



Aviation Investigation Final Report

Location:	Truth or Conseq, New Mexico	Accident Number:	DEN06LA004
Date & Time:	October 7, 2005, 12:08 Local	Registration:	N55910
Aircraft:	Piper PA-28-140	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot obtained a weather briefing, filed a VFR flight plan, and took off at 1108. When he failed to close his flight plan, an Alert Notice (ALNOT) was issued. Recorded radar data captured a VFR target proceeding south from the airport until it turned to a southwest heading and initiated a climb to 7,500 feet. Radar contact was lost at 1208. The nearest weather reporting station, located 34 n.m. east-northeast of the accident site and at an elevation of 4,853 feet msl, reported a ceiling of 2,500 feet agl (above ground level), or 7,353 msl. A military helicopter crew also filed a pilot report (PIREP), reporting mountain top obscuration in the area. The wreckage was found 2 days later at an elevation of 8,100 feet msl near the point where radar contact was lost.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's attempt to fly VFR into instrument meteorological conditions, and his failure to maintain terrain clearance. Contributing factors were the reported low ceiling and mountain obscuration, resulting in the pilot being unable to maintain a visual lookout.

Findings

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

Findings

(F) WEATHER CONDITION - LOW CEILING
(F) WEATHER CONDITION - OBSCURATION
(C) VFR FLIGHT INTO IMC - ATTEMPTED - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER Phase of Operation: CRUISE - NORMAL

Findings

- 4. (C) CLEARANCE NOT MAINTAINED PILOT IN COMMAND
- 5. (F) VISUAL LOOKOUT NOT POSSIBLE PILOT IN COMMAND
- 6. OBJECT TREE(S)
- 7. TERRAIN CONDITION MOUNTAINOUS/HILLY

Factual Information

HISTORY OF FLIGHT

On October 7, 2005, approximately 1208 mountain daylight time, a Piper PA-28-140E, N55910, operated and piloted by a private pilot, was destroyed when it impacted trees and terrain approximately 30 miles south-southwest of Truth or Consequences, New Mexico (TCS). Visual meteorological conditions prevailed at TCS at the time of the accident. The personal cross-country flight was being conducted under the provisions of Title 14 CFR Part 91. A VFR flight plan had been filed and activated. The pilot was fatally injured. The flight originated from Double Eagle II Airport (AEG), Albuquerque, New Mexico, at 1108, and was en route to Benson, Arizona (E95).

The pilot was a master sergeant and a C-130 mechanic with the United States Air Force. He was stationed at Kirtland Air Force Base in Albuquerque. A close friend and co-worker told Air Force investigators that the pilot departed AEG en route to E95 on the day before the accident, but was forced to turn around near Socorro, New Mexico, due to poor weather. The purpose of the trip was to inspect a Glasair airplane that he wanted to purchase.

The next day, according to FAA documents, the pilot obtained a weather briefing, and filed a VFR flight plan. According to the flight plan, the pilot planned to fly direct to E95. Cruise altitude and airspeed were listed as 8,500 feet msl and 120 knots, respectively. Estimated time en route and fuel on board were listed as 2 hours, 30 minutes and 4 hours, respectively. The pilot departed AEG at 1108, and activated his flight plan at 1109. When he failed to close his flight plan, FAA issued an INREQ (Information Request) at 1511, followed by an ALNOT (Alert Notice) at 1554. The Civil Air Patrol launched an aerial search the next day and on October 9, an Air Force C-130 spotted the wreckage about 30 miles south-southwest of TCS in the Black Range Wilderness area. FAA was notified at 1649, and the ALNOT was cancelled.

PERSONNEL INFORMATION

The pilot, age 42, held a private pilot certificate with an airplane single-engine land rating, dated August 12, 2003, and a mechanic's certificate with an airframe rating, dated March 12, 2005. His third class airman medical certificate, dated March 1, 2005, contained no restrictions or limitations.

A copy of a portion of the pilot's logbook was made available for inspection. The pilot started flying N55910 on April 16, 2004. As of the last recorded logbook, dated October 5, 2005, the pilot had accrued a total of 165.1 hours, of which 55.9 hours were logged in the PA-28-140. His last biennial flight review (BFR) was accomplished on August 21, 2005, in N55910. The

duration of the BFR was 1 hour.

AIRCRAFT INFORMATION

N55910 (s/n 28-7325528), a model PA-28-140E, was manufactured by the Piper Aircraft Corporation in 1973. It was equipped with a Lycoming O-320-E2A, rated at 150 horsepower, driving a Sensenich 2-blade, all-metal, fixed-pitch propeller (m/n 74DM6). The airplane maintenance records were never located but according to the pilot's mechanic-friend, he performed an annual inspection on the airplane on January 20, 2005, when the airplane was repainted. Tachometer and total time was 2,207.2 hours.

METEOROLOGICAL INFORMATION

Weather at the time of N55910's departure, the following METARs (Aviation Routine Weather Report) were recorded:

AEG AWOS-3 (1105): Wind, 010 at 3 knots; visibility, 9 s.m.; ceiling, 1,600 feet overcast; temperature, 10 degrees C.; dew point, 7 degrees C.; altimeter, 30.24 inches; remarks, A01 P000.

ABQ (1056): Wind, 020 at 3 knots; visibility, 10 s.m. (or greater); ceiling, 2,000 feet overcast' temperature, 12 degrees C.; dew point 7 degrees C.; altimeter, 30.24 inches.

Around the estimated time of the accident, the following METARs were recorded:

TCS ASOS (1153), located 34 n.m. east-northeast of the accident site and at an elevation of 4,853 feet msl: Wind, calm; visibility, 10 s.m. (or greater); ceiling, 2,500 feet overcast; temperature, 14 degrees C.; dew point, 9 degrees C.; altimeter, 30.20 inches.

TCS (1253): AUTO Wind, calm; visibility 10 s.m. (or greater); ceiling, 2,500 feet overcast; temperature, 16 degrees C.; dew point, 9 degrees C.; altimeter, 30.18 inches.

SVC AWOS-3 (1230), located 40 n.m. south-southwest of the accident site at an elevation of 5,446 feet msl: AUTO Wind, 130 degrees at 6 knots; visibility, 10 s.m. (or greater); sky condition, clear; temperature, 19 degrees C.; dew point, 11 degrees C.; altimeter, 30.20 inches; remarks: A01.

SVC (1330): AUTO Wind, 160 at 8 knots; 131V191; visibility, 10s.m. (or greater); sky condition, clear; temperature, 21 degrees C.; dew point, 10 degrees C.; altimeter, 30.17 inches; remarks, AO1.

Approximately 1130, a helicopter crew from the 58th Special Operations Wing filed a pilot

report (PIREP). Flying in vicinity of TCS, they reported a 1,300-foot ceiling, with mountain top obscuration to the west.

WRECKAGE AND IMPACT INFORMATION

On October 11, two Air Force investigators repelled to the accident from a hovering helicopter. They reported the accident site was at a location of 33 degrees, 05.62' north latitude, and 107 degrees, 48.08' west longitude, and at an approximate elevation of 8,100 feet msl. According to their report, the wreckage was situated on both sides of an east-west oriented ridgeline. The majority of wreckage was on the south slope. The length of the debris field, from the ridge crest to the southern end of the wreckage path, was approximately 98 feet (30 meters), straight, and on a magnetic heading of 170 degrees. The separated left wing, with leading edge dents and embedded bark, was located on the north side of the ridgeline approximately 49 to 66 feet (15 to 20 meters) below the crest. At the crest of the ridgeline was a toppled tree. There was extensive fire damage to the trees in this area. Only 2 of 3 landing gear wheels were found on the south slope. A small tree on the ridge crest was broken and bore fire damage. There was no other fire damage on the north side of the ridge. A large tree, 32 feet (10 meters) to the south of the ridge top, was completely uprooted and had fire damage. A piece of metal cowling was in the branches of the uprooted tree, about 4 feet from the base. A smaller tree, 9 feet (3 meters) to the right and abeam the large uprooted tree, bore a large gouge consistent with a propeller strike. The propeller had separated from the engine and was found 6 feet (2 meters) south of the small tree and to the right of the uprooted tree. The tips were curled. Airplane manuals and assorted flight publications lay scattered about. A Low Altitude Enroute and Albuquerque Sectional chart were found folded in the plastic pockets of a folder. They were unopened. None were fire damaged.

The horizontal stabilizer separated from the fuselage and was bent around a small tree to the right of the ground scar. It was unburned. Further south and down the slope, the right wing was found bent up and around another tree. The fuselage, including the engine compartment and cockpit, were south of the right wing. The fuselage was twisted but the flight control cables were still connected. The aft portion of the fuselage was lying on its right side. The cockpit and engine compartment were twisted and inverted. The cockpit instruments were destroyed. There was little fire damage to the engine but extensive fire damage to the cockpit. Aluminum globules were pooled around the engine compartment. There was no evidence of an in-flight fire.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed by the New Mexico Medical Examiner's Office. The cause of death was listed as "thermal injuries and multiple blunt force injuries." FAA's Civil Aeromedical Institute (CAMI) performed a toxicological screen. According to CAMI's report, no ethanol, carbon monoxide, or drugs were detected; however, 0.27 (ug/ml) cyanide was detected in

blood.

TESTS AND RESEARCH

Denver Air Route Traffic Control Center's Quality Assurance Division was asked to examine recorded radar data. The data, in ASCII format, depicted aircraft position using latitude/longitude plots in time sequence, and was loaded into Tactical Mapping Software. The data captured a VFR target, transponder code 1200, proceeding south from AEG shortly after 1100. The target followed Interstate Highway 25 to a point just north of TCS where, at an encoded altitude of 7,100 feet, it turned to a southwest heading and initiated a climb. The target entered the Black Range Wilderness area, and radar contact was lost shortly thereafter. The last recorded time and altitude was 7,500 feet and 1208:25, respectively.

TCS, at an elevation of 4,853 feet msl, reported a ceiling of 2,500 feet ago (above ground level), or 7,353 msl. Mountain top obscuration was reported to the west of TCS. The accident site was reported to be approximately 8,100 feet msl.

Pilo	t Inf	orm	ation
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Certificate:	Private	Age:	42.Male
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Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
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 Without waivers/limitations	Last FAA Medical Exam:	March 1, 2005
Occupational Pilot:	No	Last Flight Review or Equivalent:	August 1, 2005
Flight Time:	165 hours (Total, all aircraft), 56 hours (Total, this make and model), 5 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N55910
Model/Series:	PA-28-140	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	28-7325528
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	January 1, 2005 Annual	Certified Max Gross Wt.:	2150 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	2207 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, aided in locating accident	Engine Model/Series:	0-320-E2A
Registered Owner:	Kevin Elgar	Rated Power:	150 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	TCS,4853 ft msl	Distance from Accident Site:	34 Nautical Miles
Observation Time:	12:53 Local	Direction from Accident Site:	60°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Overcast / 2500 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	/ None	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.18 inches Hg	Temperature/Dew Point:	16°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipitat	tion	
Departure Point:	Albuquerque, NM (AEG)	Type of Flight Plan Filed:	VFR
Destination:	Benson, AZ (E95)	Type of Clearance:	None
Departure Time:	11:08 Local	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	33.100833,-107.804725

Administrative Information

Investigator In Charge (IIC):	Scott, Arnold
Additional Participating Persons:	James Malecha; FAA Flight Standards District Office ; Albuquerque, NM Michael C Guischard; Captain, United States Air Force; Kirtland AFB, NM
Original Publish Date:	April 25, 2006
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=62641

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 <u>here</u>.