



Aviation Investigation Final Report

Location:	Palo Alto, California	Accident Number:	GAA18CA294
Date & Time:	April 29, 2018, 19:40 Local	Registration:	N254EK
Aircraft:	Cessna 172	Aircraft Damage:	Substantial
Defining Event:	Abnormal runway contact	Injuries:	4 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, during short final, he noticed "a sudden lack of wind," and the airplane began to descend. He added that the airplane landed hard and bounced multiple times. He taxied back to the parking ramp without further incident.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

The airplane rental company owner reported that the pilot did not notify any personnel of the hard, bounded landing. He added that, during a later flight, the airplane owner noticed a vibration and landed to examine the airplane. Postflight examination revealed propeller damage and substantial damage to the fuselage.

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 hard landing.

Findings

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

Factual Information

History of Flight

Approach	Other weather encounter
Landing	Abnormal runway contact (Defining event)

Pilot Information

Certificate:	Private	Age:	32,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	August 6, 2015
Occupational Pilot:	No	Last Flight Review or Equivalent:	May 17, 2017
Flight Time:	(Estimated) 136 hours (Total, all aircraft), 136 hours (Total, this make and model), 25 hours (Pilot In Command, all aircraft), 3 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N254EK
Model/Series:	172 S	Aircraft Category:	Airplane
Year of Manufacture:	2011	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	172S11119
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	2300 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:		Engine Model/Series:	IO-360-L2A
Registered Owner:		Rated Power:	
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KPAO,7 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	02:47 Local	Direction from Accident Site:	345°
Lowest Cloud Condition:	Scattered / 3500 ft AGL	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	290°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.06 inches Hg	Temperature/Dew Point:	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Palo Alto, CA (PAO)	Type of Flight Plan Filed:	None
Destination:	Palo Alto, CA (PAO)	Type of Clearance:	VFR
Departure Time:	18:20 Local	Type of Airspace:	Class D

Airport Information

Airport:	PALO ALTO PAO	Runway Surface Type:	Asphalt
Airport Elevation:	6 ft msl	Runway Surface Condition:	Dry
Runway Used:	31	IFR Approach:	None
Runway Length/Width:	2443 ft / 70 ft	VFR Approach/Landing:	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	3 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 None	Latitude, Longitude:	37.461112,-122.114997(est)

Administrative Information

Investigator In Charge (IIC):	Benhoff, Kathryn
Additional Participating Persons:	Michael Arraiz; FAA; Oakland, CA
Original Publish Date:	October 24, 2018
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=97313

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](#).