



National Transportation Safety Board Aviation Accident Final Report

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| Location: | Mt. Pleasant, Wisconsin | Accident Number: | CEN11FA625 |
| Date & Time: | September 5, 2011, 18:33 Local | Registration: | N850SY |
| Aircraft: | Socata TBM 700 | Aircraft Damage: | Substantial |
| Defining Event: | Loss of engine power (total) | Injuries: | 1 Fatal |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

During cruise flight, the pilot reported to an air traffic controller that the airplane was having engine fuel pressure problems. The controller advised the pilot of available airports for landing if necessary and asked the pilot's intentions. The pilot chose to continue the flight. GPS data recorded by an onboard avionics system indicated that the engine had momentarily lost total power about 20 seconds before the pilot reported a problem to the controller. About 7 minutes later, when the airplane was about 7,000 feet above ground level, the engine lost total power again, and power was not restored for the remainder of the flight. The pilot attempted to glide to an airport about 10 miles away, but the airplane crashed in a field about 3 miles from the airport.

GPS data showed a loss of fuel pressure before each of the engine power losses and prolonged lateral g-forces consistent with a side-slip flight condition. The rudder trim tab was found displaced to the left about 3/8 inch. Flight testing and recorded flight data revealed that the rudder trim tab displacement was consistent with that required to achieve no side slip during a typical climb segment. The GPS and flight data indicated that the lateral g-forces increased as the airplane leveled off and accelerated, indicating that the automatic rudder trim feature of the yaw damper system was either not engaged or not operating. The recorded data indicated autopilot system engagement, which should have automatically engaged the yaw damper system. However, the data indicated the yaw damper was not engaged; the yaw damper could have subsequently been turned off by several means not recorded by the avionics system. Testing of the manual electric rudder (yaw) trim system revealed no anomalies, indicating that the pilot would have still been able to trim the airplane using the manual system. It is likely that the pilot's failure to properly trim the airplane's rudder led to a prolonged uncoordinated flight condition. Although the fuel tank system is designed to prevent unporting of the fuel lines during momentary periods of uncoordinated flight, it is not intended to do so for extended periods of uncoordinated flight. Therefore, the fuel tank feed line likely unported during the prolonged uncoordinated flight, which resulted in the subsequent loss of fuel pressure and engine power.

The propeller and propeller controls were not in the feathered position, thus the windmilling propeller would have increased the airplane's descent rate during the glide portion of the flight. The glide airspeed

used by the pilot was 20 knots below the airspeed recommended by the Pilot's Operating Handbook (POH), and the reduced airspeed also would have increased the airplane's descent rate during the glide. The flight and GPS data indicated that the airplane had a gliding range of about 16 nautical miles from the altitude where the final loss of engine power occurred; however, the glide performance was dependent on several factors, including feathering the propeller and maintaining the proper airspeed, neither of which the pilot did. Although the POH did not contain maximum range glide performance data with a windmilling propeller, based on the available information, it is likely that the airplane could have glided to the alternate airport about 10 miles away if the pilot had followed the proper procedures.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's failure to properly trim the airplane's rudder during cruise flight, which resulted in a prolonged uncoordinated flight condition, unporting of the fuel tank feed line, and subsequent fuel starvation and engine power loss. Contributing to the accident was the pilot's failure to feather the engine's propeller and maintain a proper glide airspeed following the loss of engine power.

Findings

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|------------------|---------------------------------------|
| Aircraft | Yaw control - Incorrect use/operation |
| Personnel issues | Aircraft control - Pilot |
| Personnel issues | Use of policy/procedure - Pilot |
| Aircraft | Fuel - Fluid level |

Factual Information

HISTORY OF FLIGHT

On September 5, 2011, about 1833 central daylight time, a Socata TBM 700, N850SY, impacted terrain near Mount Pleasant, Wisconsin, during a forced landing following a loss of engine power. The pilot was fatally injured. The airplane was registered to Green Plane LLC, and operated by the pilot under the provisions of 14 Code of Federal Regulations (CFR) Part 91 as a personal flight. Visual flight rules (VFR) conditions prevailed for the flight, which operated on an instrument flight rules (IFR) flight plan. The flight originated from the Central Wisconsin Airport (CWA), Mosinee, WI, about 1626, and the intended destination was the Waukegan Regional Airport (UGN), Waukegan, Illinois.

GPS track data, retrieved from the Garmin G1000 avionics system on the airplane, depicted the airplane departing CWA about 1626. The airplane remained in the CWA traffic pattern, performing two full stop landings at CWA prior to proceeding toward UGN. At 1653, the airplane took off from runway 8 at CWA and then proceeded southeast for about 5 nautical miles then south for 12 nautical miles where it crossed the Stevens Point Airport (STE) at an altitude of about 12,000 feet mean sea level (msl). After crossing STE, the airplane turned southeast to a heading of 130 degrees. During this portion of the flight, the airplane was in a climb reaching an altitude of about 19,000 feet msl at 1703:15.

Data retrieved from the G1000 indicated that during the climb portion of the flight the roll angle and lateral acceleration were neutral. This indicated that the rudder trim was appropriately set for the climb portion of the flight. As the airplane leveled off and accelerated from the 140 knot indicated airspeed (IAS) for the climb to 200 knots IAS in level flight, the lateral acceleration steadily increased reaching values in excess of 0.15 g (positive values indicate a right sideslip), and the roll angle decreased to values less than -5 (positive values indicate a right roll), corresponding to a left bank in excess of 5 degrees angle of bank. The lateral acceleration remained elevated throughout the remainder of the flight. This and the recorded roll angles indicated that the airplane was flying in a slip.

At 1811:30, the airplane began a descent from 19,000 feet msl and the IAS increased to about 225 knots. As the speed increased, the lateral acceleration increased to about 0.2g. At 1822:33, when the airplane was at 11,000 feet msl and about 7 nautical miles north of the Timmerman Airport (MWC), the avionics system recorded a momentary complete loss of engine torque. At this time the pilot was in communication with the General Mitchell International Airport (MKE) West Departure control position. At 1822:53, the pilot informed the controller that he had a problem with the airplane, later reporting that the problem was related to fuel pressure. The controller advised the pilot of three airports available for landing if necessary, and noted that the airplane had descended 1,600 feet below its assigned altitude of 11,000 feet msl. When the controller inquired as to the pilot's intentions, the pilot elected to continue the flight to UGN. The controller subsequently cleared the flight to 8,000 feet msl and the airplane maintained that altitude for approximately 3 minutes.

At 1829:29, the avionics system recorded another complete loss of engine torque and the pilot reported the loss of power to the controller. Engine power was not restored for the remainder of the flight. At the time of the power loss, the airplane was about 10 miles west of the John H. Batten Airport (RAC), Racine, Wisconsin, at about 7,600 feet msl. The field elevation of RAC was 674 feet msl. At the time of the loss of engine power, the airplane was about 9.25 nautical miles west of RAC. GPS data showed that

the airplane turned toward RAC and communications transcripts verified that the pilot was attempting to glide the airplane to RAC for a forced landing. The airplane descended at about 100 knots IAS toward RAC. The accident site and last recorded GPS position were about 3 miles southwest of the approach end of runway 4 at RAC.

PERSONNEL INFORMATION

The pilot held a commercial pilot certificate with single-engine land airplane and instrument-airplane ratings. He was issued a third-class airman medical certificate, with a restriction for corrective lenses, on April 28, 2011.

The pilot had logged about 2,075 hours total flight time, with approximately 165 hours flight time in the accident airplane. The pilot's logbook included an endorsement dated February 5, 2011, that indicated the completion of a flight review as required by 14 CFR 61.56.

Logbook and training records indicated that the pilot had received type specific training for the accident airplane from SimCom Training Centers, Orlando, Florida, in August of 2010, and from Turbine Solutions, Inc., St Cloud, Florida, in February of 2011. A review of the training records from Turbine Solutions indicated that the pilot had average knowledge of the airplane systems and procedures. The training record noted that the instructor discussed with the pilot the possibility of stepping down to a less complex airplane or having another pilot accompany on long cross country flights. The pilot completed the recurrent training at Turbine Solutions and was issued a completion certificate on February 5, 2011.

AIRCRAFT INFORMATION

The accident airplane was a Socata model TBM 700N, serial number 546. It was a single engine low-wing monoplane of mainly aluminum construction. It had a retractable tricycle landing gear and was configured to seat six occupants. The airplane was powered by a Pratt & Whitney Canada PT6A-66D engine, serial number RV0210, rated to produce 850 shaft-horsepower.

The airframe and engine had accumulated 217.8 hours total time in-service at the time of the accident. The most recent annual inspection was completed on July 28, 2011, at 201.9 hours airframe time. According to maintenance records, the most recent maintenance action was accomplished on August 9, 2011 at 211.6 airframe hours, and involved troubleshooting for a flap problem. There were no subsequent entries in the maintenance logbook.

METEOROLOGICAL INFORMATION

Weather conditions recorded by the RAC Automated Surface Observing System (ASOS), located about 3 miles northeast of the accident site, at 1853, were: wind from 10 degrees at 11 knots gusting to 19 knots, visibility 10 miles, scattered clouds at 3,600 feet agl, temperature 14 degrees Celsius, dew point 7 degrees Celsius, and altimeter 30.15 inches of mercury.

WRECKAGE AND IMPACT INFORMATION

The airplane came to rest on a flat farm field facing east and the initial impact point was about 130 feet south of the main wreckage. The initial impact point was located on the north side of a road ditch on the north side of a highway.

The fuselage was fractured at a position near the aft edge of the entry door. The tail surfaces including the elevators, horizontal stabilizers, rudder, and vertical stabilizer, remained attached to the aft fuselage. No damage was evident on the tail surfaces. The elevator trim tabs appeared to be in a neutral position

and were aligned with the elevator. The rudder trim tab was displaced tab left about 10 mm (3/8"). The forward fuselage was predominately intact with crushing of the lower fuselage and buckling of the fuselage skins. The engine remained attached to the fuselage and there was bending of the firewall.

Both wings remained partially attached to the fuselage. The wings remained predominately intact with crushing of portions of the leading edge. The left flap was separated at about half span. The outboard portion of that flap was located between the initial impact point and the main wreckage. The inboard portion of the flap remained attached to the wing. The left aileron remained attached to the wing by its outboard hinge. The right aileron remained attached to the wing by its outboard hinge. The right flap remained attached to the wing.

Three propeller blades exhibited rearward bending with some chordwise scratching/abrasion of the leading edge of the blades. The fourth blade exhibited twisting of the blade toward low pitch and chordwise abrasion/scratching of the leading edge of the blade. The propeller blades were not in a feathered position.

There was an odor at the accident site consistent with aviation jet fuel.

Documentation of the various cockpit controls and switches was performed with the following findings:

- Power Lever – forward
- Propeller lever – forward
- Condition lever – Forward
- Manual Override – Aft
- Flap Lever – Forward (up)
- Fuel Selector – Left tank
- Landing Gear – Up
- Engine Starter – Off
- Engine Ignition – Auto
- Auxiliary Boost Pump – Auto
- Fuel Selector – Manual
- Electrical Power Crash lever – Down

After the on-scene examination, the airplane was transported to an enclosed facility for further examination. During this examination, the wing fuel tank inboard access panels were removed and the inside of the fuel tanks examined. The interior of the tanks were clean. The fuel strainers at the fuel pickup were clean. The one-way valves located on the outboard rib of the inboard fuel bay were checked. The valves appeared clean and moved freely. No obstruction of the valves was found.

The airplane was equipped with a Garmin G1000 avionics system with data recording capabilities. The data card was located and recovered after removal of the unit's bezel. The contents of the data card were downloaded for further examination.

The airplane's engine was removed and inserted into a shipping container for examination at the manufacturer's facility. The subsequent examination consisted of disassembly of the engine and disassembly and/or functional testing of the fuel pump, fuel control unit, propeller speed governor, flow divider valve, compressor bleed valve, fuel/oil heat exchanger, solenoid valve, torque limiter, fuel nozzles, and overspeed governor. The examination revealed no anomalies with regard to the engine or

accessories that would have prevented engine operation. Some test parameters were not within new factory specifications but would not have prevented normal operation.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy of the pilot was performed by the Waukesha County Medical Examiner's Office, Waukesha, Wisconsin, on September 7, 2011. The pilot's death was attributed to injuries received in the accident.

Toxicology testing was performed by the FAA Civil Aerospace Medical Institute. Testing results listed the following substances:

- >> Rosuvastatin detected in Urine
- >> Rosuvastatin NOT detected in Blood (Heart)
- >> 11.61 (ug/mL, ug/g) Theophylline detected in Blood (Heart)
- >> 62.3 (ug/mL, ug/g) Theophylline detected in Urine

ADDITIONAL INFORMATION

The airplane had integral fuel tanks formed by sealing of the structure in each wing. Each tank was divided into an inboard (feeder) area and an outboard (storage) area. The feeder section of each fuel tank was formed by the root rib and the second rib outboard from the root. This rib contained one-way valves that would allow fuel to flow from the outboard storage area into the inboard feeder area, but prevent fuel from flowing outboard. The one way valves in the feeder section were intended to prevent unporting of the fuel tank pickup due to momentary periods of uncoordinated flight as would be encountered during turbulence, but were not intended to do so for extended periods of uncoordinated flight.

A review of flight data indicated that the airplane was initially operated with the fuel selection in the automatic mode as evidenced by the changes in the fuel levels during ground operation. During this period, the fuel quantity of one tank would reduce for a period of about 75 seconds while the level in the other tank remained constant. After the 75 second period, the roles would reverse. This characteristic is consistent with the description of automatic fuel sequencer operation described in the Pilot's Operating Handbook Manual (POH). The POH stated that during flight, the interval would change from 75 seconds for ground operation to 10 minutes for in-flight operation. The sensitivity of the fuel level readings in flight precluded making a positive determination of the fuel selection mode during flight, however, during postaccident examination of the airplane, the fuel mode selector switch was found in the manual position and the fuel selector valve was positioned on the left tank.

Each wing tank contained a low fuel detector that senses when the level in an individual fuel tank reaches 9.1 gallons of usable fuel remaining. The POH stated that once reaching 9.1 gallons remaining in a tank, a low fuel level alert would be displayed on the crew alerting system (CAS), and if the fuel selection mode was set for automatic operation, the fuel sequencer would automatically select the opposite tank and remain on that tank until its level also reached 9.1 gallons usable fuel remaining, at which point the sequencer would switch tanks every 75 seconds.

The auxiliary electric fuel boost pump system in the airplane was controlled by the "AUX BP" switch on the fuel panel and allowed the pilot to select one of two operating modes, "ON", and "AUTO". In automatic mode the system was designed to automatically activate the electric pump if a drop in fuel pressure was detected at the mechanical fuel pump outlet. Once activated, the auxiliary boost pump

would continue to run for the remainder of the flight unless turned off by the pilot. During postaccident examination, the "AUX BP" switch was found in the "AUTO" position. Review of the recorded data from the G1000 showed that fuel pressure prior to the first loss of engine torque was about 16 psi. A few seconds prior to the first loss of engine torque, the fuel pressure began to decrease followed by a decrease in fuel flow and engine torque. This was then followed by an increase in fuel pressure and restoration of engine torque. The recorded fuel pressure once engine torque was restored was about 36 psi, which indicated that the auxiliary electric boost pump had activated. Fuel pressure readings remained about 36 psi for approximately 6 minutes and 15 seconds when the pressure dropped to below 5 psi. This drop in pressure coincided with the second loss of engine torque. Although engine torque was not restored, the recorded fuel pressure increased, peaking at 27 psi before leveling off at about 20 psi. Fuel pressure remained about 20 psi or above for the remainder of the flight but engine torque was not restored.

The flight parameter data, specifically the lateral acceleration and bank angle parameters indicated that after leveling off at cruise altitude, the airplane yawed to the right and banked to the left consistent with a side-slip. The airplane was in a slip condition for a period of about 19 minutes prior to the first loss of engine torque. During this period the average lateral acceleration was 0.14 G, and the average bank angle was 8 degrees left bank.

Information provided by the airplane manufacturer indicated that the airplane's fuel tank was delineated by the front spar and the leading edge spar from rib N1 to rib N7, then by the rear spar and the leading edge spar from rib N7 to rib N18. The inboard collector tank was delineated between ribs N1 and N3. The fuel capacity of the feeder section of the tank was about 33 liters or about 8.7 gallons. Just prior to the first loss of engine torque, the fuel flow was about 57 gallons per hour, and prior to the second loss of torque the fuel flow was about 50 gallons per hour. The fuel tank was equipped with three capacitance type sending units in each wing. According to the manufacturer, the fuel quantity indication was unreliable given the lateral acceleration that was present during the flight.

The airplane was equipped with an automatic flight control system (AFCS) that included an autopilot and yaw damper. The autopilot controlled the aircraft pitch and roll attitudes following commands received from the flight director. The yaw damper system operated independent of autopilot and was designed to monitor lateral acceleration to achieve coordinated flight. The system was also designed to automatically actuate the rudder trim to achieve trimmed flight. The automatic trim feature was only enabled when the yaw damper system was engaged. The rudder trim system also included a manual electric yaw trim (MEYT) switch on the pilot yoke that enabled the pilot to trim the rudder without yaw damper engagement. The yaw damper system could be enabled independent of the autopilot by depressing the "YD" button. In addition, if the pilot selected the "AP" key, the autopilot, yaw damper and flight director would be activated simultaneously. The yaw damper system could be disengaged by activating the MEYT switch located on the yoke, or by depressing the "YD" button. The parameters recorded by the G1000 avionics system did not include a discrete parameter indicating yaw damper engagement or trim motor actuation. Based on the recorded data, the lateral acceleration corresponded with the airplane's airspeed during the entire flight, including the two takeoffs and landings at CWA, meaning that as the airspeed increased, so did the lateral acceleration. This behavior is consistent with an out of trim condition. Functional testing of the rudder trim motor and the digital/analog converter interface for the trim motor was performed using an exemplar airplane. No anomalous operation was noted during the test. Further functional testing of the MEYT, rudder trim motor, and digital/analog converter interface, was accomplished on the accident airplane and no anomalous behavior was noted.

Comprehensive functional testing of the yaw damper system was not performed, however, an electrical performance test revealed no anomalies and confirmed the proper functioning of the MEYT from the cockpit.

An exemplar airplane was used to perform a short test flight. Prior to the test flight, the rudder trim indicator reading to achieve 10mm of tab left deflection was noted. During the flight at a normal cruise power setting, the MEYT was activated resulting in the disengagement of the yaw damper system as expected. The MEYT was actuated to achieve 10mm of left rudder trim tab deflection. This resulted in a right yaw and left bank in order to achieve a constant heading. This test was performed twice during the flight before returning to the airport. Download of the flight data from the exemplar airplane was compared to the flight data from the accident flight. The lateral g-force and bank angles recorded during the test flight were consistent with the data recorded during the accident flight.

The emergency procedures section of the POH denoted the following procedure in the event of an engine failure:

- 1 -- If AP engaged : "AP / TRIM DISC INT" push--buttonPRESSED
- 2 -- Power lever IDLE
- 3 -- Propeller governor lever FEATHER
- 4 -- Condition lever CUT OFF
- 5 -- Remaining fuel CHECK
- 6 -- Tank selector SWITCH TANKS
- 7 -- "AUX BP" switch and fuel pressureCHECK / CORRECT
- 8 -- Air start (Refer to Chapter 3.4)
- 9 -- In case of high altitude (above 12000 ft), undertake an EMERGENCY DESCENT (Refer to Chapter 3.6)
- 10 -- If air start not successful, perform a FORCED LANDING (Refer to Chapter 3.7)

Section 3.7 of the POH entitled "FORCED LANDING (ENGINE CUT OFF)" denoted the following procedure:

- 1 -- Power lever IDLE
- 2 -- Propeller governor lever FEATHER
- 3 -- Condition lever CUT OFF
- 4 -- Tank selector OFF
- 5 -- "AUX BP" fuel switch OFF
- 6 -- "BLEED" switch OFF
- 7 -- "AIR COND" switch OFF
- 8 -- "DUMP" switch ACTUATED
- 9 -- Glide speed 120 KIAS maintained until favorable ground approach

If ground allows it :

- 10 -- "ESS BUS TIE" reverse switch NORMAL in order to have GEAR and FLAPS available
- 11 -- Landing gear DN

If night conditions :

12 -- L.LDG / R.LDG ON

If ground does not allow it :

13 -- Keep landing gear UP

14 -- When chosen ground is assured FLAPS LDG

15 -- CRASH lever PULL DOWN

16 -- Final approach : Weight < 6250 lbs (2835 kg) : IAS = 110 KIAS

Weight >= 6250 lbs (2835 kg) : IAS = 115 KIAS

17 -- Land flaring out

18 -- EVACUATE after stop

The maximum range descent profile within the POH indicated that the airplane had a gliding range of about 16 nautical miles from the altitude where the final loss of engine power occurred (6,970 feet above ground level). The maximum range descent profile was dependent on several factors including feathering the propeller and having the landing gear in the retracted position. The POH did not contain maximum range glide performance data with a windmilling propeller.

History of Flight

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| Enroute-cruise | Loss of engine power (total) (Defining event) |
| Enroute-cruise | Fuel starvation |
| Landing | Collision with terr/obj (non-CFIT) |

Pilot Information

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|----------------------------------|--|--|----------------|
| Certificate: | Commercial | Age: | 76 |
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Left |
| Other Aircraft Rating(s): | None | Restraint Used: | |
| Instrument Rating(s): | Airplane | Second Pilot Present: | No |
| Instructor Rating(s): | None | Toxicology Performed: | Yes |
| Medical Certification: | Class 3 With waivers/limitations | Last FAA Medical Exam: | April 28, 2011 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | |
| Flight Time: | 2075 hours (Total, all aircraft), 165 hours (Total, this make and model) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|--|---------------------------------------|----------------|
| Aircraft Make: | Socata | Registration: | N850SY |
| Model/Series: | TBM 700 | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | No |
| Airworthiness Certificate: | Normal | Serial Number: | 546 |
| Landing Gear Type: | Retractable - Tricycle | Seats: | 7 |
| Date/Type of Last Inspection: | July 28, 2011 Annual | Certified Max Gross Wt.: | 7430 lbs |
| Time Since Last Inspection: | 15.9 Hrs | Engines: | 1 Turbo prop |
| Airframe Total Time: | 217.8 Hrs at time of accident | Engine Manufacturer: | P&W CANADA |
| ELT: | Installed, activated, did not aid in locating accident | Engine Model/Series: | PT6A-66 SER |
| Registered Owner: | | Rated Power: | 850 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: | RAC, 674 ft msl | Distance from Accident Site: | 3 Nautical Miles |
| Observation Time: | 18:53 Local | Direction from Accident Site: | 45° |
| Lowest Cloud Condition: | Scattered / 3600 ft AGL | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 11 knots / 19 knots | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 10° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30.14 inches Hg | Temperature/Dew Point: | 14° C / 7° C |
| Precipitation and Obscuration: | | | |
| Departure Point: | Mosinee, WI (CWA) | Type of Flight Plan Filed: | IFR |
| Destination: | Waukegan, IL (UGN) | Type of Clearance: | IFR |
| Departure Time: | 17:53 Local | Type of Airspace: | |

Wreckage and Impact Information

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|----------------------------|---------|-----------------------------|----------------------|
| Crew Injuries: | 1 Fatal | Aircraft Damage: | Substantial |
| Passenger Injuries: | | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 1 Fatal | Latitude, Longitude: | 42.740276,-87.872222 |

Administrative Information

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| Investigator In Charge (IIC): | Brannen, John |
| Additional Participating Persons: | Paul Sweeney; FAA - Milwaukee FSDO; Milwaukee, WI Philippe Santoro; Daher-Socata; Pembroke Pines, FL Carl Rockel; Pratt & Whitney Canada; Hortonville, WI |
| Original Publish Date: | May 8, 2014 |
| Note: | The NTSB traveled to the scene of this accident. |
| Investigation Docket: | https://data.nts.gov/Docket?ProjectID=81723 |

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).