



National Transportation Safety Board Aviation Accident Final Report

Location:	HOLLYWOOD, FL	Accident Number:	MIA97LA177
Date & Time:	06/01/1997, 1256 EDT	Registration:	N7393C
Aircraft:	Cessna T-210-N	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None

Flight Conducted Under: Part 91: General Aviation - Personal

Analysis

The pilot stated that while on downwind for landing, he lowered the flaps to 10 degrees and extended the landing gear. As he turned on base leg, he noticed the radios were not working and the electrical system ammeter was showing the system was not charging. On final approach, he noticed the landing gear extended light was very dim, and there was no change when he pushed it for test. During the landing rollout, the left main landing gear collapsed. Postcrash examination showed the battery was discharged, there was corrosion on all of the landing gear components, and the gear warning horn was operating intermittently.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: failure of the pilot to ensure the landing gear was locked down before landing, following an electrical system failure, resulting in the left main landing gear collapsing during landing rollout. The electrical malfunction and resultant discharged battery were related factors.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: APPROACH - VFR PATTERN - DOWNWIND

Findings

1. (F) ELECTRICAL SYSTEM - MALFUNCTION
2. (F) ELECTRICAL SYSTEM, BATTERY - DISCHARGED

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

Findings

3. (C) GEAR DOWN AND LOCKED - NOT VERIFIED - PILOT IN COMMAND
4. EMERGENCY PROCEDURE - NOT USED - PILOT IN COMMAND

Factual Information

On June 1, 1997, about 1256 eastern daylight time, a Cessna T210N, N7393C, registered to a private owner, had the left main landing gear collapse during landing rollout at North Perry Airport, Hollywood, Florida, while on a Title 14 CFR Part 91 personal flight. Visual meteorological conditions prevailed at the time and no flight plan was filed. The airplane sustained substantial damage. The commercial-rated pilot and airline transport-rated passenger reported no injuries. The flight had last departed from Hollywood, Florida, the same day, about 1250.

The pilot stated that while on the downwind leg for landing on runway 18 left, he lowered the flaps to 10 degrees and extended the landing gear. As he turned on base leg he noticed the radios were not working and the electrical system amp meter was showing the system was not charging. He used a hand held radio to communicate with the control tower and extended his downwind leg. He complied with the low voltage emergency procedures. As he turned final he checked the landing gear green light. It appeared dim and when he tested it, it did not change. He then called for a visual inspection of the landing gear. Landing and rollout were normal until the aircraft slowed to about 15 knots. While applying brakes the left main landing gear collapsed.

Postaccident testing of the aircraft's landing gear system was performed by an FAA inspector. A fully charged battery was installed in the aircraft and the aircraft was placed on jacks. The left main landing gear uplock was found to have paint scrapped off the inboard side. The landing gear appeared to be out of rig. Corrosion was present on all components of the landing gear. The landing gear was retracted and left main landing gear hung momentarily before locking on the uplock. The landing gear extension was normal. The landing gear warning horn was found to operate intermittently. (See FAA inspector statement).

Pilot Information

Certificate:	Private	Age:	40, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	02/19/1997
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	2000 hours (Total, all aircraft), 300 hours (Total, this make and model), 1950 hours (Pilot In Command, all aircraft), 2 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N7393C
Model/Series:	T-210-N T-210-N	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	21063953
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	02/14/1997, Annual	Certified Max Gross Wt.:	4000 lbs
Time Since Last Inspection:	4 Hours	Engines:	1 Reciprocating
Airframe Total Time:	431 Hours	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	TSIO-520-R
Registered Owner:	DANIEL CHARLES COOK	Rated Power:	310 hp
Operator:	DANIEL CHARLES COOK	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	HWO, 9 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	1249 EDT	Direction from Accident Site:	180°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	15 Miles
Lowest Ceiling:	Broken / 3000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	14 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	
Precipitation and Obscuration:			
Departure Point:	(HWO)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	VFR
Departure Time:	1250 EDT	Type of Airspace:	Class D

Airport Information

Airport:	NORTH PERRY (HWO)	Runway Surface Type:	Asphalt
Airport Elevation:	9 ft	Runway Surface Condition:	Dry
Runway Used:	18L	IFR Approach:	None
Runway Length/Width:	3065 ft / 100 ft	VFR Approach/Landing:	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:	

Administrative Information

Investigator In Charge (IIC):	JEFFREY L KENNEDY	Report Date:	10/31/1997
Additional Participating Persons:	MICHAEL B BUSH; FORT LAUDERDALE, FL		
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 pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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