



Aviation Investigation Final Report

Location:	Houston, Texas	Accident Number:	DEN08LA112
Date & Time:	June 23, 2008, 08:15 Local	Registration:	N4426C
Aircraft:	Cessna 195	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot said he made a "smooth wheel landing" on runway 33. Touchdown speed was 80 mph. After the tail wheel settled to the ground, the pilot applied brakes and the airplane started veering to the left. The pilot attempted corrective action, but the airplane started to ground loop. The pilot said side loads on the right main gear caused the wheel to break off. The gear strut dug into the ground and it, too, broke off. The leading edge of the left wing was crushed from the tip to the root, both elevators were bent, and the firewall was wrinkled. The weather was clear and the winds were calm.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain directional control, causing the design stress limits of the airplane to be exceeded. Excessive sideloads incurred caused the right main landing gear wheel and strut to fail.

Findings

Aircraft	Directional control - Not attained/maintained
Aircraft	Main landing gear - Capability exceeded
Personnel issues	Aircraft control - Pilot

Factual Information

History of Flight

Landing-landing roll	Loss of control on ground (Defining event)
Landing-landing roll	Landing gear collapse

On June 23, 2008, approximately 0815 central daylight time, a Cessna 195, N4426C, piloted by a private pilot, was substantially damaged when the right main landing gear collapsed during landing at the West Houston Airport (IWS), Houston, Texas. Visual meteorological conditions prevailed at the time of the accident. The personal flight was being conducted under the provisions of Title 14 Code of Federal Regulations (CFR) Part 91 without a flight plan. The pilot and his passenger were not injured. The cross-country flight originated at Fredericksburg (T82), Texas, approximately 0645, and was en route to Houston.

According to the pilot's accident report, he made a "smooth wheel landing" on runway 33. Touchdown speed was 80 mph. After the tail wheel settled to the ground, the pilot applied brakes and the airplane started veering to the left. The pilot attempted corrective action, but the airplane started to ground loop. The pilot said side loads on the right main gear caused the wheel to break off. The gear strut dug into the ground and it, too, broke off.

According to an FAA inspector who went to the accident site, the right main wheel was still attached to the landing gear strut. The leading edge of the left wing was crushed from the tip to the root, both elevators were bent, and the firewall was wrinkled. There was no evidence of pre-existing failure or malfunction of the airplane or flight controls. The weather was clear and the winds were calm.

Pilot Information

Certificate:	Private	Age:	54,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 With waivers/limitations	Last FAA Medical Exam:	January 1, 2008
Occupational Pilot:	No	Last Flight Review or Equivalent:	May 1, 2008
Flight Time:	308 hours (Total, all aircraft), 38 hours (Total, this make and model), 288 hours (Pilot In Command, all aircraft), 55 hours (Last 90 days, all aircraft), 27 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N4426C
Model/Series:	195	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	16011
Landing Gear Type:	Tailwheel	Seats:	5
Date/Type of Last Inspection:	August 1, 2007 Annual	Certified Max Gross Wt.:	3350 lbs
Time Since Last Inspection:	35 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	3115 Hrs as of last inspection	Engine Manufacturer:	Jacobs
ELT:	Installed, not activated	Engine Model/Series:	R-755A2
Registered Owner:	Stephen W. Allen	Rated Power:	300 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	HOU,46 ft msl	Distance from Accident Site:	10 Nautical Miles
Observation Time:	08:53 Local	Direction from Accident Site:	270°
Lowest Cloud Condition:	Few / 2000 ft AGL	Visibility	10 miles
Lowest Ceiling:	Overcast / 25000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	3 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	320°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.03 inches Hg	Temperature/Dew Point:	28°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Fredericksburg, TX (T82)	Type of Flight Plan Filed:	None
Destination:	Houston, TX (IWS)	Type of Clearance:	None
Departure Time:	06:45 Local	Type of Airspace:	Unknown

Airport Information

Airport:	West Houston IWS	Runway Surface Type:	Asphalt
Airport Elevation:	111 ft msl	Runway Surface Condition:	Dry
Runway Used:	33	IFR Approach:	None
Runway Length/Width:	3953 ft / 75 ft	VFR Approach/Landing:	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	29.818056,-95.6725

Administrative Information

Investigator In Charge (IIC):	Scott, Arnold
Additional Participating Persons:	Paul W Downs; FAA Flight Standards District Office; Houston, TX
Original Publish Date:	January 29, 2009
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=68295

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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](#).