



# Aviation Investigation Final Report

<b>Location:</b>	HARRISBURG, Pennsylvania	<b>Accident Number:</b>	NYC84LA324
<b>Date &amp; Time:</b>	September 27, 1984, 17:43 Local	<b>Registration:</b>	N2053N
<b>Aircraft:</b>	CESSNA 140	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	3 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Analysis

ACFT WAS LANDED DOWNWIND IN LIGHT WIND CONDITIONS BY STUDENT PLT. ON ROLL-OUT, AFTER NORMAL BRAKING WAS APPLIED FOR DECELERATION, ACFT BEGAN TO DRIFT RIGHT. STUDENT APPLIED LEFT BRAKE AS CFI ALSO APPLIED CORRECTIVE LEFT BRAKE. LEFT BRAKE CONNECTING ROD FAILED IN OVERLOAD. WITH RT BRAKE STILL APPLIED, ACFT SWERVED RT, GROUND LOOPED AND NOSED OVER.

## Probable Cause and Findings

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

### Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER  
Phase of Operation: LANDING - ROLL

#### Findings

1. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - DUAL STUDENT
2. (F) LANDING GEAR, NORMAL BRAKE SYSTEM - OVERLOAD
3. (F) BRAKES(NORMAL) - EXCESSIVE - DUAL STUDENT
4. (F) REMEDIAL ACTION - NOT POSSIBLE - PILOT IN COMMAND(CFI)
5. GROUND LOOP/SWERVE - INADVERTENT

-----

Occurrence #2: NOSE OVER  
Phase of Operation: LANDING - ROLL

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	39, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<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>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	March 6, 1984
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1467 hours (Total, all aircraft), 32 hours (Total, this make and model), 1342 hours (Pilot In Command, all aircraft), 183 hours (Last 90 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N2053N
<b>Model/Series:</b>	140 140	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	12289
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	June 8, 1984 100 hour	<b>Certified Max Gross Wt.:</b>	1450 lbs
<b>Time Since Last Inspection:</b>	26 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3358 Hrs	<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	C-85-12
<b>Registered Owner:</b>	EICHELBERGER WELL DRILLING INC	<b>Rated Power:</b>	85 Horsepower
<b>Operator:</b>	CHARLES EICHELBERGER	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<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>	CXY	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	17:43 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Scattered / 5000 ft AGL	<b>Visibility</b>	15 miles
<b>Lowest Ceiling:</b>	Overcast / 8000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	4 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	50°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	13°C / -18°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	CARLISLE , PA (N94 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	HARRISBURG , PA (CXY )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	17:30 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	CAPITAL CITY CXY	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	347 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	30	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	3894 ft / 150 ft	<b>VFR Approach/Landing:</b>	Traffic pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	2 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	3 None	<b>Latitude, Longitude:</b>	40.23056,-76.87017(est)

## Administrative Information

**Investigator In Charge (IIC):** Taylor, Vernon

**Additional Participating Persons:**

**Original Publish Date:**

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.ntsb.gov/Docket?ProjectID=35775>

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](#).