



Aviation Investigation Final Report

Location:	Nashville, Tennessee	Accident Number:	GAA18CA428
Date & Time:	July 17, 2018, 12:00 Local	Registration:	N7880G
Aircraft:	Cessna 172	Aircraft Damage:	Substantial
Defining Event:	Abnormal runway contact	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The pilot reported that, during his solo flight, he made an approach, but the airplane's airspeed was fast. He intended to float along the 8,000-ft-long runway, extending the distance to touchdown, because he wanted to exit at the taxiway near the end of the runway. During the landing flare, he misperceived the airplane's height above the runway because the runway was 50 ft wider than his departure airport's runway. He added that the airplane sank, touched down on the main landing gear, and then bounced. The pilot reported that he panicked and applied back pressure to the yoke, "thinking that it would slow...[the airplane] down." The airplane bounced several times, and he applied forward pressure to the yoke "to get some forward momentum to flare again," but the airplane settled on the runway. During taxi, the pilot felt something was wrong with the nosewheel but continued to taxi to the hangar.

The airplane sustained substantial damage the lower engine mounts.

The pilot reported that there were no mechanical malfunctions or failures 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 landing.

Findings

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

Factual Information

History of Flight

Landing-flare/touchdown	Miscellaneous/other
Landing-flare/touchdown	Abnormal runway contact (Defining event)

Pilot Information

Certificate:	Private	Age:	30,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	December 22, 2017
Occupational Pilot:	No	Last Flight Review or Equivalent:	December 20, 2016
Flight Time:	(Estimated) 183.3 hours (Total, all aircraft), 152.8 hours (Total, this make and model), 131 hours (Pilot In Command, all aircraft), 7.9 hours (Last 90 days, all aircraft), 6.8 hours (Last 30 days, all aircraft), 1.5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N7880G
Model/Series:	172 L	Aircraft Category:	Airplane
Year of Manufacture:	1970	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	17259580
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	July 9, 2018 100 hour	Certified Max Gross Wt.:	2300 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3920 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	C126 installed, not activated	Engine Model/Series:	O-320
Registered Owner:		Rated Power:	150 Horsepower
Operator:		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:	KBNA,605 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	16:53 Local	Direction from Accident Site:	238°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 3400 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	None / None
Wind Direction:		Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.01 inches Hg	Temperature/Dew Point:	32°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Gallatin, TN (XNX)	Type of Flight Plan Filed:	VFR
Destination:	Nashville, TN (BNA)	Type of Clearance:	VFR
Departure Time:	11:50 Local	Type of Airspace:	Class C

Airport Information

Airport:	Nashville Intl BNA	Runway Surface Type:	Concrete
Airport Elevation:	599 ft msl	Runway Surface Condition:	Dry
Runway Used:	02C	IFR Approach:	None
Runway Length/Width:	8001 ft / 150 ft	VFR Approach/Landing:	Full stop;Straight-in

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	36.124443,-86.678054(est)

Administrative Information

Investigator In Charge (IIC):	Hicks, Michael
Additional Participating Persons:	Jake Elliott; FAA; Nashville, TN
Original Publish Date:	September 26, 2019
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=97814

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