

Aviation Investigation Final Report

Location: Mecosta, Michigan Accident Number: CEN22LA358

Date & Time: July 30, 2022, 10:30 Local Registration: N2902N

Aircraft: Cessna 120 Aircraft Damage: Substantial

Defining Event: Loss of control on ground **Injuries:** 1 None

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

The pilot reported that after landing, he planned to make an immediate departure. During the takeoff roll, about halfway down the turf runway, the airplane traveled over "rough runway conditions" and bounced several times. The pilot assessed the situation and decided to abort the takeoff. Due to the rough surface and the constant bouncing of the airplane, the pilot was unable to stop the airplane before it departed the runway. The airplane nosed over and came to rest inverted, and the pilot was able to egress from the airplane without further incident. The airplane sustained substantial damage to the right wing, the left wing strut, and the vertical stabilizer. The pilot reported there were no preimpact mechanical malfunctions or failures with the airframe and the engine 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 decision to depart on inadequate runway surface conditions that resulted in a loss of control after attempting to abort the takeoff, a runway excursion, and a nose over.

Findings

Personnel issues Aircraft control - Pilot

 Personnel issues
 Decision making/judgment - Pilot

 Environmental issues
 Rough terrain - Effect on equipment

Aircraft Surface speed/braking - Not attained/maintained

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Factual Information

History of Flight

Takeoff-rejected takeoff	Loss of control on ground (Defining event)
Takeoff-rejected takeoff	Runway excursion
Takeoff-rejected takeoff	Nose over/nose down

Pilot Information

Certificate:	Commercial	Age:	51,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	March 14, 2022
Occupational Pilot:	No	Last Flight Review or Equivalent:	September 1, 2020
Flight Time:	1454.8 hours (Total, all aircraft), 150.2 hours (Total, this make and model), 1338.5 hours (Pilot In Command, all aircraft), 52 hours (Last 90 days, all aircraft), 17.5 hours (Last 30 days, all aircraft)		

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Aircraft and Owner/Operator Information

Aircraft Make:CessnaRegistration:N2902NModel/Series:120 No Series ExistsAircraft Category:AirplaneYear of Manufacture:1947Amateur Built:Airworthiness Certificate:NormalSerial Number:13163Landing Gear Type:TailwheelSeats:2Date/Type of Last Inspection:September 30, 2021 Annual Inspection:Certified Max Gross Wt.:1450 lbsTime Since Last Inspection:Engines:1 ReciprocatingAirframe Total Time:4448 Hrs at time of accidentEngine Manufacturer:CONT MOTORELT:C91 installed, activated, did not aid in locating accidentEngine Model/Series:0-200Registered Owner:On fileRated Power:85 HorsepowerOperator:Operating Certificate(s) Held:NoneOperator Does Business As:On fileOperator Designator Code:None				
Year of Manufacture: 1947 Amateur Built: Airworthiness Certificate: Normal Serial Number: 13163 Landing Gear Type: Tailwheel Seats: 2 Date/Type of Last Inspection: Engines: 1 Reciprocating Airframe Total Time: 4448 Hrs at time of accident Engine Manufacturer: CONT MOTOR ELT: C91 installed, activated, did not aid in locating accident Registered Owner: On file Rated Power: 85 Horsepower Operator: On file Operating Certificate(s) Held:	Aircraft Make:	Cessna	Registration:	N2902N
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Date/Type of Last Inspection: Time Since Last Inspection: Airframe Total Time: C91 installed, activated, did not aid in locating accident Registered Owner: On file On file On file Certified Max Gross Wt.: Engines: 1 Reciprocating CONT MOTOR Engine Manufacturer: CONT MOTOR Engine Model/Series: O-200 S5 Horsepower Operator: On file Operating Certificate(s) Held:	Airworthiness Certificate:	Normal	Serial Number:	13163
Inspection: Time Since Last Inspection: Airframe Total Time: 4448 Hrs at time of accident Engine Manufacturer: CONT MOTOR ELT: C91 installed, activated, did not aid in locating accident Registered Owner: On file Rated Power: Operator: Operator: Operating Certificate(s) Held:	Landing Gear Type:	Tailwheel	Seats:	2
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not aid in locating accident Registered Owner: On file Rated Power: 85 Horsepower Operator: Operating Certificate(s) Held:	Airframe Total Time:	4448 Hrs at time of accident	Engine Manufacturer:	CONT MOTOR
Operator: On file Operating Certificate(s) None Held:	ELT:	•	Engine Model/Series:	0-200
Held:	Registered Owner:	On file	Rated Power:	85 Horsepower
Operator Does Business As: On file Operator Designator Code: None	Operator:	On file		None
	Operator Does Business As:	On file	Operator Designator Code:	None

Meteorological Information and Flight Plan

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Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KRQB,928 ft msl	Distance from Accident Site:	12 Nautical Miles
Observation Time:	10:35 Local	Direction from Accident Site:	297°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.2 inches Hg	Temperature/Dew Point:	24°C / 15°C
Precipitation and Obscuration:	No Obscuration; No Precip	itation	
Departure Point:	Stanwood, MI (0C5)	Type of Flight Plan Filed:	None
Destination:	Stanwood, MI (0C5)	Type of Clearance:	None
Departure Time:	10:00 Local	Type of Airspace:	Class G

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Airport Information

Airport:	MECOSTA MORTON 27C	Runway Surface Type:	Grass/turf
Airport Elevation:	1022 ft msl	Runway Surface Condition:	Rough
Runway Used:	03	IFR Approach:	None
Runway Length/Width:	2010 ft / 100 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	43.630437,-85.261314(est)

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Administrative Information

Investigator In Charge (IIC):	Hodges, Michael
Additional Participating Persons:	Joshua Osman; FAA Grand Rapids FSDO; Grand Rapids, MI
Original Publish Date:	September 22, 2022
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=105656

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 Code of Federal Regulations section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 United States Code section 1154(b)). A factual report that may be admissible under 49 United States Code section 1154(b) is available here.

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