



Aviation Investigation Final Report

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|--------------------------------|---|-------------------------|-------------|
| Location: | Phoenix, Arizona | Accident Number: | WPR22LA175 |
| Date & Time: | April 16, 2022, 12:30 Local | Registration: | N2837X |
| Aircraft: | Cessna 177 | Aircraft Damage: | Substantial |
| Defining Event: | Loss of control on ground | Injuries: | 2 None |
| Flight Conducted Under: | Part 91: General aviation - Instructional | | |

Analysis

The pilot-rated student reported that, while landing, the airplane landed hard and bounced twice. The instructor then told the pilot to perform a go-around. The pilot applied full power but was unable to control the airplane and decided to turn over the controls to the flight instructor. According to the pilot, the instructor was able to land safely after declaring an emergency. The stabilator, right wing and aileron were substantially damaged.

Probable Cause and Findings

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

The pilot's improper landing flare and the flight instructor's delayed remedial action.

Findings

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| Personnel issues | Decision making/judgment - Student/instructed pilot |
| Personnel issues | Aircraft control - Student/instructed pilot |
| Aircraft | Landing flare - Not attained/maintained |
| Personnel issues | Monitoring other person - Instructor/check pilot |

Factual Information

History of Flight

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| Landing-flare/touchdown | Loss of control on ground (Defining event) |
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Pilot Information

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|----------------------------------|--|--|-------------------|
| Certificate: | Private | Age: | 53,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: | Yes |
| Instructor Rating(s): | None | Toxicology Performed: | |
| Medical Certification: | Class 3 With waivers/limitations | Last FAA Medical Exam: | February 10, 2021 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | March 12, 2022 |
| Flight Time: | 138 hours (Total, all aircraft), 3 hours (Total, this make and model), 16 hours (Pilot In Command, all aircraft), 35 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft) | | |

Flight instructor Information

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|----------------------------------|---|--|------------------|
| Certificate: | Commercial; Flight instructor | Age: | 38,Female |
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Right |
| Other Aircraft Rating(s): | None | Restraint Used: | 3-point |
| Instrument Rating(s): | Airplane | Second Pilot Present: | Yes |
| Instructor Rating(s): | Airplane single-engine | Toxicology Performed: | |
| Medical Certification: | Class 3 Without waivers/limitations | Last FAA Medical Exam: | January 28, 2020 |
| Occupational Pilot: | UNK | Last Flight Review or Equivalent: | |
| Flight Time: | 0 hours (Total, all aircraft), 0 hours (Total, this make and model) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|--------------------------|---------------------------------------|-----------------|
| Aircraft Make: | Cessna | Registration: | N2837X |
| Model/Series: | 177 | Aircraft Category: | Airplane |
| Year of Manufacture: | 1967 | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | 17700237 |
| Landing Gear Type: | Tricycle | Seats: | 4 |
| Date/Type of Last Inspection: | April 6, 2022 100 hour | Certified Max Gross Wt.: | 2500 lbs |
| Time Since Last Inspection: | | Engines: | 1 Reciprocating |
| Airframe Total Time: | | Engine Manufacturer: | Lycoming |
| ELT: | Installed, not activated | Engine Model/Series: | O-360 |
| Registered Owner: | On file | Rated Power: | 180 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: | KDVT, 1488 ft msl | Distance from Accident Site: | 1 Nautical Miles |
| Observation Time: | 12:53 Local | Direction from Accident Site: | 83° |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 8 knots / None | Turbulence Type Forecast/Actual: | None / None |
| Wind Direction: | 210° | Turbulence Severity Forecast/Actual: | N/A / N/A |
| Altimeter Setting: | 29.95 inches Hg | Temperature/Dew Point: | 28°C / -8°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Phoenix , AZ | Type of Flight Plan Filed: | None |
| Destination: | Phoenix , AZ | Type of Clearance: | None |
| Departure Time: | | Type of Airspace: | Class D |

Airport Information

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|-----------------------------|----------------------------------|----------------------------------|--------------|
| Airport: | Phoenix Deer Valley Airport KDVT | Runway Surface Type: | Asphalt |
| Airport Elevation: | 1478 ft msl | Runway Surface Condition: | Dry |
| Runway Used: | 25L | IFR Approach: | None |
| Runway Length/Width: | 8196 ft / 100 ft | VFR Approach/Landing: | Touch and go |

Wreckage and Impact Information

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|----------------------------|--------|-----------------------------|---------------------------|
| Crew Injuries: | 1 None | Aircraft Damage: | Substantial |
| Passenger Injuries: | 1 None | Aircraft Fire: | None |
| Ground Injuries: | | Aircraft Explosion: | None |
| Total Injuries: | 2 None | Latitude, Longitude: | 33.688306,-112.08255(est) |

Administrative Information

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| Investigator In Charge (IIC): | Johnson, Scott |
| Additional Participating Persons: | Barry J Miller; Federal Aviation Administration FSDO; Scottsdale, AZ |
| Original Publish Date: | July 20, 2022 |
| Last Revision Date: | |
| Investigation Class: | Class 4 |
| Note: | The NTSB did not travel to the scene of this accident. |
| Investigation Docket: | https://data.ntsb.gov/Docket?ProjectID=105083 |

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](#).