



Aviation Investigation Final Report

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|--------------------------------|--------------------------------------|-------------------------|-------------|
| Location: | Kremmling, Colorado | Accident Number: | DEN05FA124 |
| Date & Time: | April 7, 2005, 15:15 Local | Registration: | N3766A |
| Aircraft: | Piper PA-22-135 | Aircraft Damage: | Substantial |
| Defining Event: | | Injuries: | 2 Fatal |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

The airplane departed approximately 1500. The airplane was reported missing on the evening of April 7, 2005, by concerned family members. An ALNOT (search and rescue alert notice) was issued at 2315 on April 7. The ALNOT was cancelled on April 18 and the search suspended. On August 5, 2005, two hikers discovered the airplane wreckage on the south wall of a canyon at an approximate elevation of 7,960 feet msl. The main wreckage came to rest inverted between several rocks and trees. The wreckage consisted of the fuselage, empennage, both the right and left wing assemblies, and the engine. The propeller was located approximately 40 feet directly above the main wreckage at an elevation of approximately 8,020 feet msl. An examination of the airplane's systems revealed no anomalies.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's failure to maintain clearance from terrain.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: CLIMB

Findings

1. OBJECT - TREE(S)
2. (C) ALTITUDE/CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings

3. TERRAIN CONDITION - CLIFF

Factual Information

HISTORY OF FLIGHT

On April 7, 2005, approximately 1515 mountain daylight time, a Piper PA-22-135, N3766A, piloted by a private pilot, was destroyed when it impacted mountainous terrain, 4.5 miles southwest of McElroy Airfield (20V), Kremmling, Colorado. Visual meteorological conditions prevailed at the time of the accident. The personal flight was being conducted under the provisions of Title 14 CFR Part 91 without a flight plan. The private pilot, whose body was not recovered, is presumed to be fatally injured. The commercial pilot rated passenger was fatally injured. The airplane departed 20V approximately 1500 and was en route to Fremont County Airport (1V6), Canon City, Colorado.

According to family members, the airplane departed 1V6 between 1000 and 1100. An airport employee in Kremmling reported that the airplane arrived approximately 1245. The pilot fueled the right fuel tank with 14.65 gallons.

The accident pilot spoke with the airport employee for approximately 1.5 to 2 hours. During their conversation, the pilot discussed flying through Hoosier Pass and then continuing south to 1V6 due to the winds that were increasing in velocity.

The airplane departed Kremmling approximately 1500. The airplane was reported missing on the evening of April 7, 2005, by concerned family members. An ALNOT (search and rescue alert notice) was issued at 2315 on April 7. The ALNOT was cancelled on April 18 and the search was suspended. On August 5, 2005, two hikers discovered the airplane wreckage on the south wall of Gore Canyon at an approximate elevation of 7,960 feet msl.

PERSONNEL INFORMATION

The male pilot, age 77, held a private pilot certificate with an airplane single engine land rating. He held a third class airman medical certificate that was issued on June 9, 2004. The certificate contained no limitations.

The pilot's logbooks were not located during the investigation. According to the pilot's last medical certificate application, he estimated his total time at 1,900 hours.

The male pilot rated passenger, age 81, held a commercial pilot certificate with an airplane single and multiengine land privileges, and an instrument airplane rating. He held a third class medical certificate that was issued on April 1, 2003. The certificate contained the limitations "Must wear corrective lenses for near and distant vision."

The passenger's logbooks were not located during the investigation. According to the passenger's last medical certificate application, he estimated his total time at 4,800 hours.

AIRCRAFT INFORMATION

The airplane was a 1954 Piper PA-22-135 (serial number 22-2008) equipped with a 135 horsepower Lycoming O-290-D2 engine. Neither the airframe nor the engine logbooks were located. According to a mechanic with Peak Aviation, an annual inspection was conducted on February 9, 2005. At the time of the annual inspection, the airplane had approximately 3,325 hours total time.

METEOROLOGICAL INFORMATION

At 1515, the routine aviation weather report at the Eagle County Regional Airport, 35 nautical miles southwest of the accident location, was: wind, 240 degrees at 15 knots with gusts to 25 knots; visibility, 10 statute miles; sky condition, clear; temperature, 19 degrees Celsius (C); dewpoint, minus 7 degrees C; altimeter 30.04 inches.

There was no record of an FAA Flight Service Station or DUATS weather briefing being obtained.

WRECKAGE AND IMPACT INFORMATION

The National Transportation Safety Board arrived on scene approximately 1300 on August 6, 2005. The accident site was located at 40 degrees 01.633 minutes north latitude and 106 degrees 27.092 minutes west longitude, along the southern wall of Gore Canyon. The terrain elevation was estimated to be 7,980 feet mean sea level.

The initial ground impact point was located approximately 40 feet directly above the main wreckage at an elevation of approximately 8,020 feet msl. Several trees and bushes to the northeast of the ground impact point exhibited signs of broken limbs and tops. One tree had been uprooted in the direction of flight. The propeller and spinner assembly separated from the propeller flange and came to rest approximately 4 feet west of the damaged trees.

The spinner was crushed aft and exhibited torsional bending. The leading edge of both blades had leading edge kicks and both blades exhibited 90-degree chord wise scratches.

A debris path extended from the propeller assembly, down the face of the canyon wall, to the main wreckage. Plexiglas, paint chips, fabric, and various personal effects were located within the debris path. The main wreckage came to rest inverted between several rocks and trees. The wreckage consisted of the fuselage, empennage, the right and left wing assemblies, and the engine.

The left wing, including the left aileron and flap, remained attached to the fuselage. The leading

edge of the wing was crushed aft approximately 24 inches at midspan. The wing spar was buckled and the fabric torn across the span of the wing. Control continuity was established to the left aileron.

The right wing, including the right aileron and flap, remained attached to the fuselage. The leading edge of the wing exhibited impact damage across the span of the wing. The wing fabric was torn. Control continuity was established to the right aileron.

The top, bottom, and sides of the fuselage were crushed and wrinkled and the fabric torn. The left door was crushed down and aft and the Plexiglas on the left side was fragmented. The Plexiglas from the front windscreen and right door was also fragmented. The engine was crushed aft into the fuselage approximately 3 inches.

The empennage, including the horizontal and vertical stabilizers, rudder, and elevator remained attached at the fuselage. The right outboard edge of the elevator had been crushed aft and was bent up 90 degrees and the outboard edge of the left outboard edge of the elevator separated. The tip of the vertical stabilizer and rudder was crushed down approximately 4 inches. The leading edges of the vertical and horizontal stabilizers were unremarkable. Examination of elevator trim jackscrew revealed 0 degrees trim. Control continuity was established to the rudder and elevator.

The airplane's engine instruments displayed the following indications:

Tachometer - 1287.19
Kohlsman Window - 30.10 inches
Airspeed Indicator - 25 miles per hour (shattered)

The turn and slip indicator, turn and bank indicator and directional gyro were all labeled inoperative.

The airplane's engine controls were found in the following positions:

Fuel Mixture - full rich
Throttle - full forward
Carburetor Heat - off
Fuel Selector Valve - right tank

An examination of the remaining controls and switches revealed the following:

Master Switch - On
Flap Bar - down
Elevator Trim - Full Forward (Nose down)

MEDICAL AND PATHOLOGICAL INFORMATION

The remains of one occupant were located in the right front seat of the airplane. These remains were positively identified as the owner of the airplane, referred to in this report as the passenger. No autopsy or toxicology was performed. The remains of the pilot were not located.

TESTS AND RESEARCH

The wreckage was relocated to a hangar in Greeley, Colorado, for further examination. An examination of the engine and airframe, conducted on October 12, 2005, revealed no anomalies.

ADDITIONAL INFORMATION

Parties to the investigation included the Federal Aviation Administration, Textron Lycoming, and The New Piper Aircraft, Inc.

The wreckage was released to a representative of the insurance company on October 12, 2005.

Pilot Information

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|----------------------------------|--|--|--------------|
| Certificate: | Private | Age: | 77, Male |
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Left |
| Other Aircraft Rating(s): | None | Restraint Used: | |
| Instrument Rating(s): | None | Second Pilot Present: | Yes |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 3 Without waivers/limitations | Last FAA Medical Exam: | June 1, 2004 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | June 1, 2003 |
| Flight Time: | 1959 hours (Total, all aircraft), 82 hours (Total, this make and model), 20 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft), 1 hour (Last 24 hours, all aircraft) | | |

Information

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|----------------------------------|---|--|---------------|
| Certificate: | Commercial | Age: | 81, Male |
| Airplane Rating(s): | Single-engine land; Multi-engine land | Seat Occupied: | Right |
| Other Aircraft Rating(s): | None | Restraint Used: | |
| Instrument Rating(s): | Airplane | Second Pilot Present: | Yes |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 3 With waivers/limitations | Last FAA Medical Exam: | April 1, 2003 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | |
| Flight Time: | 4800 hours (Total, all aircraft), 2 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|--------------------------------|---------------------------------------|-----------------|
| Aircraft Make: | Piper | Registration: | N3766A |
| Model/Series: | PA-22-135 | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | 22-2008 |
| Landing Gear Type: | Tricycle | Seats: | 2 |
| Date/Type of Last Inspection: | February 1, 2005 Annual | Certified Max Gross Wt.: | 1950 lbs |
| Time Since Last Inspection: | | Engines: | 1 Reciprocating |
| Airframe Total Time: | 3325 Hrs as of last inspection | Engine Manufacturer: | Lycoming |
| ELT: | Installed, not activated | Engine Model/Series: | O-290 |
| Registered Owner: | On file | Rated Power: | 135 Horsepower |
| Operator: | On file | Operating Certificate(s) Held: | None |

Meteorological Information and Flight Plan

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|---|----------------------------------|---|-------------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
| Observation Facility, Elevation: | EGE,6535 ft msl | Distance from Accident Site: | 35 Nautical Miles |
| Observation Time: | 15:15 Local | Direction from Accident Site: | 245° |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 15 knots / 25 knots | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 240° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30.04 inches Hg | Temperature/Dew Point: | 19°C / -7°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | KREMMLING, CO (20V) | Type of Flight Plan Filed: | None |
| Destination: | CANON CITY, CO (1V6) | Type of Clearance: | None |
| Departure Time: | 15:00 Local | Type of Airspace: | |

Airport Information

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|-----------------------------|-----------------------|----------------------------------|------|
| Airport: | MC ELROY AIRFIELD 20V | Runway Surface Type: | |
| Airport Elevation: | 7411 ft msl | Runway Surface Condition: | |
| Runway Used: | | IFR Approach: | None |
| Runway Length/Width: | | VFR Approach/Landing: | None |

Wreckage and Impact Information

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|----------------------------|---------|-----------------------------|-----------------------|
| Crew Injuries: | 1 Fatal | Aircraft Damage: | Substantial |
| Passenger Injuries: | 1 Fatal | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 2 Fatal | Latitude, Longitude: | 40.027221,-106.451667 |

Administrative Information

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| Investigator In Charge (IIC): | Kaiser, Jennifer |
| Additional Participating Persons: | Jack Muldoon; FAA Flight Standards District Office; Denver, CO John Butler; Lycoming Engines; Arlington, TX Michael C McClure; The New Piper Aircraft, Inc; Prosper, TX |
| Original Publish Date: | January 31, 2006 |
| Last Revision Date: | |
| Investigation Class: | Class |
| Note: | |
| Investigation Docket: | https://data.nts.gov/Docket?ProjectID=62153 |

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](#).