



National Transportation Safety Board Aviation Incident Final Report

Location:	SAVANNAH, GA	Incident Number:	ATL82IA103
Date & Time:	04/02/1982, 1445 EST	Registration:	N25MA
Aircraft:	PIPER PA-31P	Aircraft Damage:	Minor
Defining Event:		Injuries:	2 None

Flight Conducted Under: Part 91: General Aviation - Executive/Corporate

Analysis

DURING FLIGHT, ELECTRICAL FUMES, SMOKE AND SPARKS BEGAN EMITTING FROM THE CIRCUIT BREAKER PANEL IMMEDIATELY LEFT OF THE PILOT'S SEAT. THE PILOT WAS FORCED TO MOVE TO THE RIGHT SEAT. HE TRIED TO SUPPRESS THE SPARKS WITH A CHEMICAL FIRE EXTINGUISHER AND TRIED TO ISOLATE THE SOURCE OF THE ELECTRICAL FIRE, BUT WAS UNABLE. HE DECLARED AN EMERGENCY AND LANDED AT SAVANNAH, GA. AN INVESTIGATION REVEALED THAT FIRE HAD DESTROYED MUCH OF THE WIRING BEHIND THE CIRCUIT BREAKER PANEL AND SEVERAL HOLES WERE BURNED THROUGH THE FUSELAGE SKIN. BOTH OVER-VOLTAGE REGULATORS WERE BURNED OUT AND ALL RADIOS AND VOLTAGE REGULATORS WERE DESTROYED. THE BATTERY HAD OVER-HEATED AND SPEWED SMOKE AND FLUID FROM THE BATTERY COMPARTMENT. THE CIRCUIT BREAKER PANEL HAD BEEN REINSTALLED WITHOUT A PHENOLIC SPACER ON THE FORWARD SIDE AND WAS BENT INWARD IN THAT AREA. THIS SPACER WAS NEED TO ASSURE SPACE BEHIND THE PANEL. THE FOAM MATERIAL (LINING FOR ADDITIONAL INSULATION) HAD BECOME BRITTLE. A COMPASS SYSTEM AND DME HAD BEEN INSTALLED ON 11/16/81.

Probable Cause and Findings

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

Findings

Occurrence #1: FIRE

Phase of Operation: CRUISE - NORMAL

Findings

1. (C) MAINTENANCE, INSTALLATION - IMPROPER - OTHER MAINTENANCE PERSONNEL
2. (C) FUSELAGE, INSTRUMENT/ELECTRICAL PANEL - ARCING
3. (C) FUSELAGE, INSTRUMENT/ELECTRICAL PANEL - FIRE

Factual Information

Pilot Information

Certificate:	Airline Transport	Age:	34, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Seat Occupied:	Unknown
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Single-engine	Toxicology Performed:	
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	05/15/1981
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	3900 hours (Total, all aircraft), 150 hours (Last 90 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N25MA
Model/Series:	PA-31P PA-31P	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:		Serial Number:	31P-31
Landing Gear Type:	Retractable - Tricycle	Seats:	7
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	7800 lbs
Time Since Last Inspection:	39 Hours	Engines:	2 Reciprocating
Airframe Total Time:	1934 Hours	Engine Manufacturer:	LYCOMING
ELT:	Installed	Engine Model/Series:	TIGO-541-E1A
Registered Owner:	NASCAR	Rated Power:	425 hp
Operator:	NASCAR	Operating Certificate(s) Held:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	SAV, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1555	Direction from Accident Site:	0°
Lowest Cloud Condition:	Scattered / 8000 ft agl	Visibility	10 Miles
Lowest Ceiling:	Unknown / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	100°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	73° C / 0° C
Precipitation and Obscuration:			
Departure Point:	DAYTONA BEACH, FL (DAB)	Type of Flight Plan Filed:	IFR
Destination:	WINSTON-SALEM, NC (INT)	Type of Clearance:	
Departure Time:	1200	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Minor
Passenger Injuries:	1 None	Aircraft Fire:	In-Flight
Ground Injuries:	N/A	Aircraft Explosion:	In-Flight
Total Injuries:	2 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	Report Date:	04/02/1983
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 pubinquiry@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](#).