



# Aviation Investigation Final Report

|                                |                                   |                         |                 |
|--------------------------------|-----------------------------------|-------------------------|-----------------|
| <b>Location:</b>               | LOVELAND, Colorado                | <b>Accident Number:</b> | DEN00TA049      |
| <b>Date &amp; Time:</b>        | February 7, 2000, 12:15 Local     | <b>Registration:</b>    | N721            |
| <b>Aircraft:</b>               | Cessna                      A185F | <b>Aircraft Damage:</b> | Substantial     |
| <b>Defining Event:</b>         |                                   | <b>Injuries:</b>        | 1 Minor, 1 None |
| <b>Flight Conducted Under:</b> | Public aircraft                   |                         |                 |

## Analysis

The flight instructor, seated in the right seat (who was not current in the airplane), had been giving the commercial (first) pilot, seated in the left seat, a biennial flight review (BFR). At the conclusion of the BFR, it was agreed that the flight instructor would make a full stop landing. A normal approach to runway 15 was flown in a 'moderate' right crosswind (5 to 10 knot, variable). A full stall landing was made with a slight crab into the crosswind. The tail wheel touched down first, followed by the main gear. The airplane then veered right and ground looped. The left main landing gear collapsed, and the airplane came to a halt off the right side of runway 15.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Failure of the pilot in command to maintain directional control, resulting in an inadvertent ground loop. A factor was the crosswind.

### Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

#### Findings

1. (F) WEATHER CONDITION - CROSSWIND
2. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND(CFI)

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Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER  
Phase of Operation: LANDING - ROLL

Findings

3. (C) GROUND LOOP/SWERVE - INADVERTENT - PILOT IN COMMAND(CFI)

## Factual Information

On February 7, 2000, approximately 1215 mountain standard time, a Cessna A185F, N721, owned and operated by the U.S. Department of the Interior, was substantially damaged when it collided with terrain while landing at the Fort Collins/Loveland Municipal Airport, Loveland, Colorado. The commercial certificated first pilot and the commercial certificated flight instructor were not injured. Visual meteorological conditions prevailed for the public use instructional flight, and a company VFR flight plan had been filed. The flight originated at Broomfield, Colorado, approximately 1030.

According to the accident report submitted, the flight instructor, seated in the right seat, had been giving the commercial (first) pilot, seated in the left seat, a biennial flight review (BFR) to satisfy the requirements of FAR (Federal Aviation Regulation) 61.56(c). At the conclusion of the BFR, it was agreed that the flight instructor would make a full stop landing (it was later learned the instructor was not current in aircraft category and class).

A normal approach to runway 15 was flown in a "moderate" right crosswind (5 to 10 knot, variable). A full stall landing was made with a slight crab into the crosswind. The tail wheel touched down first, followed by the main gear. The airplane then veered right and ground looped. The left main landing gear collapsed, and the airplane came to a halt off the right side of runway 15.

### Pilot Information

|                                  |   |  |                |
|----------------------------------|---|--|----------------|
| <b>Certificate:</b>              | Commercial  | <b>Age:</b>                              | 45, Male       |
| <b>Airplane Rating(s):</b>       | Single-engine land; Multi-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>             | Yes            |
| <b>Instructor Rating(s):</b>     | None  | <b>Toxicology Performed:</b>             | No             |
| <b>Medical Certification:</b>    | Class 2 Valid Medical-w/ waivers/lim  | <b>Last FAA Medical Exam:</b>            | April 19, 1999 |
| <b>Occupational Pilot:</b>       | Yes   | <b>Last Flight Review or Equivalent:</b> |                |
| <b>Flight Time:</b>              | 4200 hours (Total, all aircraft), 3700 hours (Total, this make and model), 4030 hours (Pilot In Command, all aircraft), 45 hours (Last 90 days, all aircraft), 40 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft) |  |                |

## Aircraft and Owner/Operator Information

|                                      |                                |                                       |                |
|--------------------------------------|--------------------------------|---------------------------------------|----------------|
| <b>Aircraft Make:</b>                | Cessna                         | <b>Registration:</b>                  | N721           |
| <b>Model/Series:</b>                 | A185F A185F                    | <b>Aircraft Category:</b>             | Airplane       |
| <b>Year of Manufacture:</b>          |                                | <b>Amateur Built:</b>                 |                |
| <b>Airworthiness Certificate:</b>    | Normal                         | <b>Serial Number:</b>                 | 18502795       |
| <b>Landing Gear Type:</b>            | Tailwheel                      | <b>Seats:</b>                         | 4              |
| <b>Date/Type of Last Inspection:</b> | December 30, 1999 100 hour     | <b>Certified Max Gross Wt.:</b>       | 3350 lbs       |
| <b>Time Since Last Inspection:</b>   | 105 Hrs                        | <b>Engines:</b>                       | Reciprocating  |
| <b>Airframe Total Time:</b>          | 6929 Hrs                       | <b>Engine Manufacturer:</b>           | Continental    |
| <b>ELT:</b>                          | Installed                      | <b>Engine Model/Series:</b>           | IO-520-D       |
| <b>Registered Owner:</b>             | U.S. DEPT. OF THE INTERIOR     | <b>Rated Power:</b>                   | 300 Horsepower |
| <b>Operator:</b>                     | U.S. FISH AND WILDLIFE SERVICE | <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> | FNL ,5016 ft msl                 | <b>Distance from Accident Site:</b>         |             |
| <b>Observation Time:</b>                | 12:55 Local                      | <b>Direction from Accident Site:</b>        |             |
| <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>                | 6 knots /                        | <b>Turbulence Type Forecast/Actual:</b>     | /           |
| <b>Wind Direction:</b>                  | 180°                             | <b>Turbulence Severity Forecast/Actual:</b> | /           |
| <b>Altimeter Setting:</b>               | 30 inches Hg                     | <b>Temperature/Dew Point:</b>               | 11°C / -7°C |
| <b>Precipitation and Obscuration:</b>   | No Obscuration; No Precipitation |   |             |
| <b>Departure Point:</b>                 | BROOMFIELD , CO (BJC)            | <b>Type of Flight Plan Filed:</b>           | Company VFR |
| <b>Destination:</b>                     | (FNL)                            | <b>Type of Clearance:</b>                   | None        |
| <b>Departure Time:</b>                  | 10:30 Local                      | <b>Type of Airspace:</b>                    | Class G     |

## Airport Information

|                             |                                  |                                  |           |
|-----------------------------|----------------------------------|----------------------------------|-----------|
| <b>Airport:</b>             | FORT COLLINS-LOVELAND MUN<br>FNL | <b>Runway Surface Type:</b>      | Asphalt   |
| <b>Airport Elevation:</b>   | 5016 ft msl                      | <b>Runway Surface Condition:</b> | Dry       |
| <b>Runway Used:</b>         | 15                               | <b>IFR Approach:</b>             | None      |
| <b>Runway Length/Width:</b> | 8500 ft / 100 ft                 | <b>VFR Approach/Landing:</b>     | Full stop |

## Wreckage and Impact Information

|                            |                 |                             |                           |
|----------------------------|-----------------|-----------------------------|---------------------------|
| <b>Crew Injuries:</b>      | 1 Minor, 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 Minor, 1 None | <b>Latitude, Longitude:</b> | 40.409694,-105.06929(est) |

## Administrative Information

|  |   |
|--|---|
| <b>Investigator In Charge (IIC):</b>     | Scott, Arnold   |
| <b>Additional Participating Persons:</b> | ARTHUR MARTINEZ; DENVER , CO  |
| <b>Original Publish Date:</b>            | November 29, 2000   |
| <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=48600">https://data.nts.gov/Docket?ProjectID=48600</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](#).