



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

# Aviation Investigation Final Report

|                                |   |                         |             |
|--------------------------------|---|-------------------------|-------------|
| <b>Location:</b>               | San Diego, California                     | <b>Accident Number:</b> | WPR23LA091  |
| <b>Date &amp; Time:</b>        | January 15, 2023, 10:30 Local             | <b>Registration:</b>    | N9687J      |
| <b>Aircraft:</b>               | Piper PA-28-180                           | <b>Aircraft Damage:</b> | Substantial |
| <b>Defining Event:</b>         | Miscellaneous/other                       | <b>Injuries:</b>        | 4 None      |
| <b>Flight Conducted Under:</b> | Part 91: General aviation - Instructional |                         |             |

## Analysis

The flight instructor reported that prior to his arrival, the student pilot conducted a preflight inspection of the airplane. The flight instructor then visually inspected the airplane and did not observe any anomalies. On the takeoff roll, with the student pilot at the controls, the left side of the engine cowling opened just after rotation. The flight instructor took control of the airplane and reduced the engine's power setting to relieve stress on the cowling and abort the take off. However, the flight instructor determined that "was not the solution," applied full power to the engine and elected to initiate a turn toward an alternate runway. The airplane continued to descend and was unable to reach the alternate runway. The flight instructor landed the airplane in muddy terrain off the runway. During the landing roll, the airplane's right main landing gear separated, and the right wing impacted the surface, resulting in substantial damage to the fuselage and right wing. The flight instructor reported that there were no preaccident mechanical malfunctions or failures with the airplane 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:

The flight instructor's failure to maintain altitude while maneuvering to another runway after the engine cowling opened shortly after takeoff. Contributing to the accident was the failure of both the student pilot and flight instructor to conduct an adequate preflight inspection.

## Findings

|                         |  |
|-------------------------|--|
| <b>Personnel issues</b> | Preflight inspection - Pilot                     |
| <b>Aircraft</b>         | Fasteners - Incorrect use/operation              |
| <b>Aircraft</b>         | Altitude - Not attained/maintained               |
| <b>Personnel issues</b> | Monitoring other person - Instructor/check pilot |
| <b>Personnel issues</b> | Aircraft control - Instructor/check pilot        |

## Factual Information

### History of Flight

|         |                                      |
|---------|--------------------------------------|
| Takeoff | Miscellaneous/other (Defining event) |
|---------|--------------------------------------|

### Flight instructor Information

|                           |   |                                   |                    |
|---------------------------|---|-----------------------------------|--------------------|
| Certificate:              | Commercial; Flight instructor   | Age:                              | 30,Male            |
| Airplane Rating(s):       | Single-engine land; Multi-engine land   | Seat Occupied:                    | Right              |
| Other Aircraft Rating(s): | None  | Restraint Used:                   | 3-point            |
| Instrument Rating(s):     | Airplane  | Second Pilot Present:             |                    |
| Instructor Rating(s):     | Airplane single-engine; Instrument airplane   | Toxicology Performed:             |                    |
| Medical Certification:    | Class 3 Without waivers/limitations   | Last FAA Medical Exam:            | June 6, 2019       |
| Occupational Pilot:       | Yes   | Last Flight Review or Equivalent: | September 10, 2022 |
| Flight Time:              | 1132 hours (Total, all aircraft), 259 hours (Total, this make and model), 1026 hours (Pilot In Command, all aircraft), 328 hours (Last 90 days, all aircraft), 87 hours (Last 30 days, all aircraft), 9 hours (Last 24 hours, all aircraft) |                                   |                    |

### Student pilot Information

|                           |  |                                   |                 |
|---------------------------|--|-----------------------------------|-----------------|
| Certificate:              | Student  | Age:                              | 33              |
| Airplane Rating(s):       | None   | Seat Occupied:                    | Left            |
| Other Aircraft Rating(s): | None   | Restraint Used:                   | 3-point         |
| Instrument Rating(s):     | None   | Second Pilot Present:             |                 |
| Instructor Rating(s):     | None   | Toxicology Performed:             |                 |
| Medical Certification:    | None None  | Last FAA Medical Exam:            | October 8, 2022 |
| Occupational Pilot:       | No   | Last Flight Review or Equivalent: |                 |
| Flight Time:              | 26 hours (Total, all aircraft), 25 hours (Total, this make and model), 26 hours (Last 90 days, all aircraft) |                                   |                 |

## Passenger Information

|                                  |  |
|----------------------------------|--|
| <b>Certificate:</b>              | <b>Age:</b>                              |
| <b>Airplane Rating(s):</b>       | <b>Seat Occupied:</b> Right              |
| <b>Other Aircraft Rating(s):</b> | <b>Restraint Used:</b> Unknown           |
| <b>Instrument Rating(s):</b>     | <b>Second Pilot Present:</b>             |
| <b>Instructor Rating(s):</b>     | <b>Toxicology Performed:</b>             |
| <b>Medical Certification:</b>    | <b>Last FAA Medical Exam:</b>            |
| <b>Occupational Pilot:</b> UNK   | <b>Last Flight Review or Equivalent:</b> |
| <b>Flight Time:</b>              |  |

## Passenger Information

|                                  |  |
|----------------------------------|--|
| <b>Certificate:</b>              | <b>Age:</b>                              |
| <b>Airplane Rating(s):</b>       | <b>Seat Occupied:</b> Left               |
| <b>Other Aircraft Rating(s):</b> | <b>Restraint Used:</b> Lap only          |
| <b>Instrument Rating(s):</b>     | <b>Second Pilot Present:</b>             |
| <b>Instructor Rating(s):</b>     | <b>Toxicology Performed:</b>             |
| <b>Medical Certification:</b>    | <b>Last FAA Medical Exam:</b>            |
| <b>Occupational Pilot:</b> UNK   | <b>Last Flight Review or Equivalent:</b> |
| <b>Flight Time:</b>              |  |

## Aircraft and Owner/Operator Information

|                                      |   |                                       |                 |
|--------------------------------------|---|---------------------------------------|-----------------|
| <b>Aircraft Make:</b>                | Piper                                     | <b>Registration:</b>                  | N9687J          |
| <b>Model/Series:</b>                 | PA-28-180                                 | <b>Aircraft Category:</b>             | Airplane        |
| <b>Year of Manufacture:</b>          | 1967                                      | <b>Amateur Built:</b>                 |                 |
| <b>Airworthiness Certificate:</b>    | Normal                                    | <b>Serial Number:</b>                 | 28-3863         |
| <b>Landing Gear Type:</b>            | Tricycle                                  | <b>Seats:</b>                         | 4               |
| <b>Date/Type of Last Inspection:</b> | October 24, 2022 Continuous airworthiness | <b>Certified Max Gross Wt.:</b>       | 2400 lbs        |
| <b>Time Since Last Inspection:</b>   |   | <b>Engines:</b>                       | 1 Reciprocating |
| <b>Airframe Total Time:</b>          | 3025 Hrs as of last inspection            | <b>Engine Manufacturer:</b>           | Lycoming        |
| <b>ELT:</b>                          | Installed, not activated                  | <b>Engine Model/Series:</b>           | O-360-A4A       |
| <b>Registered Owner:</b>             | N9687J LLC                                | <b>Rated Power:</b>                   | 180 Horsepower  |
| <b>Operator:</b>                     | Christopher Cardoza                       | <b>Operating Certificate(s) Held:</b> | None            |
| <b>Operator Does Business As:</b>    | Christopher Cardoza                       | <b>Operator Designator Code:</b>      |                 |

## Meteorological Information and Flight Plan

|   |                                  |   |                      |
|---|----------------------------------|---|----------------------|
| <b>Conditions at Accident Site:</b>     | Visual (VMC)                     | <b>Condition of Light:</b>                  | Day                  |
| <b>Observation Facility, Elevation:</b> | KMYF, 418 ft msl                 | <b>Distance from Accident Site:</b>         | 0 Nautical Miles     |
| <b>Observation Time:</b>                | 10:00 Local                      | <b>Direction from Accident Site:</b>        |                      |
| <b>Lowest Cloud Condition:</b>          | Scattered / 1200 ft AGL          | <b>Visibility</b>                           | 8 miles              |
| <b>Lowest Ceiling:</b>                  | Broken / 8500 ft AGL             | <b>Visibility (RVR):</b>                    |                      |
| <b>Wind Speed/Gusts:</b>                | 12 knots /                       | <b>Turbulence Type Forecast/Actual:</b>     | / Terrain-Induced    |
| <b>Wind Direction:</b>                  | 290°                             | <b>Turbulence Severity Forecast/Actual:</b> | /                    |
| <b>Altimeter Setting:</b>               | 29.94 inches Hg                  | <b>Temperature/Dew Point:</b>               | 14°C / 11°C          |
| <b>Precipitation and Obscuration:</b>   | No Obscuration; No Precipitation |   |                      |
| <b>Departure Point:</b>                 | San Diego, CA (MYF)              | <b>Type of Flight Plan Filed:</b>           | None                 |
| <b>Destination:</b>                     | Torrence, CA (KTOA)              | <b>Type of Clearance:</b>                   | VFR flight following |
| <b>Departure Time:</b>                  | 10:30 Local                      | <b>Type of Airspace:</b>                    | Class D              |

## Airport Information

|                             |  |                                  |         |
|-----------------------------|--|----------------------------------|---------|
| <b>Airport:</b>             | Montgomery-Gibbs Executive Airport MYF | <b>Runway Surface Type:</b>      | Asphalt |
| <b>Airport Elevation:</b>   | 427 ft msl                             | <b>Runway Surface Condition:</b> | Dry;Wet |
| <b>Runway Used:</b>         | 28L                                    | <b>IFR Approach:</b>             | None    |
| <b>Runway Length/Width:</b> | 3401 ft / 60 ft                        | <b>VFR Approach/Landing:</b>     | None    |

## Wreckage and Impact Information

|                            |        |                             |                     |
|----------------------------|--------|-----------------------------|---------------------|
| <b>Crew Injuries:</b>      | 2 None | <b>Aircraft Damage:</b>     | Substantial         |
| <b>Passenger Injuries:</b> | 2 None | <b>Aircraft Fire:</b>       | None                |
| <b>Ground Injuries:</b>    |        | <b>Aircraft Explosion:</b>  | None                |
| <b>Total Injuries:</b>     | 4 None | <b>Latitude, Longitude:</b> | 32.813613,-117.1417 |

## Administrative Information

|  |   |
|--|---|
| <b>Investigator In Charge (IIC):</b>     | Blocher, Kristyn  |
| <b>Additional Participating Persons:</b> | Roger Messick; Federal Aviation Administration; San Diego, CA<br>Mike Reyes; Federal Aviation Administration; San Diego, CA |
| <b>Original Publish Date:</b>            | March 2, 2023   |
| <b>Last Revision Date:</b>               |   |
| <b>Investigation Class:</b>              | <a href="#">Class 4</a>   |
| <b>Note:</b>                             | The NTSB did not travel to the scene of this accident.  |
| <b>Investigation Docket:</b>             | <a href="https://data.nts.gov/Docket?ProjectID=106598">https://data.nts.gov/Docket?ProjectID=106598</a>                     |

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](#).