



Aviation Investigation Final Report

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|--------------------------------|---|-------------------------|-------------|
| Location: | Port Orange, Florida | Accident Number: | ERA09CA127 |
| Date & Time: | December 31, 2008, 14:30 Local | Registration: | N37MD |
| Aircraft: | Cessna 180K | Aircraft Damage: | Substantial |
| Defining Event: | Hard landing | Injuries: | 2 None |
| Flight Conducted Under: | Part 91: General aviation - Instructional | | |

Analysis

The pilot, who recently acquired the airplane, was receiving instruction for insurance purposes. After performing some airwork, the pilot returned to the traffic pattern for landing practice and joined a left downwind leg for runway 23. On short final, he lowered flaps to 40 degrees and the airplane slowed to 60 knots. At 15 feet above ground level, the airplane "came down hard" on the runway numbers. The left and right main landing gear failed and the airplane received structural damage to the lower fuselage. The pilot reported that the winds at the time of the accident were from 235 degrees at 10 knots, with gusts to 15 knots. He also reported that windshear occurred and they were unable to react quickly enough to prevent the hard landing. The reported wind at a nearby airport about the time of the accident was from 280 degrees at 15 knots. The pilot reported total flight experience of 1,354 hours, of which 3 hours were in the same make and model as the accident airplane and 3 hours were flown during the 90-day period preceding the accident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate compensation for the wind conditions during landing. Contributing to the accident were the gusting wind conditions and the pilot's lack of experience in the make and model airplane.

Findings

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| Personnel issues | Total experience w/ equipment - Pilot |
| Environmental issues | Gusts - Contributed to outcome |
| Environmental issues | Gusts - Response/compensation |
| Personnel issues | Aircraft control - Pilot |

Factual Information

History of Flight

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|--------------------------------|-------------------------------|
| Landing-flare/touchdown | Other weather encounter |
| Landing-flare/touchdown | Hard landing (Defining event) |

Pilot Information

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|----------------------------------|---|--|-------------------|
| Certificate: | Commercial; Flight instructor | Age: | 51, 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 multi-engine; Airplane single-engine | Toxicology Performed: | No |
| Medical Certification: | Class 3 With waivers/limitations | Last FAA Medical Exam: | December 27, 2007 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | April 11, 2007 |
| Flight Time: | 1354 hours (Total, all aircraft), 3 hours (Total, this make and model), 1285 hours (Pilot In Command, all aircraft), 3 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft) | | |

Flight instructor Information

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|----------------------------------|--|--|-------------------|
| Certificate: | Airline transport; Flight instructor | Age: | 69, Male |
| Airplane Rating(s): | Single-engine land; Single-engine sea; Multi-engine land | Seat Occupied: | Right |
| Other Aircraft Rating(s): | Glider; Helicopter | Restraint Used: | |
| Instrument Rating(s): | Airplane | Second Pilot Present: | Yes |
| Instructor Rating(s): | Airplane multi-engine; Airplane single-engine; Glider; Instrument airplane | Toxicology Performed: | No |
| Medical Certification: | Class 2 With waivers/limitations | Last FAA Medical Exam: | December 12, 2008 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | December 12, 2008 |
| Flight Time: | 13000 hours (Total, all aircraft), 200 hours (Total, this make and model), 12000 hours (Pilot In Command, all aircraft), 50 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|--|---------------------------------------|-----------------|
| Aircraft Make: | Cessna | Registration: | N37MD |
| Model/Series: | 180K | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | 18053012 |
| Landing Gear Type: | Tailwheel | Seats: | 4 |
| Date/Type of Last Inspection: | September 1, 2008 Annual | Certified Max Gross Wt.: | |
| Time Since Last Inspection: | 6 Hrs | Engines: | 1 Reciprocating |
| Airframe Total Time: | 2788 Hrs at time of accident | Engine Manufacturer: | Continental |
| ELT: | Installed, activated, did not aid in locating accident | Engine Model/Series: | O-470-U |
| Registered Owner: | Andrew G. Spaulding | Rated Power: | 230 Horsepower |
| Operator: | Andrew G. Spaulding | 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: | EVB,10 ft msl | Distance from Accident Site: | 5 Nautical Miles |
| Observation Time: | 14:47 Local | Direction from Accident Site: | 120° |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 15 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 280° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 29.95 inches Hg | Temperature/Dew Point: | 23°C / 12°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Port Orange, FL (7FL6) | Type of Flight Plan Filed: | None |
| Destination: | Port Orange, FL (7FL6) | Type of Clearance: | None |
| Departure Time: | 13:30 Local | Type of Airspace: | |

Airport Information

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|-----------------------------|---------------------------|----------------------------------|-----------------|
| Airport: | Spruce Creek Airport 7FL6 | Runway Surface Type: | Asphalt |
| Airport Elevation: | | Runway Surface Condition: | Dry |
| Runway Used: | 23 | IFR Approach: | None |
| Runway Length/Width: | 4400 ft / 200 ft | VFR Approach/Landing: | Traffic pattern |

Wreckage and Impact Information

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|----------------------------|--------|-----------------------------|---------------------------|
| Crew Injuries: | 2 None | Aircraft Damage: | Substantial |
| Passenger Injuries: | N/A | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 2 None | Latitude, Longitude: | 29.080278,-81.046669(est) |

Administrative Information

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|--|---|
| Investigator In Charge (IIC): | Hicks, Ralph |
| Additional Participating Persons: | Peter Kandravi; FAA/FSDO; Orlando, FL |
| Original Publish Date: | March 23, 2009 |
| 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=73192 |

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](#).