



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	CHESWOLD, DE	<b>Accident Number:</b>	NYC99LA188
<b>Date &amp; Time:</b>	08/01/1999, 1110 EDT	<b>Registration:</b>	N2746C
<b>Aircraft:</b>	Cessna 172R	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None

**Flight Conducted Under:** Part 91: General Aviation - Personal

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## Analysis

The pilot stated that while landing at his destination, the first approach to land on Runway 27 was high, and a go-around was performed. The second attempt to land on the runway was long, and the airplane floated about halfway down the runway, before touching down hard. The airplane then bounced into the air, and settled back to the ground, touching down hard a second time. The airplane bounced several more times, until the pilot added full power, and executed a go-around. The pilot climbed the airplane to about 3,000 feet above the ground, and returned to his departure airport. The pilot did not notice any vibrations during the return flight, and the airplane performed normally, except for a slightly slower airspeed. Examination of the airplane revealed damage to the main gear, the main cabin floorboards, buckling of the firewall, and 2-inch rearward curling of the propeller

## Probable Cause and Findings

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

## Findings

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Occurrence #1: HARD LANDING  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

### Findings

1. (C) FLARE - IMPROPER - PILOT IN COMMAND
2. (C) RECOVERY FROM BOUNCED LANDING - IMPROPER - PILOT IN COMMAND

## Factual Information

On August 1, 1999, about 1110 Eastern Daylight Time, a Cessna 172R, N2746C, was substantially damaged while landing at the Delaware Airport (33N), Cheswold, Delaware. The certificated private pilot and the passenger were not injured. Visual meteorological conditions prevailed, and no flight plan was filed for the personal flight that originated at the Brandywine Airport (N99), West Chester, Pennsylvania, conducted under 14 CFR Part 91.

The pilot stated that while landing at 33N, the first approach to land on Runway 27, a 3,715-foot long asphalt runway, was high, and a go-around was performed. The second attempt to land on Runway 27 was long, and the airplane floated about halfway down the runway, before touching down hard. The airplane then bounced into the air, and settled back to the ground, touching down hard a second time. The airplane bounced several more times, until the pilot added full power, and executed a go-around. The pilot climbed the airplane to about 3,000 feet above the ground, and returned to N99. The pilot did not notice any vibrations during the return flight, and the airplane performed normally, except for a slightly slower airspeed.

Examination of the airplane at N99 by a Federal Aviation Inspector revealed damage to the main gear, the main cabin floorboards, buckling of the firewall, and 2-inch rearward curling of the propeller blades.

The winds reported at an airport located 5 miles to the southeast, at 1045 were, 300 degrees at 8 knots.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	63, Male
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	12/28/1998
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>		
<b>Flight Time:</b>	175 hours (Total, all aircraft), 29 hours (Total, this make and model), 65 hours (Pilot In Command, all aircraft), 14 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N2746C
Model/Series:	172R 172R	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	17280587
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	06/08/1999, 100 Hour	Certified Max Gross Wt.:	2450 lbs
Time Since Last Inspection:	46 Hours	Engines:	1 Reciprocating
Airframe Total Time:	467 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	IO-360-B1E
Registered Owner:	TAS INC.	Rated Power:	160 hp
Operator:	TAS INC.	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	DOV, 30 ft msl	Distance from Accident Site:	5 Nautical Miles
Observation Time:	1055 EDT	Direction from Accident Site:	140°
Lowest Cloud Condition:	Scattered / 10000 ft agl	Visibility	6 Miles
Lowest Ceiling:	Broken / 15000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	300°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	32° C / 21° C
Precipitation and Obscuration:			
Departure Point:	WEST CHESTER, PA (N99)	Type of Flight Plan Filed:	None
Destination:	(33N)	Type of Clearance:	None
Departure Time:	1040 EDT	Type of Airspace:	Class G

## Airport Information

Airport:	DELAWARE AIRPORT (33N)	Runway Surface Type:	Asphalt
Airport Elevation:	56 ft	Runway Surface Condition:	Dry
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	3715 ft / 50 ft	VFR Approach/Landing:	Go Around; Straight-in

## Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	STEPHEN M DEMKO	Report Date:	08/10/2000
Additional Participating Persons:	JESSE F KERN; PHILADELPHIA, PA		
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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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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](#).