



Aviation Investigation Final Report

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|--------------------------------|--------------------------------------|-------------------------|--------------------|
| Location: | Rutherfordton, North Carolina | Accident Number: | ERA20CA065 |
| Date & Time: | January 5, 2020, 16:49 Local | Registration: | N9593U |
| Aircraft: | American Aviation AA5 | Aircraft Damage: | Substantial |
| Defining Event: | Loss of control in flight | Injuries: | 1 Serious, 3 Minor |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

The pilot had planned for a 40-minute scenic local flight with 3 passengers aboard. The pilot was demonstrating an aerodynamic stall when the right wing "dropped very quickly." He attempted to recover and applied opposite rudder, reduced the airplane's pitch, and increased engine power. The airplane then entered a flat spin to the right. The pilot continued to attempt to decrease the airplane's pitch and continued left rudder application, but the airplane continued to spin. The pilot then applied "full back elevator" as the airplane impacted terrain. During the impact the airplane's right wing, horizontal stabilizer, and fuselage were substantially damaged. The pilot reported that there were no preimpact mechanical malfunctions or failures with the airplane that would have precluded normal operation.

Probable Cause and Findings

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

The pilot's failure to maintain control of the airplane during an intentional aerodynamic stall, which resulted in a spin and subsequent collision with terrain.

Findings

Personnel issues

Aircraft control - Pilot

Factual Information

History of Flight

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|--------------------|--|
| Maneuvering | Loss of control in flight (Defining event) |
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Pilot Information

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|----------------------------------|--|--|-------------------|
| Certificate: | Private | Age: | 64, Male |
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Left |
| Other Aircraft Rating(s): | None | Restraint Used: | 3-point |
| Instrument Rating(s): | None | Second Pilot Present: | No |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 3 Without waivers/limitations | Last FAA Medical Exam: | February 5, 2018 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | November 18, 2018 |
| Flight Time: | 1448 hours (Total, all aircraft), 678 hours (Total, this make and model), 1448 hours (Pilot In Command, all aircraft), 45.2 hours (Last 90 days, all aircraft), 14.8 hours (Last 30 days, all aircraft), 1.6 hours (Last 24 hours, all aircraft) | | |

Passenger Information

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|----------------------------------|----|--|---------|
| Certificate: | | Age: | Male |
| Airplane Rating(s): | | Seat Occupied: | Right |
| Other Aircraft Rating(s): | | Restraint Used: | 3-point |
| 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: | Right |
| Other Aircraft Rating(s): | | Restraint Used: | 3-point |
| 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: | Left |
| Other Aircraft Rating(s): | | Restraint Used: | 3-point |
| 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

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|--------------------------------------|------------------------------|---------------------------------------|-----------------|
| Aircraft Make: | American Aviation | Registration: | N9593U |
| Model/Series: | AA5 A | Aircraft Category: | Airplane |
| Year of Manufacture: | 1976 | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | AA5A-0093 |
| Landing Gear Type: | Tricycle | Seats: | 4 |
| Date/Type of Last Inspection: | March 13, 2019 Annual | Certified Max Gross Wt.: | 2200 lbs |
| Time Since Last Inspection: | | Engines: | 1 Reciprocating |
| Airframe Total Time: | 3277 Hrs at time of accident | Engine Manufacturer: | Lycoming |
| ELT: | C91 installed, not activated | Engine Model/Series: | O-320 |
| Registered Owner: | On file | Rated Power: | 160 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: | AVL,2170 ft msl | Distance from Accident Site: | 21 Nautical Miles |
| Observation Time: | 16:54 Local | Direction from Accident Site: | 277° |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 11 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 350° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30.23 inches Hg | Temperature/Dew Point: | 4°C / -4°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Hendersonville, NC (0A7) | Type of Flight Plan Filed: | None |
| Destination: | Hendersonville, NC (0A7) | Type of Clearance: | None |
| Departure Time: | 16:05 Local | Type of Airspace: | Class E |

Airport Information

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|-----------------------------|--------------------|----------------------------------|---------|
| Airport: | Hendersonville 0A7 | Runway Surface Type: | |
| Airport Elevation: | 2084 ft msl | Runway Surface Condition: | Unknown |
| Runway Used: | | IFR Approach: | None |
| Runway Length/Width: | | VFR Approach/Landing: | None |

Wreckage and Impact Information

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|----------------------------|--------------------|-----------------------------|---------------------------|
| Crew Injuries: | 1 Minor | Aircraft Damage: | Substantial |
| Passenger Injuries: | 1 Serious, 2 Minor | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 1 Serious, 3 Minor | Latitude, Longitude: | 35.387222,-82.109169(est) |

Administrative Information

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|--|---|
| Investigator In Charge (IIC): | Wentz, Peter |
| Additional Participating Persons: | Stephen Tucker; FAA/FSDO; Charlotte, NC |
| Original Publish Date: | February 2, 2021 |
| Last Revision Date: | |
| Investigation Class: | Class 4 |
| Note: | This accident report documents the factual circumstances of this accident as described to the NTSB. |
| Investigation Docket: | https://data.nts.gov/Docket?ProjectID=100765 |

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](#).