



Aviation Investigation Final Report

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|--------------------------------|--------------------------------------|-------------------------|------------|
| Location: | Mexia, Texas | Accident Number: | DFW05CA247 |
| Date & Time: | September 21, 2005, 19:30 Local | Registration: | N909KF |
| Aircraft: | Smith, Ted Aerostar 601P | Aircraft Damage: | Destroyed |
| Defining Event: | | Injuries: | 5 Minor |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

The 700-hour private pilot flying the twin-engine airplane with four passengers aboard used approximately three-quarters of runway 18 before becoming airborne. After establishing a positive rate of climb, the pilot retracted the landing gear and pitched the airplane for a 92 knot climb. Shortly thereafter the rate of climb decreased and the airplane's control authority began to decay. The pilot responded by applying full throttle to both engines and reduced the angle of attack in an attempt to regain airspeed. The pilot was able to arrest the airplane's decaying airspeed and descent; however, the airplane collided with a barn and then a grassy field before coming to rest in an upright position. The pilot and passengers were able to egress the airplane unassisted and the airplane was engulfed in flames a few minutes later. About 23 minutes after the mishap the weather reporting station 24 miles north of the accident site reported, the wind from 230 degrees at 6 knots, the temperature 84 degrees Fahrenheit, and dew point of 60 degrees Fahrenheit. Runway 18 was reported as a 4,002-foot long by 60-foot wide asphalt runway with trees near the departure end. The field elevation at the airport was reported at 544 feet and the density altitude was calculated at 1,860 feet. The estimated weight of the airplane at the time of departure was near its maximum gross weight of 6,000 pounds. The pilot reported that he had not performed a weight and balance check, calculated density altitude, and was not sure of how much fuel was onboard the airplane prior to departure. The pilot further reported that there were no apparent anomalies with the airplane.

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 clearance from the barn. Contributing factors were the pilot's inadequate preflight planning/preparation and the high-density altitude.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
2. (F) WEATHER CONDITION - HIGH DENSITY ALTITUDE
3. (F) PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
4. OBJECT - BUILDING(NONRESIDENTIAL)
5. CLIMB - NOT ATTAINED - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

6. TERRAIN CONDITION - GRASS

Factual Information

This report is based on information received by the NTSB. Additional details may be found in the NTSB's public docket for this case. For further information, please contact the NTSB Office of Public Inquiries.

Pilot Information

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|----------------------------------|---|--|---------------|
| Certificate: | Private | Age: | 45, 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: | No |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 2 | Last FAA Medical Exam: | March 1, 2005 |
| Occupational Pilot: | UNK | Last Flight Review or Equivalent: | |
| Flight Time: | 700 hours (Total, all aircraft), 48 hours (Total, this make and model), 500 hours (Pilot In Command, all aircraft), 45 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|------------------------|---------------------------------------|-----------------|
| Aircraft Make: | Smith, Ted Aerostar | Registration: | N909KF |
| Model/Series: | 601P | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | 61P0484196 |
| Landing Gear Type: | Retractable - Tricycle | Seats: | 6 |
| Date/Type of Last Inspection: | | Certified Max Gross Wt.: | 6000 lbs |
| Time Since Last Inspection: | | Engines: | 2 Reciprocating |
| Airframe Total Time: | | Engine Manufacturer: | Lycoming |
| ELT: | | Engine Model/Series: | IO-540 |
| Registered Owner: | Sky Lifts LLC | Rated Power: | 290 Horsepower |
| Operator: | | Operating Certificate(s) Held: | None |

Meteorological Information and Flight Plan

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|---|----------------------------------|---|-------------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Dusk |
| Observation Facility, Elevation: | CRS,449 ft msl | Distance from Accident Site: | 24 Nautical Miles |
| Observation Time: | 19:53 Local | Direction from Accident Site: | |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 6 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 230° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 29.92 inches Hg | Temperature/Dew Point: | 29°C / 16°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Mexia, TX (LXY) | Type of Flight Plan Filed: | None |
| Destination: | La Porte, TX (T41) | Type of Clearance: | None |
| Departure Time: | 19:30 Local | Type of Airspace: | |

Airport Information

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|-----------------------------|---------------------------------------|----------------------------------|---------|
| Airport: | Mexia-Limestone County Airport LXY | Runway Surface Type: | Asphalt |
| Airport Elevation: | 544 ft msl | Runway Surface Condition: | Dry |
| Runway Used: | 18 | IFR Approach: | None |
| Runway Length/Width: | 4002 ft / 60 ft | VFR Approach/Landing: | None |

Wreckage and Impact Information

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|----------------------------|---------|-----------------------------|----------------------|
| Crew Injuries: | 1 Minor | Aircraft Damage: | Destroyed |
| Passenger Injuries: | 4 Minor | Aircraft Fire: | On-ground |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 5 Minor | Latitude, Longitude: | 31.639722,-96.514724 |

Administrative Information

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|--|---|
| Investigator In Charge (IIC): | LeBaron, Timothy |
| Additional Participating Persons: | Jay Stiles; Fort Worth, Texas |
| Original Publish Date: | January 31, 2006 |
| Last Revision Date: | |
| Investigation Class: | Class |
| Note: | This accident report documents the factual circumstances of this accident as described to the NTSB. |
| Investigation Docket: | https://data.nts.gov/Docket?ProjectID=62532 |

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](#).