



Aviation Investigation Final Report

Location:	Knox, Indiana	Accident Number:	CHI04CA172
Date & Time:	July 1, 2004, 20:30 Local	Registration:	N310WH
Aircraft:	Cessna 310P	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airplane impacted terrain when the right main landing gear collapsed upon landing touchdown. Examination of the right landing gear revealed that the brace assembly - right hand side, part number 5041000-46, was fractured. The fracture surface displayed multiple initiations at the edge of the slot and an oxidized area with a distinct terminus, features consistent with fatigue.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The fatigue fracture of the main landing gear assembly.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (C) LANDING GEAR,MAIN GEAR - FATIGUE

Occurrence #2: GEAR COLLAPSED
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Factual Information

On July 1, 2004., at 2030 central daylight time, a Cessna 310P, N310WH, piloted by a commercial pilot, received substantial damage on impact with terrain when the right main landing gear collapsed during touchdown on runway 36 (4,400 feet by 50 feet, asphalt) at Starke County Airport (OX1), Knox, Indiana. Visual meteorological conditions prevailed at the time of the accident. The 14 CFR Part 91 personal flight was operating on an instrument rules flight plan. The commercial pilot was uninjured. The flight originated from Evansville Regional Airport, Evansville, Indiana, at 1900, and was en route to OX1.

The pilot stated that he was five miles from OX1 when he extended the landing gear, and the right main landing gear position indicator light did not illuminate. He then recycled the landing gear and obtained three green landing gear position indicator lights. He also heard the down locks snap into place. Upon touch down, the landing gear warning horn annunciated and he right main landing gear position indicator light extinguished. The landing gear collapsed and the airplane then impacted a berm on the right side of the runway.

The 1969 Cessna 310P, serial number 310P0204, airplane was registered to the pilot. The airplane was last inspected during annual inspection on December 14, 2003, at a total time in service of 5,739 hours. The pilot stated that the airplane accumulated an additional 48 hours of time after the of the annual inspection. The number of cycles was unknown.

Examination of the right landing gear revealed that the brace assembly - right hand side, part number 5041000-46, was fractured. The fracture surface displayed multiple initiations at the edge of the slot and an oxidized area with a distinct terminus, features consistent with fatigue.

Pilot Information

Certificate:	Commercial	Age:	57, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 2	Last FAA Medical Exam:	February 3, 2003
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	1721 hours (Total, all aircraft), 1206 hours (Total, this make and model), 40 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N310WH
Model/Series:	310P	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	310P0204
Landing Gear Type:	Retractable - Tricycle	Seats:	
Date/Type of Last Inspection:		Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Continental
ELT:		Engine Model/Series:	IO-470
Registered Owner:	Kevin King	Rated Power:	
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Dusk
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:		Visibility	
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:			
Departure Point:	Evansville, IN (EVV)	Type of Flight Plan Filed:	IFR
Destination:	Knox, IN (OXI)	Type of Clearance:	IFR
Departure Time:		Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	
Total Injuries:	1 None	Latitude, Longitude:	41.330276,-86.664718

Administrative Information

Investigator In Charge (IIC): Gallo, Mitchell

Additional Participating Persons:

Original Publish Date: September 29, 2004

Last Revision Date:

Investigation Class: [Class](#)

Note: This accident report documents the factual circumstances of this accident as described to the NTSB.

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=59689>

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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](#).