



# Aviation Investigation Final Report

<b>Location:</b>	Concord, North Carolina	<b>Accident Number:</b>	ERA24LA186
<b>Date &amp; Time:</b>	April 12, 2024, 11:08 Local	<b>Registration:</b>	N777NT
<b>Aircraft:</b>	Cessna 210	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Sys/Comp malf/fail (non-power)	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

During approach, the pilot attempted to extend the landing gear, but it remained retracted. The pilot was unable to extend the landing gear via normal or emergency procedures, and subsequently observed that all the hydraulic fluid had leaked out of the reservoir. The pilot diverted to a larger airport and performed a gear-up landing. During the landing, the airplane skidded right, and came to rest upright partially off the right side of the runway. Examination of the wreckage revealed substantial damage to the right horizontal stabilizer and right elevator. The examination also revealed that a hydraulic hose (possibly the original hose) had deteriorated and separated from its fitting, allowing all the hydraulic fluid to leak out of the system.

## Probable Cause and Findings

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

Failure of a landing gear extension system hydraulic hose, which resulted in a landing with the landing gear retracted.

## Findings

<b>Aircraft</b>	Gear extension and retract sys - Failure
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## Factual Information

### History of Flight

<b>Approach</b>	Sys/Comp malf/fail (non-power) (Defining event)
<b>Landing</b>	Landing gear not configured
<b>Landing-flare/touchdown</b>	Abnormal runway contact

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	35,Male
<b>Airplane Rating(s):</b>	Single-engine sea; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	March 26, 2024
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	October 25, 2023
<b>Flight Time:</b>	1008 hours (Total, all aircraft), 197 hours (Total, this make and model), 789 hours (Pilot In Command, all aircraft), 77 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N777NT
<b>Model/Series:</b>	210 L	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1975	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	21060972
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	April 15, 2023 Annual	<b>Certified Max Gross Wt.:</b>	3800 lbs
<b>Time Since Last Inspection:</b>	100 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	6333 Hrs at time of accident	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	C91 installed, not activated	<b>Engine Model/Series:</b>	IO-520
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	300 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>	JQF,704 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	10:50 Local	<b>Direction from Accident Site:</b>	0°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	9 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	12 knots / 27 knots	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	270°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	29.82 inches Hg	<b>Temperature/Dew Point:</b>	18°C / 4°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Chester, SC (DCM)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Concord, NC	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	08:52 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	Concord Regional Airport JQF	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	704 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	20	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	7402 ft / 100 ft	<b>VFR Approach/Landing:</b>	Straight-in

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	35.38777,-80.709132

## Administrative Information

Investigator In Charge (IIC):	Gretz, Robert
Additional Participating Persons:	Bruce Codwise; FAA/FSDO; Charlotte, NC
Original Publish Date:	June 21, 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=194120">https://data.nts.gov/Docket?ProjectID=194120</a>

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