



# Aviation Investigation Final Report

<b>Location:</b>	Harlan, Iowa	<b>Accident Number:</b>	CEN18CA185
<b>Date &amp; Time:</b>	May 16, 2018, 09:45 Local	<b>Registration:</b>	N77273
<b>Aircraft:</b>	Cessna 120	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control on ground	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot flew a visual approach to a 1,712-ft-long by 120-ft-wide turf runway. During touchdown, the airplane bounced and the pilot "felt out of control." The pilot executed a late go-around, during which the airplane struck a fence at the end of the airport property. Then, due to approaching trees, the pilot attempted to make a turn, which resulted in an aerodynamic stall. The airplane subsequently impacted terrain and came to rest inverted, which damaged the tail.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's late go-around during a bounced landing, which led to an aerodynamic stall and impact with terrain.

## Findings

<b>Personnel issues</b>	Aircraft control - Pilot
<b>Personnel issues</b>	Decision making/judgment - Pilot
<b>Environmental issues</b>	Tree(s) - Contributed to outcome
<b>Aircraft</b>	Airspeed - Not attained/maintained



## Factual Information

### History of Flight

<b>Landing</b>	Abnormal runway contact
<b>Landing</b>	Loss of control on ground (Defining event)
<b>Approach-VFR go-around</b>	Loss of control in flight
<b>Approach-VFR go-around</b>	Aerodynamic stall/spin
<b>Uncontrolled descent</b>	Collision with terr/obj (non-CFIT)

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	23, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	May 3, 2017
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	October 3, 2016
<b>Flight Time:</b>	281 hours (Total, all aircraft), 29 hours (Total, this make and model), 178 hours (Pilot In Command, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N77273
<b>Model/Series:</b>	120 NO SERIES	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1946	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	11486
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	September 27, 2017 Annual	<b>Certified Max Gross Wt.:</b>	1451 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3203 Hrs as of last inspection	<b>Engine Manufacturer:</b>	CONT MOTOR
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	C85 SERIES
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	85 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KHNR,1231 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	09:55 Local	<b>Direction from Accident Site:</b>	211°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	5 knots /	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	90°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	30.04 inches Hg	<b>Temperature/Dew Point:</b>	22°C / 17°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Atlantic, IA (AIO)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Harlan, IA (HNR)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	09:00 Local	<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>	Harlan Muni HNR	<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>	1231 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	03	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	1712 ft / 120 ft	<b>VFR Approach/Landing:</b>	Full stop;Traffic pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	41.586944,-95.336669(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Folkerts, Michael
<b>Additional Participating Persons:</b>	John Walberg; Flight Standards District Office; Des Moines, IA
<b>Original Publish Date:</b>	September 10, 2018
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=97299">https://data.nts.gov/Docket?ProjectID=97299</a>

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