



Aviation Investigation Final Report

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| Location: | FLAGSTAFF, Arizona | Accident Number: | LAX00LA253 |
| Date & Time: | February 7, 2000, 12:00 Local | Registration: | N867MF |
| Aircraft: | Cessna 310L | Aircraft Damage: | Substantial |
| Defining Event: | | Injuries: | 1 None |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

The green nose gear light did not illuminate after the pilot lowered the gear handle. A visual check by the tower verified that the nose gear was not extended. The pilot tried cycling the gear several times but still did not get a green nose gear light. The tower again reported that the nose gear was not extended. He then raised the gear handle and told the tower that he intended to land with the gear retracted. The runway was foamed and the pilot landed gear-up without further incident. A postaccident inspection revealed a fracture across the eyelet of the nose gear retraction rod.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the fracture across the eyelet of the nose gear retraction rod, which prevented the extension of the nose gear.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: APPROACH - VFR PATTERN - BASE TURN

Findings

1. LANDING GEAR,GEAR LEVER - EXTENDED
2. (C) LANDING GEAR,NOSE GEAR ASSEMBLY - FRACTURED
3. LANDING GEAR,GEAR INDICATING SYSTEM - NOT ACTIVATED

Occurrence #2: MISCELLANEOUS/OTHER
Phase of Operation: LANDING

Findings

4. GEAR RETRACTION - INTENTIONAL - PILOT IN COMMAND

Factual Information

On February 7, 2000, at 1200 hours mountain standard time, a Cessna 310L, N867MF, experienced a partial gear up landing at Flagstaff Pulliam airport, Flagstaff, Arizona. The aircraft sustained substantial damage; however, the certificated private pilot, the sole occupant, was not injured. The aircraft was being operated as a personal flight by the pilot/owner under 14 CFR Part 91 when the accident occurred. The flight originated from Centennial Airport, Denver, Colorado, at 0820 on the morning of the accident. Visual meteorological conditions prevailed at the time, and no flight plan was filed.

The pilot reported that, after he had lowered the gear handle, the green nose gear light did not illuminate. He radioed the tower operator and asked for a low approach so that the operator could make a visual check of the gear. After the approach, he was told that the nose gear was not visible. He requested permission to continue in the pattern so that he could try cycling the gear. After three attempts; however, he was still had not gotten a green light. Following the third attempt he requested another low approach, but was again told that the nose gear was still not visible. He then raised the gear handle and told the tower operator that he intended to make a gear up landing. The runway was foamed and the pilot landed gear-up without further incident.

A postaccident inspection by Federal Aviation Administration airworthiness inspectors revealed a fracture across the eyelet of the nose gear retraction rod.

Pilot Information

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|----------------------------------|---|--|----------------|
| Certificate: | Private | Age: | 53, Male |
| Airplane Rating(s): | Single-engine land; Multi-engine land | Seat Occupied: | Left |
| Other Aircraft Rating(s): | Helicopter | Restraint Used: | |
| Instrument Rating(s): | None | Second Pilot Present: | No |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 3 Valid Medical-w/ waivers/lim | Last FAA Medical Exam: | March 23, 1998 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | |
| Flight Time: | 2325 hours (Total, all aircraft), 702 hours (Total, this make and model), 2325 hours (Pilot In Command, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|--|---------------------------------------|-----------------|
| Aircraft Make: | Cessna | Registration: | N867MF |
| Model/Series: | 310L 310L | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | 0123 |
| Landing Gear Type: | Retractable - Tricycle | Seats: | 6 |
| Date/Type of Last Inspection: | June 10, 1999 Annual | Certified Max Gross Wt.: | 5200 lbs |
| Time Since Last Inspection: | 10 Hrs | Engines: | 2 Reciprocating |
| Airframe Total Time: | 5274 Hrs | Engine Manufacturer: | Continental |
| ELT: | Installed, activated, did not aid in locating accident | Engine Model/Series: | IO-470-V |
| Registered Owner: | ERNEST L. BROWN | Rated Power: | 260 Horsepower |
| Operator: | | Operating Certificate(s) Held: | None |
| Operator Does Business As: | | Operator Designator Code: | |

Meteorological Information and Flight Plan

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|---|----------------------------------|---|-------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
| Observation Facility, Elevation: | FLG ,7011 ft msl | Distance from Accident Site: | |
| Observation Time: | 11:56 Local | Direction from Accident Site: | |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 6 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 0° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30 inches Hg | Temperature/Dew Point: | 52°C / 12°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | DENVER , CO (APA) | Type of Flight Plan Filed: | None |
| Destination: | (FLG) | Type of Clearance: | VFR |
| Departure Time: | 08:30 Local | Type of Airspace: | Class D |

Airport Information

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|-----------------------------|-----------------------|----------------------------------|---------------------------|
| Airport: | FLAGSTAFF PULLIAM FLG | Runway Surface Type: | Asphalt |
| Airport Elevation: | 7011 ft msl | Runway Surface Condition: | Dry |
| Runway Used: | 3 | IFR Approach: | None |
| Runway Length/Width: | 6999 ft / 150 ft | VFR Approach/Landing: | Full stop;Traffic pattern |

Wreckage and Impact Information

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|----------------------------|--------|-----------------------------|----------------------------|
| Crew Injuries: | 1 None | Aircraft Damage: | Substantial |
| Passenger Injuries: | | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 1 None | Latitude, Longitude: | 35.290527,-111.319305(est) |

Administrative Information

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| Investigator In Charge (IIC): | Crispin, Robert |
| Additional Participating Persons: | MARIO VILLARRUBIA; SCOTTSDALE , AZ |
| Original Publish Date: | January 2, 2002 |
| Last Revision Date: | |
| Investigation Class: | Class |
| Note: | The NTSB traveled to the scene of this accident. |
| Investigation Docket: | https://data.ntsb.gov/Docket?ProjectID=49627 |

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](#).