



Aviation Investigation Final Report

Location:	CLEAR LAKE, Minnesota	Accident Number:	CHI95LA169
Date & Time:	June 3, 1995, 20:10 Local	Registration:	N3149D
Aircraft:	CESSNA 180	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE PILOT REPORTED THAT THE AIRPLANE 'PULLED HARD TO THE RIGHT UPON APPLICATION OF POWER' AND IMPACTED EVERGREEN TREES ON THE RIGHT SIDE OF THE RUNWAY. THE PASSENGER REPORTED THAT DURING THE OCCURRENCE, THE AIRPLANE SLID SIDWAYS TO THE RIGHT. ALSO, THE PASSENGER SAID THE RIGHT WING CAME UP ABRUPTLY, THEN CAME DOWN HARD AND HIT A TREE. SUBSEQUENTLY, A FIRE ERUPTED AND THE PILOT RECEIVED SERIOUS BURNS. THE RIGHT MAIN LANDING GEAR COLLAPSED, AND THE UPPER BOLT WAS FOUND FRACTURED. HOWEVER, EXAMINATION OF THE BOLT REVEALED THAT IT HAD FAILED IN SHEAR DUE TO DIRECT OVERSTRESS LOADING.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: failure of the pilot to maintain directional control of the airplane during the takeoff roll. The proximity of trees to the runway was a related factor.

Findings

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

Findings

1. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. (C) GROUND LOOP/SWERVE - INADVERTENT - PILOT IN COMMAND

Occurrence #2: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

3. (F) OBJECT - TREE(S)

Factual Information

On June 3, 1995, at 2010 central daylight time, a Cessna 180, was destroyed when it departed the runway during an attempted takeoff in Clear Lake, Minnesota. The private pilot sustained serious injury and one passenger reported minor injury. The local, personal flight was conducted under 14 CFR Part 91 in visual meteorological conditions. No flight plan was filed.

In his written statement, the pilot reported that the airplane "pulled hard to the right upon application of power" and impacted evergreen trees on the right side of the runway. A postimpact fire ensued.

During a telephone interview, the passenger reported that the pilot was "fighting the aircraft" and at about 40 miles per hour the pilot exclaimed "something's wrong." The airplane slid sideways to the right, then the right wing came up abruptly. The right wing came down "hard" and impacted with a tree. He believed the landing gear failed because the right wing came down further than the strut would normally allow. He said the pilot was "stunned" and did not reduce the throttle from takeoff power. The passenger reported that the pilot exclaimed "should've cut it off" and the airplane continued into the trees.

A Federal Aviation Administration (FAA) Inspector examined the wreckage and reported that the configuration of the airstrip required the pilot to repetitively taxi about 1/2 mile through rough terrain to and from the runway. The right main landing gear was sheared from the airplane and the upper bolt was fractured. He reported no other evidence of preimpact structural failure or flight control malfunction.

The landing gear bolt was examined by a metallurgist at the NTSB Laboratory, Washington, D. C. In his factual report, he reported that "no evidence of crack arrest positions were noted" and "all fracture features and deformation on the bolt piece were consistent with a direct shear ductile overstress separation."

Pilot Information

Certificate:	Private	Age:	74, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	2600 hours (Total, all aircraft), 2000 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N3149D
Model/Series:	180 180	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	31947
Landing Gear Type:	Tailwheel	Seats:	4
Date/Type of Last Inspection:	May 1, 1995 Annual	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	CONTINENTAL
ELT:		Engine Model/Series:	IO-470-K
Registered Owner:	EDGAR A. PETERSON	Rated Power:	230 Horsepower
Operator:		Operating Certificate(s) Held:	None
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:	STC ,1024 ft msl	Distance from Accident Site:	330 Nautical Miles
Observation Time:	19:56 Local	Direction from Accident Site:	7°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	80°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	26°C / 14°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	VFR
Departure Time:	08:10 Local	Type of Airspace:	Class E

Airport Information

Airport:	PETERSON (PRIVATE)	Runway Surface Type:	Grass/turf
Airport Elevation:	1024 ft msl	Runway Surface Condition:	Vegetation
Runway Used:	36	IFR Approach:	None
Runway Length/Width:	2560 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor	Latitude, Longitude:	45.440124,-93.990959(est)

Administrative Information

Investigator In Charge (IIC):	Robbins, Wesley
Additional Participating Persons:	RUDOLPH W HARTLEBEN; MINNEAPOLIS , MN
Original Publish Date:	June 22, 1996
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=9901

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](#).