



Aviation Investigation Final Report

Location:	URBANA, Illinois	Accident Number:	CHI88LA053
Date & Time:	January 26, 1988, 13:06 Local	Registration:	N5120J
Aircraft:	CESSNA T310R	Aircraft Damage:	Substantial
Defining Event:		Injuries:	4 None
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled		

Analysis

AFTER THE AIRCRAFT EXPERIENCED A COMPLETE ELECTRICAL FAILURE THE GEAR WAS EXTENDED MANUALLY AND A PRECAUTIONARY LANDING WAS MADE. ON ROLL OUT THE LANDING GEAR COLLAPSED. SUBSEQUENT INVESTIGATION REVEALED THAT 10 TURNS REMAINED ON THE MANUAL GEAR EXTENSION CRANK TO PLACE THE LANDING GEAR IN THE DOWN AND LOCKED POSITION. NO MECHANICAL PROBLEM COULD BE FOUND TO ATTRIBUTE TO THE LOSS OF ELECTRICAL POWER, OTHER THAN A LOW BATTERY CONDITION AS THE ENTIRE ELECTRICAL SYSTEM FUNCTIONED NORMALLY. POSITION OF THE BATTERY SWITCH AND THE LEFT AND RIGHT ALTERNATOR SWITCHES AT THE TIME OF THE ACCIDENT COULD NOT BE VERIFIED.

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: CRUISE - NORMAL

Findings

1. (F) ELECTRICAL SYSTEM, BATTERY - FAILURE, TOTAL
2. (F) ELECTRICAL SYSTEM, BATTERY - EXHAUSTION

Occurrence #2: COMPLETE GEAR COLLAPSED

Phase of Operation: LANDING - ROLL

Findings

3. PRECAUTIONARY LANDING - PERFORMED - PILOT IN COMMAND
4. (C) EMERGENCY PROCEDURE - IMPROPER - PILOT IN COMMAND
5. (C) GEAR DOWN AND LOCKED - NOT ATTAINED - PILOT IN COMMAND

Factual Information

Pilot Information

Certificate:	Commercial	Age:	34,Female
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	February 17, 1987
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	1752 hours (Total, all aircraft), 95 hours (Total, this make and model), 587 hours (Pilot In Command, all aircraft), 119 hours (Last 90 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N5120J
Model/Series:	T310R T310R	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	310R0240
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	December 1, 1987 Annual	Certified Max Gross Wt.:	5500 lbs
Time Since Last Inspection:	27 Hrs	Engines:	2 Reciprocating
Airframe Total Time:	4116 Hrs	Engine Manufacturer:	CONTINENTAL
ELT:	Installed	Engine Model/Series:	TSIO-520-B
Registered Owner:	RHODES AVIATION, INC.	Rated Power:	285 Horsepower
Operator:		Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	CMI ,754 ft msl	Distance from Accident Site:	8 Nautical Miles
Observation Time:	12:45 Local	Direction from Accident Site:	206°
Lowest Cloud Condition:	Scattered / 3000 ft AGL	Visibility	15 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	20 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	290°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	-11°C / -12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	SEYMOUR , IN (SER)	Type of Flight Plan Filed:	IFR
Destination:	SPRINGFIELD , IL (SPI)	Type of Clearance:	IFR
Departure Time:	13:00 Local	Type of Airspace:	Class E

Airport Information

Airport:	FRA SCA FIELD C16	Runway Surface Type:	Asphalt
Airport Elevation:	735 ft msl	Runway Surface Condition:	Dry
Runway Used:	28	IFR Approach:	None
Runway Length/Width:	2550 ft / 29 ft	VFR Approach/Landing:	Full stop;Precautionary 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):	Wilson, S
Additional Participating Persons:	R. ROTTER; SPRINGFIELD , IL
Original Publish Date:	March 30, 1989
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=14037

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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](#).