



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

# Aviation Investigation Final Report

<b>Location:</b>	Mooresville, North Carolina	<b>Accident Number:</b>	ERA24LA090
<b>Date &amp; Time:</b>	January 14, 2024, 12:38 Local	<b>Registration:</b>	N512SP
<b>Aircraft:</b>	Cessna 172	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control in flight	<b>Injuries:</b>	1 Serious
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot was attempting to land the airplane on a 3,170-ft-long by 40-ft-wide runway and reported that while on final approach he encountered a “heavy gusty crosswind.” The pilot described that after passing a tree line and realizing that he would not be able to land, he attempted a go-around. The last thing the pilot remembered was the airplane impacting trees. The airplane received substantial damage to both wings, the fuselage, and its empennage structure.

Two witnesses to the accident stated that shortly after initiating the go-around, the airplane turned to the left, missing the trees lining the runway, but then impacted trees approximately 500-ft left of the runway centerline within the residential area of the air park community. The witnesses also described that the airplane started the go-around attempt near the midpoint of the runway. The pilot stated that there were no preimpact 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 failure to maintain control of the airplane during a go-around in gusting crosswind conditions.

## Findings

<b>Personnel issues</b>	Aircraft control - Pilot
<b>Aircraft</b>	Lateral/bank control - Not attained/maintained
<b>Environmental issues</b>	Gusts - Response/compensation

## Factual Information

### History of Flight

Approach-VFR go-around	Loss of control in flight (Defining event)
Initial climb	Collision with terr/obj (non-CFIT)

### Pilot Information

Certificate:	Private	Age:	62, Male
Airplane Rating(s):	Single-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):	Airplane single-engine	Toxicology Performed:	
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	September 7, 2023
Occupational Pilot:	No	Last Flight Review or Equivalent:	May 7, 2023
Flight Time:	153 hours (Total, this make and model)		

### Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N512SP
Model/Series:	172 S	Aircraft Category:	Airplane
Year of Manufacture:	2000	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	172S8371
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	December 1, 2023 100 hour	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:	Installed	Engine Model/Series:	IO-360-L2A
Registered Owner:	On file	Rated Power:	180 Horsepower
Operator:	On file	Operating Certificate(s) Held:	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>	SVH,965 ft msl	<b>Distance from Accident Site:</b>	9 Nautical Miles
<b>Observation Time:</b>	12:25 Local	<b>Direction from Accident Site:</b>	343°
<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>	10 knots / 15 knots	<b>Turbulence Type Forecast/Actual:</b>	Unknown / Convective
<b>Wind Direction:</b>	220°	<b>Turbulence Severity Forecast/Actual:</b>	Unknown / Severe
<b>Altimeter Setting:</b>	30.02 inches Hg	<b>Temperature/Dew Point:</b>	11°C / -5°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Mooresville, NC	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Mooresville, NC	<b>Type of Clearance:</b>	Unknown
<b>Departure Time:</b>		<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>	LAKE NORMAN AIRPARK 14A	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	839 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	14	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	3147 ft / 40 ft	<b>VFR Approach/Landing:</b>	Go around

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Serious	<b>Latitude, Longitude:</b>	35.613947,-80.899531(est)

## Administrative Information

Investigator In Charge (IIC):	Enders, Ryan
Additional Participating Persons:	Delbert Areford; FAA/FSDO; Charlotte, NC
Original Publish Date:	April 12, 2024
Last Revision Date:	
Investigation Class:	<a href="#">Class 4</a>
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	<a href="https://data.nts.gov/Docket?ProjectID=193666">https://data.nts.gov/Docket?ProjectID=193666</a>

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](#).