



# Aviation Investigation Final Report

<b>Location:</b>	Stephenville, Texas	<b>Accident Number:</b>	CEN24LA071
<b>Date &amp; Time:</b>	December 17, 2023, 10:46 Local	<b>Registration:</b>	N4501E
<b>Aircraft:</b>	Cessna 172N	<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 - Instructional		

## Analysis

The student pilot stated that when he entered the destination airport traffic pattern for landing, there were strong wind gusts that were not on the automated weather observing system report. He said the airplane's descent during the approach was stable, so he decided to continue the approach for landing. He said that shortly after the airplane's nose wheel landing gear touched down on the runway, the airplane caught a strong wind gust that resulted in a weathervane effect and a sharp change in its direction to the right. He then applied left rudder control input, but the airplane veered to the right and off the runway where it impacted terrain. The airplane sustained substantial damage to the fuselage. The pilot stated there was no preaccident failures or malfunctions the airplane that would have precluded normal operations.

## 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 directional control during landing that resulted in an impact with terrain.

## Findings

Aircraft	Directional control - Not attained/maintained
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## Factual Information

### History of Flight

Landing-landing roll	Loss of control on ground (Defining event)
Landing-landing roll	Attempted remediation/recovery
Landing-landing roll	Runway excursion
Landing-landing roll	Collision with terr/obj (non-CFIT)

### Pilot Information

Certificate:	Student	Age:	20,Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	June 20, 2023
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	41 hours (Total, all aircraft), 4 hours (Total, this make and model), 2 hours (Pilot In Command, all aircraft), 2 hours (Last 90 days, all aircraft), 0 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N4501E
<b>Model/Series:</b>	172N	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1978	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	17271614
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	November 1, 2023 Annual	<b>Certified Max Gross Wt.:</b>	2300 lbs
<b>Time Since Last Inspection:</b>	5566.9 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	as of last inspection	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	C91 installed, not activated	<b>Engine Model/Series:</b>	O-320-H2AD
<b>Registered Owner:</b>	Optima Aviation LLC DBA N4501E	<b>Rated Power:</b>	160 Horsepower
<b>Operator:</b>	Optima Aviation LLC DBA N4501E	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>	Go Fly Texas	<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	SEP,1321 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	11:15 Local	<b>Direction from Accident Site:</b>	
<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>	11 knots / 17 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	250°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.12 inches Hg	<b>Temperature/Dew Point:</b>	18°C / 0°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Roanoke, TX (52F)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Stephenville, TX	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	09:46 Local	<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>	Stephenville Clark Regional Airport SEP	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	1321 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	14	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	4209 ft / 75 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>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	32.23063,-98.173341

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Gallo, Mitchell
<b>Additional Participating Persons:</b>	Gary Watson; FAA/Federal Aviation North Texas FSDO; Irving, TX
<b>Original Publish Date:</b>	March 21, 2024
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 4</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=193565">https://data.nts.gov/Docket?ProjectID=193565</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](#).