



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

| | | | |
|--------------------------------|--------------------------------------|-------------------------|-------------|
| Location: | Grass Valley, California | Accident Number: | WPR24LA078 |
| Date & Time: | January 18, 2024, 12:40 Local | Registration: | N7250Q |
| Aircraft: | Cessna 172L | Aircraft Damage: | Substantial |
| Defining Event: | Loss of control on ground | Injuries: | 1 None |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

The pilot reported that during the landing roll, he applied the brakes to slow down; however, the left brake did not function properly, and the airplane veered to the right of the runway. The pilot attempted aerodynamic braking and used full left rudder in an attempt to return the airplane to the runway centerline. The airplane continued to the right down an embankment, nosed over, and came to rest inverted.

Review of accident site photographs showed impressions from all three-landing gear in the dirt adjacent to the runway, with the right landing gear showing a more pronounced indentation in the dirt. due to heavy braking on the right side it is likely the right brake locked up.

A postaccident examination of the brakes revealed improper retaining bolts securing the brake calipers; however, both brakes functioned normally. No other mechanical anomalies were found that would have precluded normal operation.

Probable Cause and Findings

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

Loss of control during the landing roll due to a malfunctioning brake for undetermined reasons.

Findings

| | |
|----------|---|
| Aircraft | Brake - Unknown/Not determined |
| Aircraft | Directional control - Not attained/maintained |

Factual Information

History of Flight

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

On January 18, 2024, about 1240 Pacific standard time, a Cessna 172L, N7250Q, was substantially damaged when it was involved in an accident near Grass Valley, California. The pilot was not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that his flight to Nevada County Airport (GOO), Grass Valley, and the subsequent approach and touchdown were normal. During the landing roll on runway 25, as he applied the brakes to slow down and exit the runway, the airplane veered to the right. The pilot stated that the left brake did not function. The airplane slowed to less than 35 mph as it traveled past the taxiway turn . The pilot stated that the engine was at an idle power setting, and he attempted the use of aerodynamic braking to stop the airplane, which he believed would stop before the end of the runway. The pilot stated that he “got off the brakes,” and attempted to correct back to runway centerline with the application of full left rudder pedal. The airplane continued to veer to the right, exited the right side of the runway, traveled over an embankment, and came to rest inverted.

The airplane sustained substantial damage to the wings, vertical stabilizer, rudder, and propeller.

A review of photographs provided by the Federal Aviation Administration, showed that all three-landing gear had left impressions in the soft dirt adjacent to the runway. The right main landing gear impression exhibited a more pronounced indentation mark in the dirt than the left main and nose landing gears.

A postaccident examination of the brake system revealed improper retaining hardware bolts securing the backplates of the left and right brake calipers. Both brakes were manipulated by the rudder pedals and when activated were “firm” and functioned normally. Examination of the nose landing gear oleo strut showed the torque links were not contacting the centering block on the strut housing. The left and right steer rods were attached and had continuity with the left and right rudder pedals.

Pilot Information

| | | | |
|----------------------------------|---|--|-------------------|
| Certificate: | Private | Age: | 74, Male |
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Left |
| Other Aircraft Rating(s): | None | Restraint Used: | 3-point |
| Instrument Rating(s): | Airplane | Second Pilot Present: | No |
| Instructor Rating(s): | None | Toxicology Performed: | |
| Medical Certification: | BasicMed With waivers/limitations | Last FAA Medical Exam: | December 19, 2023 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | March 26, 2023 |
| Flight Time: | (Estimated) 1988 hours (Total, all aircraft), 1480 hours (Total, this make and model), 1970 hours (Pilot In Command, all aircraft), 16 hours (Last 90 days, all aircraft), 11 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

| | | | |
|--------------------------------------|--|---------------------------------------|-----------------|
| Aircraft Make: | Cessna | Registration: | N7250Q |
| Model/Series: | 172L | Aircraft Category: | Airplane |
| Year of Manufacture: | 1972 | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | 17260550 |
| Landing Gear Type: | Tricycle | Seats: | 4 |
| Date/Type of Last Inspection: | February 18, 2023 Annual | Certified Max Gross Wt.: | 2300 lbs |
| Time Since Last Inspection: | | Engines: | 1 Reciprocating |
| Airframe Total Time: | 14218 Hrs at time of accident | Engine Manufacturer: | Lycoming |
| ELT: | Installed, activated, did not aid in locating accident | Engine Model/Series: | O-320-E2D |
| Registered Owner: | On file | Rated Power: | 150 Horsepower |
| Operator: | On file | Operating Certificate(s) Held: | None |

Meteorological Information and Flight Plan

| | | | |
|----------------------------------|----------------------------------|---|------------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
| Observation Facility, Elevation: | KGOO,3153 ft msl | Distance from Accident Site: | 0 Nautical Miles |
| Observation Time: | 12:35 Local | Direction from Accident Site: | 261° |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | / | Turbulence Type Forecast/Actual: | None / None |
| Wind Direction: | | Turbulence Severity Forecast/Actual: | N/A / N/A |
| Altimeter Setting: | 30.07 inches Hg | Temperature/Dew Point: | 11°C / 0°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Sacramento, CA (MCC) | Type of Flight Plan Filed: | None |
| Destination: | Grass Valley, CA | Type of Clearance: | None |
| Departure Time: | 12:15 Local | Type of Airspace: | Class E |

Airport Information

| | | | |
|----------------------|-------------------|---------------------------|---------------------------|
| Airport: | NEVADA COUNTY GOO | Runway Surface Type: | Asphalt |
| Airport Elevation: | 3157 ft msl | Runway Surface Condition: | Dry |
| Runway Used: | 25 | IFR Approach: | None |
| Runway Length/Width: | 4657 ft / 75 ft | VFR Approach/Landing: | Full stop;Traffic pattern |

Wreckage and Impact Information

| | | | |
|---------------------|--------|-------------------------|----------------------|
| Crew Injuries: | 1 None | Aircraft Damage: | Substantial |
| Passenger Injuries: | N/A | Aircraft Fire: | None |
| Ground Injuries: | | Aircraft Explosion: | None |
| Total Injuries: | 1 None | Latitude, Longitude: | 39.224056,-121.00255 |

Administrative Information

| | |
|--|---|
| Investigator In Charge (IIC): | Cornejo, Tealeye |
| Additional Participating Persons: | Tim Snyder; Federal Aviation Administration; Sacramento, CA |
| Original Publish Date: | March 5, 2025 |
| Last Revision Date: | |
| Investigation Class: | Class 3 |
| Note: | The NTSB did not travel to the scene of this accident. |
| Investigation Docket: | https://data.nts.gov/Docket?ProjectID=193693 |

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](#).