



National Transportation Safety Board Aviation Accident Final Report

Location:	Fort Pierce, FL	Accident Number:	ERA14CA121
Date & Time:	02/03/2014, 0953 EST	Registration:	N828BM
Aircraft:	CESSNA 172R	Aircraft Damage:	Substantial
Defining Event:	Hard landing	Injuries:	1 None
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

According to the student pilot, this was his first solo flight and he was conducting touch-and-go landings and takeoffs. On the third landing, he flared the airplane high; it landed hard and bounced back into the air. He then pitched the nose of the airplane up and the tail section struck the runway prior to landing. The student pilot taxied the airplane off of the active runway and brought it to a full stop. A visual examination revealed minor damage to the exterior of the airplane. The student pilot reported no preimpact mechanical malfunctions or failures with the airplane that would have precluded normal operation. The airplane was examined by maintenance personnel for further damage and released back into service. The airplane was used during another flight, and flight controls were noted as difficult to manipulate. The airplane was returned for further examination and during the second examination, substantial damage was noted to the firewall from the first event.

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, which resulted in a hard landing.

Findings

Aircraft

Personnel issues	Aircraft control - Student pilot (Cause) Identification/recognition - Maintenance personnel
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Factual Information

History of Flight

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

Certificate:	Student	Age:	20
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 1 Without Waivers/Limitations	Last Medical Exam:	11/23/2013
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	29 hours (Total, all aircraft), 29 hours (Total, this make and model), 1 hours (Pilot In Command, all aircraft), 29 hours (Last 90 days, all aircraft), 18 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	CESSNA	Registration:	N828BM
Model/Series:	172R	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	17280134
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	01/20/2014, 100 Hour	Certified Max Gross Wt.:	2450 lbs
Time Since Last Inspection:	20 Hours	Engines:	1 Reciprocating
Airframe Total Time:	1715 Hours	Engine Manufacturer:	LYCOMING
ELT:	C91 installed, not activated	Engine Model/Series:	I0360 SER
Registered Owner:	CHRISTIANSEN AVIATION INC	Rated Power:	160 hp
Operator:	CHRISTIANSEN AVIATION INC	Air Carrier Operating Certificate:	Pilot School (141)

Meteorological Information and Flight Plan

Observation Facility, Elevation:	FPR, 23 ft msl	Observation Time:	0853 EST
Distance from Accident Site:	0 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:	0°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Clear	Temperature/Dew Point:	22° C / 20° C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	Calm	Visibility (RVR):	
Altimeter Setting:	30.12 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Fort Pierce, FL (FPR)	Type of Flight Plan Filed:	None
Destination:	Fort Pierce, FL (FPR)	Type of Clearance:	VFR
Departure Time:	EST	Type of Airspace:	Class D

Airport Information

Airport:	St Lucie County International (FPR)	Runway Surface Type:	Asphalt
Airport Elevation:	23 ft	Runway Surface Condition:	Dry
Runway Used:	10	IFR Approach:	None
Runway Length/Width:	6492 ft / 150 ft	VFR Approach/Landing:	Full Stop

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):	Eric Alleyne	Adopted Date:	04/23/2014
Additional Participating Persons:			
Publish Date:	07/08/2015		
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=88801		

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