



# Aviation Investigation Final Report

<b>Location:</b>	DECATUR, Texas	<b>Accident Number:</b>	FTW89LA097
<b>Date &amp; Time:</b>	May 20, 1989, 16:30 Local	<b>Registration:</b>	N5874P
<b>Aircraft:</b>	PIPER PA-24-250	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

THE PILOT STATED THAT IMMEDIATELY AFTER TAKEOFF, THE EXHAUST SYSTEM HEATER MUFF FAILED, RESULTING IN EXTREME HEAT AND SMOKE UNDER THE COWLING, AND LOTS OF SMOKE IN THE CABIN. NEXT CAME A LOSS OF ENGINE POWER, AND THE PILOT WAS NOT ABLE TO GET THE AIRPLANE ALIGNED WITH THE RUNWAY FOR THE FORCED LANDING. AFTER THE HARD LANDING, THE NOSE GEAR COLLAPSED. THE MOST RECENT ANNUAL INSPECTION WAS CONDUCTED 10 OPERATING HOURS BEFORE THE ACFT.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: INADEQUATE INSPECTION OF THE EXHAUST SYSTEM BY THE MAINTENANCE PERSONNEL DURING THE LATEST ANNUAL INSPECTION.

### Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF

Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) EXHAUST SYSTEM, MUFFLER - FAILURE, PARTIAL
2. (C) MAINTENANCE, INSPECTION - INADEQUATE - OTHER MAINTENANCE PERSONNEL

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Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Findings

- 3. (F) EXHAUST SYSTEM,MUFFLER - SMOKE
- 4. (F) EXHAUST SYSTEM,MUFFLER - OVERTEMPERATURE

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Occurrence #3: NOSE GEAR COLLAPSED

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

- 5. LANDING GEAR,NOSE GEAR - OVERLOAD

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	38, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	January 24, 1989
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	2295 hours (Total, all aircraft), 23 hours (Total, this make and model), 2268 hours (Pilot In Command, all aircraft), 142 hours (Last 90 days, all aircraft), 65 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	PIPER	<b>Registration:</b>	N5874P
<b>Model/Series:</b>	PA-24-250 PA-24-250	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	24-958
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	April 22, 1989 Annual	<b>Certified Max Gross Wt.:</b>	2800 lbs
<b>Time Since Last Inspection:</b>	10 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2411 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-540-A1A5
<b>Registered Owner:</b>	STEFFEN, THOMAS E.	<b>Rated Power:</b>	250 Horsepower
<b>Operator:</b>	FRAZIER, DAVID R.	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>	2720 OVERLAND DRIVE	<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	7 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	10 knots / 12 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	160°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	32°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	DECATUR , TX (8F7)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	16:28 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	DECATUR MUNICIPAL 8F7	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	1059 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	17	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	2550 ft / 60 ft	<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	33.229694,-97.590225(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Roth, Eugene
<b>Additional Participating Persons:</b>	OSCAR THOMAS; DALLAS , TX
<b>Original Publish Date:</b>	January 31, 1991
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=22865">https://data.ntsb.gov/Docket?ProjectID=22865</a>

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