



Aviation Investigation Final Report

Location:	Bruington, Virginia	Accident Number:	GAA18CA369
Date & Time:	June 20, 2018, 12:30 Local	Registration:	N8090X
Aircraft:	Cessna 172	Aircraft Damage:	Substantial
Defining Event:	Nose over/nose down	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, after taking off from an unimproved gravel surface in a field, he did not feel comfortable with the airplane's performance, so he chose to abort the takeoff. The airplane touched down on soft dirt, and the nose landing gear then dug into the dirt and separated from the airplane. The airplane then nosed over and came to rest inverted.

The airplane sustained substantial damage to the right wing and empennage.

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 decision to abort the takeoff with insufficient runway remaining to safely stop the airplane.

Findings

Personnel issues	Decision making/judgment - Pilot
Environmental issues	(general) - Decision related to condition
Aircraft	(general) - Capability exceeded
Environmental issues	Soft surface - Effect on operation

Factual Information

History of Flight

Takeoff-rejected takeoff	Miscellaneous/other
Landing	Part(s) separation from AC
Landing	Nose over/nose down (Defining event)

Pilot Information

Certificate:	Airline transport; Commercial; Flight engineer; Military	Age:	52, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
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:	May 17, 2018
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	April 14, 2018
Flight Time:	(Estimated) 10235 hours (Total, all aircraft), 350 hours (Total, this make and model), 2780 hours (Pilot In Command, all aircraft), 331 hours (Last 90 days, all aircraft), 89 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N8090X
Model/Series:	172 B	Aircraft Category:	Airplane
Year of Manufacture:	1961	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	17248590
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	October 23, 2017 Annual	Certified Max Gross Wt.:	2250 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	2872 Hrs at time of accident	Engine Manufacturer:	CONT MOTOR
ELT:	C91 installed, not activated	Engine Model/Series:	O-300 SER
Registered Owner:		Rated Power:	145 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:	KXSA, 135 ft msl	Distance from Accident Site:	4 Nautical Miles
Observation Time:	16:35 Local	Direction from Accident Site:	67°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 3200 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:	29.87 inches Hg	Temperature/Dew Point:	30°C / 23°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bruington, VA	Type of Flight Plan Filed:	None
Destination:	Tappahannock, VA (XSA)	Type of Clearance:	None
Departure Time:	12:30 Local	Type of Airspace:	Class G

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:	37.821666,-76.969169(est)

Administrative Information

Investigator In Charge (IIC):	Swenson, Eric
Additional Participating Persons:	Steve Harness; FAA; Richmond, VA
Original Publish Date:	March 18, 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=97548

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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](#).