



Aviation Investigation Final Report

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|--------------------------------|--------------------------------------|-------------------------|-------------|
| Location: | Block Island, Rhode Island | Accident Number: | ERA20CA264 |
| Date & Time: | July 18, 2020, 18:05 Local | Registration: | N58066 |
| Aircraft: | Mooney M20J | Aircraft Damage: | Substantial |
| Defining Event: | Hard landing | Injuries: | 2 None |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

Following an uneventful flight, the pilot was landing the airplane at the destination airport. When the airplane touched down, he “experienced an issue” with the right main landing gear. The airplane then veered off the right-side of the runway. The pilot applied corrective rudder inputs to bring the airplane back toward the runway centerline, but it continued past the centerline and off the left side of the runway. The pilot then applied the brakes but found that there was “no action.” The airplane came to rest off the left side of the runway.

A postaccident examination of the airplane revealed the nose landing gear had sheared from the fuselage and the main landing gear had collapsed. The propeller was damaged, and the lower fuselage was substantially damaged. The right main landing gear trunnion rod was pushed up and through the top of the right wing. Further examination of the right main landing gear revealed the two front support tubes for the landing gear's shock absorbers were both broken at the base where they attach to the shock absorber assembly. The brakes appeared new and no defects were noted. The right tire spun freely and exhibited two flat spots, one of which was through the tire cord, rupturing it. The tire also displayed rubbing and scuffing marks that were off-axis relative to the direction of travel. Skid marks on the runway were consistent with the damage observed on the right main landing gear tire. Given the damage observed to the right main landing gear, it is likely that the pilot landed the airplane hard. The damage to the landing gear likely resulted in the subsequent loss of control and runway excursion.

Probable Cause and Findings

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

A hard landing and subsequent loss of control.

Findings

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| Personnel issues | Aircraft control - Pilot |
| Aircraft | Landing flare - Not attained/maintained |

Factual Information

History of Flight

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|--------------------------------|-------------------------------|
| Landing-flare/touchdown | Hard landing (Defining event) |
| Landing-landing roll | Loss of control on ground |
| Landing-landing roll | Runway excursion |

Pilot Information

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|----------------------------------|--|--|-------------------|
| Certificate: | Private | Age: | 60, 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: | No |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 3 Without waivers/limitations | Last FAA Medical Exam: | December 13, 2018 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | January 4, 2019 |
| Flight Time: | 550 hours (Total, all aircraft), 391 hours (Total, this make and model), 550 hours (Pilot In Command, all aircraft), 9 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|--|---------------------------------------|-----------------|
| Aircraft Make: | Mooney | Registration: | N58066 |
| Model/Series: | M20J No Series | Aircraft Category: | Airplane |
| Year of Manufacture: | 1985 | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | 24-1541 |
| Landing Gear Type: | Retractable - Tricycle | Seats: | 4 |
| Date/Type of Last Inspection: | March 1, 2020 Annual | Certified Max Gross Wt.: | 2645 lbs |
| Time Since Last Inspection: | 9 Hrs | Engines: | 1 Reciprocating |
| Airframe Total Time: | 7271 Hrs at time of accident | Engine Manufacturer: | Lycoming |
| ELT: | Installed, activated, did not aid in locating accident | Engine Model/Series: | IO-360-A3B68 |
| Registered Owner: | Unicorn Aviation Inc | Rated Power: | 180 Horsepower |
| Operator: | Unicorn Aviation Inc | 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: | BID,107 ft msl | Distance from Accident Site: | 0 Nautical Miles |
| Observation Time: | 17:56 Local | Direction from Accident Site: | 0° |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 9 knots / | Turbulence Type Forecast/Actual: | None / None |
| Wind Direction: | 220° | Turbulence Severity Forecast/Actual: | N/A / N/A |
| Altimeter Setting: | 30.01 inches Hg | Temperature/Dew Point: | 26°C / 21°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Hartford, CT (HFD) | Type of Flight Plan Filed: | None |
| Destination: | Block Island, RI (BID) | Type of Clearance: | VFR flight following |
| Departure Time: | 17:00 Local | Type of Airspace: | Class E |

Airport Information

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|-----------------------------|------------------------|----------------------------------|-----------|
| Airport: | Block Island State BID | Runway Surface Type: | Asphalt |
| Airport Elevation: | 107 ft msl | Runway Surface Condition: | Dry |
| Runway Used: | 28 | IFR Approach: | None |
| Runway Length/Width: | 2502 ft / 100 ft | VFR Approach/Landing: | Full stop |

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: | 41.168056,-71.577774 |

Administrative Information

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| Investigator In Charge (IIC): | Read, Leah |
| Additional Participating Persons: | Craig Souza; FAA/FSDO; Boston, MA |
| Original Publish Date: | June 1, 2021 |
| Last Revision Date: | |
| Investigation Class: | Class 4 |
| Note: | This accident report documents the factual circumstances of this accident as described to the NTSB. |
| Investigation Docket: | https://data.nts.gov/Docket?ProjectID=101698 |

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](#).