



Aviation Investigation Final Report

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|--------------------------------|---|-------------------------|-------------|
| Location: | Freemont, Michigan | Accident Number: | CHI01LA225 |
| Date & Time: | July 20, 2001, 15:15 Local | Registration: | N756DM |
| Aircraft: | Cessna U206G | Aircraft Damage: | Substantial |
| Defining Event: | | Injuries: | 2 Minor |
| Flight Conducted Under: | Part 135: Air taxi & commuter - Non-scheduled | | |

Analysis

The pilot and an observer were performing fire patrol near Freemont, Michigan. They were proceeding east at approximately 2,500 feet mean sea level when the pilot noticed the manifold pressure had dropped to approximately 30 inches of Mercury (Hg). The pilot said he moved the throttle in and out several times but the power did not change. The pilot executed a 180-degree turn toward the Freemont Airport. On completion of the turn, the pilot noticed the manifold pressure had dropped to 15 inches Hg. The pilot looked for a place to land. He said there was nothing in front of them but trees. The pilot then noticed a farm field beneath and to the left of him. He said he decided to put the airplane down in the field. The pilot said he left the wheels and the flaps up because he was "low, slow, and short". He said the farm field was a short one. The pilot said he tried to flare. They hit the ground hard. The pilot said he did not recall the airplane going over its nose and coming to rest on its back. An examination of the airplane's engine revealed the throttle cable broken at the linkage to the throttle box lever arm. No other anomalies were found with the airplane.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The broken throttle cable during cruise flight and the pilot's inadequate flare during the forced landing attempt. Factors relating to this accident were the low airspeed during the forced landing attempt and the short, corn stubble field.

Findings

Occurrence #1: LOSS OF ENGINE POWER

Phase of Operation: CRUISE

Findings

1. (C) THROTTLE/POWER LEVER,CABLE - SEPARATION

Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY LANDING

Occurrence #3: NOSE OVER

Phase of Operation: EMERGENCY LANDING

Findings

2. (C) FLARE - INADEQUATE - PILOT IN COMMAND

3. (F) TERRAIN CONDITION - SHORT RUNWAY/LANDING AREA

4. (F) AIRSPEED - LOW - PILOT IN COMMAND

5. (F) TERRAIN CONDITION - CROP

Factual Information

On July 20, 2001, at 1515 eastern daylight time, a Cessna U206G amphibian, N756DM, operated by Scenic Seaplanes, Incorporated and piloted by a commercial pilot, sustained substantial damage when it nosed over in a field 5 miles east of Freemont, Michigan, during an emergency landing. Prior to the accident, the airplane's engine lost partial power during cruise flight. Visual meteorological conditions prevailed at the time of the accident. The aerial observation flight was contracted by the United States Forest Service to perform fire patrol under the provisions of 14 CFR Part 135. A company VFR flight plan was on file. The pilot and passenger, a pilot-rated aerial observer, on board the airplane reported minor injuries. The local flight originated at Cadillac, Michigan, at 1400.

In his written statement, the pilot said they were proceeding east at approximately 2,500 feet mean sea level when he noticed the manifold pressure had dropped to approximately 30 inches of Mercury (Hg). The pilot said he moved the throttle in and out several times but the power did not change. The pilot said he executed a 180-degree turn toward the Freemont Airport. On completion of the turn, the pilot noticed the manifold pressure had dropped to 15 inches Hg. The pilot looked for a place to land. He said there was nothing in front of them but trees. The pilot then noticed a farm field beneath and to the left of him. He said he decided to put the airplane down in the field. The pilot said he left the wheels and the flaps up because he was "low, slow, and short". He said the farm field was a short one. The pilot said he tried to flare. They hit the ground hard. The pilot said he did not recall the airplane going over its nose and coming to rest on its back.

A Federal Aviation Administration inspector examined the airplane at the accident site. The airplane was found resting inverted in a corn stubble field. The left float and legs were bent to the right and resting against the right float. The landing wheels in the floats were in the "up" position. The engine mounts were twisted 35 degrees to the left. The cowling and forward fuselage was crushed aft and twisted left. One of the three propeller blades was bent aft. The other two blades were bent forward. The aft fuselage was bent and buckled. The empennage was broken off. Both wings showed numerous bends and buckles. Flight control continuity was confirmed. An examination of the engine showed the throttle cable broken at the linkage to the throttle box lever arm. No other anomalies were found with the airplane.

Pilot Information

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|----------------------------------|---|--|-------------------|
| Certificate: | | Age: | 57, Male |
| Airplane Rating(s): | | Seat Occupied: | Left |
| Other Aircraft Rating(s): | | Restraint Used: | |
| Instrument Rating(s): | | Second Pilot Present: | No |
| Instructor Rating(s): | | Toxicology Performed: | No |
| Medical Certification: | Class 2 Valid Medical-w/ waivers/lim | Last FAA Medical Exam: | September 1, 2000 |
| Occupational Pilot: | Yes | Last Flight Review or Equivalent: | May 1, 2001 |
| Flight Time: | 2902 hours (Total, all aircraft), 804 hours (Total, this make and model), 2680 hours (Pilot In Command, all aircraft), 119 hours (Last 90 days, all aircraft), 62 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|-----------------------------------|---------------------------------------|--------------------------|
| Aircraft Make: | Cessna | Registration: | N756DM |
| Model/Series: | U206G | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Normal; Utility | Serial Number: | U206G04008 |
| Landing Gear Type: | Amphibian | Seats: | 6 |
| Date/Type of Last Inspection: | July 17, 2001 100 hour | Certified Max Gross Wt.: | 3800 lbs |
| Time Since Last Inspection: | 13 Hrs | Engines: | 1 Reciprocating |
| Airframe Total Time: | 3116 Hrs at time of accident | Engine Manufacturer: | Lycoming |
| ELT: | Installed, not activated | Engine Model/Series: | IO-550-F |
| Registered Owner: | SCENIC SEAPLANES, INCORPORATED | Rated Power: | 300 Horsepower |
| Operator: | | Operating Certificate(s) Held: | On-demand air taxi (135) |
| Operator Does Business As: | | Operator Designator Code: | M59A |

Meteorological Information and Flight Plan

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|---|---------------------|---|-------------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
| Observation Facility, Elevation: | MKG,625 ft msl | Distance from Accident Site: | 21 Nautical Miles |
| Observation Time: | 15:15 Local | Direction from Accident Site: | 225° |
| Lowest Cloud Condition: | Few / 3500 ft AGL | Visibility | 6 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 9 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 280° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30.03 inches Hg | Temperature/Dew Point: | 30°C / 22°C |
| Precipitation and Obscuration: | N/A - None - Haze | | |
| Departure Point: | CADILLAC, MI (CAD) | Type of Flight Plan Filed: | Company VFR |
| Destination: | | Type of Clearance: | VFR |
| Departure Time: | 14:00 Local | Type of Airspace: | Class E |

Wreckage and Impact Information

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|----------------------------|---------|-----------------------------|---------------------------|
| Crew Injuries: | 1 Minor | Aircraft Damage: | Substantial |
| Passenger Injuries: | 1 Minor | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 2 Minor | Latitude, Longitude: | 43.459907,-85.950103(est) |

Administrative Information

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| Investigator In Charge (IIC): | Bowling, David |
| Additional Participating Persons: | HENRY T AUNG; FEDERAL AVIATION ADMINISTRATION; GRAND RAPIDS, MI |
| Original Publish Date: | June 3, 2002 |
| Last Revision Date: | |
| Investigation Class: | Class |
| Note: | The NTSB traveled to the scene of this accident. |
| Investigation Docket: | https://data.ntsb.gov/Docket?ProjectID=52823 |

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](#).