



# Aviation Investigation Final Report

|                                |                                      |                         |             |
|--------------------------------|--------------------------------------|-------------------------|-------------|
| <b>Location:</b>               | INDIANAPOLIS, Indiana                | <b>Accident Number:</b> | CHI88LA009  |
| <b>Date &amp; Time:</b>        | October 30, 1987, 21:40 Local        | <b>Registration:</b>    | N739JG      |
| <b>Aircraft:</b>               | CESSNA R182RG II                     | <b>Aircraft Damage:</b> | Substantial |
| <b>Defining Event:</b>         |                                      | <b>Injuries:</b>        | 1 None      |
| <b>Flight Conducted Under:</b> | Part 91: General aviation - Personal |                         |             |

## Analysis

AFTER TAKE-OFF, THE PILOT ATTEMPTED TO RETRACT THE LANDING GEAR WHEN THE HYDRAULIC LINE ON THE RIGHT MAIN GEAR ACTUATOR FAILED. THE LEFT MAIN LANDING GEAR WAS STUCK IN THE TRAILING POSITION WHILE THE NOSE GEAR AND RIGHT MAIN GEAR REMAINED DOWN AND LOCKED. THE PILOT INITIATED THE APPROPRIATE EMERGENCY PROCEDURES TO ATTEMPT TO LOWER THE LEFT MAIN LANDING GEAR, BUT THE EMERGENCY EXTENSION SYSTEM WAS ALSO INOPERATIVE. THE PILOT MADE A PARTIAL GEAR UP LANDING AT HIS DESTINATION AIRPORT AND THE AIRCRAFT RECEIVED SUBSTANTIAL DAMAGE DURING THE LANDING ROLL. EXAM OF THE ACFT REVEALED THAT THE RIGHT MAIN LNDG GEAR ACTUATING DOWN LINE, CESSNA PART #2880001-1, HAD FAILED AT THE FLARE AND PULLED OUT FROM THE FITTING ATTACHING THE LINE TO THE ACTUATOR.

## Probable Cause and Findings

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

### Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION  
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) HYDRAULIC SYSTEM,LINE - FAILURE,TOTAL
2. (C) LANDING GEAR,NORMAL RETRACTION/EXTENSION ASSEMBLY - INOPERATIVE
3. (C) LANDING GEAR,EMERGENCY EXTENSION ASSEMBLY - INOPERATIVE

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Occurrence #2: GEAR NOT EXTENDED  
Phase of Operation: LANDING

Findings

4. EMERGENCY PROCEDURE - PERFORMED - PILOT IN COMMAND
5. GEAR EXTENSION - NOT POSSIBLE

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Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER  
Phase of Operation: LANDING - ROLL

Findings

6. WHEELS UP LANDING - PERFORMED - PILOT IN COMMAND

## Factual Information

### Pilot Information

|                                  |  |  |                 |
|----------------------------------|--|--|-----------------|
| <b>Certificate:</b>              | Commercial   | <b>Age:</b>                              | 30, Male        |
| <b>Airplane Rating(s):</b>       | Single-engine land   | <b>Seat Occupied:</b>                    | Left            |
| <b>Other Aircraft Rating(s):</b> | None   | <b>Restraint Used:</b>                   |                 |
| <b>Instrument Rating(s):</b>     | Airplane   | <b>Second Pilot Present:</b>             | No              |
| <b>Instructor Rating(s):</b>     | None   | <b>Toxicology Performed:</b>             | No              |
| <b>Medical Certification:</b>    | Class 2 Valid Medical-w/<br>waivers/lim  | <b>Last FAA Medical Exam:</b>            | August 13, 1987 |
| <b>Occupational Pilot:</b>       | UNK  | <b>Last Flight Review or Equivalent:</b> |                 |
| <b>Flight Time:</b>              | 420 hours (Total, all aircraft), 80 hours (Total, this make and model), 347 hours (Pilot In Command, all aircraft), 46 hours (Last 90 days, all aircraft), 4 hours (Last 24 hours, all aircraft) |  |                 |

### Aircraft and Owner/Operator Information

|                                      |                          |                                       |                 |
|--------------------------------------|--------------------------|---------------------------------------|-----------------|
| <b>Aircraft Make:</b>                | CESSNA                   | <b>Registration:</b>                  | N739JG          |
| <b>Model/Series:</b>                 | R182RG II R182RG II      | <b>Aircraft Category:</b>             | Airplane        |
| <b>Year of Manufacture:</b>          |                          | <b>Amateur Built:</b>                 |                 |
| <b>Airworthiness Certificate:</b>    | Normal                   | <b>Serial Number:</b>                 | R18200999       |
| <b>Landing Gear Type:</b>            | Retractable - Tricycle   | <b>Seats:</b>                         | 4               |
| <b>Date/Type of Last Inspection:</b> | October 1, 1987 Annual   | <b>Certified Max Gross Wt.:</b>       | 3100 lbs        |
| <b>Time Since Last Inspection:</b>   | 12 Hrs                   | <b>Engines:</b>                       | 1 Reciprocating |
| <b>Airframe Total Time:</b>          | 1012 Hrs                 | <b>Engine Manufacturer:</b>           | LYCOMING        |
| <b>ELT:</b>                          | Installed, not activated | <b>Engine Model/Series:</b>           | O-540-J3C5D     |
| <b>Registered Owner:</b>             | ROBERT E. GANDY, JR.     | <b>Rated Power:</b>                   | 235 Horsepower  |
| <b>Operator:</b>                     |                          | <b>Operating Certificate(s) Held:</b> | None            |
| <b>Operator Does Business As:</b>    |                          | <b>Operator Designator Code:</b>      |                 |

## Meteorological Information and Flight Plan

|   |                                  |   |                   |
|---|----------------------------------|---|-------------------|
| <b>Conditions at Accident Site:</b>     | Visual (VMC)                     | <b>Condition of Light:</b>                  | Night/bright      |
| <b>Observation Facility, Elevation:</b> | IND ,797 ft msl                  | <b>Distance from Accident Site:</b>         | 20 Nautical Miles |
| <b>Observation Time:</b>                | 21:50 Local                      | <b>Direction from Accident Site:</b>        | 230°              |
| <b>Lowest Cloud Condition:</b>          | Clear                            | <b>Visibility</b>                           | 7 miles           |
| <b>Lowest Ceiling:</b>                  | None                             | <b>Visibility (RVR):</b>                    |                   |
| <b>Wind Speed/Gusts:</b>                | 4 knots /                        | <b>Turbulence Type Forecast/Actual:</b>     | /                 |
| <b>Wind Direction:</b>                  | 240°                             | <b>Turbulence Severity Forecast/Actual:</b> | /                 |
| <b>Altimeter Setting:</b>               | 30 inches Hg                     | <b>Temperature/Dew Point:</b>               | 12°C / 10°C       |
| <b>Precipitation and Obscuration:</b>   | No Obscuration; No Precipitation |   |                   |
| <b>Departure Point:</b>                 | BROOKSIDE , IN (I21 )            | <b>Type of Flight Plan Filed:</b>           | None              |
| <b>Destination:</b>                     | (MQJ )                           | <b>Type of Clearance:</b>                   | None              |
| <b>Departure Time:</b>                  | 17:30 Local                      | <b>Type of Airspace:</b>                    | Class G           |

## Airport Information

|                             |                   |                                  |           |
|-----------------------------|-------------------|----------------------------------|-----------|
| <b>Airport:</b>             | MOUNT COMFORT MQJ | <b>Runway Surface Type:</b>      | Concrete  |
| <b>Airport Elevation:</b>   | 860 ft msl        | <b>Runway Surface Condition:</b> | Dry       |
| <b>Runway Used:</b>         | 25                | <b>IFR Approach:</b>             | None      |
| <b>Runway Length/Width:</b> | 5500 ft / 50 ft   | <b>VFR Approach/Landing:</b>     | Full stop |

## 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> |             |

## Administrative Information

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|--|---|
| <b>Investigator In Charge (IIC):</b>     | Dinwiddie, Carl   |
| <b>Additional Participating Persons:</b> | MIRLO OCHOA; WEST CHICAGO , IL  |
| <b>Original Publish Date:</b>            | January 11, 1989  |
| <b>Last Revision Date:</b>               |   |
| <b>Investigation Class:</b>              | <a href="#">Class</a>   |
| <b>Note:</b>                             |   |
| <b>Investigation Docket:</b>             | <a href="https://data.nts.gov/Docket?ProjectID=14005">https://data.nts.gov/Docket?ProjectID=14005</a> |

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