



# Aviation Investigation Final Report

<b>Location:</b>	Watsonville, California	<b>Accident Number:</b>	WPR17LA204
<b>Date &amp; Time:</b>	September 15, 2017, 13:00 Local	<b>Registration:</b>	N5391A
<b>Aircraft:</b>	Cessna T210N	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Landing gear collapse	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that, during the landing, the airplane bounced and soon after he felt a "jerk and thump," and the propeller contacted the runway as the airplane slid across the runway with the nose down. The airplane sustained substantial damage to the leading edge of the right horizontal stabilizer. Examination of the runway surface revealed markings consistent with a hard landing on the nose landing gear.

The pilot reported there were no preaccident mechanical failures or malfunctions with the airframe or engine that would have precluded normal operation. It is likely that the pilot failed to maintain a proper landing flare, which resulted in a hard landing on the nose gear and its subsequent separation.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's improper landing flare, which resulted in a bounced landing and subsequent nose gear separation.

## Findings

<b>Aircraft</b>	Landing flare - Not attained/maintained
<b>Personnel issues</b>	Aircraft control - Pilot

## Factual Information

### History of Flight

<b>Landing-flare/touchdown</b>	Landing gear collapse (Defining event)
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On September 15, 2017, about 1300 Pacific daylight time, a Cessna T210N airplane, N5391A, was substantially damaged when it was involved in an accident near Watsonville, California. The pilot and passenger were not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that the flight and approach to landing were normal. During the landing, the airplane bounced, and he felt a “jerk and thump.” The next thing he recalled was the propeller impacting the runway surface as the airplane slid across the runway with the nose down. The pilot stated that there were no preaccident mechanical malfunctions of the airplane.

A postaccident examination of the airplane and accident site by a Federal Aviation Administration inspector revealed impact gouging and tire marks on the runway surface near the approach end of runway 20. The nose landing gear separated from the airplane and was found on the runway. The airplane came to rest on the left side of the runway and exhibited impact damage to the lower fuselage and substantial damage to the leading edge of the right horizontal stabilizer. The inspector noted that the nose landing gear separated “straight off,” and there was no evidence of mechanical anomalies. The nose landing gear linkage was in the down and locked position.

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	36, 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>	Lap only
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 None	<b>Last FAA Medical Exam:</b>	August 8, 2015
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	(Estimated) 140 hours (Total, all aircraft), 37 hours (Total, this make and model), 40 hours (Pilot In Command, all aircraft), 48 hours (Last 90 days, all aircraft), 8 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Passenger Information

<b>Certificate:</b>		<b>Age:</b>	
<b>Airplane Rating(s):</b>		<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	Lap only
<b>Instrument Rating(s):</b>		<b>Second Pilot Present:</b>	
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>		<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>			

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N5391A
<b>Model/Series:</b>	T210N N	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1979	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal; None	<b>Serial Number:</b>	21063408
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	April 18, 2017 Annual	<b>Certified Max Gross Wt.:</b>	1450 lbs
<b>Time Since Last Inspection:</b>	35 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	4780 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Continental Motors
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	TSIO-520-R
<b>Registered Owner:</b>		<b>Rated Power:</b>	310 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	WVI,144 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	12:30 Local	<b>Direction from Accident Site:</b>	115°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	29.96 inches Hg	<b>Temperature/Dew Point:</b>	21°C / 12°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	LIVERMORE, CA (LVK )	<b>Type of Flight Plan Filed:</b>	VFR
<b>Destination:</b>	Watsonville, CA (WVI )	<b>Type of Clearance:</b>	VFR flight following
<b>Departure Time:</b>	12:10 Local	<b>Type of Airspace:</b>	Class D;Class G

## Airport Information

<b>Airport:</b>	WATSONVILLE MUNI WVI	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	163 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	20	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	4501 ft / 149 ft	<b>VFR Approach/Landing:</b>	Straight-in;Traffic pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	36.935832,-121.79055(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Swick, Andrew		
<b>Additional Participating Persons:</b>	Thomas Holden; FAA-FSDO; San Jose, CA		
<b>Original Publish Date:</b>	May 5, 2021	<b>Investigation Class:</b>	3
<b>Note:</b>	The NTSB did not travel to the scene of this accident.		
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=96019">https://data.nts.gov/Docket?ProjectID=96019</a>		

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