



National Transportation Safety Board Aviation Accident Final Report

Location:	LEHI, UT	Accident Number:	SEA96FA036
Date & Time:	01/01/1996, 1815 MST	Registration:	N8870W
Aircraft:	Piper PA-28-235	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The instrument-rated commercial pilot received a weather briefing for a VFR cross-country flight. The briefer described deteriorating VFR conditions along the pilot's route of flight, and the pilot elected not to file an IFR flight plan. The pilot departed on the flight and encountered dark night conditions in mountainous terrain near his destination. Lowering cloud ceilings and blowing snow were reported in the vicinity of the accident site about the time of the accident. The airplane impacted mountainous terrain near the top of a ridge about 20 miles from the intended destination. Radar data showed that the airplane had entered a climbing turn and was climbing through about 5000 feet msl when the last radar return was recorded. Elevation of the crash site was about 5000 feet. No distress calls or communications to ATC were made by the pilot, and no preimpact mechanical malfunction was found.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: continued VFR flight by the pilot into instrument meteorological conditions (IMC), and his failure to maintain sufficient altitude and/or clearance from mountainous terrain. Factors relating to the accident were: darkness, low ceiling, and snow.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: CRUISE

Findings

1. (F) LIGHT CONDITION - DARK NIGHT
2. (F) WEATHER CONDITION - LOW CEILING
3. (F) WEATHER CONDITION - SNOW
4. (C) VFR FLIGHT INTO IMC - CONTINUED - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: MANEUVERING

Findings

5. TERRAIN CONDITION - MOUNTAINOUS/HILLY
6. (C) ALTITUDE/CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT

On January 1, 1996, about 1815 mountain standard time, N8870W, a Piper PA-28-235, collided with mountainous terrain and was destroyed near Lehi, Utah, while maneuvering. The commercial pilot, the sole occupant, was fatally injured. Instrument meteorological conditions (IMC) prevailed and no flight plan had been filed. The personal flight departed from St. George, Utah, about 1630 and was destined for West Jordan, Utah. The flight was conducted under 14 CFR 91.

According to the FAA, the pilot received a weather briefing from the Cedar City FAA Flight Service Station (FSS) via telephone at 1424 (transcript attached). The briefing ended six minutes later at 1430. The pilot was told by the FSS briefer that an AIRMET existed for "possible mountain obscuration" along the pilot's intended route of flight. The briefer also stated:

... forecast for Salt Lake for your arrival time [is for sky conditions of] two thousand [feet agl] scattered, [cloud] ceiling four thousand [feet agl] overcast, light snow showers in the vicinity with an occasional ceiling of two thousand [feet agl] broken that's valid [until 1900 hours] and then some lowering ceilings and show showers after that...

After receiving the briefing, the pilot told the briefer: "Well, it looks like I could probably go up there at least give her a look. It doesn't sound too bad." The pilot then departed from Colorado City, Arizona, en route to Salt Lake City International Airport to meet an acquaintance. He intended on flying back to Colorado City that evening.

According to a line service person, the pilot arrived at the St. George Municipal Airport, Utah, about 1600. The pilot had the accident airplane "topped off" with 60.7 gallons of automotive gasoline. The line service person reported that the pilot did not indicate any problems with himself or the airplane. The airplane was then observed to depart the St. George Municipal Airport about 1630.

According to recorded radar data (attached) from the FAA Air Traffic Control (ATC) facility at the Salt Lake City International Airport, four radar returns were recorded about 1.5 nautical miles south of the accident site about the time of the accident. The radar returns were recorded at 1811 hours and were marked by a "1200" beacon code. The returns indicated a climb from 4,800 feet above mean sea level (msl) to 5,000 feet msl, and a right turn from a magnetic heading of 313 degrees to 001 degrees.

No radio distress calls or communications of any kind from the accident airplane were reported or recorded by ATC.

Later that evening, an emergency locator transmitter beacon was received by local authorities. The wreckage was located about 20 nautical miles south of the destination airport at an elevation of 5,000 feet msl along a mountain ridge.

The accident occurred during the hours of darkness at the following coordinates: 40 degrees, 27.39 minutes North; 111 degrees, 54.55 minutes West.

PERSONNEL INFORMATION

The pilot, age 63, held an FAA certified flight instructor certificate with ratings for airplane

single engine land airplanes, multiengine land airplanes, and instrument airplanes. According to FAA records, the pilot was issued an FAA Second Class Medical Certificate on December 29, 1994, with the limitation that he "must wear corrective lenses."

An examination of a copy of the pilot's flight logbook revealed that the pilot had logged a total of 4,904 hours of total flight time, including 3,012 hours of instruction given, 240 hours at night, 273 in simulated or actual instrument conditions, and 227 in type. During the 90 days previous to the accident, the pilot had logged a total of 5.2 hours of flight in simulated or actual instrument conditions, and 22 hours of night flight

METEOROLOGICAL INFORMATION

According to a Salt Lake City International Airport automatic terminal information service (ATIS) report issued 25 minutes prior to the accident, "snow showers of unknown intensity southwest through west" were reported. The report also stated that scattered cloud layers were located at 1,500 feet and 3,600 feet above ground level (agl), with a measured overcast cloud ceiling of 5,000 feet agl. (The field elevation at Salt Lake City International Airport is 4,227 feet msl. The elevation of the accident site was 5,000 feet msl.)

According to a report filed by the Utah County Sheriff's Office (attached):

Witnesses in Lehi, and Highland indicated that there was a "white out" type snow squall that came south from a point beginning [about] 1715 [hours].... The squall was accompanied by high winds and horizontal snow creating a blizzard like condition. Upon my arrival in the area the roads were ice covered, and snow was on the north side of poles and trees. There had obviously been a brief but intense snow storm.... there was a small amount [of snow] on the wreckage strewn about. Dark night conditions existed at the time of the accident.

WRECKAGE AND IMPACT INFORMATION

The airplane wreckage was examined at the accident site one day after the accident on January 2, 1996.

The airplane came to rest near the top of a ridge, and the wreckage was distributed along a magnetic bearing of 052 degrees. The wreckage path was measured to be about 250 feet in length. The initial ground scar contained pieces of right wing tip fragments. A piece of nose landing gear fairing, left stabilator tip, left aileron balance weight, outboard portion of the right wing, left aileron, and baggage door were found, in that order along the wreckage path. The separated pieces were distributed along rising, flat terrain and led up to the aft fuselage and empennage, which was lying adjacent to the cockpit area, engine, propeller, and left wing.

No evidence of fire, explosion, or in-flight breakup was found. All primary and secondary flight control surfaces were accounted for at the accident site. No evidence was found to indicate a flight control deficiency. The mechanically-driven flap drive mechanism was examined; the mechanism was in the fully retracted position.

The cockpit throttle, fuel mixture, and propeller controls were found in the full forward position. The engine tachometer read 2,350 revolutions per minute. The electric clock was stopped at 6:15.

The engine, a Lycoming model O-540-B4B, and its accessories were partially disassembled and examined. The crankshaft could be easily rotated in each direction through 360 degrees of

rotation. Crankshaft drive and valve train continuity was verified for all six cylinders during propeller rotation. No evidence of fuel or oil contamination/blockage was evident. No preimpact mechanical malfunctions were noted with the engine or any of its associated accessories.

The two-bladed Hartzell metal propeller remained attached to the engine after the accident. It was then removed and examined. Both blades exhibited evidence of "S" bending and chordwise scratching.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot by Dr. Edward A. Leis, M.D., of the State of Utah Office of the Medical Examiner, Salt Lake City, on January 2, 1996. A toxicological analysis (attached) was performed on specimens taken from the pilot by the FAA Civil Aeromedical Institute, Oklahoma City, Oklahoma.

ADDITIONAL INFORMATION

The aircraft wreckage was released to Mr. Merrill Stubbs, Hildale, Utah, on January 2, 1996. Mr. Stubbs is representing the registered owner of the airplane.

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	63, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	12/29/1994
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	4904 hours (Total, all aircraft), 227 hours (Total, this make and model), 4789 hours (Pilot In Command, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N8870W
Model/Series:	PA-28-235 PA-28-235	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal; Utility	Serial Number:	28-10426
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	08/15/1995, Annual	Certified Max Gross Wt.:	2500 lbs
Time Since Last Inspection:	165 Hours	Engines:	1 Reciprocating
Airframe Total Time:	5442 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, aided in locating accident	Engine Model/Series:	O-540-B4B5
Registered Owner:	STUBBS, LARRY	Rated Power:	235 hp
Operator:	STUBBS, LARRY	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	0 Miles
Lowest Ceiling:	Unknown / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	300°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	1°C / 0°C
Precipitation and Obscuration:			
Departure Point:	ST GEORGE, UT (SGU)	Type of Flight Plan Filed:	None
Destination:	WEST JORDON, UT (U42)	Type of Clearance:	None
Departure Time:	1700 MST	Type of Airspace:	Class E

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC): JEFFREY B GUZZETTI **Report Date:** 12/10/1996

Additional Participating Persons: THOMAS ARNOLD; SALT LAKE CITY, UT
KRIS WETHERELL; FEDERAL WAY, WA
MARK PLATT; VAN NUYS, CA

Publish Date:

Investigation Docket: NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at <http://dms.nts.gov/pubdms/>.

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