ACCIDENT/INCIDENT SUMMARY**

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File No.:	700
Operator:	K-Airways, Inc., Kenosha, Wisconsin
Type and Registration:	Beech G-18S, N74FA
Location:	Near Copperhill, Tennessee
Date and Time:	February 22, 1986, 0730 eastern standard time
Persons on Board:	1 (pilot)
Injuries:	1 fatal
Damage:	Destroyed
Other Damage:	Trees
Type of Occurrence:	Collision with trees and ground
Phase of Operation:	Maneuvering

About 0630 central standard time <sup>1/</sup> on February 22, 1986, a Beech G-18S, N74FA, registered to and operated by K-Airways, Inc., collided with trees and mountainous terrain during maneuvering flight near the Martin Campbell Airport, Copperhill, Tennessee, while on an on-demand air taxi (14 CFR Part 135) flight. Instrument meteorological conditions existed at the time, and the pilot had filed an instrument flight rules (IFR) flight plan. The airplane was destroyed and the pilot, the sole occupant, was fatally injured.

About 0100 on February 22, 1986, the company manager of K-Airways, Inc., notified the pilot of a duty assignment at Milwaukee, Wisconsin. The company manager reported that the pilot departed Kenosha, Wisconsin, his home base, and arrived at Milwaukee General Billy Mitchell Field about 0200. The airplane arrived in Milwaukee about 0230. Freight was loaded aboard the airplane, and at 0309, the pilot contacted the Milwaukee tower for the runway information and altimeter setting. The pilot told the controller that he would be flying under visual flight rules to DeKalb-Peachtree Airport, Atlanta, Georgia. The flight departed Milwaukee at 0310. Shortly after takeoff, the pilot radioed the dispatcher for D&H Flying Service in Kenosha and obtained weather information he had previously requested for his flight to Atlanta.

Between 0338 and 0403, the pilot communicated with several air traffic facilities, including the Chicago Flight Service Station and the Chicago Air Route Traffic Control Center (ARTCC). The pilot filed an IFR flight plan with the Chicago ARTCC after it reportedly failed to find a flight plan that the pilot claimed to have previously filed. At 0433, the Chicago ARTCC requested that N74FA change frequencies; the pilot complied. About 0438, N74FA was instructed to contact the Indianapolis ARTCC. Communications were intermittent between ground facilities and N74FA after the exchange. While handing control to the Atlanta ARTCC, the Indianapolis ARTCC notified the Atlanta ARTCC that N74FA should be considered NORDO (no radio), since "he just calls when he wants to." No evidence was found that the pilot ever attempted to institute lost communications procedures either by use of his transponder or other means. (See figure 1.)

<sup>1/</sup> All times herein are central standard time according to the 24-hour clock.

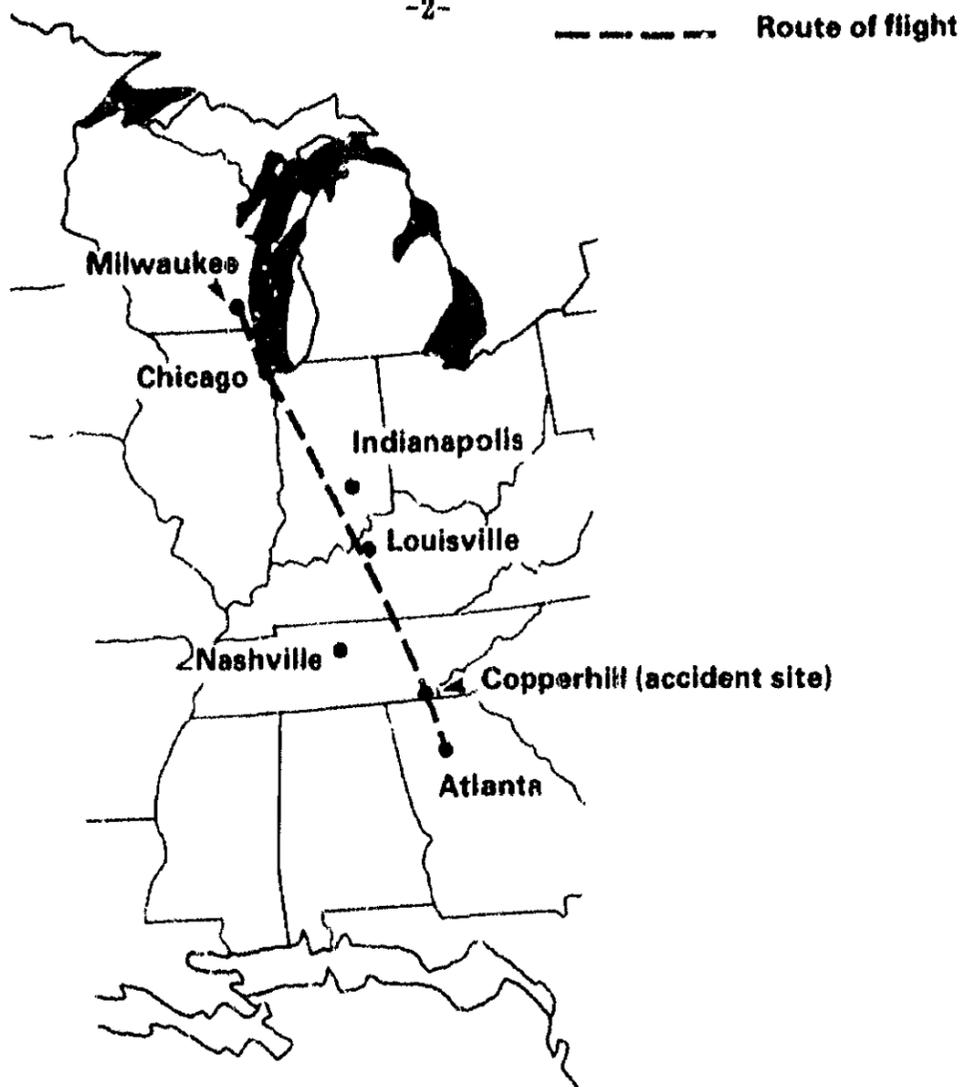


Figure 1.--Route of flight of accident airplane.

From the radar National Track Analysis Program (NTAP) data, beginning at 0524, N74FA maintained a track generally paralleling Victor airway 513 until reaching a position about 3 nautical miles east of the Livingston, Tennessee, VHF omnidirectional radio range (VOR) station. The ground track was on an approximate bearing of 157 degrees, and the altitude data indicated that the airplane maintained 11,000 feet until 0527, when it descended to 10,900 feet. The airplane maintained that altitude until 0621, when it again began to descend. At 0627:46 radar contact was lost; the altitude readout indicated 2,900 feet at that time. A ground witness who saw the airplane flying level just under the clouds described the engines as sounding "like they were throttled back." He reported hearing no abnormal noises from the engines. The witness stated that after the airplane passed from view he heard a sharp noise, followed by a thunder-like sound. About 0630, the airplane collided with trees and mountainous terrain and burned. Weather conditions in the area were described as low clouds and fog. The witness stated that the mountain was visible and unobscured.

The airplane, a 1960 Beech model C-18S, N74FA, serial No. BA504, was registered to and operated by K-Airways, Inc., of Kenosha as an on-demand air taxi freight. The airplane records reportedly were kept on the airplane. Available records and reasonable estimates were used to determine that appropriate maintenance had been performed on the accident airplane. A postaccident examination of the wreckage failed to disclose any evidence of preimpact failure or malfunction of the airplane or its systems. The postcrash fire destroyed most of the wreckage.

At the time of the accident, the pilot served as the chief and primary company pilot and was on call 24 hours a day, Monday through Saturday. He carried an electronic paging device when away from the airport so that the operator could contact him for duty assignments. He had been employed by K-Airways, Inc., since January 1983.

The pilot held Airline Transport Pilot Certificate No. 356423791, with airplane multiengine land and commercial single-engine land ratings. He held a second class medical certificate with the restriction that he must wear corrective lenses. Waiver No. 07715 had been issued to him for distance and color vision deficiencies.

On his last application for a medical certificate, the pilot indicated that he had a total of 6,800 hours flight time and had accumulated 500 hours in the past 6 months. His employer estimated that at the time of the accident the pilot had 7,500 hours total time and 2,500 hours in the Beech 18. A review of his flight and training records for 1984 and 1985 indicated that the pilot had over 5,800 hours total flight time, over 5,000 hours cross-country, over 1,500 hours night, and over 800 hours instrument pilot time. According to an entry on the training record, his last flight check in the Beech 18 was conducted on August 6, 1985. His last Part 135 flight check was conducted on January 30, 1986, and was completed in a Cessna 207.

According to the company manager, most of the pilot's assignments were night flights. He was known to stay up late at night watching television or reading and to sleep late in the morning, frequently being awakened after 1100. He lived alone in a room in the upper level of the K-Airways hangar at the Kenosha airport. The owner of K-Airways stated that this arrangement was convenient for the company as well as the pilot.

Safety Board investigators reconstructed the pilot's activities during the 24 hours before the accident. The pilot awakened about 0900 on February 21. Between 0900 and 1800, the pilot and company manager spent the majority of the workday together, which included a round-trip flight to Michigan during the morning. At 1800, the pilot took a taxi from the airport to a bar in Kenosha. During the next few hours, the pilot had conversations with two bartenders who reported that the pilot complained of being tired. Both bartenders recalled that the pilot fell asleep on the bar several times and had to be awakened. He left the bar sometime between 2300 and 2400.

The pilot was met at the Kenosha airport by a dispatcher for D&H Flying Service who stated that the pilot complained of being called away from a meal in Kenosha to make the flight. The dispatcher said that the pilot acted somewhat "odd," that he did not look at the dispatcher while speaking, and that he answered questions in one or two words.

Toxicological analysis of a blood specimen obtained from the pilot's remains revealed an ethyl alcohol concentration of 0.158 percent at the time of death. The elapsed time from departing Kenosha to the time of the accident was about 4 hours 30 minutes. No other drugs were detected in the sample.

Copies of the pilot's driving records were obtained from the States of Wisconsin and Illinois. The records revealed that his driver's license had been revoked on January 8, 1980, following a conviction for leaving the scene of an accident in September 1979 that resulted in death or personal injury. His driver's license remained continuously revoked as a result of 20 traffic violation convictions that were recorded during a 4 1/2-year period between February 2, 1980, and September 10, 1984. The convictions included seven driving while revoked, two driving without a license, two speeding, one stop sign, one reckless driving, and seven driving while intoxicated (DWI).

The pilot was officially identified as a habitual traffic offender on June 3, 1985, and his license was revoked for 5 years.

As a result of the fifth conviction for DWI (blood alcohol concentration (BAC) of 0.20 percent), the pilot was incarcerated in the Kenosha County Detention Center for 30 days during April and May 1983. He was again incarcerated for 5 months between January and May 1985 following the seventh conviction for DWI. This conviction was a result of a September 10, 1984, accident; at the time of arrest, he had a BAC of 0.26 percent.

His employer was clearly aware of the pilot's alcohol-related problems, probably first coming to the attention of the president of the company in April 1983, 3 months after the pilot had been hired. Following his fifth drunk driving conviction and during two other periods of incarceration in 1984 and 1985, following drunk driving-related charges or convictions, the management of K-Airways used the services of the pilot while in work-release status. Reportedly in 1984, the pilot was warned that his employment at K-Airways would be terminated if his problem continued. The owner and the company manager stated that they were able to monitor the pilot's activities by permitting him to live at the hangar.

According to his ex-wife, the pilot had been evaluated by a professional counselor in 1978 and had been determined to be in the advanced stages of alcoholism. In September 1981 and January 1985 following convictions for DWI, the pilot underwent court-ordered alcohol assessment and treatment by a certified alcohol counselor. The counselor reported that the pilot used alcohol irresponsibly, that he was suspected of alcohol dependency, and that his drinking pattern involved recurrent use of alcohol in early chronicity. The pilot satisfactorily completed out-patient programs after these assessments. The Safety Board believes that the pilot was a chronic alcohol abuser and that he suffered from alcohol dependency.

Following the seventh DWI arrest in Kenosha during September 1984, an assistant city attorney (ACA) filed a formal complaint with the Federal Aviation Administration's (FAA) Great Lakes Regional Office. The attorney was concerned about the obvious conflict between the pilot's driving history and his professional flight duties. An investigator assigned to the FAA Office of Civil Aviation Security interviewed the attorney on September 24, 1984, and obtained a copy of the pilot's driving record. The FAA Flight Standards District Office (FSDO) in Milwaukee, which maintained the K-Airways operating certificate, was not advised of the FAA investigation of the pilot or of his history. In an attempt to determine the status of the investigation, the attorney contacted the FAA investigator and inquired about the status of the investigation three times during subsequent months. The FAA investigator told a Safety Board investigator that the investigation had been discontinued due to "other more serious investigative assignments." During Safety Board inquiries into the matter, the Milwaukee FSDO was made aware of the situation.

Upon receipt of the attorney's complaint, an FAA review of the pilot's medical certificate applications would have discovered fraudulent entries and may have resulted in the identification of the pilot as an alcohol abuser. Such action also may have affected the pilot's medical certificate and his fitness to fly.

At the time of the accident, the pilot had not slept for 21.5 hours. He had flown in a company aircraft for approximately 3 hours at the beginning of this period. The pilot complained of exhaustion or fatigue on several occasions during the 2 days preceding the accident and within hours of notification and departure on the accident flight. The 3-hour

20-minute flight (departure to accident) was conducted primarily at night, using instrument procedures, and at 11,000 feet without oxygen. The company manager was apparently willing to accept the risk that the pilot could make the flight safely even though he should have known that the pilot had received little or no rest during the previous 16 hours.

The pilot had consumed alcoholic beverages in the hours before the flight and based on the toxicological analyses was under the influence of alcohol while operating the airplane. It is probable that mild hypoxia exacerbated by the pilot's heavy smoking habit significantly intensified the adverse effects of alcohol intoxication.

Although the FAA was alerted to the pilot's extensive history of alcohol abuse and K-Airways was aware of his problem for 3 years, the pilot continued to conduct Part 135 flights. The pilot had been examined regularly by FAA-designated aviation medical examiners. However, 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 attached brief of accident contains the Safety Board's conclusions, findings of probable cause, and related factors.

**BY THE NATIONAL TRANSPORTATION SAFETY BOARD**

/s/ JIM BURNETT  
Chairman

/s/ PATRICIA A. GOLDMAN  
Vice Chairman

/s/ JOHN K. LAUBER  
Member

/s/ JOSEPH T. NALL  
Member

/s/ JAMES A. KOLSTAD  
Member

February 20, 1988

National Transportation Safety Board  
Washington, D.C. 20594

Brief of Accident

File No. - 700      2/22/86      COPPERHILL, TN      A/C Reg. No. N74FA      Time (Lcl) - 0730 EST

-----Basic Information-----

Type Operating Certificate - ON-DEMAND AIR TAXI	Aircraft Damage	Injuries			
Name of Carrier - N AIRWAYS, INC.	DESTROYED	Fatal	Serious	Minor	None
Type of Operation - NON SCHED. DOMESTIC CARGO	Fire	1	0	0	0
Flight Conducted Under - 14 CFR 135	ON GROUND	Crew	0	0	0
Accident Occurred During - DESCENT		Pass	0	0	0

-----Aircraft Information-----

Make/Model - BEECH G19S	Eng Make/Model - PIW R-985-AN-14B	ELT Installed/Activated - YES-UNK/NR
Landing Gear - TAILWHEEL-ALL RETRACTABLE	Number Engines - 2	Stall Warning System - YES
Max Gross Wt - 9700	Engine Type - RECIPROCATING-CARSURETOR	
No. of Seats - 2	Rated Power - 450 HP	

-----Environment/Operations Information-----

<b>Weather Data</b>	<b>Itinerary</b>	<b>Airport Proximity</b>
Wx Briefing - FSS	Last Departure Point - MILWAUKEE, WI	OFF AIRPORT/STRIP
Method - ACFT RADIO	Destination - ATLANTA, GA	<b>Airport Data</b>
Completeness - FULL	ATC/Airspace	MARTIN CAMPBELL
Radio Weather - UNK/NR	Type of Flight Plan - IFR	Runway Ident - N/A
Wind Dir/Speed - 060/005 KTS	Type of Clearance - IFR	Runway Lth/Wid - N/A
Visibility - 7.0 SM	Type Arch/Lnds - NONE	Runway Surface - N/A
Lowest Sky/Clouds - UNK/NR		Runway Status - N/A
Lowest Ceiling - UNK/NR		
Obstructions to Vision - UNK/NR		
Precipitation - UNK/NR		
Condition of Light - DAWN		

-----Personnel Information-----

<b>Pilot-In-Command</b>	Age - 36	Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT
Certificate(s)/Rating(s)	Biennial Flight Review	Flight Time (Hours)
COMMERCIAL, ATP	Current - YES	Total - 7500
CE LAND, ME LAND	Months Since - 1	Make/Model - 2500
	Aircraft Type - C-207	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 PLY WAS ALERTED AT 0100 FOR 0200 FLT FM KENOSHA TO MILWAUKEE, WI TO PICK UP CARGO FOR A FLT TO ATLANTA, GA. AT 0310, THE ACFT DEPTD MILWAUKEE IN VFR. EN ROUTE, THE PLY OBTAINED WX & AN IFR CLNC. SOME OF HIS RDO XMSNS WERE NOT STANDARD. AT 0442, HE COMPLIED WITH ATC REQUEST FOR FREQ CHG, BUT HIS RDO XMSNS WERE NOT CLEAR. APRX 5 MIN LATER, ATC ASKED THE PLY TO CHG FREQ AGAIN, BUT 5 CALLS WERE MADE BFR HE REPLIED. HIS LAST XMSN WAS AT 0445:48; HE DIDN'T RESPOND TO FURTHER ATC CALLS. THE ACFT CONTD CRUISING AT 11,000' UNTIL 0621, THEN IT DSCND W/O CLNC. RADAR CONTACT WAS LOST AT 0627 CST (0727 EST). SHORTLY THEREAFTER, IT IMPACTED TREES ON A MTN, THEN CRASHED TO THE GND & BURNED. A WITNESS BELIEVED THE ENGS WERE THROTTLED BACK BFR IMPACT. ALSO, THE WITNESS RPRTD LOW CLDS & FOG, BUT SAID THE MTN WAS VISIBLE & WAS NOT OBSCURED. THE PLY HAD A 0.158% BAC, NO SLEEP FOR 21.5 HRS, HISTORY OF ALCOHOL ABUSE, 7 PRIOR DWI CONVICTIONS (& NDR SEC). ALSO, HE FALSIFIED FAA MEDICAL APPLICATIONS. FAA WAS ADVISED IN 1984, BUT TOOK NO ACTION.

Brief of Accident (Continued)

File No. - 700

2/22/86

COPPERHILL, TN

A/C Reg. No. N74FA

Time (Lcl) - 0730 EST

Occurrence #1      LOSS OF CONTROL - IN FLIGHT  
Phase of Operation      CRUISE - NORMAL

Findings(s)

1. PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
2.      PHYSICAL IMPAIRMENT(ALCOHOL) - PILOT IN COMMAND
3.      IMPROPER USE OF PROCEDURE, FATIGUE - PILOT IN COMMAND
4.      IMPROPER USE OF PROCEDURE, FATIGUE(FLIGHT SCHEDULE) - COMPANY/OPERATOR MGMT
5.      INSUFFICIENT STANDARDS/REQUIREMENTS, OPERATION/OPERATOR - COMPANY/OPERATOR MGMT
6.      INADEQUATE SURVEILLANCE OF OPERATION - FAA(ORGANIZATION)
7. JUDGEMENT - POOR - PILOT IN COMMAND
8.      IMPROPER DECISION, COMPANY-INDUCED PRESSURE - COMPANY/OPERATOR MGMT
9. PROCEDURES/DIRECTIVES - NOT FOLLOWED - PILOT IN COMMAND
10. DESCENT - UNCONTROLLED - PILOT IN COMMAND
11. IMPROPER USE OF EQUIPMENT/AIRCRAFT, FATIGUE(LACK OF SLEEP) - PILOT IN COMMAND

Occurrence #2      IN FLIGHT COLLISION WITH OBJECT  
Phase of Operation      DESCENT - UNCONTROLLED

Findings(s)

12. TERRAIN CONDITION - MOUNTAINOUS/HILLY
13. OBJECT - TREE(S)

Occurrence #3      IN FLIGHT COLLISION WITH TERRAIN  
Phase of Operation      DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,7,10

Factor(s) relating to this accident is/are finding(s) 3,4,5,6,8,9,11