



Aviation Investigation Final Report

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| Location: | JEFFERSON, Texas | Accident Number: | FTW93FA080 |
| Date & Time: | February 7, 1993, 16:00 Local | Registration: | N76970 |
| Aircraft: | CESSNA 140 | Aircraft Damage: | Destroyed |
| Defining Event: | | Injuries: | 2 Fatal |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

AFTER TAKEOFF THE PILOT REMAINED IN LEFT TRAFFIC AND EXECUTED A HIGH SPEED LOW PASS AT APPROXIMATELY 10 FEET ABOVE THE RUNWAY. AS THE AIRPLANE APPROACHED THE CENTER OF THE AIRPORT, A SHARP PULL UP TO APPROXIMATELY 250 FEET WAS OBSERVED AS THE AIRPLANE EXECUTED A RAPID ROLL TO THE RIGHT. POWER WAS HEARD BEING ADDED AS THE NOSE PITCHED DOWN NEAR THE COMPLETION OF THE ROLL. THE AIRPLANE IMPACTED IN A WOODED AREA ADJACENT TO THE AIRPORT IN A LEFT WING LOW ATTITUDE. ACCORDING TO FRIENDS, THE PILOT FLEW NORTH AMERICAN P51S DURING WORLD WAR II AND OCCASIONALLY FLEW AEROBATIC EXHIBITIONS AT AIRSHOWS

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: INADVERTENT STALL. A FACTOR WAS THE PILOT'S PERFORMANCE OF AEROBATICS AT LOW ALTITUDE

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING

Findings

1. LOW PASS - PERFORMED - PILOT IN COMMAND
2. (F) AEROBATICS - ATTEMPTED - PILOT IN COMMAND

- 3. (C) STALL - INADVERTENT - PILOT IN COMMAND
- 4. (F) ALTITUDE - INADEQUATE - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

HISTORY OF FLIGHT

On Sunday, February 7, 1993, at approximately 1600 central standard time, a Cessna 140 airplane, N76970, was destroyed upon impact with terrain while maneuvering at the Manning Airport, near Jefferson, Texas. The commercial pilot and his passenger were fatally injured. Visual meteorological conditions prevailed for the personal flight.

According to the airport owner, N76970 arrived at the Manning Airport with another airplane as a flight of two. After visiting for about 25 minutes, the pilots of both airplanes decided to depart for their home base. The pilots of N76970 switched seats and the owner, who was at the controls at the time of their arrival, became the passenger in the right seat. After both crews boarded their airplanes, the other airplane failed to start due to a weak battery. The pilots of N76970, elected to takeoff while the other crew procured a battery cart to start their airplane.

According to witnesses, the airplane departed runway 07, remained in left traffic, and executed a high speed low pass over the runway, at approximately 10 feet above the ground. As the airplane approached the center of the airport, a sharp pull up was observed to approximately 250 feet AGL as the airplane entered a right roll. Power was heard being added as the nose pitched down. The airplane was observed impacting in a wooded area near the airport boundary, in a left wing low attitude.

PERSONNEL INFORMATION

According to friends, the pilot flew North American P51s during World War II, and was an accomplished aerobatic pilot who occasionally performed aerobatic exhibitions at air shows.

AIRCRAFT INFORMATION

A review of the airplane and engine records did not reveal any anomalies or uncorrected maintenance defects prior to the flight. The 1946 vintage airplane was purchased by Mr. Hunt on April 6, 1987.

WRECKAGE AND IMPACT INFORMATION

An examination of the airplane and the terrain revealed that the airplane impacted the level ground on a measured heading of 120 degrees, with the fuselage coming to rest on a measured heading of 200 degrees. A red lens, identified as the wing tip navigation light for the left wing, was located at the initial point of impact. Approximately 58 feet from the initial point

of impact, a small crater containing engine oil and paint transfers from the propellers and engine cowling was found. The propeller was found approximately 15 feet beyond that crater.

Flight control continuity was established to all flight controls. The wing flaps were found in the retracted position. Cockpit/cabin space was violated and approximately 80 percent of the space available was occupied by the instrument panel and engine.

The engine was examined at the accident site. The carburetor and the propeller were separated from the engine and the engine sustained impact damage especially to the bottom of the engine, the exhaust system, and accessories. Engine continuity was established, the ignition system was found operational, and evidence of fuel was found in the fuel lines, left fuel tank, and carburetor

The propeller was separated from the engine on the engine side of the crankshaft flange. One blade exhibited S bending and twisting, while the other was bent aft.

MEDICAL AND PATHOLOGICAL INFORMATION

Autopsies were performed on both pilots. Toxicological tests were ordered and performed on the pilot. The autopsies were performed by Robert W. Palmer, M.D, in Marshall, Texas. The toxicology report on the pilot revealed levels of 7.800 (ug/ml, ug/g) Theophylline (asthma medication) found in the blood, and 31.800 (ug/ml, ug/g), Theophylline found in the Urine. According to Dr. Canfield of the Civil Aero Medical Institute, these levels were below therapeutic levels.

ADDITIONAL DATA

The wreckage was released to the owner's representative at the accident site, on February 8, 1993.

Pilot Information

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| Certificate: | Commercial; Flight instructor | Age: | 69, Male |
| Airplane Rating(s): | Single-engine land; Multi-engine land | Seat Occupied: | Left |
| Other Aircraft Rating(s): | None | Restraint Used: | |
| Instrument Rating(s): | Airplane | Second Pilot Present: | Yes |
| Instructor Rating(s): | Airplane single-engine; Instrument airplane | Toxicology Performed: | Yes |
| Medical Certification: | Class 2 Valid Medical-w/ waivers/lim | Last FAA Medical Exam: | September 1, 1992 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | |
| Flight Time: | 3100 hours (Total, all aircraft), 1 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|--------------------------|---------------------------------------|-----------------|
| Aircraft Make: | CESSNA | Registration: | N76970 |
| Model/Series: | 140 140 | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | 11416 |
| Landing Gear Type: | Tailwheel | Seats: | 2 |
| Date/Type of Last Inspection: | May 21, 1992 Annual | Certified Max Gross Wt.: | 1450 lbs |
| Time Since Last Inspection: | | Engines: | 1 Reciprocating |
| Airframe Total Time: | 2732 Hrs | Engine Manufacturer: | CONTINENTAL |
| ELT: | Installed, not activated | Engine Model/Series: | C85-12F |
| Registered Owner: | HUNT, MARION G. | Rated Power: | 85 Horsepower |
| Operator: | HUNT, MARION G. | Operating Certificate(s) Held: | None |
| Operator Does Business As: | | Operator Designator Code: | |

Meteorological Information and Flight Plan

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|---|----------------------------------|---|-------------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
| Observation Facility, Elevation: | GGG ,365 ft msl | Distance from Accident Site: | 30 Nautical Miles |
| Observation Time: | 16:30 Local | Direction from Accident Site: | 210° |
| Lowest Cloud Condition: | Clear | Visibility | 35 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 5 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 290° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30 inches Hg | Temperature/Dew Point: | 18°C / -1°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | (6F7) | Type of Flight Plan Filed: | None |
| Destination: | ATLANTA , TX (ATA) | Type of Clearance: | None |
| Departure Time: | 15:55 Local | Type of Airspace: | Class G |

Airport Information

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|-----------------------------|---------------------|----------------------------------|------------|
| Airport: | MANNING AIRPORT 6F7 | Runway Surface Type: | Grass/turf |
| Airport Elevation: | 320 ft msl | Runway Surface Condition: | Dry |
| Runway Used: | 7 | IFR Approach: | None |
| Runway Length/Width: | 3500 ft / 100 ft | VFR Approach/Landing: | None |

Wreckage and Impact Information

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|----------------------------|---------|-----------------------------|---------------------------|
| Crew Injuries: | 1 Fatal | Aircraft Damage: | Destroyed |
| Passenger Injuries: | 1 Fatal | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 2 Fatal | Latitude, Longitude: | 32.759223,-94.339973(est) |

Administrative Information

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| Investigator In Charge (IIC): | Casanova, Hector |
| Additional Participating Persons: | GROVER C CROCKER; DALLAS , TX |
| Original Publish Date: | November 3, 1993 |
| Last Revision Date: | |
| Investigation Class: | Class |
| Note: | |
| Investigation Docket: | https://data.nts.gov/Docket?ProjectID=18640 |

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](#).