



# Aviation Investigation Final Report

|                                |   |                         |             |
|--------------------------------|---|-------------------------|-------------|
| <b>Location:</b>               | Scottsdale, Arizona                       | <b>Accident Number:</b> | GAA19CA162  |
| <b>Date &amp; Time:</b>        | March 2, 2019, 13:00 Local                | <b>Registration:</b>    | N9404F      |
| <b>Aircraft:</b>               | Cessna 172                                | <b>Aircraft Damage:</b> | Substantial |
| <b>Defining Event:</b>         | Loss of control in flight                 | <b>Injuries:</b>        | 1 None      |
| <b>Flight Conducted Under:</b> | Part 91: General aviation - Instructional |                         |             |

## Analysis

The solo student pilot reported that, during the landing roll of a touch-and-go landing, the airplane began to veer off the runway, so he added power for a go-around. During the go-around, he saw that the left main landing (MLG) gear strut was bent and that the tire was "missing." He told the tower controller that he must have hit something and was instructed to fly by the tower. After the flyby, the tower controller confirmed that the left MLG was damaged and cleared the student to land. During the landing roll, the airplane skidded off the runway.

The airplane sustained substantial damage to the left horizontal stabilizer and left elevator.

The student reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

The airport's automated weather observation station reported that, about 7 minutes before the accident, the wind was from 320° at 8 knots. The student was landing the airplane on runway 21.

Examination of security videos revealed that, during the go-around, the airplane drifted left and that the left MLG struck a runway sign.

## Probable Cause and Findings

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

The student pilot's failure to maintain the runway heading during a go-around with a crosswind, which resulted in the left main landing gear impacting a runway sign.

## Findings

|                         |   |
|-------------------------|---|
| <b>Aircraft</b>         | Heading/course - Not attained/maintained    |
| <b>Personnel issues</b> | Aircraft control - Student/instructed pilot |

## Factual Information

### History of Flight

|                        |  |
|------------------------|--|
| Approach-VFR go-around | Loss of control in flight (Defining event) |
| Approach-VFR go-around | Collision with terr/obj (non-CFIT)         |
| Landing                | Landing gear collapse                      |
| Landing                | Runway excursion                           |

### Student pilot Information

|                           |   |                                   |                    |
|---------------------------|---|-----------------------------------|--------------------|
| Certificate:              | Student   | Age:                              | 36,Male            |
| Airplane Rating(s):       | None  | Seat Occupied:                    | Left               |
| Other Aircraft Rating(s): | None  | Restraint Used:                   | Unknown            |
| Instrument Rating(s):     | None  | Second Pilot Present:             | No                 |
| Instructor Rating(s):     | None  | Toxicology Performed:             | No                 |
| Medical Certification:    | Class 1 With waivers/limitations  | Last FAA Medical Exam:            | September 26, 2018 |
| Occupational Pilot:       | No  | Last Flight Review or Equivalent: |                    |
| Flight Time:              | (Estimated) 9.1 hours (Total, all aircraft), 9.1 hours (Total, this make and model), 0.2 hours (Pilot In Command, all aircraft), 9.1 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft) |                                   |                    |

### Aircraft and Owner/Operator Information

|                               |                                |                                |                 |
|-------------------------------|--------------------------------|--------------------------------|-----------------|
| Aircraft Make:                | Cessna                         | Registration:                  | N9404F          |
| Model/Series:                 | 172 R                          | Aircraft Category:             | Airplane        |
| Year of Manufacture:          | 1997                           | Amateur Built:                 |                 |
| Airworthiness Certificate:    | Normal                         | Serial Number:                 | 17280229        |
| Landing Gear Type:            | Tricycle                       | Seats:                         | 4               |
| Date/Type of Last Inspection: | January 11, 2019 100 hour      | Certified Max Gross Wt.:       | 2450 lbs        |
| Time Since Last Inspection:   |                                | Engines:                       | 1 Reciprocating |
| Airframe Total Time:          | 9451 Hrs as of last inspection | Engine Manufacturer:           | Lycoming        |
| ELT:                          | C91 installed, not activated   | Engine Model/Series:           | IO-360-L2A      |
| Registered Owner:             |                                | Rated Power:                   | 160 Horsepower  |
| Operator:                     |                                | Operating Certificate(s) Held: | None            |

## Meteorological Information and Flight Plan

|   |                        |   |                  |
|---|------------------------|---|------------------|
| <b>Conditions at Accident Site:</b>     | Visual (VMC)           | <b>Condition of Light:</b>                  | Day              |
| <b>Observation Facility, Elevation:</b> | KSDL, 1473 ft msl      | <b>Distance from Accident Site:</b>         | 0 Nautical Miles |
| <b>Observation Time:</b>                | 19:53 Local            | <b>Direction from Accident Site:</b>        | 232°             |
| <b>Lowest Cloud Condition:</b>          |                        | <b>Visibility</b>                           | 10 miles         |
| <b>Lowest Ceiling:</b>                  | Overcast / 8000 ft AGL | <b>Visibility (RVR):</b>                    |                  |
| <b>Wind Speed/Gusts:</b>                | 8 knots /              | <b>Turbulence Type Forecast/Actual:</b>     | None / None      |
| <b>Wind Direction:</b>                  | 320°                   | <b>Turbulence Severity Forecast/Actual:</b> | N/A / N/A        |
| <b>Altimeter Setting:</b>               | 30.02 inches Hg        | <b>Temperature/Dew Point:</b>               | 19°C / 9°C       |
| <b>Precipitation and Obscuration:</b>   | Light - None - Rain    |   |                  |
| <b>Departure Point:</b>                 | Scottsdale, AZ (SDL )  | <b>Type of Flight Plan Filed:</b>           | Unknown          |
| <b>Destination:</b>                     | Scottsdale, AZ (SDL )  | <b>Type of Clearance:</b>                   | Unknown          |
| <b>Departure Time:</b>                  |                        | <b>Type of Airspace:</b>                    | Class D          |

## Airport Information

|                             |                  |                                  |                            |
|-----------------------------|------------------|----------------------------------|----------------------------|
| <b>Airport:</b>             | SCOTTSDALE SDL   | <b>Runway Surface Type:</b>      | Asphalt                    |
| <b>Airport Elevation:</b>   | 1510 ft msl      | <b>Runway Surface Condition:</b> | Dry                        |
| <b>Runway Used:</b>         | 21               | <b>IFR Approach:</b>             | None                       |
| <b>Runway Length/Width:</b> | 8249 ft / 100 ft | <b>VFR Approach/Landing:</b>     | Full stop; Traffic pattern |

## Wreckage and Impact Information

|                            |        |                             |                           |
|----------------------------|--------|-----------------------------|---------------------------|
| <b>Crew Injuries:</b>      | 1 None | <b>Aircraft Damage:</b>     | Substantial               |
| <b>Passenger Injuries:</b> |        | <b>Aircraft Fire:</b>       | None                      |
| <b>Ground Injuries:</b>    | N/A    | <b>Aircraft Explosion:</b>  | None                      |
| <b>Total Injuries:</b>     | 1 None | <b>Latitude, Longitude:</b> | 33.626388,-111.90583(est) |

## Administrative Information

|  |   |
|--|---|
| <b>Investigator In Charge (IIC):</b>     | Benhoff, Kathryn  |
| <b>Additional Participating Persons:</b> | Gary Hendrickson; FAA; Scottsdale, AZ   |
| <b>Original Publish Date:</b>            | November 6, 2019  |
| <b>Note:</b>                             | This accident report documents the factual circumstances of this accident as described to the NTSB.   |
| <b>Investigation Docket:</b>             | <a href="https://data.nts.gov/Docket?ProjectID=99048">https://data.nts.gov/Docket?ProjectID=99048</a> |

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