



National Transportation Safety Board Aviation Accident Final Report

Location:	Ft. Pierce, FL	Accident Number:	ERA10CA208
Date & Time:	03/01/2010, 1535 EST	Registration:	N5460K
Aircraft:	CESSNA 172P	Aircraft Damage:	Substantial
Defining Event:	Hard landing	Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

According to the certified flight instructor, the student pilot was on approach for landing to runway 10 left. Prior to touchdown the student pilot pulled excessive back pressure on the elevator flight control and the airplane ballooned before touching down hard on the main landing gear. The flight instructor then took over the flight controls, made a go-around, and landed on another runway. The airplane received substantial damage to the rudder torque tube.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The student pilot's improper flare and the flight instructor's delayed remedial action, resulting in a hard landing.

Findings

Aircraft

Personnel issues	Aircraft control - Student pilot (Cause) Monitoring other person - Instructor/check pilot (Cause)
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Factual Information

History of Flight

Landing-flare/touchdown	Hard landing (Defining event)
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Flight Instructor Information

Certificate:	Flight Instructor; Commercial; Private	Age:	26, Female
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 Without Waivers/Limitations	Last Medical Exam:	11/12/2008
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	02/09/2009
Flight Time:	1140 hours (Total, all aircraft), 1000 hours (Total, this make and model), 950 hours (Pilot In Command, all aircraft), 220 hours (Last 90 days, all aircraft), 93 hours (Last 30 days, all aircraft)		

Student Pilot Information

Certificate:	Student	Age:	14, 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:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Without Waivers/Limitations	Last Medical Exam:	01/18/2010
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	24 hours (Total, all aircraft), 24 hours (Total, this make and model), 24 hours (Last 90 days, all aircraft), 24 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	CESSNA	Registration:	N5460K
Model/Series:	172P	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	17274126
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	02/13/2010, 100 Hour	Certified Max Gross Wt.:	2400 lbs
Time Since Last Inspection:	60 Hours	Engines:	1 Reciprocating
Airframe Total Time:	12397 Hours	Engine Manufacturer:	LYCOMING
ELT:	C91 installed, not activated	Engine Model/Series:	0-320-D2J
Registered Owner:	ARI BEN AVIATOR INC	Rated Power:	180 hp
Operator:	ARI BEN AVIATOR INC	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	FPR, 24 ft msl	Observation Time:	1553 EST
Distance from Accident Site:		Condition of Light:	Day
Direction from Accident Site:		Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Clear	Temperature/Dew Point:	19° C / 11° C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	106 knots, 110°	Visibility (RVR):	
Altimeter Setting:	29.97 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Ft. Pierce, FL (FPR)	Type of Flight Plan Filed:	None
Destination:	Ft. Pierce, FL (FPR)	Type of Clearance:	None
Departure Time:	1530 EST	Type of Airspace:	Class D

Airport Information

Airport:	Sant Lucie County Intl (FPR)	Runway Surface Type:	Asphalt
Airport Elevation:	24 ft	Runway Surface Condition:	Dry
Runway Used:	10L	IFR Approach:	None
Runway Length/Width:	4000 ft / 75 ft	VFR Approach/Landing:	Traffic Pattern

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None		

Administrative Information

Investigator In Charge (IIC):	Carrol A Smith	Adopted Date:	07/01/2010
Additional Participating Persons:	Billy Meadows; FAA/FSDO; Orlando, FL		
Publish Date:	07/01/2010		
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=75645		

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