



National Transportation Safety Board Aviation Accident Final Report

Location:	Grand Forks, ND	Accident Number:	CEN09CA402
Date & Time:	07/01/2009, 1930 CDT	Registration:	N525ND
Aircraft:	CESSNA 172S	Aircraft Damage:	Substantial
Defining Event:	Hard landing	Injuries:	1 None
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

The accident occurred during the student pilot's third landing on his first solo flight. He reported that he flew the final approach between 72 and 74 knots and that he reduced engine power as the airplane crossed-over the runway numbers. He stated that the stall warning horn sounded as he flared, but the aircraft did not descend onto the runway. He reduced his yoke back pressure and the airplane landed hard on the runway. The airplane then proceeded to bounce several times before stabilizing on a landing rollout. An after-flight inspection revealed that one of the propeller blade tips was curled from contact with the runway and that the engine firewall was substantially deformed.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The student pilot's improper landing flare and recovery from a bounced landing.

Findings

Aircraft

Personnel issues	Aircraft control - Student pilot (Cause)
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Factual Information

History of Flight

Landing-flare/touchdown	Hard landing (Defining event) Abnormal runway contact
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Student Pilot Information

Certificate:	Student	Age:	21, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Without Waivers/Limitations	Last Medical Exam:	05/20/2009
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	18 hours (Total, all aircraft), 18 hours (Total, this make and model), 0 hours (Pilot In Command, all aircraft), 18 hours (Last 90 days, all aircraft), 18 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	CESSNA	Registration:	N525ND
Model/Series:	172S	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	172S10817
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	06/23/2009, AAIP	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	325 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	IO-360-L2A
Registered Owner:	UND Aerospace Foundation	Rated Power:	180 hp
Operator:	UND Aerospace Foundation	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	KGFK, 845 ft msl	Observation Time:	1953 CDT
Distance from Accident Site:	0 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:		Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Few / 12000 ft agl	Temperature/Dew Point:	21°C / 11°C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	6 knots, 330°	Visibility (RVR):	
Altimeter Setting:	29.97 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Grand Forks, ND (KGFK)	Type of Flight Plan Filed:	None
Destination:	Grand Forks, ND (KGFK)	Type of Clearance:	VFR
Departure Time:	1900 CDT	Type of Airspace:	Class D

Airport Information

Airport:	Grand Forks International (KGFK)	Runway Surface Type:	Asphalt
Airport Elevation:	845 ft	Runway Surface Condition:	Dry
Runway Used:	35L	IFR Approach:	None
Runway Length/Width:	7349 ft / 150 ft	VFR Approach/Landing:	Stop and Go; Traffic Pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None		

Administrative Information

Investigator In Charge (IIC):	Andrew T Fox	Adopted Date:	11/09/2009
Additional Participating Persons:	John G Vold; Federal Aviation Administration - Fargo FSDO; Fargo, ND		
Publish Date:	11/09/2009		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=74179		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report.