



National Transportation Safety Board Aviation Accident Final Report

Location:	Loveland, CO	Accident Number:	DEN05LA055
Date & Time:	02/02/2005, 1450 MST	Registration:	N618MN
Aircraft:	Cessna 172N	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None

Flight Conducted Under: Part 91: General Aviation - Instructional

Analysis

According to the flight instructor, they were performing a touch-and-go landing. During the landing flare, the flight instructor requested that the student perform a go-around and the student acknowledged. The instructor stated that the student added full power and "fully and abruptly moved the control yoke to its full forward limit." The instructor stated that he attempted to take control of the airplane; however, the nose gear impacted the runway and the airplane bounced. The instructor stated that he was able to land the airplane, following the bounce. He brought the airplane to a complete stop approximately 15 feet off of the left side of the runway. In two separate telephone interviews, both the flight instructor and the student were asked about the discrepancy between their statements. The flight instructor stated that the accident sequence was as he had stated in his written statement. He felt the student was not remembering approximately 20 seconds of the landing sequence. The student stated that the accident sequence was exactly as he had stated in his written statement. The student also stated that the purpose of the flight was to perform touch-and-go landings, not go-arounds. The student stated that the hard landing was only his third landing. He was unaware of what a go-around procedure was. The airplane was substantially damaged. A postimpact examination of the airplane systems revealed no anomalies.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The dual student's improper flare and the flight instructor's inadequate supervision.. A contributing factor was the inadequate communication between the flight instructor and the dual student,

Findings

Occurrence #1: HARD LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (F) COMMUNICATIONS - INADEQUATE - DUAL STUDENT
2. (F) COMMUNICATIONS - INADEQUATE - PILOT IN COMMAND(CFI)
3. (C) FLARE - IMPROPER - DUAL STUDENT
4. (C) SUPERVISION - INADEQUATE - PILOT IN COMMAND(CFI)

Factual Information

On February 2, 2005, approximately 1450 mountain standard time, a Cessna 172N, N618MN, piloted by a commercial certificated flight instructor, was substantially damaged during a hard landing at Fort Collins-Loveland Municipal Airport (FNL), Loveland, Colorado. Visual meteorological conditions prevailed at the time of the accident. The instructional flight was being conducted under the provisions of Title 14 CFR Part 91 without a flight plan. The flight instructor and his student reported no injuries. The local flight originated at 1430.

According to the written statement submitted by the flight instructor, he and his student were performing a touch-and-go landing on runway 15. During the landing flare, the flight instructor requested that the student perform a go-around and the student acknowledged. The instructor stated that the student added full power and "fully and abruptly moved the control yoke to its full forward limit." The instructor stated that he attempted to take control of the airplane; however, the nose gear impacted the runway and the airplane bounced. The instructor stated that he was able to land the airplane, following the bounce. He brought the airplane to a complete stop approximately 15 feet off of the left side of the runway.

According to the written statement submitted by the student pilot, he performed what he felt was a "normal landing." He stated that he "held back the yoke"; however, the airplane bounced "slightly above normal" and touched down again. The student stated that upon the application of the brakes, the airplane began to "yaw to the left." The nose landing gear assembly collapsed and the firewall was wrinkled. A postimpact examination of the airplane systems, conducted by the FAA, revealed no anomalies.

In two separate telephone interviews, both the flight instructor and the student were asked about the discrepancy between their statements. The flight instructor stated that the accident sequence was as he had stated in his written statement. He felt the student was not remembering approximately 20 seconds of the landing sequence. The student stated that the accident sequence was exactly as he had stated in his written statement. The student also stated that the purpose of the flight was to perform touch-and-go landings, not go-arounds. The student stated that the hard landing was only his third landing. He was unaware of what a go-around procedure was.

Flight Instructor Information

Certificate:	Flight Instructor; Commercial	Age:	26, Male
Airplane Rating(s):	Multi-engine Land; 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; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 3 Invalid Medical for flight	Last FAA Medical Exam:	03/03/2003
Occupational Pilot:		Last Flight Review or Equivalent:	10/14/2004
Flight Time:	1180 hours (Total, all aircraft), 700 hours (Total, this make and model), 1106 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 47 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Student Pilot Information

Certificate:	Student	Age:	72, 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 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	12/15/2004
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	23 hours (Total, all aircraft), 23 hours (Total, this make and model), 5 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N618MN
Model/Series:	172N	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	17269028
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	11/08/2004, Annual	Certified Max Gross Wt.:	2300 lbs
Time Since Last Inspection:	93 Hours	Engines:	1 Reciprocating
Airframe Total Time:	9914 Hours at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-320-H2AD
Registered Owner:	Patrick Hinton	Rated Power:	160 hp
Operator:	Patrick Hinton	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	FNL, 5016 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	1455 MST	Direction from Accident Site:	150°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	230°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.23 inches Hg	Temperature/Dew Point:	8°C / -8°C
Precipitation and Obscuration:			
Departure Point:	FORT COLLINS, CO (3V5)	Type of Flight Plan Filed:	None
Destination:	(3V5)	Type of Clearance:	None
Departure Time:	1430 MST	Type of Airspace:	Class G

Airport Information

Airport:	FORT COLLINS-LOVELAND MUNI (FNL)	Runway Surface Type:	Asphalt
Airport Elevation:	5016 ft	Runway Surface Condition:	Dry
Runway Used:	15	IFR Approach:	None
Runway Length/Width:	8500 ft / 100 ft	VFR Approach/Landing:	Full Stop; 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	Latitude, Longitude:	40.451667, -105.011667

Administrative Information

Investigator In Charge (IIC):	Arnold W Scott	Report Date:	06/08/2005
Additional Participating Persons:	Scott Christensen; FAA Flight Standards District Office; Denver, CO		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.ntsbt.gov/pubdms/ .		

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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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).