



National Transportation Safety Board Aviation Accident Final Report

Location:	GREER, SC	Accident Number:	ATL84LA035
Date & Time:	11/01/1983, 1016 EST	Registration:	N40249
Aircraft:	PIPER PA-23-250	Aircraft Damage:	Substantial
Defining Event:		Injuries:	4 None

Flight Conducted Under: Part 91: General Aviation - Instructional

Analysis

DURING THE FLT, HYDRAULIC FAILURE OF THE LANDING SYS OCCURRED & THE AIRCREW WERE UNABLE TO GET THE GEAR LOCKED IN THE DOWN POSITION. AFTER ORBITING FOR OVER AN HOUR, A LANDING WAS MADE. DURING TOUCHDOWN, THE GEAR COLLAPSED. AN EXAM REVEALED THAT AN AILERON BALANCE CABLE HAD CHAFED AGAINST A HYDRAULIC LINE IN THE LANDING GEAR SYS UNTIL A HOLE WAS WORN THRU THE LINE. THIS ALLOWED THE HYDRAULIC FLUID TO LEAK OUT.

Probable Cause and Findings

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

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: UNKNOWN

Findings

1. (C) HYDRAULIC SYSTEM,LINE - CHAFED
 2. (C) FLUID,HYDRAULIC - LEAK
 3. LANDING GEAR,NORMAL RETRACTION/EXTENSION ASSEMBLY - INOPERATIVE
 4. LANDING GEAR,EMERGENCY EXTENSION ASSEMBLY - INOPERATIVE
 5. GEAR DOWN AND LOCKED - NOT POSSIBLE
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Occurrence #2: GEAR COLLAPSED
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Factual Information

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	25, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	06/01/1983
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	871 hours (Total, all aircraft), 20 hours (Total, this make and model), 97 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N40249
Model/Series:	PA-23-250 PA-23-250	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	27-7305055
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	12/04/1982, Annual	Certified Max Gross Wt.:	5200 lbs
Time Since Last Inspection:	47 Hours	Engines:	2 Reciprocating
Airframe Total Time:	3324 Hours	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	IO-540-C4B5
Registered Owner:	CORNERSTONE AVIATION, INC.	Rated Power:	250 hp
Operator:	CORNERSTONE AVIATION, INC.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	GSP, 972 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	2052 EST	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	7 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	Variable	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	12° C / 9° C
Precipitation and Obscuration:			
Departure Point:	GREENVILLE, SC (GMU)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1800 EST	Type of Airspace:	Class D

Airport Information

Airport:	GREENVILLE-SPARTANBURG (GSP)	Runway Surface Type:	Asphalt
Airport Elevation:	972 ft	Runway Surface Condition:	Dry
Runway Used:	3	IFR Approach:	None
Runway Length/Width:	7600 ft / 150 ft	VFR Approach/Landing:	Straight-in

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	3 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	RICHARD P SHIPMAN	Report Date:	
Additional Participating Persons:			
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/ .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).