



# National Transportation Safety Board Aviation Accident Final Report

---

<b>Location:</b>	WEST TRENTON, NJ	<b>Accident Number:</b>	DCA85AA023
<b>Date &amp; Time:</b>	06/19/1985, 0702 EDT	<b>Registration:</b>	N155PA
<b>Aircraft:</b>	GENERAL DYNAMICS 240-27	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	2 Serious
<b>Flight Conducted Under:</b>	Part 121: Air Carrier - Non-scheduled		

---

## Analysis

THE COPLT BGN TAKEOFF (TKOF) WITH 2700 RPM & 52 TO 53.5' OF MANIFOLD PRESSURE (MP). WTR INJECTION WAS NOT USED ALTHO 12 GAL WAS AVAILABLE. AT 150 TO 250 FT AGL, THE L ENG LOST PWR & THE L PROP AUTOFEATHERED. THE CAPT TOOK CONTROL (CTL) & TOOK ACTION TO VERIFY L ENG FEATHERING. NEITHER PLT MOVED ANY OF THE OTHER ENG CTLS. A TURN WAS INITIATED TO RETURN TO THE ARPT, BUT THE ACFT BGN LOSING SPEED & ALT. SUBSEQUENTLY, IT CRASH LNDD IN A PARTLY WOODED AREA SHORT OF AN OPEN FLD & BURNED UNTIL FIRE FIGHTING PSNL ARRIVED. THE IMPELLER WAS DEMOLISHED BY FIRE, BUT EVIDENCE OF DEBRIS FROM THE IMPELLER WAS FND IN THE L ENG INTAKE & ON TOP OF ITS #3 & #11 PISTON. THE COMPANY'S STATED POLICY WAS TO USE WTR (WET TKOF), EXCEPT WHEN PRECLUDED BY MECHANICAL MALFUNCTION OR LACK OF ADI FLUID; HOWEVER, 4 DISSIMILAR POWER CHARTS WERE FND IN THE ACFT. TKOFF WT WAS 38,670 LBS. PERF MANUAL SHOWED ACFT CAPABLE OF 420 FPM CLB WITH 12 DEG OF FLAPS, 1 PROP FEATHERED, LNDG GEAR UP, DRY PWR (NO WTR). MAX PWR SETTING WAS 2700 RPM & 56' MP FOR DRY TKOF; 2800 RPM & 59.5' MP FOR WET TKOF.

## Probable Cause and Findings

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

## Findings

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

Phase of Operation: TAKEOFF - INITIAL CLIMB

### Findings

1. (C) ENG ASSEMBLY,BLOWER/IMPELLER/INTEGRAL SUPERCHARGER - FAILURE,TOTAL
2. PROPELLER FEATHERING - PERFORMED

-----

Occurrence #2: FORCED LANDING

Phase of Operation: MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

### Findings

3. (C) THROTTLE/POWER CONTROL - IMPROPER USE OF - PILOT IN COMMAND
4. (F) INFORMATION UNCLEAR - COMPANY/OPERATOR MANAGEMENT

-----

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

### Findings

5. (F) OBJECT - TREE(S)
6. (F) TERRAIN CONDITION - ROUGH/UNEVEN

## Factual Information

### Pilot Information

<b>Certificate:</b>	Airline Transport	<b>Age:</b>	49, 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>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	05/06/1985
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>		
<b>Flight Time:</b>	7000 hours (Total, all aircraft), 2500 hours (Total, this make and model), 124 hours (Last 90 days, all aircraft), 39 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	GENERAL DYNAMICS	<b>Registration:</b>	N155PA
<b>Model/Series:</b>	240-27 240-27	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal; Transport	<b>Serial Number:</b>	322
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	
<b>Date/Type of Last Inspection:</b>	06/19/1985, Continuous Airworthiness	<b>Certified Max Gross Wt.:</b>	39580 lbs
<b>Time Since Last Inspection:</b>	128 Hours	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	16900 Hours	<b>Engine Manufacturer:</b>	P&W
<b>ELT:</b>		<b>Engine Model/Series:</b>	R-2800-CB3
<b>Registered Owner:</b>	PROVIDENCE AIRLINE CORP.	<b>Rated Power:</b>	
<b>Operator:</b>	PROVIDENCE AIRLINE CORP.	<b>Operating Certificate(s) Held:</b>	Supplemental
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	PTL

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	TTN, 213 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	0708 EDT	Direction from Accident Site:	140°
Lowest Cloud Condition:	Unknown / 20000 ft agl	Visibility	12 Miles
Lowest Ceiling:	Broken / 20000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	270°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	19° C
Precipitation and Obscuration:			
Departure Point:	TRENTON, NJ (TTN)	Type of Flight Plan Filed:	IFR
Destination:	DETROIT, MI (DTW)	Type of Clearance:	IFR
Departure Time:	0702 EDT	Type of Airspace:	Class E

## Airport Information

Airport:	MERCER COUNTY (TTN)	Runway Surface Type:	Concrete
Airport Elevation:	213 ft	Runway Surface Condition:	Dry
Runway Used:	24	IFR Approach:	None
Runway Length/Width:	6006 ft / 150 ft	VFR Approach/Landing:	Forced Landing

## Wreckage and Impact Information

Crew Injuries:	2 Serious	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	On-Ground
Total Injuries:	2 Serious	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	J SEIDEIN	Report Date:	
Additional Participating Persons:	GALE BRADEN; WASHINGTON, DC G. B HANSSONON; MILVILLE, NJ		
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:pubinquiry@ntsb.gov">pubinquiry@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> .		

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](#).