



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	LITHIA SPRINGS, GA	<b>Accident Number:</b>	ATL89FA166
<b>Date &amp; Time:</b>	06/21/1989, 0823 EDT	<b>Registration:</b>	N83AT
<b>Aircraft:</b>	PIPER PA-60-601P	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	3 Fatal
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Business		

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## Analysis

ELEVEN MINUTES AFTER DEPARTURE THE PILOT REPORTED SMOKE AND A RIGHT ENGINE PROBLEM, THEN SAID 'GOING DOWN'. RIGHT WING AND ENGINE ASSEMBLIES SEPARATED IN FLIGHT. FIRE DAMAGE VICINITY OF RIGHT ENGINE LEFT TURBOCHARGER; TAILPIPE ASSEMBLY HAD SEPARATED. HEAVY SMOKE & HEAT DAMAGE BETWEEN RIGHT WING FORWARD & AFT WING SPARS. TAILPIPE HAD FAILED IN FATIGUE NEAR FLANGE WHERE ATTACHED TO TURBOCHARGER EXHAUST PORT. EVIDENCE OF NON-UNIFORMLY SEATED GASKET BETWEEN FLANGES. ALSO, RIGHT ENGINE LOWER LEFT ENGINE MOUNT DETERIORATED; SIGNIFICANT PORTION OF RUBBER MISSING. PIPER SB #818 (AD87-07-09) ACCOMPLISHED 5/21/88; REQUIRES REMOVAL & INSPECTION OF EXHAUST SYSTEM FOR CRACKS AND REINSTALLATION WITH NEW FLANGE GASKETS.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: INFLIGHT ENGINE/WING FIRE DUE TO A FAILURE OF THE RIGHT ENGINE'S LEFT EXHAUST TAILPIPE. THE EXHAUST TAILPIPE FAILED IN FATIGUE AS A RESULT OF FLUCTUATING STRESSES INDUCED BY A DETERIORATED ENGINE MOUNT IN CONJUNCTION WITH UNEVENLY DISTRIBUTED CLAMPING LOADS CAUSED BY AN IMPROPERLY SEATED GASKET.

## Findings

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Occurrence #1: FIRE  
Phase of Operation: CRUISE

### Findings

1. (C) ENGINE ASSEMBLY, MOUNT - DETERIORATED
2. (C) ENGINE ASSEMBLY - VIBRATION
3. (C) EXHAUST SYSTEM, GASKET - OTHER
4. (C) MAINTENANCE, ALIGNMENT - INADEQUATE - OTHER MAINTENANCE PERSONNEL
5. (C) EXHAUST SYSTEM, STACK - FATIGUE
6. (C) EXHAUST SYSTEM, STACK - SEPARATION
7. ENGINE COMPARTMENT - FIRE

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Occurrence #2: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION  
Phase of Operation: CRUISE

### Findings

8. WING - FIRE
9. WING, SPAR - MELTED
10. WING - SEPARATION

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT - UNCONTROLLED

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	51, 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, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	03/06/1989
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	10000 hours (Total, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	PIPER	<b>Registration:</b>	N83AT
<b>Model/Series:</b>	PA-60-601P PA-60-601P	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	61P0296074
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	12/06/1988, Annual	<b>Certified Max Gross Wt.:</b>	6000 lbs
<b>Time Since Last Inspection:</b>	74 Hours	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	1454 Hours	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-540-S1A5
<b>Registered Owner:</b>	AEROSTAR TRANSPORT INC.,	<b>Rated Power:</b>	290 hp
<b>Operator:</b>	AERO STAR TRANSPORT CORP	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	FTY, 841 ft msl	Distance from Accident Site:	7 Nautical Miles
Observation Time:	0812 EDT	Direction from Accident Site:	100°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	5 Miles
Lowest Ceiling:	Broken / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	21 °C / 21 °C
Precipitation and Obscuration:			
Departure Point:	ATLANTA, GA (PDK)	Type of Flight Plan Filed:	IFR
Destination:	MEMPHIS, TN (MEM)	Type of Clearance:	IFR
Departure Time:	0811 EDT	Type of Airspace:	Class E

## Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	2 Fatal	Aircraft Fire:	In-Flight
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Fatal	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	PHILLIP POWELL	Report Date:	06/22/1992
Additional Participating Persons:	JOHN CORBITT; ATLANTA, GA R./L. BOOB/PRASSE; VERO BEACH, FL GREGORY ERIKSON; WILLIAMSPORT, PA JAMES F WILDEY, II; WASHINGTON, DC		
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:pubinq@ntsb.gov">pubinq@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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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](#).