



National Transportation Safety Board Aviation Accident Final Report

Location:	FAYETTEVILLE, AR	Accident Number:	FTW00LA002
Date & Time:	10/01/1999, 1530 CDT	Registration:	N2157S
Aircraft:	Cessna 210L	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot stated that he was cleared to land. He extended the landing gear on 1/2 mile final, and he 'heard the gear lock into position.' He added that he then visually checked to see that the gear was extended and confirmed this by noting the illuminated green light in the cockpit. Upon touchdown, a noise was heard, and the right main landing gear collapsed. The airplane exited the runway surface and came to rest in a grassy area. Examination of the landing gear system revealed that the right main gear down lock switch failed in the 'closed' or 'down locked' position. Furthermore, 'dried paint stripper and paint' were observed around the plunger portion of the switch, which prevented the plunger from extending.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The cause of the right main gear collapse was undetermined. A factor was the failure of the gear 'down & locked' switch resulting in a false 'down & locked' indication in the cockpit.

Findings

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

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED
2. (F) LANDING GEAR, GEAR SWITCH - FAILURE
3. LANDING GEAR, GEAR INDICATING SYSTEM - FAILURE

Factual Information

On October 1, 1999, at 1530 central daylight time, a Cessna 210L airplane, N2157S, was substantially damaged when the right main gear collapsed upon landing at the Northwest Arkansas Regional Airport, near Fayetteville, Arkansas. The non-instrument rated private pilot and his passenger were not injured. The airplane was registered to and operated by the pilot. Visual meteorological conditions prevailed for the 14 Code of Federal Regulations Part 91 personal flight and a flight plan was not filed. The cross-country flight originated from the Sally Wofford Airport, Weiner, Arkansas, at 1300.

According to the pilot, when the airplane was 5 miles from the destination airport in Fayetteville, he was cleared to land on runway 16. He extended the landing gear while on a 1/2 mile final. He "heard the gear lock into position," and then visually confirmed that the landing gear had extended. Furthermore, the green light in the cockpit illuminated, confirming that the gear was extended. Upon touchdown, a noise was heard, and the passenger stated, "I think we had a blowout." The right wing tip contacted the pavement, and the airplane exited the runway surface to the right of the runway centerline. The airplane came to rest upright in a grassy area adjacent to the runway.

Examination of the airplane, by an FAA certified mechanic revealed that the right horizontal stabilizer and elevator were "severely bent in an upward direction." The outboard leading edge skin and two nose ribs of the right wing were structurally damaged. Additionally, the tail tie down ring and two antennas mounted on the belly were damaged. The mechanic stated that the right main gear down lock switch (Cessna part number S1377-1) failed in the "closed" or "down locked" position. "Dried paint stripper and paint" were observed around the plunger portion of the switch, which prevented the plunger from extending.

Pilot Information

Certificate:	Private	Age:	45, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	03/13/1999
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	900 hours (Total, all aircraft), 200 hours (Total, this make and model), 900 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N2157S
Model/Series:	210L 210L	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	21061118
Landing Gear Type:	Retractable - Tricycle	Seats:	
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:	600 Hours	Engines:	1 Reciprocating
Airframe Total Time:	2959 Hours	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	IO-520
Registered Owner:	STEVE P. CARPENTER	Rated Power:	300 hp
Operator:	STEVE P. CARPENTER	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	15 knots / 20 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	24° C
Precipitation and Obscuration:			
Departure Point:	WEINER, AR (8M2)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1300 CDT	Type of Airspace:	Class D

Airport Information

Airport:	NORTHWEST ARKANSAS RGNL (XNA)	Runway Surface Type:	Concrete
Airport Elevation:	1287 ft	Runway Surface Condition:	Dry
Runway Used:	16	IFR Approach:	None
Runway Length/Width:	8800 ft / 150 ft	VFR Approach/Landing:	Straight-in

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:	

Administrative Information

Investigator In Charge (IIC):	GEORGIA R SNYDER	Report Date:	01/18/2001
Additional Participating Persons:	DAVID F HALL; LITTLE ROCK, AR		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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