



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	DES MOINES, IA	<b>Accident Number:</b>	DEN90FA027
<b>Date &amp; Time:</b>	11/27/1989, 1726 CST	<b>Registration:</b>	N919S
<b>Aircraft:</b>	PIPER PA-46P-350	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	3 Serious

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

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## Analysis

THE ACFT WAS ON AN ILS APCH AT DUSK IN IMC & ICING CONDS WITH THE ALTERNATE AIR ON. ACCORDING TO THE PLT, HE HAD JUST DSCNDD BELOW AN OVC, ON FINAL APCH, WHEN THE ENG LOST PWR & WOULD NOT RESPOND TO THROTTLE APPLICATION. A FORCED LANDING WAS MADE IN A WOODED AREA SHORT OF THE RWY & THE ACFT WAS EXTENSIVELY DMGD. DRG AN EXAM OF THE ENG, THE TURBOCHARGER & WASTEGATE TRANSITION PIPES WERE FND SEPD AT THE FLANGE. CARBONACEOUS RESIDUE WAS FND IN THE AREA OF SEPN, BUT NO HEAT DAMAGE WAS NOTED. THE GASKET, BOLTS, WASHERS & SELF-LOCKING NUTS (FOR HOLDING THE PIPES TOGETHER) WERE NOT FND. LATER, THE ENG RAN SUCCESSFULLY DRG AN OPNL CHECK. DRG THE INVESTIGATION, 3 SIMILAR CASES OF PIPE SEPN WERE IDENTIFIED, WHICH INVOLVED ANOTHER ACFT; THESE RESULTED IN ONLY PARTIAL LOSSES OF PWR. THE RGT FRONT SEAT PAX RPRTD SEEING A TRACE OF ICE ON THE WINGS AS THE ACFT WAS DSCNDG THRU CLOUDS. THE PITOT HEAT, STALL WARNING HEAT, & ICE LIGHT SWITCH WERE FND IN THE 'OFF' POSITION. AT 1650 CST, THE TEMP & DEW POINT AT THE SURFACE WERE 36 & 35 DEG, RESPECTIVELY.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: LOSS OF ENGINE POWER FOR UNDETERMINED REASON(S). THE LIGHT CONDITIONS (DUSK) AND TREES IN IN THE EMERGENCY LANDING AREA WERE CONSIDERED TO BE CONTRIBUTING FACTORS.

## Findings

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Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER

Phase of Operation: DESCENT

### Findings

1. WEATHER CONDITION - ICING CONDITIONS
2. ANTI-ICE/DEICE SYSTEM - IMPROPER USE OF - PILOT IN COMMAND

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Occurrence #2: LOSS OF ENGINE POWER

Phase of Operation: APPROACH - FAF/OUTER MARKER TO THRESHOLD (IFR)

### Findings

3. (C) REASON FOR OCCURRENCE UNDETERMINED
4. EXHAUST SYSTEM, TURBOCHARGER - SEPARATION
5. EXHAUST SYSTEM, WASTEGATE - SEPARATION
6. INDUCTION AIR CONTROL, ALTERNATE AIR/DOOR - OPEN

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Occurrence #3: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

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Occurrence #4: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: LANDING

### Findings

7. (F) LIGHT CONDITION - DUSK
8. (F) OBJECT - TREE(S)

## Factual Information

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	61, Male
<b>Airplane Rating(s):</b>	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>	No
<b>Medical Certification:</b>	Class 3 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	03/05/1989
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>		
<b>Flight Time:</b>	2278 hours (Total, all aircraft), 832 hours (Total, this make and model), 2123 hours (Pilot In Command, all aircraft), 70 hours (Last 90 days, all aircraft), 27 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>	N919S
<b>Model/Series:</b>	PA-46P-350 PA-46P-350	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	46-22076
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	09/22/1989, Annual	<b>Certified Max Gross Wt.:</b>	4300 lbs
<b>Time Since Last Inspection:</b>	50 Hours	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	65 Hours	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	TIO-540-AE2A
<b>Registered Owner:</b>	PARAMOUNT LEASING CORPORATION	<b>Rated Power:</b>	350 hp
<b>Operator:</b>	PARAMOUNT LEASING CORPORATION	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>	IOWA PERIODICALS, INC.	<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Dusk
Observation Facility, Elevation:	DSM, 957 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1741 CST	Direction from Accident Site:	0°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	4 Miles
Lowest Ceiling:	Overcast / 800 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	12 knots / 19 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	310°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	2°C / 1°C
Precipitation and Obscuration:			
Departure Point:	OMAHA, NE (OMA)	Type of Flight Plan Filed:	IFR
Destination:	DES MOINES, IA (DSM)	Type of Clearance:	IFR
Departure Time:	1634 CST	Type of Airspace:	Class D; Class E

## Airport Information

Airport:	DES MOINES INTL (DMS)	Runway Surface Type:	Asphalt
Airport Elevation:	957 ft	Runway Surface Condition:	
Runway Used:	30R	IFR Approach:	ILS
Runway Length/Width:	9001 ft / 150 ft	VFR Approach/Landing:	None

## Wreckage and Impact Information

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

## Administrative Information

Investigator In Charge (IIC):	ARNOLD W SCOTT	Report Date:	08/14/1990
Additional Participating Persons:	WARREN NORRIS; DES MOINES, IA TIM HARDEE; VERO BEACH, FL DON KOSS; STATE COLLEGE, PA LEE R NEMETI; MINOA, NY		
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](#).