



# Aviation Investigation Final Report

|                                |   |                         |             |
|--------------------------------|---|-------------------------|-------------|
| <b>Location:</b>               | GREELEY, Colorado                         | <b>Accident Number:</b> | FTW95LA024  |
| <b>Date &amp; Time:</b>        | October 21, 1994, 09:05 Local             | <b>Registration:</b>    | N6958V      |
| <b>Aircraft:</b>               | MOONEY M20C                               | <b>Aircraft Damage:</b> | Substantial |
| <b>Defining Event:</b>         |   | <b>Injuries:</b>        | 2 None      |
| <b>Flight Conducted Under:</b> | Part 91: General aviation - Instructional |                         |             |

## Analysis

DURING TAKEOFF ROLL, ON A TOUCH-AND-GO LANDING, THE PILOT UNDER INSTRUCTION INADVERTENTLY RAISED THE LANDING GEAR INSTEAD OF THE FLAPS.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: INADVERTENT LANDING GEAR RETRACTION BY THE PILOT FLYING THE AIRCRAFT. A FACTOR WAS INADEQUATE SUPERVISION BY THE FLIGHT INSTRUCTOR.

## Findings

Occurrence #1: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER  
Phase of Operation: TAKEOFF - ROLL/RUN

### Findings

1. (C) GEAR RETRACTION - INADVERTENT - DUAL STUDENT
2. (F) SUPERVISION - INADEQUATE - PILOT IN COMMAND(CFI)

## Factual Information

On October 21, 1994, at 0905 mountain daylight time, a Mooney M20C, N6958V, sustained substantial damage during takeoff at Greeley-Weld County Airport, Greeley, Colorado. The two pilots were not injured. Visual meteorological conditions prevailed for this local instructional flight and no flight plan was filed.

According to both pilots, they were conducting touch and go landings with the pilot in the left seat under instruction and flying the aircraft. During takeoff roll, on a touch-and-go, and after applying takeoff power, the pilot under instruction inadvertently retracted the landing gear instead of the flaps.

### Pilot Information

|                                  |   |  |                    |
|----------------------------------|---|--|--------------------|
| <b>Certificate:</b>              | Commercial; Flight instructor   | <b>Age:</b>                              | 49, Male           |
| <b>Airplane Rating(s):</b>       | Single-engine land; Multi-engine land   | <b>Seat Occupied:</b>                    | Right              |
| <b>Other Aircraft Rating(s):</b> | None  | <b>Restraint Used:</b>                   |                    |
| <b>Instrument Rating(s):</b>     | Airplane  | <b>Second Pilot Present:</b>             | Yes                |
| <b>Instructor Rating(s):</b>     | Airplane single-engine; Instrument airplane   | <b>Toxicology Performed:</b>             | No                 |
| <b>Medical Certification:</b>    | Class 2 Valid Medical-w/ waivers/lim  | <b>Last FAA Medical Exam:</b>            | September 30, 1993 |
| <b>Occupational Pilot:</b>       | Yes   | <b>Last Flight Review or Equivalent:</b> |                    |
| <b>Flight Time:</b>              | 3800 hours (Total, all aircraft), 400 hours (Total, this make and model), 3620 hours (Pilot In Command, all aircraft), 210 hours (Last 90 days, all aircraft), 64 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft) |  |                    |

## Aircraft and Owner/Operator Information

|                                      |                             |                                       |                 |
|--------------------------------------|-----------------------------|---------------------------------------|-----------------|
| <b>Aircraft Make:</b>                | MOONEY                      | <b>Registration:</b>                  | N6958V          |
| <b>Model/Series:</b>                 | M20C M20C                   | <b>Aircraft Category:</b>             | Airplane        |
| <b>Year of Manufacture:</b>          |                             | <b>Amateur Built:</b>                 |                 |
| <b>Airworthiness Certificate:</b>    | Normal                      | <b>Serial Number:</b>                 | 20-1191         |
| <b>Landing Gear Type:</b>            | Retractable - Tricycle      | <b>Seats:</b>                         | 4               |
| <b>Date/Type of Last Inspection:</b> | July 28, 1994 Annual        | <b>Certified Max Gross Wt.:</b>       | 2575 lbs        |
| <b>Time Since Last Inspection:</b>   | 80 Hrs                      | <b>Engines:</b>                       | 1 Reciprocating |
| <b>Airframe Total Time:</b>          | 4662 Hrs                    | <b>Engine Manufacturer:</b>           | LYCOMING        |
| <b>ELT:</b>                          | Installed, not activated    | <b>Engine Model/Series:</b>           | O-360-A1D       |
| <b>Registered Owner:</b>             | AERO-WEST FLYING CLUB, INC. | <b>Rated Power:</b>                   | 180 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>                  | Day              |
| <b>Observation Facility, Elevation:</b> | GXY ,4658 ft msl                 | <b>Distance from Accident Site:</b>         | 1 Nautical Miles |
| <b>Observation Time:</b>                | 09:15 Local                      | <b>Direction from Accident Site:</b>        | 180°             |
| <b>Lowest Cloud Condition:</b>          | Clear                            | <b>Visibility</b>                           | 10 miles         |
| <b>Lowest Ceiling:</b>                  | None                             | <b>Visibility (RVR):</b>                    |                  |
| <b>Wind Speed/Gusts:</b>                | /                                | <b>Turbulence Type Forecast/Actual:</b>     | /                |
| <b>Wind Direction:</b>                  | 0°                               | <b>Turbulence Severity Forecast/Actual:</b> | /                |
| <b>Altimeter Setting:</b>               | 30 inches Hg                     | <b>Temperature/Dew Point:</b>               | 4°C / -3°C       |
| <b>Precipitation and Obscuration:</b>   | No Obscuration; No Precipitation |   |                  |
| <b>Departure Point:</b>                 | (GXY )                           | <b>Type of Flight Plan Filed:</b>           | None             |
| <b>Destination:</b>                     | (GXY )                           | <b>Type of Clearance:</b>                   | None             |
| <b>Departure Time:</b>                  | 09:00 Local                      | <b>Type of Airspace:</b>                    | Class D;Class G  |

## Airport Information

|                             |                         |                                  |              |
|-----------------------------|-------------------------|----------------------------------|--------------|
| <b>Airport:</b>             | GREELEY-WELD COUNTY GXY | <b>Runway Surface Type:</b>      | Asphalt      |
| <b>Airport Elevation:</b>   | 4658 ft msl             | <b>Runway Surface Condition:</b> | Dry          |
| <b>Runway Used:</b>         | 9                       | <b>IFR Approach:</b>             | None         |
| <b>Runway Length/Width:</b> | 6200 ft / 100 ft        | <b>VFR Approach/Landing:</b>     | Touch and go |

## Wreckage and Impact Information

|                            |        |                             |             |
|----------------------------|--------|-----------------------------|-------------|
| <b>Crew Injuries:</b>      | 2 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>     | 2 None | <b>Latitude, Longitude:</b> |             |

## Administrative Information

|  |   |
|--|---|
| <b>Investigator In Charge (IIC):</b>     | Wiemeyer, Norman  |
| <b>Additional Participating Persons:</b> | TONY CHARLESTON; DENVER , CO  |
| <b>Original Publish Date:</b>            | May 9, 1995   |
| <b>Last Revision Date:</b>               |   |
| <b>Investigation Class:</b>              | <a href="#">Class</a>   |
| <b>Note:</b>                             |   |
| <b>Investigation Docket:</b>             | <a href="https://data.ntsb.gov/Docket?ProjectID=19287">https://data.ntsb.gov/Docket?ProjectID=19287</a> |

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