



Aviation Investigation Final Report

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|--------------------------------|--------------------------------------|-------------------------|-------------|
| Location: | Doral, Florida | Accident Number: | ERA20TA030 |
| Date & Time: | November 3, 2019, 21:50 Local | Registration: | N6015Z |
| Aircraft: | Beech 76 | Aircraft Damage: | Substantial |
| Defining Event: | Fuel exhaustion | Injuries: | 2 None |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

The pilot stated that he estimated that he had sufficient fuel onboard before departing on the flight. About 20 miles from the destination, at 2,000 ft mean sea level (msl), the right engine suddenly lost power. The pilot attempted to restart the engine but was unsuccessful. The pilot then diverted toward a closer airport. About 500 ft msl, the left engine also suddenly lost power. The pilot was unable to restart the engine and attempted a forced landing on a road. Shortly before touchdown, the left wing impacted a truck on the road and the airplane was substantially damaged.

Postaccident examination revealed that both fuel tanks were intact, and no fuel was leaking. About 1 cup and 1/2 cup of fuel were recovered from the left and right fuel tanks, respectively. Thus, it is likely that the pilot either incorrectly estimated his fuel state before departure or he underestimated the fuel required to reach the destination and exhausted the airplane's fuel supply, which resulted in a total loss of power to both engines.

Probable Cause and Findings

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

The pilot's improper fuel planning, which resulted in fuel exhaustion and a total loss of power to both engines.

Findings

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|-------------------------|----------------------------------|
| Personnel issues | Fuel planning - Pilot |
| Personnel issues | Decision making/judgment - Pilot |
| Aircraft | Fuel - Fluid level |

Factual Information

History of Flight

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|-----------------|----------------------------------|
| Enroute-descent | Fuel exhaustion (Defining event) |
| Enroute-descent | Attempted remediation/recovery |
| Enroute-descent | Off-field or emergency landing |

On November 3, 2019, about 2150 eastern standard time, a Beech 76, N6015Z, was substantially damaged during a forced landing on a road near Doral, Florida. The commercial pilot and a pilot-rated passenger were not injured. The airplane was operated by GPS Global Pilot School under the provisions of Title 14 Code of Federal Regulations Part 91 as a personal flight. Night, visual meteorological conditions prevailed, and an instrument flight rules flight plan was filed for the flight. The flight originated at Hilton Head Airport (HXD), Hilton Head, South Carolina about 1840 and was destined for Miami Executive Airport (TMB), Miami, Florida.

The pilot reported that he landed at HXD with 55 to 60 gallons of fuel on board, and another 20 gallons of fuel were purchased before departing HXD. The fuel tanks were not filled to capacity at HXD. He estimated that the fuel needed to fly to TMB was 65 gallons with 15 gallons in reserve. The en route portion of the flight was uneventful. About 20 miles northwest of TMB, at 2,000 ft mean sea level (msl), the right engine "failed without warning." An attempt to restart the engine was unsuccessful. The right engine propeller was feathered. Following some radio communication problems, contact with Miami approach was re-established and the pilot diverted to Miami International Airport (MIA), Miami, Florida. About 500 ft msl, the left engine also experienced a sudden total loss of power. The pilot was unable to restart the engine and attempted a forced landing on a road to the west of MIA. Shortly before touchdown, the left wing struck a truck on the road. The airplane came to a stop and the pilots egressed the airplane and were met by first responders.

An inspector with the Federal Aviation Administration responded to the accident site and examined the wreckage. Both wings and the fuselage were structurally damaged. The airplane was equipped with a fuel tank in each wing, with a capacity of 50 gallons useable in each tank. The tanks were drained; 1/2 cup of fuel was recovered from the left tank and 1 cup of fuel was recovered from the right tank. The inspector arrived on scene within one hour of the accident and reported that there was no fuel leaking from either tank and no fuel stains were observed on the ground under the airplane. First responders also reported that there was no fuel leaking from the airplane when they arrived on scene.

Pilot Information

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|----------------------------------|--|--|-------------------|
| Certificate: | Commercial; Flight instructor | Age: | 27,Male |
| Airplane Rating(s): | Single-engine land; Multi-engine land | Seat Occupied: | Right |
| Other Aircraft Rating(s): | None | Restraint Used: | 3-point |
| Instrument Rating(s): | Airplane | Second Pilot Present: | Yes |
| Instructor Rating(s): | Airplane single-engine; Instrument airplane | Toxicology Performed: | No |
| Medical Certification: | Class 1 Without waivers/limitations | Last FAA Medical Exam: | October 22, 2019 |
| Occupational Pilot: | Yes | Last Flight Review or Equivalent: | February 28, 2019 |
| Flight Time: | 1491 hours (Total, all aircraft), 16 hours (Total, this make and model), 1400 hours (Pilot In Command, all aircraft), 157 hours (Last 90 days, all aircraft), 83 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft) | | |

Pilot-rated passenger Information

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|----------------------------------|---|--|-------------------|
| Certificate: | Commercial; Flight instructor | Age: | 26,Male |
| Airplane Rating(s): | Single-engine land; Multi-engine land | Seat Occupied: | Left |
| Other Aircraft Rating(s): | None | Restraint Used: | 3-point |
| Instrument Rating(s): | Airplane | Second Pilot Present: | Yes |
| Instructor Rating(s): | Airplane single-engine; Instrument airplane | Toxicology Performed: | No |
| Medical Certification: | Class 1 Without waivers/limitations | Last FAA Medical Exam: | October 10, 2019 |
| Occupational Pilot: | Yes | Last Flight Review or Equivalent: | September 5, 2019 |
| Flight Time: | 1312 hours (Total, all aircraft), 5 hours (Total, this make and model), 1244 hours (Pilot In Command, all aircraft), 226 hours (Last 90 days, all aircraft), 78 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|---------------------------------|---------------------------------------|-----------------|
| Aircraft Make: | Beech | Registration: | N6015Z |
| Model/Series: | 76 No Series | Aircraft Category: | Airplane |
| Year of Manufacture: | 1979 | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | ME-145 |
| Landing Gear Type: | Retractable - Tricycle | Seats: | 4 |
| Date/Type of Last Inspection: | October 1, 2019 Annual | Certified Max Gross Wt.: | 3900 lbs |
| Time Since Last Inspection: | | Engines: | 2 Reciprocating |
| Airframe Total Time: | 11508 Hrs as of last inspection | Engine Manufacturer: | Lycoming |
| ELT: | Installed | Engine Model/Series: | O360-A1G6D |
| Registered Owner: | Osorio Aviation Corp | Rated Power: | 180 Horsepower |
| Operator: | GPS Global Flight School | Operating Certificate(s) Held: | None |

Meteorological Information and Flight Plan

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|---|----------------------------------|---|------------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Night |
| Observation Facility, Elevation: | KMIA, 9 ft msl | Distance from Accident Site: | 3 Nautical Miles |
| Observation Time: | 21:53 Local | Direction from Accident Site: | 280° |
| Lowest Cloud Condition: | Scattered / 1100 ft AGL | Visibility | 10 miles |
| Lowest Ceiling: | Broken / 2500 ft AGL | Visibility (RVR): | |
| Wind Speed/Gusts: | 8 knots / None | Turbulence Type Forecast/Actual: | None / None |
| Wind Direction: | 40° | Turbulence Severity Forecast/Actual: | N/A / N/A |
| Altimeter Setting: | 30.03 inches Hg | Temperature/Dew Point: | 24°C / 22°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Hilton Head, SC (HXD) | Type of Flight Plan Filed: | IFR |
| Destination: | Miami, FL (TMB) | Type of Clearance: | IFR |
| Departure Time: | 18:40 Local | Type of Airspace: | Class B |

Airport Information

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|-----------------------------|----------------|----------------------------------|----------------|
| Airport: | MIAMI INTL MIA | Runway Surface Type: | Asphalt |
| Airport Elevation: | 9 ft msl | Runway Surface Condition: | Dry |
| Runway Used: | | IFR Approach: | None |
| Runway Length/Width: | | VFR Approach/Landing: | Forced landing |

Wreckage and Impact Information

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|----------------------------|--------|-----------------------------|--------------------------|
| Crew Injuries: | 1 None | Aircraft Damage: | Substantial |
| Passenger Injuries: | 1 None | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 2 None | Latitude, Longitude: | 25.796943,-80.34111(est) |

Administrative Information

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|-----------------------------------|---|
| Investigator In Charge (IIC): | Hicks, Ralph |
| Additional Participating Persons: | Juan C Garcia; FAA/FSDO; Miramar, FL |
| Original Publish Date: | January 28, 2021 |
| Last Revision Date: | |
| Investigation Class: | Class 3 |
| Note: | The NTSB did not travel to the scene of this accident. |
| Investigation Docket: | https://data.nts.gov/Docket?ProjectID=100524 |

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](#).