

# **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 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, all aircraft), 17 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 0 hours (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 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 in locating accident	Engine Model/Series:	0-235-C1
Registered Owner:	Donald L. Lamb	Rated Power:	108 Horsepower
Operator:		Operating Certificate(s) 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 Forecast/Actual:	/
Wind Direction:	210°	Turbulence Severity 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 Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	44.479225,-103.839736(est)

#### **Administrative Information**

Investigator In Charge (IIC):	Sullivan, Pamela
Additional Participating 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

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.