

Aviation Investigation Final Report

Location: KOSCIUSKO, Mississippi Accident Number: ERA15FA147

Date & Time: March 8, 2015, 16:50 Local Registration: N7698S

Aircraft: Bellanca 8KCAB Aircraft Damage: Substantial

Defining Event: Loss of control in flight **Injuries:** 2 Fatal

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

Two witnesses reported observing the airplane fly over a private airstrip that was adjacent to a small lake. One witness said that the airplane initially made a high pass over the airstrip before it turned back at a lower altitude and then "buzzed" over the lake. He said that, when the airplane passed over the lake, the pilot appeared to be having fun and was smiling and that the passenger was waving out the window. The pilot then pulled the airplane straight up, likely to clear a stand of 50-ft-tall pine trees, and the airplane suddenly nosed over and dropped straight down into the ground. The witness said that the engine was operating normally before impact. Another witness, who was a retired airline pilot and an active aerobatic pilot, said that the pilot flew the airplane over the lake on a southwesterly heading. Although he did not recall the airplane's altitude, he could see the pilot in the cockpit when he passed by. The airplane then began a climbing right turn. As the airplane turned through 90 degrees, the left wing dropped. The pilot appeared to try to recover from the "cross-control stall" by lowering the airplane's nose and fully deflecting the rudder control. The airplane's wings leveled out momentarily before the airplane suddenly nosed over. The witness reported hearing the engine power go to full throttle before the airplane impacted the ground. He added that the airplane did not have sufficient altitude to recover and that it did not spin before it hit the ground. Postaccident examination of the airplane, the witness accounts, and a review of postrecovery photographs of the engine and propeller revealed no anomalies that would have precluded normal operation. It is likely that, during the low altitude flyby, the pilot inadvertently entered an aerodynamic stall while trying to avoid trees and did not have sufficient altitude to recover.

Probable Cause and Findings

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

The pilot's decision to make a low pass over a lake near trees and his subsequent failure to maintain airplane control while maneuvering at a low altitude to avoid trees, which resulted in an inadvertent cross-control aerodynamic stall from which he was unable to recover.

Findings

| Personnel issues | Aircraft control - Pilot |
|------------------|-------------------------------------|
| Aircraft | (general) - Not attained/maintained |
| Personnel issues | Decision making/judgment - Pilot |

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Factual Information

History of Flight

| Maneuvering-low-alt flying | Loss of control in flight (Defining event) |
|----------------------------|--|
| Uncontrolled descent | Collision with terr/obj (non-CFIT) |

On March 8, 2015, around 1650 central daylight time, N7698S, a Bellanca Decathlon 8KCAB, single-engine airplane, impacted terrain shortly after it made a low pass over a small private lake near Kosciusko, Mississippi. The private pilot and the pilot rated passenger were fatally injured. The airplane was registered to and operated by a private individual. Visual meteorological conditions prevailed and no flight plan was filed for the personal flight that departed the Kosciusko-Attala County Airport (OSX) at an undetermined time and was conducted under the provisions of 14 Code of Federal Regulations Part 91.

Several witnesses observed the airplane flying over a private airstrip that was adjacent to a small lake. The witnesses were on the beach of the lake and the pilot knew the landowner. According to one witness, he said the airplane initially made a high pass over the airstrip. The airplane then returned, but this time it was a lot lower and it "buzzed" the lake. The pilot pulled the airplane straight up to clear a stand of 50-foot—tall pine trees, when it suddenly nosed over and dropped straight down into the ground on the opposite side of the tree line. The witness said the airplane and engine were operating normally and the pilot was "just having fun." When the airplane passed over the lake, the pilot was grinning from "ear to ear" and the passenger was waving out of the window. The witness said it wasn't windy or raining at the time of the accident.

Another witness was a retired airline pilot and active aerobatic pilot on the airshow circuit. He owned the land the airplane had flown over and knew the pilot well. The witness said the pilot flew over the lake on a south-westerly heading but did not recall the airplane's altitude. He could see the pilot in the cockpit and he was smiling. The airplane then began a climbing right turn. As the airplane turned through 90-degrees, the left wing dropped. The witness said the pilot tried to recover from the "cross-control stall", by lowering the nose of the airplane and making a full deflection of the rudder control. The airplane leveled out momentarily before it suddenly nosed-over. At the same time, the witness heard the engine power go to full throttle before it impacted the ground. The witness said the airplane did not have the altitude to recover and did not spin before it hit the ground.

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Pilot Information

| Certificate: | Private | Age: | 52 |
|---------------------------|----------------------------------|-----------------------------------|----------------|
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Front |
| Other Aircraft Rating(s): | None | Restraint Used: | 4-point |
| Instrument Rating(s): | None | Second Pilot Present: | Yes |
| Instructor Rating(s): | None | Toxicology Performed: | Yes |
| Medical Certification: | Class 3 With waivers/limitations | Last FAA Medical Exam: | April 21, 2014 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | |
| Flight Time: | 1615 hours (Total, all aircraft) | | |

Pilot-rated passenger Information

| Certificate: | Private | Age: | 50 |
|---------------------------|----------------------------------|-----------------------------------|-------------|
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Rear |
| Other Aircraft Rating(s): | None | Restraint Used: | 4-point |
| Instrument Rating(s): | None | Second Pilot Present: | Yes |
| Instructor Rating(s): | None | Toxicology Performed: | Yes |
| Medical Certification: | Class 3 With waivers/limitations | Last FAA Medical Exam: | May 1, 2013 |
| Occupational Pilot: | UNK | Last Flight Review or Equivalent: | |
| Flight Time: | 136 hours (Total, all aircraft) | | |

The pilot held a private pilot certificate for airplane single-engine land. His most recent Federal Aviation Administration (FAA) Third Class medical was issued on April 21, 2014. At that time, he reported a total of 1,614.5 flight hours, of which, 31.6 hours were in the previous six months.

The pilot rated passenger held a private pilot certificate for airplane single-engine land. His most recent FAA Third Class medical was issued on May 1, 2013. At that time, he reported a total of 136 flight hours, of which, 70 hours were in the previous six months.

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Aircraft and Owner/Operator Information

| Aircraft Make: | Bellanca | Registration: | N7698S |
|-------------------------------|--------------------------------|-----------------------------------|-----------------|
| Model/Series: | 8KCAB | Aircraft Category: | Airplane |
| Year of Manufacture: | 1976 | Amateur Built: | |
| Airworthiness Certificate: | Aerobatic; Normal | Serial Number: | 262-76 |
| Landing Gear Type: | Tailwheel | Seats: | 2 |
| Date/Type of Last Inspection: | April 22, 2014 Annual | Certified Max Gross Wt.: | 1800 lbs |
| Time Since Last Inspection: | | Engines: | 1 Reciprocating |
| Airframe Total Time: | 1775 Hrs as of last inspection | Engine Manufacturer: | Lycoming |
| ELT: | Installed, not activated | Engine Model/Series: | |
| Registered Owner: | WINSTEAD ROBERT M | Rated Power: | |
| Operator: | WINSTEAD ROBERT M | Operating Certificate(s) Held: | None |
| | | | |

The Bellanca Decathlon KCAB is a two-seat, fixed-gear airplane that was designed for flight training and personal use and is capable of sustaining aerobatic stresses between +6g and -5g. The airplane's most recent annual inspection was completed on April 27, 2014, at a total time of 1,775.0 hours.

Meteorological Information and Flight Plan

| meteorological informati | | | |
|----------------------------------|----------------------|---|-------------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
| Observation Facility, Elevation: | GWO,346 ft msl | Distance from Accident Site: | 37 Nautical Miles |
| Observation Time: | 16:53 Local | Direction from Accident Site: | 30° |
| Lowest Cloud Condition: | 600 ft AGL | Visibility | 6 miles |
| Lowest Ceiling: | | Visibility (RVR): | |
| Wind Speed/Gusts: | 5 knots / | Turbulence Type Forecast/Actual: | / None |
| Wind Direction: | 10° | Turbulence Severity Forecast/Actual: | / N/A |
| Altimeter Setting: | 30.23 inches Hg | Temperature/Dew Point: | 9°C / 7°C |
| Precipitation and Obscuration: | | | |
| Departure Point: | Kosciusko, MS (OSX) | Type of Flight Plan Filed: | None |
| Destination: | Kosciusko, MS (OSX) | Type of Clearance: | None |
| Departure Time: | | Type of Airspace: | Unknown |
| | | | |

Weather reported at Greenwood-Leflore Airport (GWO), Greenwood, Mississippi, about 37 miles northwest of the accident site, at 1653, was reported as wind from 010 degrees at 5 knots, visibility 6 miles, light rain, mist, ceiling 600 overcast, temperature 9 degrees Celsius, dewpoint 7 degrees Celsius, and a barometric pressure setting of 30.24 inches of Hg.

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Wreckage and Impact Information

| 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: | 33.095554,-89.559997(est) |

A postaccident examination of the airplane was conducted the day after the accident. The airplane was pointed nose down with the tail almost vertical in the air. The engine was partially buried in the soft ground about 1-2 feet. Both wings exhibited leading edge impact damage, and the wood spars and ribs were fractured. Flight control continuity was established for the ailerons to the wing root. The cockpit area was crushed. The empennage and tail section were intact. The outboard section of the left horizontal stabilizer exhibited minor damage. Flight control continuity for the elevators and rudder was established to the aft cockpit area.

A review of photographs taken of the engine and propeller after of the airplane was recovered revealed no obvious mechanical problems that would have precluded normal operation of the engine. The two-bladed propeller remained attached to the engine and the spinner was twisted and crushed. One blade was bent aft and the second blade was bent aft at the tip.

Medical and Pathological Information

Toxicological testing was completed on both the pilot and the pilot-rated passenger by the FAA's Toxicological laboratory in Oklahoma City, Oklahoma.

The pilot tested negative for all items tested. The pilot rated passenger tested positive for Diphenhydramine, which was detected in his Urine and 0.032 (ug/ml, ug/g) Diphenhydramine was detected in his blood (Cavity).

Autopsies were completed on the pilot and pilot rated passenger by the Mississippi Medical State Medical Examiner, Jackson, Mississippi. The cause of death for both the pilot and the pilot rated passenger was blunt force trauma.

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Administrative Information

| Investigator In Charge (IIC): | Yeager, Leah |
|--------------------------------------|--|
| Additional Participating Persons: | Frank Mahaffey; FAA/FSDO; Jackson, MS |
| Original Publish Date: | July 23, 2015 |
| Last Revision Date: | |
| Investigation Class: | <u>Class</u> |
| Note: | The NTSB traveled to the scene of this accident. |
| Investigation Docket: | https://data.ntsb.gov/Docket?ProjectID=90831 |

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.

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