



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	CROSSVILLE, TN	<b>Accident Number:</b>	ATL93LA049
<b>Date &amp; Time:</b>	01/02/1993, 1700 CST	<b>Registration:</b>	N7712Y
<b>Aircraft:</b>	PIPER PA-30	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None

**Flight Conducted Under:** Part 91: General Aviation - Personal

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## Analysis

ABOUT 30 MINUTES INTO THE LOCAL FLIGHT, THE PRIVATE PILOT REPORTED THAT TOTAL ELECTRICAL POWER WAS LOST. HE COULD NOT LOWER THE FLAPS, AND WHEN HE LOWERED THE GEAR HANDLE, NO GREENS LIGHTS ILLUMINATED. HE ELECTED TO RAISE THE GEAR HANDLE AND LAND. THE AIRCRAFT WAS STRUCTURALLY DAMAGED DURING THE LANDING. WHEN THE AIRCRAFT WAS REMOVED FROM THE RUNWAY, AN FBO EMPLOYEE LOWERED THE GEAR HANDLE, AND THE GEAR EXTENDED AND LOCKED. HE THEN TURNED ON THE MASTER SWITCH, AND OBSERVED 3 GREEN GEAR DOWN LIGHTS ILLUMINATED. THE PILOT REPORTED THAT HE DID NOT ATTEMPT TO USE THE MANUAL ALTERNATE GEAR EXTENSION METHOD. THE PILOT ALSO REPORTED THAT THE LOSS OF ELECTRICAL POWER COULD HAVE RESULTED FROM HIS FAILURE TO TURN ON THE GENERATORS DURING THE FLIGHT.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S FAILURE TO FOLLOW CHECKLIST PROCEDURES IN THAT HE DID NOT UTILIZE THE ALTERNATE GEAR EXTENSION METHOD WHEN ELECTRICAL POWER WAS LOST. A FACTOR WAS HIS FAILURE TO FOLLOW THE CHECKLIST WHEN HE FAILED TO TURN ON THE GENERATORS PRIOR TO FLIGHT, WHICH RESULTED IN ELECTRICAL FAILURE.

## Findings

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

### Findings

1. (F) ELECTRICAL SYSTEM - LOSS, TOTAL
2. (F) CHECKLIST - NOT FOLLOWED - PILOT IN COMMAND
3. (F) GENERATOR - NOT USED - PILOT IN COMMAND

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Occurrence #2: GEAR NOT EXTENDED  
Phase of Operation: LANDING

### Findings

4. (C) CHECKLIST - NOT FOLLOWED - PILOT IN COMMAND
5. (C) GEAR EXTENSION - IMPROPER USE OF - PILOT IN COMMAND

## Factual Information

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	65, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	05/28/1992
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>		
<b>Flight Time:</b>	3000 hours (Total, all aircraft), 20 hours (Total, this make and model), 2900 hours (Pilot In Command, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	PIPER	<b>Registration:</b>	N7712Y
<b>Model/Series:</b>	PA-30 PA-30	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	30-801
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	10/30/1992, Annual	<b>Certified Max Gross Wt.:</b>	3600 lbs
<b>Time Since Last Inspection:</b>	3 Hours	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	2765 Hours	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-320-B1A
<b>Registered Owner:</b>	UPCHURCH, CORNELL P.	<b>Rated Power:</b>	160 hp
<b>Operator:</b>	UPCHURCH, CORNELL P.	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Dusk
Observation Facility, Elevation:	CSV, 1881 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	1614 CST	Direction from Accident Site:	270°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	12 Miles
Lowest Ceiling:	Broken / 3500 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	150°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	12° C / -6° C
Precipitation and Obscuration:			
Departure Point:	(CSV)	Type of Flight Plan Filed:	None
Destination:	(CSV)	Type of Clearance:	None
Departure Time:	1600 CST	Type of Airspace:	Class G

## Airport Information

Airport:	CROSSVILLE MEMORIAL (CSV)	Runway Surface Type:	Asphalt
Airport Elevation:	1881 ft	Runway Surface Condition:	Dry
Runway Used:	8	IFR Approach:	None
Runway Length/Width:	5418 ft / 100 ft	VFR Approach/Landing:	Full Stop

## Wreckage and Impact Information

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

## Administrative Information

Investigator In Charge (IIC):	RALPH E HICKS	Report Date:	10/25/1993
Additional Participating Persons:	ROBERT E O'BRIEN; NASHVILLE, TN ROBERT D DAVIDSON; NASHVILLE, TN		
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 <a href="mailto:pubinquiry@ntsb.gov">pubinquiry@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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