



Aviation Investigation Final Report

Location:	MADISON HEIGHTS, Virginia	Accident Number:	BF093FA113
Date & Time:	July 7, 1993, 10:02 Local	Registration:	N7443P
Aircraft:	PIPER PA-24-180	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

WHILE IN CRUISE FLIGHT AT 3,000 FT THE PILOT REPORTED TO ATC THAT THE ENGINE WAS LOSING OIL PRESSURE. WHILE BEING VECTORED TO AN AIRPORT, THE PILOT REPORTED 'ENGINE'S GOING'. WITNESSES OBSERVED SMOKE COMING FROM THE AIRPLANE, AND A SPATTERING ENGINE NOISE. THE ENGINE NOISE CEASED AND THE AIRPLANE WAS OBSERVED TO PITCH UP, BANK LEFT, AND IMPACT A TREE. EXAMINATION OF THE ENGINE REVEALED OIL STARVATION DUE TO A RUPTURED OIL COOLER LINE. THE LINE WAS DETERIORATED NEAR THE AREA CLOSEST TO THE EXHAUST STACK. MAINTENANCE LOGS WERE NOT RECOVERED.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: ENGINE FAILURE DUE TO OIL STARVATION AS A RESULT OF INADEQUATE MAINTENANCE AND INSPECTION OF THE OIL COOLER LINES.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: CRUISE - NORMAL

Findings

1. (C) LUBRICATING SYSTEM,OIL LINE - DETERIORATED
2. (C) MAINTENANCE,INSPECTION - INADEQUATE - OTHER MAINTENANCE PERSONNEL

- 3. (C) LUBRICATING SYSTEM,OIL LINE - RUPTURED
- 4. (C) FLUID,OIL - STARVATION

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: DESCENT - EMERGENCY

Findings

- 5. OBJECT - TREE(S)

Factual Information

Pilot Information

Certificate:	Private	Age:	59, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	February 1, 1993
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	373 hours (Total, all aircraft), 300 hours (Total, this make and model), 331 hours (Pilot In Command, all aircraft), 24 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N7443P
Model/Series:	PA-24-180 PA-24-180	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	24-2632
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	January 20, 1993 Annual	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	O-360-A1D
Registered Owner:	ANDREW G. SMITH III	Rated Power:	180 Horsepower
Operator:	ANDREW G. SMITH III	Operating Certificate(s) Held:	None
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:	LYH ,938 ft msl	Distance from Accident Site:	9 Nautical Miles
Observation Time:	09:50 Local	Direction from Accident Site:	218°
Lowest Cloud Condition:	Clear	Visibility	7 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	31°C / 23°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	CHARLOTTESVILLE, VA (CHO)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	Traffic advisory
Departure Time:	09:28 Local	Type of Airspace:	Class E

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	37.429973,-79.100112(est)

Administrative Information

Investigator In Charge (IIC): Guzzetti, Jeffrey

Additional Participating Persons:

Original Publish Date: September 27, 1994

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=8751>

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