



Aviation Investigation Final Report

Location:	MARION, Illinois	Accident Number:	CHI82DA285
Date & Time:	July 30, 1982, 15:30 Local	Registration:	N5746M
Aircraft:	CESSNA 310P	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

THE AIRCRAFTS RIGHT MAIN LANDING GEAR COLLAPSED DURING LANDING. THE INSTRUCTOR AND STUDENT WERE PRACTICING TOUCH AND GO LANDINGS WHEN THE ACCIDENT OCCURRED. EXAMINATION OF THE GEAR REVEALED THE TORQUE TUBE ASSEMBLY (P/N 504-5010-8) WAS BROKEN AT THE FORWARD AND REAR EAR. THERE WAS A PRE-EXISTING CRACK FORWARD AND THE REAR FAILED IN TENSION. THE TORQUE TUBE HAD 5706 HOURS FLIGHT TIME.

Probable Cause and Findings

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

Findings

Occurrence #1: MAIN GEAR COLLAPSED
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. TOUCH-AND-GO - PERFORMED - DUAL STUDENT
2. (C) LANDING GEAR,MAIN GEAR STRUT - FATIGUE
3. (C) LANDING GEAR,MAIN GEAR STRUT - FAILURE,TOTAL

Factual Information

Pilot Information

Certificate:	Airline transport; Flight instructor	Age:	49, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	May 1, 1982
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	10500 hours (Total, all aircraft), 630 hours (Total, this make and model), 10400 hours (Pilot In Command, all aircraft), 225 hours (Last 90 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N5746M
Model/Series:	310P 310P	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:		Serial Number:	0046
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	5200 lbs
Time Since Last Inspection:	61 Hrs	Engines:	2 Reciprocating
Airframe Total Time:	5706 Hrs	Engine Manufacturer:	CONTINENTAL
ELT:	Installed	Engine Model/Series:	IO-470-VO
Registered Owner:	SOUTHERN ILLINOIS UNIVERSITY	Rated Power:	260 Horsepower
Operator:	SOUTHERN ILLINOIS UNIVERSITY	Operating Certificate(s) Held:	
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Scattered / 4000 ft AGL	Visibility	7 miles
Lowest Ceiling:	Unknown	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	340°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	88°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	MARION , IL (MWA)	Type of Flight Plan Filed:	None
Destination:	MARION , IL (MWA)	Type of Clearance:	None
Departure Time:	15:30 Local	Type of Airspace:	

Airport Information

Airport:	WILLIAMSON COUNTY MWA	Runway Surface Type:	Asphalt
Airport Elevation:	0 ft msl	Runway Surface Condition:	Dry
Runway Used:	2	IFR Approach:	None
Runway Length/Width:	6502 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):

Additional Participating Persons:

Original Publish Date: July 30, 1983

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.ntsb.gov/Docket?ProjectID=71582>

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](#).