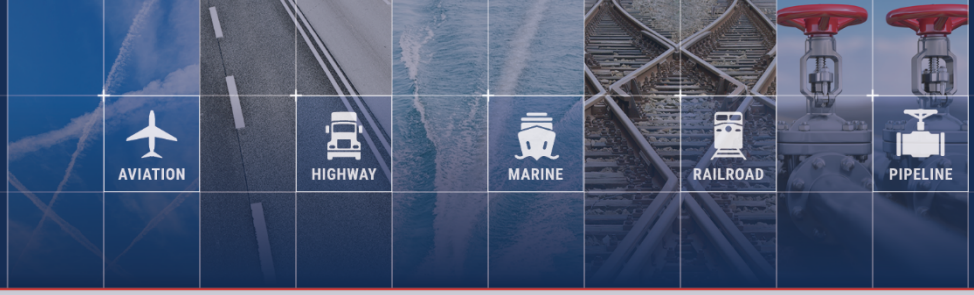

Aviation Investigation Final Report

Location:	ANDREWS, North Carolina	**Accident Number:**	MIA97FA097
Date & Time:	March 14, 1997, 20:41 Local	**Registration:**	N8857P
Aircraft:	Piper PA-24-260	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot did not obtain a formal weather briefing before departure. While en route during an IFR flight, the pilot changed his destination. The flight proceeded to a nearby VOR, then nearly over the airport, and after flying past the airport the pilot advised the controller that he would orbit in that area to look for a break in the clouds. He observed a hole in the clouds, so advised the controller, and canceled his IFR clearance. While descending over mountainous terrain, the airplane first collided with trees on the upslope side of the mountain about 3,200 feet mean sea level. The airplane continued descending in a left wing low attitude and collided with the downslope side of the mountain. Examination of the airplane and engine revealed no evidence of preimpact failure or malfunction. The weather at the destination airport, with an elevation of 1,700 feet, and about 41 minutes before the crash, was a broken ceiling of about 2,000 feet above ground level, as reported by a pilot-witness.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's poor in-flight planning in attempting to maintain VFR conditions at night over mountainous terrain, and his failure to maintain clearance from the mountain. Contributing to the accident was: the pilot's inadequate preflight planning for not obtaining a formal weather briefing, and his self-induced pressure to arrive before a specific time for the start of a planned event.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - NORMAL

Findings
1. (F) PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
2. (C) IN-FLIGHT PLANNING/DECISION - POOR - PILOT IN COMMAND
3. LIGHT CONDITION - DARK NIGHT
4. TERRAIN CONDITION - MOUNTAINOUS/HILLY
5. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
6. (F) SELF-INDUCED PRESSURE - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT

On March 14, 1997, about 2041 eastern standard time, a Piper PA-24-260, N8857P, registered to a private individual, crashed into the Joanna Bald Mountain about 3 nautical miles north-northeast of the Andrews-Murphy Airport, Andrews, North Carolina. Instrument meteorological conditions prevailed at the time and an instrument flight rules flight plan was filed for the 14 CFR Part 91 personal flight. The airplane was destroyed and the commercial-rated pilot and one passenger were fatally injured. The flight originated about 1954, from the William B. Hartsfield Atlanta International Airport, Atlanta, Georgia.

According to a transcript of Air Traffic Control (ATC) communications with the Atlanta Air Route Traffic Control Center (ARTCC), after departure about 2006.37, the pilot requested that the destination in his IFR flight clearance be changed to the Andrews-Murphy (6A3) airport. The route of flight requested was direct to the Harris VORTAC then direct to the 6A3 airport. The clearance was granted and the aircraft was cleared to climb to 7,000 feet at the request of the pilot. At 2027.30, the pilot asked the controller what the minimum en route altitude (MEA) was to which the controller responded 7,000 feet. The controller then asked the pilot if he was familiar with cruise clearances to which the pilot responded affirmative but the flight was currently on top of an overcast layer. The controller then advised the pilot that the lowest altitude approved for that area was 7,000 feet to which the pilot responded, "ok we'll just keep going until we get over the airport then we'll take a look at it." The controller then asked twice if the flight was above the overcast layer and at 2032.13, the pilot stated "uh yeah we we've right in the uh we're ifr right now imc but uh keeps looking like it's gonna break up uh i know we're about 10 miles south of the airport." The controller called four times for the pilot, and after the fourth attempt at 2036.50, the pilot acknowledged. At 2036.53, the controller advised the pilot that, "...I show you uh about 2 miles north of the airport now sir say your attentions." The pilot responded 6 seconds later with, "yes sir uh we are losing contact with you uh but uh we're gonna circle right here for just a second." Then at 2037.11, the pilot stated, "think we uh found us a hole we gonna search over here just for a second." The controller acknowledged this and advised the pilot to maintain 7,100 feet which the pilot acknowledged after the controller repeated the request twice. At 2038.48, the pilot advised the controller, "atlanta commanche five seven papa cancel the IFR" which the controller acknowledged receiving the VFR squawk. The pilot then thanked the controller and there was no further radio contact with the accident flight. There were no known witnesses to the accident.

According to the owner of a bed and breakfast lodge located in Murphy, North Carolina, where the pilot, his passenger (fiance), relatives, and friends were scheduled to stay the weekend, the pilot called him at about 1830 from Atlanta, Georgia, and asked where the closest airport was located. He advised the pilot that the Andrews-Murphy airport was the

closest. The pilot did not inquire what the weather conditions were like but the owner stated that at 1900 hours, the sky was overcast and it was drizzling there. He was at the airport between 2100 and 2300 hours and he reported that at 2100, he could see the airport beacon and the taxiway lights were illuminated. At that time he could see the stars and the weather was clear. About 2230, he heard an airplane fly over the airport but he did not see it. He initiated calls to the Robins Air Force Base, and several flight service stations, which initiated first ramp searches then finally a formal search the following morning at first light. The airplane was located the following afternoon. The bed and breakfast owner further stated that the events planned for the weekend were scheduled to begin at 2100 hours the evening of the accident but would not actually start until the arrival of the pilot and his fiance.

Review of the transcript of communications and the dart track from the Atlanta Air Route Traffic Control Center for the time 2013.36, revealed that about that time the pilot advised the controller that the flight was climbing through 6,500 feet and the reported altitude indicated by the dart track was 6,400 feet.

PERSONNEL INFORMATION

Review of the pilot's pilot logbook revealed that his last logged flight was on April 26, 1996, and he was given a biennial flight review (BFR) in the accident airplane in June of 1994. There was no other entry in the logbook which indicates that a BFR was received. Review of paperwork revealed that he did log each flight by date, duration, and airport identifiers from before the April 26, 1996, entry, until the flight to Atlanta, earlier that day. There was no entry in that paperwork which indicates that a BFR was received from June of 1996, until the day of the accident. Review of insurance paperwork dated March 6, 1997, revealed that he indicated receiving a BFR on January 31, 1997, at the Robins Aero Club. He did indicate on paperwork a 3.3 hour flight that day from the Robins Air Force base to the Greene County Airport in Dayton Ohio. There was no record at the Robins Air Force Base flying club that the pilot received a BFR that day. No determination could be made as to instrument currency.

AIRCRAFT INFORMATION

Information pertaining to the airplane is contained on page 2 of the Factual Report-Aviation. Review of the aircraft logbooks revealed that the static system and transponder were tested and certified on March 13, 1996. Further review of the logbooks revealed that the airplane and engine were last documented as being inspected on February 10, 1996. Review of paperwork indicates that the annual inspection was due in March 1997, and the airplane IFR certification was due in March 1998.

METEOROLOGICAL INFORMATION

Information pertaining to the weather is contained on page 4 of the Factual Report-Aviation. Additionally, according to the airport manager who has flown out of the Andrews-Murphy airport for 50 years and has accumulated over 21,000 flight hours, on the day of the accident, a

cold front had passed through with associated rain and low variable ceilings up and down the mountains most of the day. By late afternoon there were scattered showers and broken clouds with visibilities of 5-7 miles. He further stated that just before dark, the broken clouds were down on the mountain to about 3,500 to 4,000 feet mean sea level with 5-7 miles visibility and the wind velocity was 8-10 knots. The airport elevation is 1,700 feet mean sea level.

Review of the aerodrome forecast for the Mcgee Tyson airport issued on the day of the accident at 1730 local for the period from 1800 the day of until 1800 the following day, revealed in part that broken clouds were forecast to exist at 3,000 and 7,000 feet. According to the area forecast for the mountains of North Carolina revealed that a layer of broken clouds were forecast to exist between 3,000 and 4,000 feet.

The pilot did not receive a weather briefing either through the base meteorology office or through the Direct User Access Terminal (DUAT) for the proposed flights. The only known documentation of the pilot obtaining weather information is before departure from the Atlanta airport, where he looked at the weather radar at the Fixed Base Operator's (FBO) facility.

COMMUNICATIONS/RADAR DATA

A transcript of communications while in contact with the Atlanta Air Route Traffic Control Center is an attachment to this report.

AERODROME INFORMATION

The airport does not have an instrument approach and is equipped with a rotating beacon which was operational on the evening of the accident according to the airport manager and an individual who was at the airport to meet the flight.

WRECKAGE AND IMPACT INFORMATION

Examination of the crash site revealed that the airplane collided with the tops of trees located about 3,200 feet mean sea level on the upslope side of a mountain just below a ridge line. The airplane continued descending over the ridge line colliding with trees and while on a magnetic heading of about 275 degrees in an angle of bank about 45 degrees to the left, the airplane impacted the downslope side of the mountain. The airplane continued descending down the mountain while continuously colliding with trees. Segments of the left and right wings were located on the south and north of the wreckage path respectively. The main wreckage which consisted of the wing center section, partial section of the attached right wing, and empennage was located downslope about 100 feet from the initial impact with the trees on the ridge line. The main wreckage segment was resting facing uphill. The propeller which was found at the initial impact crater 40 feet from the initial tree impact was examined and found to contain evidence of torsional twisting with chordwise and spanwise scratches. The engine rudder flight control bar, the control column, and portion of the instrument panel were located 335 feet down the mountain from the initial impact point. The flaps and landing

gear were determined to be retracted and examination of the flight controls revealed no evidence of preimpact failure or malfunction. There was no evidence of fire and the smell of fuel was noted postcrash.

On site examination of the engine revealed that the crankshaft flange was bent but crankshaft, camshaft, valve train continuity, and thumb compression were confirmed. The magnetos which were tight on the accessory case were removed and when rotated by hand, the right magneto sparked from all ignition towers. Impact damage to the condenser of the left magneto prevented operation. Installation of the right magneto condenser into the left magneto and hand operation of the magneto revealed spark at all of the ignition towers. A trace of fuel was noted in the fuel injector nozzle lines and the fuel injector nozzles were determined to be free of obstructions. The servo fuel injector was not located. The engine driven fuel pump which was impact damaged was examined and the lever arm was operated by hand and found to operate normally. A smell of fuel was noted in the pump. Impact damage to the vacuum pump was noted and the drive coupling was not failed.

MEDICAL AND PATHOLOGICAL INFORMATION

Postmortem examinations of the pilot and passenger were performed by Deborah L. Radisch, M.D., Pathologist and Robert L. Thompson, M.D., Pathologist, Office of the Chief Medical Examiner, Chapel Hill, North Carolina. The cause of death for the pilot and passenger were listed as multiple blunt traumatic injuries and multiple extreme mutilating injuries respectively. A toxicological analysis of specimens of the pilot was performed by the FAA Accident and Research Laboratory. The results were negative for tested drugs. Testing for cyanide and carbon monoxide was not performed due to a lack of suitable specimen. Ethanol and associated by-products found during the tests is attributed to postmortem production.

ADDITIONAL INFORMATION

The wreckage was released to Lt. Ray Amos of the Cherokee County Sheriff Department on March 18, 1997.

Pilot Information

Certificate:	Commercial	**Age:**	38,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	March 14, 1995
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	2766 hours (Total, all aircraft), 2438 hours (Total, this make and model), 2687 hours (Pilot In Command, all aircraft), 71 hours (Last 90 days, all aircraft), 11 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N8857P
Model/Series:	PA-24-260 PA-24-260	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	24-4314
Landing Gear Type:	Retractable - Tricycle	**Seats:**	6
Date/Type of Last Inspection:	February 10, 1996 Annual	**Certified Max Gross Wt.:**	3100 lbs
Time Since Last Inspection:	326 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	5680 Hrs	**Engine Manufacturer:**	Lycoming
ELT:	Installed	**Engine Model/Series:**	IO-540-D4A5
Registered Owner:	PAUL J. MANSOUR	**Rated Power:**	260 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Night/dark
Observation Facility, Elevation:	TYS ,981 ft msl	**Distance from Accident Site:**	35 Nautical Miles
Observation Time:	20:53 Local	**Direction from Accident Site:**	349°
Lowest Cloud Condition:	Unknown	**Visibility**	10 miles
Lowest Ceiling:	Broken / 2800 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	11 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	300°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	9°C / 4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	ATLANTA , GA (ATL)	**Type of Flight Plan Filed:**	IFR
Destination:	(6A3)	**Type of Clearance:**	VFR
Departure Time:	19:53 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	ANDREWS-MURPHY 6A3	**Runway Surface Type:**	
Airport Elevation:	1700 ft msl	**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	1 Fatal	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Fatal	**Latitude, Longitude:**	35.189506,-83.8199(est)

Administrative Information

Investigator In Charge (IIC):	Monville, Timothy
Additional Participating Persons:	RICHARD C BORG; CHARLOTTE , NC
Original Publish Date:	April 10, 1998
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=38137