

# **Aviation Investigation Final Report**

| Location:               | Spearfish, South Dakota              | Accident Number:     | CHI01LA210  |
|-------------------------|--------------------------------------|----------------------|-------------|
| Date & Time:            | July 13, 2001, 20:06 Local           | <b>Registration:</b> | N2005V      |
| Aircraft:               | Cessna 140                           | Aircraft Damage:     | Substantial |
| Defining Event:         |                                      | Injuries:            | 1 None      |
| Flight Conducted Under: | Part 91: General aviation - Personal |                      |             |

## Analysis

The airplane collided with the terrain following a loss of control while landing on on the grass airstrip. The pilot reported that he departed the airport and made a left hand traffic pattern to land on runway 08. He reported he was going to make a full stop landing using rudder control on the grass runway. He continued to report, "Airplane started going to right. Used small corrections left rudder. Did not change made more corrections, Airplane was leaving right side of runway. The I believe I pushed on both rudders and brakes. Airplane turned sharp right hand 90 [degree] turn. Broke left, slammed left wing into ground." A witness to the accident reported, "The plane touched down, bounced up a little and then touched down again and started veering to the right. The right wheel broke off and the plane tipped over on the left wing." The student pilot reported a total of 52 hours of flight time, 14 of which were in the accident make and model of airplane.

#### **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot failed to maintain directional control of the airplane during the landing. Factors associated with the accident were the pilot's inadequate recovery from a bounced landing and his lack of experience in the make and model of the accident airplane.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER Phase of Operation: LANDING - FLARE/TOUCHDOWN Findings 1. (F) RECOVERY FROM BOUNCED LANDING - INADEQUATE - PILOT IN COMMAND 2. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND 3. (F) LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND

Occurrence #2: MAIN GEAR COLLAPSED Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings 4. LANDING GEAR, MAIN GEAR - OVERLOAD

#### **Factual Information**

On July 13, 2001, at 2006 mountain daylight time, a Cessna 140, N2005V, collided with the terrain following a loss of control while landing on runway 08 (3,975 feet by 100 feet, grass) at the Black Hills-Ice Airport, Spearfish, South Dakota. The student pilot was not injured and the airplane was substantially damaged. The 14 CFR Part 91 flight was operating in visual meteorological conditions without a flight plan. The flight originated at Spearfish, South Dakota, at 2000.

The pilot reported that he departed the airport and made a left hand traffic pattern to land on runway 08. He reported he was going to make a full stop landing using rudder control on the grass runway. He continued to report, "Airplane started going to right. Used small corrections left rudder. Did not change made more corrections, Airplane was leaving right side of runway. The I believe I pushed on both rudders and brakes. Airplane turned sharp right hand 90 [degree] turn. Broke left, slammed left wing into ground."

A witness to the accident reported, "The plane touched down, bounced up a little and then touched down again and started veering to the right. The right wheel broke off and the plane tipped over on the left wing."

On the NTSB Pilot/Operator Aircraft Accident Report form completed by the pilot, he indicated that there was no mechanical failure or malfunction of the airplane.

The student pilot reported a total of 52 hours of flight time, 14 of which were in the accident make and model of airplane.

#### **Pilot Information**

| Certificate:              | Student  | Age:                              | 42,Male           |
|---------------------------|--|-----------------------------------|-------------------|
| Airplane Rating(s):       | None   | Seat Occupied:                    | Left              |
| Other Aircraft Rating(s): | None   | Restraint Used:                   |                   |
| Instrument Rating(s):     | None   | Second Pilot Present:             | No                |
| Instructor Rating(s):     | None   | Toxicology Performed:             | No                |
| Medical Certification:    | Class 3 Valid Medicalno<br>waivers/lim.  | Last FAA Medical Exam:            | December 13, 1999 |
| Occupational Pilot:       | UNK  | Last Flight Review or Equivalent: |                   |
| Flight Time:              | 52 hours (Total, all aircraft), 14 hours (Total, this make and model), 5 hours (Pilot In Command,<br>all aircraft), 17 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 0 hours<br>(Last 24 hours, all aircraft) |                                   |                   |

#### Aircraft and Owner/Operator Information

| Aircraft Make:                   | Cessna  | Registration:                     | N2005V          |
|----------------------------------|---|-----------------------------------|-----------------|
| Model/Series:                    | 140   | Aircraft Category:                | Airplane        |
| Year of Manufacture:             |   | Amateur Built:                    |                 |
| Airworthiness Certificate:       | Normal  | Serial Number:                    | 14216           |
| Landing Gear Type:               | Tailwheel   | Seats:                            | 2               |
| Date/Type of Last<br>Inspection: | September 16, 2000 Annual                                 | Certified Max Gross Wt.:          | 1450 lbs        |
| Time Since Last Inspection:      | 21 Hrs  | Engines:                          | 1 Reciprocating |
| Airframe Total Time:             | 4777 Hrs  | Engine Manufacturer:              | Lycoming        |
| ELT:                             | Installed, activated, did not aid<br>in locating accident | Engine Model/Series:              | 0-235-C1        |
| Registered Owner:                | Donald L. Lamb  | Rated Power:                      | 108 Horsepower  |
| Operator:                        |   | Operating Certificate(s)<br>Held: | None            |

#### Meteorological Information and Flight Plan

| Conditions at Accident Site:     | Visual (VMC)                 | Condition of Light:                     | Dav               |
|----------------------------------|------------------------------|---|-------------------|
| Observation Facility, Elevation: | RCA,3276 ft msl              | Distance from Accident Site:            | 36 Nautical Miles |
| Observation Time:                | 19:55 Local                  | Direction from Accident Site:           | 125°              |
| Lowest Cloud Condition:          | Few / 4000 ft AGL            | Visibility                              | 30 miles          |
| Lowest Ceiling:                  | Broken / 25000 ft AGL        | Visibility (RVR):                       |                   |
| Wind Speed/Gusts:                | 6 knots /                    | Turbulence Type<br>Forecast/Actual:     | /                 |
| Wind Direction:                  | 210°                         | Turbulence Severity<br>Forecast/Actual: | /                 |
| Altimeter Setting:               | 30.09 inches Hg              | Temperature/Dew Point:                  | 26°C / 17°C       |
| Precipitation and Obscuration:   | No Obscuration; No Precipita | ation                                   |                   |
| Departure Point:                 | Spearfish, SD (SPF )         | Type of Flight Plan Filed:              | None              |
| Destination:                     | Spearfish, SD (SPF )         | Type of Clearance:                      | None              |
| Departure Time:                  | 20:00 Local                  | Type of Airspace:                       | Class E           |

## **Airport Information**

| Airport:             | Black Hills-Ice SPF | Runway Surface Type:      | Grass/turf                |
|----------------------|---------------------|---------------------------|---------------------------|
| Airport Elevation:   | 3931 ft msl         | Runway Surface Condition: | Dry                       |
| Runway Used:         | 080                 | IFR Approach:             | None                      |
| Runway Length/Width: | 3975 ft / 100 ft    | VFR Approach/Landing:     | Full stop;Traffic pattern |

## Wreckage and Impact Information

| Crew Injuries:         | 1 None | Aircraft Damage:        | Substantial                |
|------------------------|--------|-------------------------|----------------------------|
| Passenger<br>Injuries: |        | Aircraft Fire:          | None                       |
| Ground Injuries:       | N/A    | Aircraft Explosion:     | None                       |
| Total Injuries:        | 1 None | Latitude,<br>Longitude: | 44.479225,-103.839736(est) |

#### **Administrative Information**

| Investigator In Charge (IIC):        | Sullivan, Pamela                                 |
|--------------------------------------|--|
| Additional Participating<br>Persons: | Mark C Goodwin; FAA; Rapid City, SD              |
| Original Publish Date:               | November 23, 2001                                |
| Last Revision Date:                  |  |
| Investigation Class:                 | <u>Class</u>                                     |
| Note:                                | The NTSB traveled to the scene of this accident. |
| Investigation Docket:                | https://data.ntsb.gov/Docket?ProjectID=52728     |

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