



# Aviation Investigation Final Report

<b>Location:</b>	Ridgway, Colorado	<b>Accident Number:</b>	CEN14FA167
<b>Date &amp; Time:</b>	March 22, 2014, 14:00 Local	<b>Registration:</b>	N702H
<b>Aircraft:</b>	Socata TBM 700	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control in flight	<b>Injuries:</b>	5 Fatal
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

About 3 months before the accident, the pilot received about 9 hours of flight instruction, including completion of an instrument proficiency check, in the airplane. The accident flight was a personal cross-country flight operated under instrument flight rules (IFR). Radar track data depicted the flight proceeding on a west-southwest course at 15,800 ft mean sea level (msl) as it approached the destination airport. The flight was cleared by the air traffic controller for a GPS approach, passed the initial approach fix, and, shortly afterward, began a descent as permitted by the approach procedure. The track data indicated that the flight became established on the initial approach segment and remained above the designated minimum altitude of 12,000 ft msl. Average descent rates based on the available altitude data ranged from 500 feet per minute (fpm) to 1,000 fpm during this portion of the flight.

At the intermediate navigation fix, the approach procedure required pilots to turn right and track a north-northwest course toward the airport. The track data indicated that the flight entered a right turn about 1 mile before reaching the intermediate fix. As the airplane entered the right turn, its average descent rate reached 4,000 fpm. The flight subsequently tracked northbound for nearly 1-1/2 miles. During this portion of the flight, the airplane initially descended at an average rate of 3,500 fpm then climbed at a rate of 1,800 fpm. The airplane subsequently entered a second right turn. The final three radar data points were each located within 505 ft laterally of each other and near the approximate accident site location. The average descent rate between the final two data points (altitudes of 10,100 ft msl and 8,700 ft msl) was 7,000 fpm. About the time that the final data point was recorded, the pilot informed the air traffic controller that the airplane was in a spin and that he was attempting to recover. No further communications were received from the pilot. The airplane subsequently impacted the surface of a reservoir at an elevation of about 6,780 ft and came to rest in 60 ft of water. A detailed postaccident examination of the airframe, engine and propeller assembly did not reveal any anomalies consistent with a preimpact failure or malfunction.

The available meteorological data suggested that the airplane encountered clouds (tops about 16,000 ft msl or higher and bases about 10,000 ft msl) and was likely operating in IFR conditions during the final

15 minutes of the flight; however, no determination could be made regarding whether the clouds that the airplane descended through were solid or layered. In addition, the data suggested the possibility of both light icing and light turbulence between 12,000 ft msl and 16,000 ft msl along the flight path. Although the pilot appeared to be managing the flight appropriately during the initial descent, it could not be determined why he was unable to navigate to the approach fixes and maintain control of the airplane as he turned toward the airport and continued the descent.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's loss of airplane control during an instrument approach procedure, which resulted in the airplane exceeding its critical angle of attack and entering an inadvertent aerodynamic stall and spin.

### Findings

<b>Personnel issues</b>	Aircraft control - Pilot
<b>Aircraft</b>	(general) - Not attained/maintained
<b>Environmental issues</b>	Clouds - Effect on personnel

## Factual Information

### History of Flight

<b>Approach-IFR initial approach</b>	Loss of control in flight (Defining event)
<b>Approach-IFR initial approach</b>	Aerodynamic stall/spin
<b>Uncontrolled descent</b>	Collision with terr/obj (non-CFIT)

#### HISTORY OF FLIGHT

On March 22, 2014, at 1400 mountain daylight time, a Socata TBM 700, N702H, impacted the Ridgway Reservoir, Ridgway, Colorado. The airplane came to rest in about 60 feet of water. The pilot and four passengers were fatally injured, and the airplane was substantially damaged. The airplane was registered to Gadsden Aviation LLC and operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed at the destination airport. The flight was operated on an instrument flight rules (IFR) flight plan. The flight originated from the Bartlesville Municipal Airport (BVO), Bartlesville, Oklahoma, about 1111. The intended destination was the Montrose Regional Airport (MTJ), Montrose, Colorado.

At 0622 on the morning of the accident, the pilot accessed the Direct User Access Terminal Service (DUATS) and obtained a weather briefing for the route of flight from the Northeast Alabama Regional Airport (GAD), Gadsden, Alabama, to BVO. An IFR flight plan for that route of flight was subsequently filed. The accident pilot was listed as the pilot-in-command.

Tracking data indicated that the airplane subsequently departed GAD about 0739 and arrived at BVO about 1001. Personnel at the fixed base operator (FBO) located at BVO reported that upon arrival, the pilot requested that the airplane be topped off with fuel and that a ground power unit be made available for engine start. They noted that the pilot and passengers came into the FBO to eat lunch. At 1038, the pilot again accessed DUATS and obtained a weather briefing for the route of flight from BVO to MTJ. An IFR flight plan was subsequently filed for that route of flight. That flight plan also listed the accident pilot as the pilot-in-command. The FBO personnel stated that the pilot and passengers re-boarded the airplane after their lunch. The subsequent engine start up, taxi and takeoff appeared normal. Nothing with respect to the airplane or the pilot seemed out of the ordinary, nor did they have any concerns regarding the flight.

At 1111, the pilot contacted the Kansas City Air Route Traffic Control Center (ARTCC) and informed the controller that the flight had departed BVO and requested an IFR clearance to MTJ. The accident flight was subsequently radar identified and cleared direct to MTJ at an ultimate cruising altitude of 26,000 feet pressure altitude (FL260).

About 1233, control of the flight was transferred to the Denver ARTCC. At 1330, the controller advised the pilot to expect the RNAV(GPS) Rwy 35 approach at MTJ. At 1341, the controller instructed the pilot to descend to and maintain 17,000 feet mean sea level (msl). This was amended to 16,000 feet msl four minutes later. At 1348, the pilot was instructed to maintain 16,000 feet msl until reaching the YARUB navigation fix, an initial approach fix for the MTJ RNAV (GPS) Rwy 35 approach procedure.

The pilot was also cleared for the approach at that time. At 1358, the pilot was released to change to the airport advisory frequency. At 1400:34 (hhmm:ss), the pilot transmitted, "spin I'm trying to get out of here." No further communications were received from the accident flight.

Federal Aviation Administration (FAA) air traffic control (ATC) radar track data depicted the airplane proceeding on a west course at 15,800 feet as it approached MTJ. The airplane passed the YARUB initial approach fix about 1356:59. About 23 seconds later, the airplane began a descent. The track data indicated that the airplane became established on the initial approach segment between YARUB and COQKU. The minimum altitude for this approach segment was 12,000 feet msl. At COQKU, the approach procedure required pilots to turn right and track a magnetic course of 328 degrees. The minimum altitude for that approach segment was 9,900 feet msl.

At 1358:58, the airplane was located about 1.7 nm east-northeast of COQKU at an altitude of 14,400 feet msl. At 1359:10, the airplane was about 1.14 nm east-northeast of COQKU at an altitude of 13,600 feet msl. About that time, the airplane entered a right turn and proceeded northbound about 1.4 miles. At 1359:34 and 1359:46, the corresponding Mode C altitudes were 12,200 feet and 12,500 feet, respectively. The airplane subsequently entered a second right turn, tracking eastbound for about 0.85 mile. The final three data points were each located within 505 feet (0.08 mile) laterally of each other and of the approximate location of the accident site. The data point recorded at 1400:10 did not have Mode C altitude data associated with it. At 1400:22, the associated Mode C altitude was 10,100 feet. The final data point was recorded at 1400:34, with an associated Mode C altitude of 8,700 feet.

U. S. Department of the Interior / Bureau of Reclamation data indicated that the elevation of the Ridgway Reservoir was about 6,870 feet on the day of the accident.

#### PERSONNEL INFORMATION

The pilot held a private pilot certificate with single-engine land airplane and instrument airplane ratings. He was issued a third class airman medical certificate with a limitation for corrective lenses on February 12, 2014.

The pilot's logbook, denoted logbook number "02," was reviewed by the NTSB. The initial entry in this logbook was dated March 24, 2012, and the final entry was dated January 4, 2014. According to this logbook, the pilot had accumulated a total flight time of about 908 hours in single-engine land airplanes, 839 hours as pilot-in-command, 211 hours dual instruction received, 71 hours actual instrument, 46 hours simulated instrument, and 133 hours night flight time.

The logbook included two entries attributable to the accident airplane, dated January 3 and 4, 2014, totaling 8.6 hours. These were also the only entries attributable to the same make and model aircraft as the accident airplane. These entries included a notation for one instrument landing system (ILS) approach. The logbook included flight review and instrument proficiency check endorsements dated January 4, 2014. The logbook also included an endorsement for high-altitude, pressurized airplane training as required by 14 CFR 61.31(g). According to the logbook endorsements, both the instrument proficiency check and the pressurized airplane endorsements were completed in a TBM 700 airplane. The logbook also included an entry for 12 hours of ground instruction covering TBM 700 systems and high altitude operations.

Data obtained from a commercial flight tracking company indicated that a total of 12 flights related to the accident airplane were on file between December 27, 2013, and March 22, 2014. These flights totaled 28 hours and 2 minutes of flight time. However, no information regarding the pilot-in-command, any flight plan filed, or the flight conditions, was associated with the data.

#### AIRCRAFT INFORMATION

The accident airplane was a 1996 Socata TBM 700, serial number 112. It was a six-place, single-engine airplane, with a pressurized cabin and a retractable tricycle landing gear configuration. The airplane was equipped with an ice protection system and was approved for flight into known icing conditions, with the exception of severe icing conditions.

The airplane was powered by a 700 shaft-horsepower Pratt & Whitney Canada PT6A-64 turbo-propeller engine, serial number 111098, and a 4-blade, constant speed (adjustable pitch) Hartzell model HC-E4N-3/E9083SK propeller assembly. The accident airplane was issued an FAA normal category, standard airworthiness certificate in December 1996. The accident owner, Gadsden Aviation, LLC, purchased the airplane on December 30, 2013. The accident pilot signed the registration application as an authorized member of Gadsden Aviation.

According to the airplane maintenance records, the most recent annual inspection was completed on November 21, 2013. At the time of that inspection, the airframe total time was 4,785.1 hours, with a total of 3,593 cycles. The recording hour (Hobbs) meter reportedly indicated 4,334.1 hours. The engine had accumulated 4,785.1 hours, with 2,806.4 hours and 1,235.1 hours since the most recent overhaul and the most recent hot section inspection, respectively.

A subsequent maintenance record entry, dated December 30, 2013, which corresponded to the most recent sale date for the airplane, indicated that the logbooks were reviewed in accordance with the customer's request. In addition, a walk-around inspection was completed at that time, with no findings noted. The maintenance record contained no further entries.

The recording hour (Hobbs) meter indicated 4,397.6 hours at the time of the postaccident examination. This is consistent with the airplane accumulating 63.5 hours since the annual inspection.

#### METEOROLOGICAL INFORMATION

Weather conditions recorded by the MTJ Automated Surface Observing System (ASOS), located about 19 miles north-northwest of the accident site, at 1353, were: wind from 210 degrees at 9 knots; few clouds at 1,500 feet above ground level (agl), broken clouds at 3,000 feet agl, overcast clouds at 3,900 feet agl; 10 miles visibility with light rain; temperature 5 degrees Celsius; dew point 2 degrees Celsius; and altimeter 30.10 inches of mercury.

The Terminal Aerodrome Forecast (TAF) for KMTJ issued at 1134 and current at the time of the accident, was: wind from 270° at 11 knots, visibility of greater than 6 statute miles, showers between 5 and 10 miles from the airport, ceiling broken at 5,000 feet agl, overcast clouds at 10,000 feet agl. Temporary conditions between 1400 and 1600 were: visibility six statute miles, light rain showers, scattered clouds at 3,000 agl, ceiling broken at 4,000 feet agl.

An area forecast covering Colorado was issued at 1345. For the mountainous areas of Colorado, the forecast included broken cloud bases at 12,000 feet msl, with tops to 16,000 feet msl. Occasional visibilities between 3 and 5 miles in widely scattered light snow showers were also forecast.

Prior to the 1345 area forecast, an amended area forecast that included Colorado was issued at 0545. The portion of the area forecast applicable to the southern half of the mountains in Colorado, west of the Continental Divide forecasted for the accident time: a broken cloud ceiling at 10,000 feet msl, with additional cloud layers to flight level (FL) 250, and occasional visibility of 3 – 5 miles in widely scattered light snow showers and mist.

An Airmen's Meteorological Information (AIRMET) advisory for icing was issued at 0845. The AIRMET advisory area encompassed most of Colorado, including the accident site. The AIRMET warned of the possibility of moderate icing between the freezing level and 19,000 feet, with conditions continuing through 2100. Freezing levels were forecast to range from the surface to 12,000 feet across the area.

An AIRMET advisory for turbulence was also in effect beginning at 0845. The advisory area encompassed portions of central and southern Colorado, and central and northern New Mexico. The accident site was located near the northwest boundary of the advisory area. The AIRMET warned of the possibility of moderate turbulence below 14,000 feet, with conditions continuing through 2100.

The North American Mesoscale model sounding for the accident location at 1500 identified a humid layer from near the surface to 30,000 feet. Near surface wind was about 10 knots from the west-southwest, increasing to about 50 knots from the west through 23,000 feet msl. Calculations by the Rawinsonde Observation Program (RAOB) suggested few to broken cloud condition from the surface through about 21,000 feet msl, with light rime or mixed icing between 12,000 and 16,000 feet msl.

Satellite imagery identified cloudy conditions along the latter portion of the accident airplane's flight path. The coldest cloud-top temperatures in the vicinity of this portion of the flight were -30 degrees Celsius, which corresponded to heights of approximately 29,500 msl. However, the cloud top temperatures varied from -30 degrees Celsius to +2 degrees Celsius along this portion of the flight path. Weather radar data identified hydrometeor classification associated with dry snow, with some nearby ice crystals. In addition, radial velocity measurements identified some potential for wind shear between 12,000 feet and 16,000 feet msl.

A pilot report (PIREP) was received about 1520 that noted light rime ice and moderate chop/turbulence between 13,000 feet msl and 17,000 feet msl about 30 miles north-northeast of MTJ.

#### AIRPORT INFORMATION

The Montrose Regional Airport (MTJ) was located about 1 mile northwest of the City of Montrose at an elevation of 5,759 feet. It was served by two paved runways: runway 17-35 was 10,000 feet long by 150 feet wide; runway 13-31 was 7,510 feet long by 100 feet wide. Both runways were constructed of asphalt. The airport was non-towered and operations were supported by a common traffic advisory frequency (CTAF), commonly referred to as Unicom. Denver ARTCC provided air traffic control services for the surrounding airspace.

Instrument flight rules (IFR) operations into MTJ were supported by six FAA-approved terminal approach procedures. Runway 35 was served by an RNAV (GPS) approach. For aircraft initially southeast of the airport, the procedure provided an initial approach fix at YARUB navigation fix. The minimum altitude for the initial segment beginning at YARUB was 12,000 feet msl. The approach procedure subsequently required a right turn to the north-northwest toward MTJ at the COQKU

navigation fix. The minimum descent altitude (MDA) was 6,380 feet msl. One mile visibility was required to descend from the MDA and land.

#### WRECKAGE AND IMPACT INFORMATION

The airplane came to rest inverted about 60 feet below the surface of the Ridgeway Reservoir, near the eastern shore. The aft fuselage/empennage had separated from the airframe at a point near the leading edge of the vertical stabilizer. The aft fuselage/empennage section was observed floating near the western edge of the reservoir by local authorities. The aft fuselage/empennage section was recovered separately from the surface of the reservoir.

The wings, engine and propeller remained attached to the fuselage. The entire lower surface of the fuselage, wings and engine cowling exhibited upward crushing damage. The uniform extent of the damage appeared consistent with a near level attitude, upright impact with the surface of the reservoir. A partial circumferential fracture (tear) of the fuselage skin was located approximately in-line with the wing trailing edges. The empennage/aft fuselage section had separated about 2 feet aft of the aft pressure bulkhead. The aft pressure bulkhead was deformed over the lower one-third of the panel, but appeared otherwise intact.

The instrument panel was dislocated from the surrounding airframe structure. The pilot and co-pilot control wheels remained in place relative to the panel. The throttle quadrant was partially dislocated from the instrument panel. Aileron control continuity was confirmed within the fuselage from each wing root to the cockpit.

The left wing was deformed and damaged over the entire span. The lower wing skin was deformed upward and into the underlying sub-structure over the entire inboard one-half of the span. The inboard portion of both the forward and aft wing spars, including the wing-to-fuselage attachment lugs, appeared intact and undeformed. The left aileron was partially separated. The hinge fittings appeared fractured consistent with overstress. Aileron control continuity was confirmed from the control surface to the wing root. The left flap was separated from the wing completely and recovered from the reservoir. The flap assembly was separated into two sections near the mid-span hinge. The actuator extension was consistent with a flaps-up position. The spoiler panel remained attached to the wing and the control linkage was intact. The left main landing gear was in the retracted position.

The right wing was deformed and damaged over the entire span. The lower wing skin was deformed upward and into the underlying sub-structure over the entire span. The inboard portion of both the forward and aft wing spars, including the wing-to-fuselage attachment lugs, appeared intact and undeformed. The right aileron was separated and not recovered from the reservoir. However, the outboard aileron closure rib remained attached to the hinge and the aileron control push-pull tube. Aileron control continuity was confirmed to the wing root. The flap assembly was separated into two sections near the mid-span hinge, with the outboard portion remaining partially attached to the wing. The inboard portion was not recovered. The actuator extension was consistent with a flaps-up position. The spoiler panel remained attached to the wing, and the control linkage was intact. The right main landing gear was in the retracted position.

The empennage/aft fuselage section had separated from the remainder of the airframe near the forward edge of the vertical stabilizer. The separation appeared consistent with an overstress failure. The fuselage section was crushed upward. The horizontal stabilizers remained attached to the aft fuselage

section. The left horizontal stabilizer appeared intact. The left elevator remained attached to the stabilizer and the left trim tab remained attached to the elevator. The left elevator inboard bellcrank and torque tube remained attached to the centerline hinge point. The right horizontal stabilizer exhibited a deformation/buckle at the root adjacent to the fuselage. The right elevator had separated from the horizontal stabilizer and was not recovered from the reservoir. The upper and lower elevator stops remained secured to the centerline elevator hinge. The stops appeared to be intact and undeformed. The lower (down) elevator stops did not exhibit any marks consistent with contact from the elevators. The upper elevator stops exhibited marks consistent with contact from the elevators at the upper limit of travel. Full upward deflection of the elevators is consistent with an upright, level attitude impact with the reservoir surface.

Elevator control continuity was confirmed to the left elevator, with the exception of a separation of the elevator control rod aft of the fuselage aft pressure bulkhead; the separation appeared consistent with overstress. The right elevator control tube was separated immediately forward of the elevator attachment point. (The right elevator was separated as previously noted.) The elevator control rods forward of the aft pressure bulkhead were deformed consistent with the surrounding fuselage impact damage. However, the control rods were attached and continuous to the cockpit area.

The rudder remained attached to the vertical stabilizer, and the rudder trim tab remained attached to the rudder. The lower edge of the rudder trim tab was deformed. An impression was observed on the upper surface of the right horizontal stabilizer that appeared to match the size and shape of the lower surface of the rudder trim tab. At the time of the examination, the rudder trim tab was deflected to the right relative to the rudder trailing edge. The location of the impression appeared consistent with the rudder being deflected to the right at or near the extent of travel at the moment of impact. Rudder control continuity was confirmed to the aft fuselage rudder lever assembly. The rudder control cable sector remained attached to the lever assembly; however, a portion of the sector had separated. The fracture surface appeared consistent with an overstress failure. In addition, one rudder cable also failed forward of the control sector; the cable separation was frayed consistent with an overload failure. The rudder control cables were otherwise continuous to the cockpit controls. The rudder trim tab remained attached to the trim actuator linkage. Examination of the rudder trim motor assembly revealed damage consistent with water immersion. However, electrical continuity of the trim motor and the pilot/co-pilot rudder trim switches was confirmed.

The engine remained attached to the engine mount. The mount was deformed consistent with impact forces. Visual examination of the engine revealed that the compressor inlet and gas generator cases had partially separated along the upper circumference of the mounting flanges. The exhaust ducts were deformed and crushed upward. The reduction gearbox exhibited damage consistent with impact. The reduction gearbox chip detector was free of metallic (ferrous) debris. The accessory gearbox appeared undamaged. The accessory gearbox coupling spline was separated; the appearance of the fracture surface was consistent with overstress. Engine control continuity was confirmed from each component to the firewall. The oil, fuel, and air filters appeared clean and unobstructed. The engine compressor and turbine sections exhibited circumferential scoring, smearing, and heating discoloration consistent with rotation at impact. The combustion chamber exhibited normal operating signatures with no indication of operational distress. Testing of the fuel pump revealed no anomalies. Testing of the fuel control unit determined that fuel flow values were higher than factory settings. However, the settings were consistent with field adjustments and/or issues with water immersion, and they remained within range to allow normal engine operation.



The propeller assembly remained attached to the engine reduction gear assembly. All propeller blades remained attached to the hub and were deformed. Each blade appeared to be in the feathered position at the time of recovery. The spinner was crushed and torn, but was attached to the propeller assembly at the time of recovery. The engine/propeller mounting appeared intact, and all eight mounting bolts were securely installed and safety wired. The pitch change mechanism, including the cylinder, piston, pitch change rod, fork, and feathering spring and guides appeared intact. Both the low pitch and the feather stops appeared to be intact. The preload plates corresponding to two of the blades exhibited impression marks associated with the fork bumper. The impressions corresponded to a blade angle of approximately 26 degrees at the time the impressions were made, which are within the normal operating range of the propeller assembly. Testing of the propeller governor did not reveal any anomalies that would have prevented normal operation.

#### MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy of the pilot was conducted at the Montrose Memorial Hospital, Montrose, Colorado, on March 28, 2014, by the authority of the Ouray county coroner. The pilot's death was attributed to multiple traumatic injuries sustained in the accident.

The FAA Civil Aerospace Medical Institute toxicology report stated that Yohimbine was detected in urine and liver. No ethanol was detected in vitreous. Yohimbine is a prescription Alpha 2 blocker. It is also available as an over-the-counter dietary supplement.

The pilot did not report any significant medical issues or any medication usage on his most recent medical certificate application, nor did the FAA-designated medical examiner identify any significant issues during the physical examination.

#### ADDITIONAL INFORMATION

The Pilot's Operating Handbook (POH) noted the following in the case of an accidental spin:

- 1) Control wheel . . . Neutral: Pitch and Roll
  - 2) Rudder . . . Fully Opposed to the Spin
  - 3) Power lever . . . Idle
  - 4) Flaps . . . Up
- When rotation is stopped . . .
- 5) Level the wings and ease out of the dive.

The POH also noted that voluntary (intentional) spins are prohibited.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	49, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 3 With waivers/limitations	<b>Last FAA Medical Exam:</b>	February 13, 2014
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	January 4, 2014
<b>Flight Time:</b>	908 hours (Total, all aircraft), 9 hours (Total, this make and model), 839 hours (Pilot In Command, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Socata	<b>Registration:</b>	N702H
<b>Model/Series:</b>	TBM 700 NO SERIES	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1996	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	112
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	November 21, 2013 Annual	<b>Certified Max Gross Wt.:</b>	6579 lbs
<b>Time Since Last Inspection:</b>	64 Hrs	<b>Engines:</b>	1 Turbo prop
<b>Airframe Total Time:</b>	4848.6 Hrs at time of accident	<b>Engine Manufacturer:</b>	P&W
<b>ELT:</b>	C126 installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	PT6A-64
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	700 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	MTJ,5759 ft msl	<b>Distance from Accident Site:</b>	19 Nautical Miles
<b>Observation Time:</b>	13:53 Local	<b>Direction from Accident Site:</b>	158°
<b>Lowest Cloud Condition:</b>	Few / 1500 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 3000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	9 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	210°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.1 inches Hg	<b>Temperature/Dew Point:</b>	5°C / 2°C
<b>Precipitation and Obscuration:</b>	Light - None - Rain		
<b>Departure Point:</b>	Bartlesville, OK (BVO )	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	Montrose, CO (MTJ )	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	11:11 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Montrose Regional MTJ	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	5759 ft msl	<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>		<b>IFR Approach:</b>	Global positioning system
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	4 Fatal	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	5 Fatal	<b>Latitude, Longitude:</b>	38.218055,-107.745277(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Sorensen, Timothy
<b>Additional Participating Persons:</b>	Bernard Connolly; FAA Flight Standards; Salt Lake City, UT Philippe Santoro; Daher-Socata; Miami, FL Thomas Berthe; Pratt & Whitney Canada; St Hubert Daniel Boggs; Hartzell Propeller Inc.; Piqua, OH Steven Krugler; Woodward Inc.; Rockford, IL
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<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=88953">https://data.ntsb.gov/Docket?ProjectID=88953</a>

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](#).