



Aviation Investigation Final Report

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|--------------------------------|--------------------------------------|-------------------------|-------------|
| Location: | Grand Canyon, Arizona | Accident Number: | WPR23LA162 |
| Date & Time: | April 19, 2023, 14:00 Local | Registration: | N4166C |
| Aircraft: | Cessna R182 | Aircraft Damage: | Substantial |
| Defining Event: | Loss of control in flight | Injuries: | 2 None |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

The pilot was on a cross-country flight when, about an hour into the flight, he noticed that the fuel was only being drawn from the left tank. He decided to conduct a precautionary landing at an en route airport. During the approach, the engine was “acting up” and he decided to add full power to perform a go-around. The engine then lost power, the airplane stalled, and both wings and the empennage impacted the ground.

A postaccident examination of the airplane’s fuel system and engine did not reveal any preimpact mechanical anomalies or failures that would have precluded normal operation. Weather conditions were not conducive to the formation of carburetor ice. The cause of the inaccurate draining of the right wing fuel tank and the loss of power could not be determined.

Probable Cause and Findings

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

The airplane’s loss of engine power for undetermined reasons and the pilot’s exceedance of the airplane’s critical angle of attack and subsequent failure to maintain adequate airspeed, which resulted in an aerodynamic stall.

Findings

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|-------------------------|-------------------------------------|
| Personnel issues | Incorrect action sequence - Pilot |
| Personnel issues | Aircraft control - Pilot |
| Aircraft | (general) - Not attained/maintained |
| Aircraft | (general) - Unknown/Not determined |
| Aircraft | (general) - Unknown/Not determined |

Factual Information

History of Flight

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| Enroute | Fuel related |
| Enroute | Unknown or undetermined |
| Approach | Loss of control in flight (Defining event) |

On April 19, 2023, about 1400 mountain standard time, a Cessna R182 airplane, N4166C, was substantially damaged when it was involved in an accident near Grand Canyon, Arizona. The pilot and passenger were not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal cross-country flight.

The pilot initially reported that during the flight the airplane’s fuel gauges were not reading correctly and that he decided he was going to land at Valle Airport (40G), Grand Canyon, Arizona, for fuel. During the final approach for runway 1 at 40G, he applied carburetor heat and the engine sputtered. The pilot aborted the landing and attempted to go around because of the wind. The airplane stalled and impacted the ground during the go-around.

In a follow-up interview, the pilot reported that the airplane was recently purchased and that he was flying the airplane to the St. Louis, Missouri, area. He said that there were no refueling services at his departure airport and that the left tank was about 3/4 full, and the right tank was 7/8 full before departing. He had planned to refuel at an unknown airport in western Kansas. About an hour into the flight, the pilot reported that the fuel was only being drawn from the left tank so he decided to conduct a precautionary landing to 40G. During the approach, the engine was “acting up” and he decided to add full power to perform a go-around. The engine produced no power, and shortly after the airplane “stalled out” at an unknown altitude. Both wings and the empennage impacted the ground.

The airport manager who was onsite shortly after the accident reported that the right wing was on the ground and that both wing tanks were leaking fuel. The wing fuel tank caps were removed for a visual inspection, and the right tank was full to the brim and the left tank was at about a 1/2 tank. The fuel selector was found in the BOTH position.

The airplane had total time of 4,784.4 hours. A review of the airplane’s logbooks revealed that the last annual inspection was completed on August 1, 2022, about 16.6 hours before the accident. In June of 2003, the engine was removed for a sudden stoppage inspection. The engine was repaired and inspected and reinstalled in November of 2003. The engine had 419.3 hours of operation since being reinstalled.

A postaccident examination revealed no evidence of anomalies with the airplane's fuel system. The wing fuel tanks were intact and the associated lines and screens were unobstructed. The fuel caps were removed, and the cap seals and cap vent valves were undamaged. The fuel tank vent lines were unobstructed when air pressure was added. The fuel selector valve was tested and was found to operate normally in all detent positions. A small amount of fuel was found in the fuel strainer and was uncontaminated. The fuel strainer bowl and screen were free of contaminants. The examination of the engine and its components revealed no anomalies that would have precluded normal operation. The induction system had no signs of induction leaks or obstructions. The exhaust flame cones were found to be intact and there were no signs of obstructions in the exhaust system. The carburetor was removed from the engine and sent to the manufacturer for a fuel flow evaluation and examination. The carburetor's fuel flow performance was within acceptable limits at various power settings.

The airplane was operating in conditions not conducive to carburetor icing at any power.

Pilot Information

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| Certificate: | Private | Age: | 43, 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: | |
| Medical Certification: | Class 3 With waivers/limitations | Last FAA Medical Exam: | October 1, 2021 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | January 24, 2023 |
| Flight Time: | (Estimated) 266 hours (Total, all aircraft), 131 hours (Pilot In Command, all aircraft) | | |

Passenger Information

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|----------------------------------|----|--|---------|
| Certificate: | | Age: | |
| Airplane Rating(s): | | Seat Occupied: | Right |
| Other Aircraft Rating(s): | | Restraint Used: | 3-point |
| Instrument Rating(s): | | Second Pilot Present: | No |
| Instructor Rating(s): | | Toxicology Performed: | |
| Medical Certification: | | Last FAA Medical Exam: | |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | |
| Flight Time: | | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|---|---------------------------------------|-----------------|
| Aircraft Make: | Cessna | Registration: | N4166C |
| Model/Series: | R182 | Aircraft Category: | Airplane |
| Year of Manufacture: | 1978 | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | R18200334 |
| Landing Gear Type: | Retractable - Tricycle | Seats: | 4 |
| Date/Type of Last Inspection: | August 18, 2021 100 hour | Certified Max Gross Wt.: | |
| Time Since Last Inspection: | 16.6 Hrs | Engines: | 1 Reciprocating |
| Airframe Total Time: | 3185 Hrs at time of accident | Engine Manufacturer: | Lycoming |
| ELT: | C126 installed, activated, did not aid in locating accident | Engine Model/Series: | O-540-J3C5D |
| Registered Owner: | Edwards Construction LLC. | Rated Power: | 235 Horsepower |
| Operator: | Edwards Construction LLC. | 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: | KGCN, 6540 ft msl | Distance from Accident Site: | 0 Nautical Miles |
| Observation Time: | 13:54 Local | Direction from Accident Site: | 224° |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 16 knots / 25 knots | Turbulence Type Forecast/Actual: | Unknown / Unknown |
| Wind Direction: | 250° | Turbulence Severity Forecast/Actual: | Unknown / Unknown |
| Altimeter Setting: | 29.99 inches Hg | Temperature/Dew Point: | 11°C / -13°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Bullhead City, AZ (A09) | Type of Flight Plan Filed: | VFR |
| Destination: | Grand Canyon, AZ (40G) | Type of Clearance: | None |
| Departure Time: | 13:00 Local | Type of Airspace: | Class E |

Airport Information

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|-----------------------------|-----------------|----------------------------------|--|
| Airport: | VALLE 40G | Runway Surface Type: | Asphalt |
| Airport Elevation: | 5999 ft msl | Runway Surface Condition: | Dry |
| Runway Used: | 01/19 | IFR Approach: | None |
| Runway Length/Width: | 4199 ft / 45 ft | VFR Approach/Landing: | Forced landing;Go around;Traffic pattern |

Wreckage and Impact Information

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|----------------------------|--------|-----------------------------|--------------------------|
| Crew Injuries: | 1 None | Aircraft Damage: | Substantial |
| Passenger Injuries: | 1 None | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 2 None | Latitude, Longitude: | 35.951752,-112.1482(est) |

Administrative Information

Investigator In Charge (IIC): Swick, Andrew

Additional Participating Persons: Micheal McComb; FAA FSDO; Las Vegas, NV
Kurt Gibson; Textron Aviation

Original Publish Date: March 19, 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=107119>

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](#).