



Aviation Investigation Final Report

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|--------------------------------|--------------------------------------|-------------------------|-------------|
| Location: | WEST JORDAN, Utah | Accident Number: | DEN01LA020 |
| Date & Time: | December 8, 2000, 12:45 Local | Registration: | N89KD |
| Aircraft: | Thomas VP-1 | Aircraft Damage: | Substantial |
| Defining Event: | | Injuries: | 1 Serious |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

The pilot said he was flight-testing the newly finished homebuilt airplane. The original plans called for a fixed pitch propeller. The pilot said that he had put a manually adjustable pitch propeller on the airplane, and he had adjusted it for cruise flight. He said that once he was airborne, the engine began "lugging" and quickly lost power. He started a right turn to crosswind, and simultaneously began to perform a forced landing. Subsequently, the airplane struck a building and some transmission wires before coming to rest. Postaccident examination of the engine by an FAA inspector revealed that the spark plugs were wet with fuel. The inspector also found heavy carbon deposits in the exhaust stack.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the lack of suitable terrain for a forced landing. Contributing factors were the total loss of engine power due to the failure of the pilot to adjust the manual propeller pitch to permit the engine to achieve sufficient rpm for sustained flight, and the subsequent fouling of the spark plugs due to the over rich fuel condition.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (F) PROPELLER SYSTEM/ACCESSORIES,PITCH CHANGE MECH
 2. (F) MAINTENANCE,ADJUSTMENT - IMPROPER - OWNER/BUILDER
 3. (F) POWERPLANT - UNDERSPEED
 4. (F) IGNITION SYSTEM,SPARK PLUG - FOULED
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Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Findings

5. OBJECT - BUILDING(NONRESIDENTIAL)
6. (C) TERRAIN CONDITION - NONE SUITABLE

Factual Information

On December 8, 2000, at approximately 1245 mountain standard time, a Thomas VP-1 homebuilt airplane, N89KD, was destroyed when it impacted the ground during a forced landing near Salt Lake City Municipal 2 Airport, West Jordan, Utah. The pilot received serious injuries. The pilot/builder was operating the airplane under Title 14 CFR Part 91. Visual meteorological conditions prevailed. No flight plan had been filed for this local personal flight that was originating at the time of the accident.

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Postaccident examination of the engine by an FAA inspector revealed that the spark plugs were wet with fuel. The inspector also found heavy carbon deposits in the exhaust stack.

Pilot Information

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|----------------------------------|--|--|---------------|
| Certificate: | Private | Age: | 48, Male |
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Front |
| Other Aircraft Rating(s): | None | Restraint Used: | |
| Instrument Rating(s): | None | Second Pilot Present: | No |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 3 Valid Medical-w/ waivers/lim | Last FAA Medical Exam: | June 15, 2000 |
| Occupational Pilot: | UNK | Last Flight Review or Equivalent: | |
| Flight Time: | 486 hours (Total, all aircraft), 1 hours (Total, this make and model), 2 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|------------------------|---------------------------------------|-----------------|
| Aircraft Make: | Thomas | Registration: | N89KD |
| Model/Series: | VP-1 VP-1 | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | Yes |
| Airworthiness Certificate: | Experimental (Special) | Serial Number: | 1 |
| Landing Gear Type: | Tailwheel | Seats: | 1 |
| Date/Type of Last Inspection: | Unknown | Certified Max Gross Wt.: | 828 lbs |
| Time Since Last Inspection: | | Engines: | 1 Reciprocating |
| Airframe Total Time: | | Engine Manufacturer: | Volkswagen |
| ELT: | | Engine Model/Series: | 1600 CC |
| Registered Owner: | ROBERT R. THOMAS | Rated Power: | 57 Horsepower |
| Operator: | | 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: | SLC ,4227 ft msl | Distance from Accident Site: | 10 Nautical Miles |
| Observation Time: | 12:56 Local | Direction from Accident Site: | 340° |
| Lowest Cloud Condition: | Scattered / 7000 ft AGL | Visibility | 6 miles |
| Lowest Ceiling: | Broken / 15000 ft AGL | Visibility (RVR): | |
| Wind Speed/Gusts: | 6 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 320° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 29 inches Hg | Temperature/Dew Point: | 39°C / 30°C |
| Precipitation and Obscuration: | N/A - None - Haze | | |
| Departure Point: | (U42) | Type of Flight Plan Filed: | None |
| Destination: | | Type of Clearance: | None |
| Departure Time: | 12:43 Local | Type of Airspace: | Class G |

Airport Information

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|-----------------------------|---|----------------------------------|--|
| Airport: | | Runway Surface Type: | |
| Airport Elevation: | | Runway Surface Condition: | |
| Runway Used: | 0 | IFR Approach: | |
| Runway Length/Width: | | VFR Approach/Landing: | |

Wreckage and Impact Information

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|----------------------------|-----------|-----------------------------|---------------------------|
| Crew Injuries: | 1 Serious | Aircraft Damage: | Substantial |
| Passenger Injuries: | | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 1 Serious | Latitude, Longitude: | 40.59988,-111.959899(est) |

Administrative Information

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| Investigator In Charge (IIC): | Struhsaker, James |
| Additional Participating Persons: | DENNIS E MOORE; SALT LAKE CITY , UT |
| Original Publish Date: | November 1, 2001 |
| Last Revision Date: | |
| Investigation Class: | Class |
| Note: | The NTSB traveled to the scene of this accident. |
| Investigation Docket: | https://data.ntsb.gov/Docket?ProjectID=50749 |

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](#).