



Aviation Investigation Final Report

Location: LANDER, Wyoming Accident Number: DEN99FA075

Date & Time: May 8, 1999, 06:45 Local Registration: N4582M

Aircraft: Piper PA-11 Aircraft Damage: Destroyed

Defining Event: 2 Fatal

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

The pilot and his passenger took off from Lander, Wyoming, and were en route to a ranch in the Bison Basin area, near Jeffrey City, Wyoming, to hunt coyotes. There is no record that the pilot received a weather briefing or filed a flight plan. The airplane impacted a ravine in open, rolling range land in a near vertical attitude and in close proximity to powerlines. The powerlines had not been severed or stretched, and there was no evidence of electrical arcing or wire transfer marks on the airplane. A shotgun, with an open breech and empty chambers, was recovered from the rear of the airplane. It had not been discharged. The passenger was wearing heavy winter mittens.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot inadvertently stalling the airplane. Factors were his abrupt maneuvering of the airplane to avoid a powerline, and his attention being diverted.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: CRUISE - NORMAL

Findings

1. LOW ALTITUDE FLIGHT/MANEUVER - INTENTIONAL - PILOT IN COMMAND

2. (F) DIVERTED ATTENTION - PILOT IN COMMAND

3. (F) MANEUVER TO AVOID OBSTRUCTIONS - ABRUPT - PILOT IN COMMAND

4. OBJECT - WIRE, TRANSMISSION

5. (C) STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings
6. TERRAIN CONDITION - OPEN FIELD

Page 2 of 9 **DEN99FA075**

Factual Information

HISTORY OF FLIGHT

On May 8, 1999, approximately 0645 mountain daylight time, a Piper PA-11, N4582M, was destroyed when it collided with terrain while maneuvering 15 miles southeast of Lander, Wyoming. The private pilot and his pilot-rated passenger were fatally injured. Visual meteorological conditions prevailed, and no flight plan had been filed for the personal flight being conducted under Title 14 CFR Part 91. The flight originated from Lander approximately 0630.

The pilot, Mark A. Ramsey, and his passenger, Monty D. Hitshew, were en route to a ranch in the Bison Basin area near Jeffrey City, Wyoming, to hunt coyotes. There is no record that he received a weather briefing or filed a flight plan. The airplane was reported missing at 1424. Lander Airport Manager Larry Hastings and Mr. Ramsey's friend, Steve Lee, took off on an aerial search and located the wreckage at 1512.

PERSONNEL (CREW) INFORMATION

Pilot Mark Allen Ramsey, age 43, was born on May 27, 1955. He held Private Pilot Certificate No. 503847762, dated June 20, 1984, with an airplane single engine land rating. He also held a Third Class Airman Medical Certificate, dated February 2, 1999, with the restriction, "Holder shall wear corrective lenses."

The pilot's logbook was made available for examination. It contained entries from January 10, 1981, when the pilot first began taking flying lessons, to February 1, 1999. According to the logbook, Mr. Ramsey flew regularly between January to May, 1981, then tapered off. He flew twice in 1982 and once in 1983. In 1984, he began flying regularly again, this time in a conventional landing gear airplane, the Piper PA-12. He began flying N4582M, the Piper PA-11, on March 15, 1985, and flew it exclusively until August 9, 1988, at which time he quit logging flight time. Only three entries were made after this date: December 20, 1988, February 22, 1996, and February 1, 1999. These last three entries were biennial flight reviews.

It was reported that Mr. Ramsey flew N4582M exclusively. To document his total flight time, the entries made in the engine logbook were correlated to those made in his pilot logbook. As of April 15, 1988, Mr. Ramsey had logged 426.5 total hours. He did not fly again until July 18, 1988. On May 26, 1988, when the engine oil was changed, the tachometer read 1,065.0. On December 28, 1989, the engine was removed at a tachometer time of 1,263.9 (a difference of 198.9 hours). On January 12, 1990, a different engine and tachometer was installed in N4582M (this was the next to the last entry made in the engine logbook). The tachometer read 754.78. At the accident site, the tachometer read 1,112.87 (a difference of 358.09). Adding

Page 3 of 9 DEN99FA075

these two parenthetical figures to the pilot's last recorded 426.5 hours, a documented total flight time of 983.49 hours is derived. When he made application for his medical certificate, Mr. Ramsey estimated his total flying time to be 5,000 hours, of which 100 hours were accumulated within the preceding 6 months.

Passenger Monty Dale Hitshew, age 36, was born on August 27, 1962. He held Private Pilot Certificate No. 520821947, dated September 3, 1985, with an airplane single engine land rating. He also held a Third Class Airman Medical Certificate, dated September 22, 1998, with no restrictions or limitations. When he made application for his medical certificate, he estimated his total flying time to be 200 hours, of which 20 hours were accumulated within the preceding 6 months. No logbook was ever located for Mr. Hitshew.

AIRCRAFT INFORMATION

N4582M (s.n. 11-85), nicknamed the "Cub Special," was manufactured by the Piper Aircraft Corporation in 1947. It had originally been equipped with a Continental A-65-8 engine, but the pilot purchased a Lycoming O-235-C engine (s.n. 1073-15) on January 2, 1990, and had it installed in N4582M on January 12, 1990. At that time, the tachometer read 754.78. [The PA-11 was type certificated (A-691) on April 30, 1947. Revision 31, dated November 1, 1977, allows for the installation of the Lycoming O-235-C engine.] The last recorded annual inspection was performed on February 12, 1992, at a tachometer time of 835 hours.

In December 1998, Mr. Ramsey asked Gary Loose, owner of Wind River Aviation, if he would do an annual inspection on the airplane. Mr. Loose said Mr. Ramsey provided him two engine logbooks but no airframe logbook. According to the engine logbooks, the engine had accrued 3,808.8 total hours, and 248 hours since last major overhaul which occurred on February 24, 1998. At the accident site, the tachometer read 1,112.87. It is estimated that at the time of the accident, the engine had accrued 4,166.89 hours and 606.09 hours since major overhaul. Mr. Loose found the following discrepancies:

(1) Left and right magnetos full of oil; (2) Exhaust stacks illegal; (3) No. 3 cylinder low compression (30/80 intake); (4) Fabric poor.

Mr. Loose said he replaced the magnetos and reground the no. 3 cylinder valves and seats. Because of its poor condition and the lack of documented maintenance, Mr. Loose told Ramsey that the airplane was unairworthy and not to fly it. He said his advice was ignored.

METEOROLOGICAL INFORMATION

The following weather observation was recorded at Hunt Field, Lander, Wyoming, at 0636, about the time N4582M took off and shortly before the accident:

Wind, 240 degrees at 8 knots; visibility, 10 miles; ceiling, 6,000 feet broken, 9,000 feet overcast; temperature 9 degrees C. (48.2 degrees F.); dew point, 1 degree C. (33.8 degrees F.); altimeter

Page 4 of 9 DEN99FA075

setting, 29.94 inches of mercury.

WRECKAGE AND IMPACT INFORMATION

The wreckage was at a GPS (Global Positioning System) position of 42 degrees, 39.500 minutes north latitude, and 108 degrees, 32.973 minutes west longitude. It was on open, rolling range land on the 307 degree radial from the Lander Vortac at 14.2 miles DME (Distance Measuring Equipment). The GPS altitude was 5,980 feet msl (above mean sea level).

The airplane impacted a ravine in a near vertical attitude in close proximity to powerlines. The poles were about 25 feet tall, and the powerlines were about 120 to 150 feet from the wreckage. None appeared to have been severed or stretched. There was no evidence of electrical arcing or wire transfer marks on the airplane. There were no faults, power outages, or surges reported by the power company.

Impact was on a magnetic heading between 030 and 035 degrees. The airframe was intact, and flight control continuity was established. The engine and the front portion of the fuselage was aligned on a magnetic heading of 015 degrees. One propeller blade was bent aft behind the bottom cowling. The other blade was bent aft slightly, but was also bent forward slightly about five inches from the tip. Ninety degree chordwise scratches were noted on the cambered surface. It was learned that the pilot had removed the ELT (emergency locator transmitter) from the airplane because he was "not flying more than 50 miles" from Lander. It was later found in his hangar.

A shotgun was recovered from the rear of the airplane by sheriff's deputies. The breech was open and the chambers were empty. It had not been discharged. Mr. Hitshew was found wearing heavy winter mittens. According to Mr. Lee, Mr. Hitshew wore the mittens to keep his hands warm, and would take them off to fire the shotgun.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy (A9909) was performed in Riverton, Wyoming, by the Fremont County Coroner's Office, Dr. Mark D. Woodard, prosector.

Toxicological protocol was performed by FAA's Civil Aeromedical Institute (CAMI) in Oklahoma City, Oklahoma. According to CAMI's report (#9900087001), no ethanol or drugs were detected in the pilot's urine. Tests for carbon monoxide and cyanide were not performed.

ADDITIONAL INFORMATION

The engine was partially disassembled and examined on May 10, 1999. Both magnetos produced spark when rotated by hand. No fuel was in the carburetor bowl, but a trace amount was found in the fuel line between the fuel selector valve and fuel strainer. All spark plugs remained attached and were undamaged. They were dry and gray in color.

Page 5 of 9 DEN99FA075

Steve Lee said that he observed the last refueling of N4582M. He said 9 gallons of 100LL aviation grade gasoline, purchased from Hastings Aviation, was put in each wing tank. The pilot then went to a local service station and purchased two 5-gallon cans of low-lead automotive gasoline. About 7 gallons were used to fill both tanks. The airplane has a fuel capacity of 25 gallons. The airplane did not have an STC (Supplemental Type Certificate) allowing the use of automotive gasoline.

In addition to the Federal Aviation Administration, parties to the investigation included the New Piper Aircraft, Inc., and Textron Lycoming.

The wreckage was released Mr. Steve Lee on May 10, 1999.

Pilot Information

Certificate:	Private	Age:	43,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medicalno waivers/lim.	Last FAA Medical Exam:	February 2, 1999
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Page 6 of 9 DEN99FA075

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N4582M
Model/Series:	PA-11 PA-11	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	11-85
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	February 12, 1992 Annual	Certified Max Gross Wt.:	1220 lbs
Time Since Last Inspection:	277 Hrs	Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:	Not installed	Engine Model/Series:	0-235-C
Registered Owner:	RENES N. RAMSEY	Rated Power:	100 Horsepower
Operator:	MARK A. RAMSEY	Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	LND ,5586 ft msl	Distance from Accident Site:	
Observation Time:	06:36 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Unknown	Visibility	10 miles
Lowest Ceiling:	Broken / 6000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	9°C / 1°C
Precipitation and Obscuration:	No Obscuration; No Precipita	ation	
Departure Point:	, WY (LND)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	06:30 Local	Type of Airspace:	Class G

Page 7 of 9 DEN99FA075

Airport Information

Airport:		Runway Surface Type:
Airport Elevation:		Runway Surface Condition:
Runway Used:	0	IFR Approach:
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:	42.82954,-108.719627(est)

Page 8 of 9 DEN99FA075

Administrative Information

Investigator In Charge (IIC):	Scott, Arnold	
Additional Participating Persons:	MICHAEL J MAGLIONE; CASPER , WY	
Original Publish Date:	April 20, 2000	
Last Revision Date:		
Investigation Class:	<u>Class</u>	
Note:		
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=46278	

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 Code of Federal Regulations section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 United States Code section 1154(b)). A factual report that may be admissible under 49 United States Code section 1154(b) is available here.

Page 9 of 9 DEN99FA075