



National Transportation Safety Board Aviation Accident Data Summary

Location:	Tacoma, WA	Accident Number:	SEA06CA018
Date & Time:	11/02/2005, 1700 PST	Registration:	N1959P
Aircraft:	Piper PA-24-250	Injuries:	3 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

After making contact with the tower, and being cleared for a left base entry, the pilot completed his before landing check and lowered the landing gear. He then tried to call the tower to report he was entering the base leg, but realized that his radio was not transmitting. The aircraft subsequently experienced a complete loss of electrical power, and the pilot was therefore unable to confirm the gear was down and locked, as the green Gear Down lights were unable to illuminate. The pilot then flew low over the runway until he felt the main wheels touch the runway surface, and then he executed a go-around. After completing the go-around, the pilot went around the pattern and executed what he thought was going to be a normal full stop landing. But just after the aircraft touched down, the landing gear folded back up into the wheel wells, and the aircraft skidded down the runway on its belly. The investigation later determined that the gear had not fully extended because of the loss of electrical power. It was also determined that although the aircraft's battery and alternator were capable of operating normally, the voltage regulating system had malfunctioned, thus allowing the battery to become almost fully discharged. The pilot did not use the emergency gear extension system/sequence to make sure of the position and condition of the landing gear, but instead trusted the gear to be fully down and locked just because he felt the tires touch the runway surface during the low pass.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The collapse of the landing gear due to the pilot's failure to use the emergency gear extension system after his aircraft experienced a complete loss of electrical power. Factors include the malfunction of the voltage regulating system, which lead to the almost total discharge of the battery.

Findings

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

Findings

1. (F) ELECTRICAL SYSTEM - MALFUNCTION

Occurrence #2: GEAR COLLAPSED
Phase of Operation: LANDING - ROLL

Findings

2. (C) GEAR EXTENSION - NOT VERIFIED - PILOT IN COMMAND

Pilot Information

Certificate:	Private	Age:	66
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	
Flight Time:	769 hours (Total, all aircraft), 98 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	Piper	Registration:	N1959P
Model/Series:	PA-24-250	Engines:	1 Reciprocating
Operator:	Ronald G. Moore	Engine Manufacturer:	Lycoming
Air Carrier Operating Certificate:	None	Engine Model/Series:	O-540-A1A5
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Observation Facility, Elevation:		Weather Information Source:	Unknown
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	
Condition of Light:	Day	Wind Speed/Gusts, Direction:	
Temperature:		Visibility:	
Precipitation and Obscuration:			
Departure Point:	Spanaway, WA (150)	Destination:	Tacoma, WA (TIW)

Airport Information

Airport:		Runway Surface Type:	
Runway Used:		Runway Surface Condition:	
Runway Length/Width:			

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	

Administrative Information

Investigator In Charge (IIC):	Orrin K Anderson	Adopted Date:	03/28/2006
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
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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