

Aviation Investigation Final Report

| Location: | Osage City, Kansas | Accident Number: | CEN16LA177 |
|-------------------------|---------------------------------------|------------------|-------------|
| Date & Time: | April 28, 2016, 15:10 Local | Registration: | N17PY |
| Aircraft: | Boeing A75N1 (PT17) | Aircraft Damage: | Substantial |
| Defining Event: | Fuel related | Injuries: | 3 None |
| Flight Conducted Under: | Part 91: General aviation - Skydiving | | |

Analysis

The airplane departed on a parachute jump flight with the airline transport pilot seated in the rear cockpit and two parachutists standing outside on the lower wing. About 200 ft above ground level, the pilot sensed a loss of engine power and the airplane stopped climbing. The airplane descended, and the pilot conducted an off-airport forced landing to a flat, open, muddy field about 1,600 ft north of the airport, during which the main landing gear separated from the airframe. A postaccident examination of the airplane revealed no anomalies. Review of weather information for the area at the time of the accident indicated that conditions were conducive to the accumulation of serious icing at glide power settings; however, the airplane was operating at takeoff power at the time of the accident, and the reason for the loss of engine power could not be determined.

Probable Cause and Findings

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

A partial loss of engine power for reasons that could not be determined based on the available information.

Findings

| Not determined | (general) - Unknown/Not determined |
|----------------|--|
| Aircraft | (general) - Damaged/degraded |
| Aircraft | Intake anti-ice, deice - Not used/operated |

Factual Information

| History of Flight | |
|-------------------|--------------------------------|
| Initial climb | Fuel related (Defining event) |
| Landing | Off-field or emergency landing |
| Landing | Landing gear collapse |
| | |

On April 28, 2016, about 1510 central daylight time, a Boeing A75N1 (PT-17) single-engine airplane, N17PY, impacted terrain after a loss of engine power shortly after departing the Osage City Municipal Airport (53K), Osage City, Kansas. The pilot and two passengers were not injured, and the airplane was substantially damaged. The airplane was registered to, and operated by a private individual, as a 14 Code of Federal Regulations Part 91 sport parachuting flight. Visual meteorological conditions (VMC) prevailed and a flight plan had not been filed. At the time of the accident the airplane had just departed 53K for the skydiving flight.

The airplane departed with the pilot seated in the rear cockpit and with two parachutists standing outside, on the lower wing. The parachutists held on to the edge of the front cockpit and were secured by a safety strap. .After the airplane climbed to about 200 ft agl (above ground level), the pilot sensed a loss of engine power and the airplane stopped climbing. The airplane descended and the pilot executed an off-airport forced landing to a flat open field about 1,600 feet north of 53K. The airplane cleared the top of 32-foot tall electric power lines and came to rest upright, about 100 feet from the initial touchdown spot.

The airplane landed hard with the muddy field resulted in the complete separation of both main landing gear legs. The two parachutists reported that they were not ejected and remained restrained by the safety strap. A postaccident examination of the airplane at the scene revealed that there was substantial damage to the lower wing and fuselage. The examination noted that there was adequate fuel on board, no fuel spill, and no postimpact fire. Flight control continuity was confirmed. The pilot said he did not use carburetor heat .

An examination of the engine and its components showed no anomalies. An inspection and testing of the engine spark plugs indicated normal wear and that they were fully functional. The wiring harness was visually inspected and appeared normal. A bench test of both magnetos showed they were fully functional.

The closest weather reporting station was at FOE, Topeka, Kansas; located 20 miles northeast from the accident location, At 1453 the automated surface observation system at FOE recorded wind from 330 degrees at 13 knots, visibility 10 miles, scattered clouds at 2,700 ft above ground level, temperature 16 ° Celsius (C), dew point 8 ° C, and an altimeter setting of 29.96 inches of Mercury.

A review of the carburetor icing probability chart in Federal Aviation Administration, Special Information Bulletin CE-09-35, revealed the airplane was operating in an area favorable for serious icing at glide power.

Pilot Information

| Certificate: | Airline transport; Commercial | Age: | 37,Male |
|---------------------------|---|-----------------------------------|-------------------|
| Airplane Rating(s): | Single-engine land; Multi-engine land | Seat Occupied: | Rear |
| Other Aircraft Rating(s): | Glider | Restraint Used: | 4-point |
| Instrument Rating(s): | Airplane | Second Pilot Present: | No |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 1 With waivers/limitations | Last FAA Medical Exam: | August 6, 2015 |
| Occupational Pilot: | Yes | Last Flight Review or Equivalent: | November 23, 2015 |
| Flight Time: | (Estimated) 8625 hours (Total, all aircraft), 85 hours (Total, this make and model), 4088 hours (Pilot In Command, all aircraft), 35 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft) | | |

Passenger Information

| Certificate: | | Age: | 51,Male |
|---------------------------|----|-----------------------------------|---------|
| Airplane Rating(s): | | Seat Occupied: | None |
| Other Aircraft Rating(s): | | Restraint Used: | None |
| Instrument Rating(s): | | Second Pilot Present: | No |
| Instructor Rating(s): | | Toxicology Performed: | No |
| Medical Certification: | | Last FAA Medical Exam: | |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | |
| Flight Time: | | | |

Passenger Information

| Certificate: | | Age: | Male |
|---------------------------|----|-----------------------------------|------|
| Airplane Rating(s): | | Seat Occupied: | None |
| Other Aircraft Rating(s): | | Restraint Used: | None |
| Instrument Rating(s): | | Second Pilot Present: | No |
| Instructor Rating(s): | | Toxicology Performed: | No |
| Medical Certification: | | Last FAA Medical Exam: | |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | |
| Flight Time: | | | |

Aircraft and Owner/Operator Information

| Aircraft Make: | Boeing | Registration: | N17PY |
|----------------------------------|------------------------------|-----------------------------------|-----------------|
| Model/Series: | A75N1 (PT17) | Aircraft Category: | Airplane |
| Year of Manufacture: | 1942 | Amateur Built: | |
| Airworthiness Certificate: | Aerobatic; Normal; Utility | Serial Number: | 75-5554 |
| Landing Gear Type: | Unknown | Seats: | 2 |
| Date/Type of Last Inspection: | February 11, 2016 Annual | Certified Max Gross Wt.: | 2950 lbs |
| Time Since Last Inspection: | 26 Hrs | Engines: | 1 Reciprocating |
| Airframe Total Time: | 6679 Hrs at time of accident | Engine Manufacturer: | Continental |
| ELT: | | Engine Model/Series: | W670-6A |
| Registered Owner: | On file | Rated Power: | 220 Horsepower |
| Operator: | On file | Operating Certificate(s) Held: | None |

Meteorological Information and Flight Plan

| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
|---|-------------------------------|---|-------------------|
| Observation Facility, Elevation: | KFOE,1079 ft msl | Distance from Accident Site: | 20 Nautical Miles |
| Observation Time: | 14:53 Local | Direction from Accident Site: | 19° |
| Lowest Cloud Condition: | Scattered / 2700 ft AGL | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 13 knots / None | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 330° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 29.95 inches Hg | Temperature/Dew Point: | 16°C / 8°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitat | tion | |
| Departure Point: | Osage City, KS (53K) | Type of Flight Plan Filed: | None |
| Destination: | Osage City, KS (53K) | Type of Clearance: | None |
| Departure Time: | 15:10 Local | Type of Airspace: | Class G |

Airport Information

| Airport: | OSAGE CITY MUNI 53K | Runway Surface Type: | Asphalt |
|----------------------|---------------------|----------------------------------|----------------|
| Airport Elevation: | 1105 ft msl | Runway Surface Condition: | Dry |
| Runway Used: | 35 | IFR Approach: | None |
| Runway Length/Width: | 2560 ft / 40 ft | VFR Approach/Landing: | Forced landing |

Wreckage and Impact Information

| Crew Injuries: | 1 None | Aircraft Damage: | Substantial |
|------------------------|--------|-------------------------|---------------------------|
| Passenger Injuries: | 2 None | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 3 None | Latitude, Longitude: | 38.641387,-95.802497(est) |

Administrative Information

| Investigator In Charge (IIC): | Latson, Thomas |
|--------------------------------------|--|
| Additional Participating Persons: | Bobby Warren; FAA Wichita FSDO; Wichita, KS Webster McKinley; FAA Wichita FSDO; Wichita, KS |
| Original Publish Date: | September 11, 2018 |
| Last Revision Date: | |
| Investigation Class: | <u>Class</u> |
| Note: | The NTSB did not travel to the scene of this accident. |
| Investigation Docket: | https://data.ntsb.gov/Docket?ProjectID=93133 |

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>.