



# Aviation Investigation Final Report

|                                |                                      |                         |             |
|--------------------------------|--------------------------------------|-------------------------|-------------|
| <b>Location:</b>               | CASA GRANDE, Arizona                 | <b>Accident Number:</b> | LAX96LA307  |
| <b>Date &amp; Time:</b>        | August 4, 1996, 06:30 Local          | <b>Registration:</b>    | N2431Y      |
| <b>Aircraft:</b>               | Cessna                      A185F    | <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

The student pilot lost directional control and inadvertently ground looped the airplane after practicing touch-and-go landings and takeoffs. The student received dual instruction in the airplane about 2 months before the accident, but he did not receive the appropriate endorsement to solo the accident airplane. Postaccident examination disclosed no evidence of any preexisting malfunction or failure. The student pilot reported that the surface winds were slightly breezy.

## 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 directional control of the airplane, which resulted in an inadvertent ground loop. Factors relating to the accident were: the student pilot's inadequate training and lack of certification (endorsement).

## Findings

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

### Findings

1. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. (C) GROUND LOOP/SWERVE - INADVERTENT - PILOT IN COMMAND
3. (F) INADEQUATE TRAINING - PILOT IN COMMAND
4. (F) LACK OF CERTIFICATION - PILOT IN COMMAND

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

## Factual Information

On August 4, 1996, at 0630 hours mountain standard time, a Cessna A185F, N2431Y, lost directional control during the landing rollout on runway 05 at Casa Grande Airport, Casa Grande, Arizona. The pilot was completing a visual flight rules personal flight. The airplane, operated by Southwest Industrial Rigging, Casa Grande, sustained substantial damage. The noncertificated student pilot, the sole occupant, was not injured. The flight originated at the University of Arizona airstrip, Maricopa, Arizona, at 0620.

This accident was initially reported as an incident. During the repair, maintenance personnel found major structural damage.

The pilot told an Federal Aviation Administration (FAA) inspector from the Scottsdale, Arizona, Flight Standards District Office that he initially departed Chandler, Arizona, airport about 0545 hours, and flew to the University of Arizona airstrip and executed six touch-and-go landings and takeoffs. He then flew to Casa Grande Airport. He said that he inadvertently "ground looped" the airplane on the landing roll and that the surface winds were "slightly breezy."

The FAA inspector reported that the student pilot did not have the appropriate solo endorsement for the accident airplane. The inspector stated, however, that conversations with the student pilot's previous instructors confirmed that he received some dual instruction in the accident airplane about 2 months prior to the accident.

### Pilot Information

|                                  |  |  |               |
|----------------------------------|--|--|---------------|
| <b>Certificate:</b>              | Student  | <b>Age:</b>                              | 44, Male      |
| <b>Airplane Rating(s):</b>       | None   | <b>Seat Occupied:</b>                    | Left          |
| <b>Other Aircraft Rating(s):</b> | None   | <b>Restraint Used:</b>                   |               |
| <b>Instrument Rating(s):</b>     | None   | <b>Second Pilot Present:</b>             | No            |
| <b>Instructor Rating(s):</b>     | None   | <b>Toxicology Performed:</b>             | No            |
| <b>Medical Certification:</b>    | Class 3 Valid Medical--no waivers/lim.                                 | <b>Last FAA Medical Exam:</b>            | July 30, 1996 |
| <b>Occupational Pilot:</b>       | UNK  | <b>Last Flight Review or Equivalent:</b> |               |
| <b>Flight Time:</b>              | 250 hours (Total, all aircraft), 40 hours (Total, this make and model) |  |               |

## Aircraft and Owner/Operator Information

|                                      |                              |                                       |                 |
|--------------------------------------|------------------------------|---------------------------------------|-----------------|
| <b>Aircraft Make:</b>                | Cessna                       | <b>Registration:</b>                  | N2431Y          |
| <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>                 | 18503566        |
| <b>Landing Gear Type:</b>            | Tailwheel                    | <b>Seats:</b>                         | 4               |
| <b>Date/Type of Last Inspection:</b> | Annual                       | <b>Certified Max Gross Wt.:</b>       | 3350 lbs        |
| <b>Time Since Last Inspection:</b>   |                              | <b>Engines:</b>                       | 1 Reciprocating |
| <b>Airframe Total Time:</b>          |                              | <b>Engine Manufacturer:</b>           | Continental     |
| <b>ELT:</b>                          | Installed                    | <b>Engine Model/Series:</b>           | IO-520          |
| <b>Registered Owner:</b>             | SOUTHWEST INDUSTRIAL RIGGING | <b>Rated Power:</b>                   | 280 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> |                                  | <b>Distance from Accident Site:</b>         |          |
| <b>Observation Time:</b>                |                                  | <b>Direction from Accident Site:</b>        |          |
| <b>Lowest Cloud Condition:</b>          | Clear                            | <b>Visibility</b>                           | 50 miles |
| <b>Lowest Ceiling:</b>                  | None                             | <b>Visibility (RVR):</b>                    |          |
| <b>Wind Speed/Gusts:</b>                | 5 knots /                        | <b>Turbulence Type Forecast/Actual:</b>     | /        |
| <b>Wind Direction:</b>                  | 350°                             | <b>Turbulence Severity Forecast/Actual:</b> | /        |
| <b>Altimeter Setting:</b>               |                                  | <b>Temperature/Dew Point:</b>               | 29°C     |
| <b>Precipitation and Obscuration:</b>   | No Obscuration; No Precipitation |   |          |
| <b>Departure Point:</b>                 | (3AZ2)                           | <b>Type of Flight Plan Filed:</b>           | None     |
| <b>Destination:</b>                     | (CZG )                           | <b>Type of Clearance:</b>                   | None     |
| <b>Departure Time:</b>                  | 06:20 Local                      | <b>Type of Airspace:</b>                    | Class E  |

## Airport Information

|                             |                           |                                  |                 |
|-----------------------------|---------------------------|----------------------------------|-----------------|
| <b>Airport:</b>             | CASA GRANDE MUNICIPAL CGZ | <b>Runway Surface Type:</b>      | Asphalt         |
| <b>Airport Elevation:</b>   | 1462 ft msl               | <b>Runway Surface Condition:</b> | Dry             |
| <b>Runway Used:</b>         | 5                         | <b>IFR Approach:</b>             | None            |
| <b>Runway Length/Width:</b> | 5200 ft / 100 ft          | <b>VFR Approach/Landing:</b>     | 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> |             |

## Administrative Information

|  |   |
|--|---|
| <b>Investigator In Charge (IIC):</b>     | Llorente, A.  |
| <b>Additional Participating Persons:</b> | MIRLO E OCHOA; SCOTTSDALE , AZ  |
| <b>Original Publish Date:</b>            | May 30, 1997  |
| <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=29537">https://data.ntsb.gov/Docket?ProjectID=29537</a> |

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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](#).