



Aviation Investigation Final Report

Location:	Orlando, Florida	Accident Number:	GAA18CA348
Date & Time:	May 29, 2018, 13:00 Local	Registration:	N497SJ
Aircraft:	Cessna 172	Aircraft Damage:	Substantial
Defining Event:	Abnormal runway contact	Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, after it "touched down[,] the airplane bounced a couple times" and then landed hard.

The airplane sustained substantial damage to the fuselage.

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

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, hard landing.

Findings

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

Factual Information

History of Flight

Landing	Abnormal runway contact (Defining event)
Landing	Hard landing

Pilot Information

Certificate:	Private	Age:	25,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	August 8, 2017
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 110 hours (Total, all aircraft), 63 hours (Pilot In Command, all aircraft), 40 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N497SJ
Model/Series:	172 S	Aircraft Category:	Airplane
Year of Manufacture:	2000	Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	172S8497
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	April 5, 2018 100 hour	Certified Max Gross Wt.:	2299 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	IO-360-B1E
Registered Owner:		Rated Power:	180 Horsepower
Operator:	On file	Operating Certificate(s) Held:	Pilot school (141)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KISM,82 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	16:56 Local	Direction from Accident Site:	167°
Lowest Cloud Condition:	Scattered / 3900 ft AGL	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	11 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.95 inches Hg	Temperature/Dew Point:	31°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Fort Lauderdale, FL (FXE)	Type of Flight Plan Filed:	VFR
Destination:	Orlando, FL (ISM)	Type of Clearance:	VFR flight following
Departure Time:	12:00 Local	Type of Airspace:	Class D

Airport Information

Airport:	KISSIMMEE GATEWAY ISM	Runway Surface Type:	Asphalt
Airport Elevation:	82 ft msl	Runway Surface Condition:	Unknown
Runway Used:	24	IFR Approach:	None
Runway Length/Width:	5001 ft / 100 ft	VFR Approach/Landing:	Full stop;Go around

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	28.290832,-81.437225(est)

Administrative Information

Investigator In Charge (IIC):	Swenson, Eric
Additional Participating Persons:	James Boles; FAA; Orlando, FL
Original Publish Date:	November 5, 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=97485

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](#).