



Aviation Investigation Final Report

Location:	Waterloo, Indiana	Accident Number:	GAA18CA277
Date & Time:	May 5, 2018, 09:30 Local	Registration:	N263VX
Aircraft:	CESSNA AIRCRAFT CO 162	Aircraft Damage:	Substantial
Defining Event:	Abnormal runway contact	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, while landing on a soft, grass runway, the airplane bounced. He added that, as the airplane settled back to the runway, the nosewheel "hit a soft spot" in the turf, and the nose landing gear collapsed.

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.

The Federal Aviation Administration's Airplane Flying Handbook, FAA-H-8083-3A, contained a section titled, "Soft Field Approach and Landing," which stated:

Touchdown on a soft or rough field should be made at the lowest possible airspeed with the airplane in a nose-high pitch attitude. In nose-wheel type airplanes, after the main wheels touch the surface, the pilot should hold sufficient back-elevator pressure to keep the nose wheel off the surface. Using back-elevator pressure and engine power, the pilot can control the rate at which the weight of the airplane is transferred from the wings to the wheels.

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 during a soft-field landing and his use of an improper soft-field landing procedure, which resulted in a bounced landing.

Findings

Aircraft	Landing flare - Not attained/maintained
Personnel issues	Use of policy/procedure - Pilot
Personnel issues	Aircraft control - Pilot
Environmental issues	Soft surface - Effect on operation

Factual Information

History of Flight

Landing	Abnormal runway contact (Defining event)
Landing	Miscellaneous/other
Landing	Landing gear collapse

Pilot Information

Certificate:	Private	Age:	67,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 3 With waivers/limitations	Last FAA Medical Exam:	September 13, 2016
Occupational Pilot:	No	Last Flight Review or Equivalent:	September 1, 2016
Flight Time:	(Estimated) 233 hours (Total, all aircraft), 34 hours (Total, this make and model), 233 hours (Pilot In Command, all aircraft), 8 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA AIRCRAFT CO	Registration:	N263VX
Model/Series:	162	Aircraft Category:	Airplane
Year of Manufacture:	2011	Amateur Built:	
Airworthiness Certificate:	Special light-sport (Special)	Serial Number:	16200031
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	June 5, 2017 Annual	Certified Max Gross Wt.:	1324 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	316.9 Hrs as of last inspection	Engine Manufacturer:	Continental
ELT:	C91A installed, not activated	Engine Model/Series:	O-200 D1B
Registered Owner:		Rated Power:	100 Horsepower
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:	KGWB,880 ft msl	Distance from Accident Site:	9 Nautical Miles
Observation Time:	13:35 Local	Direction from Accident Site:	206°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.07 inches Hg	Temperature/Dew Point:	17°C / 11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	MUNCIE, IN (712)	Type of Flight Plan Filed:	None
Destination:	Waterloo, IN (4C2)	Type of Clearance:	None
Departure Time:	08:30 Local	Type of Airspace:	Class G

Airport Information

Airport:	WALKER/ROWE WATERLOO 4C2	Runway Surface Type:	Grass/turf
Airport Elevation:	900 ft msl	Runway Surface Condition:	Soft
Runway Used:	09	IFR Approach:	None
Runway Length/Width:	2340 ft / 100 ft	VFR Approach/Landing:	Full stop

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:	41.431388,-84.981109(est)

Administrative Information

Investigator In Charge (IIC):	Swenson, Eric
Additional Participating Persons:	Raymond Stickney; FAA; Grand Rapids, MI
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=97245

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](#).