



National Transportation Safety Board Aviation Accident Final Report

Location:	GREENWOOD, SC	Accident Number:	ATL90FA157
Date & Time:	08/09/1990, 2345 EDT	Registration:	N563W
Aircraft:	BEECH E18S	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

THE RIGHT ENGINE LOST POWER DURING THE INITIAL CLIMB AFTER LIFT-OFF. A WITNESS HEARD A NOISE & OBSERVED FLAMES COMING FROM THE RIGHT ENGINE COWLING AS THE AIRPLANE CLIMBED. THE AIRPLANE ENTERED A TURN AFTER CLIMBING ABOUT 200 FT, DESCENDED THROUGH A SMALL GROVE OF TREES, CRASHED IN A PASTURE, AND BURNED. DURING TAKEOFF, THE PLANE'S GROSS WEIGHT WAS ABOUT 11,050 LBS & THE CG WAS BEHIND THE AFT LIMIT. ITS MAXIMUM CERTIFIED WEIGHT LIMIT WAS 9700 LBS. THE PILOT WAS AWARE OF A GROSS WEIGHT PROBLEM BEFORE TAKEOFF. AN EXAM REVEALED EVIDENCE THAT THE LEFT ENGINE PROPELLER WAS IN THE FEATHERED POSITION & THE RIGHT PROPELLER WAS NOT FEATHERED AT IMPACT. A CHECK OF THE RIGHT ENGINE DISCLOSED THAT THE NUMBER 3 CYLINDER INTAKE VALVE HAD FAILED FROM FATIGUE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S IMPROPER EMERGENCY PROCEDURE BY SHUTTING DOWN THE WRONG ENGINE, WHICH RESULTED IN A FORCED LANDING. FACTORS RELATED TO THE ACCIDENT WERE: FAILURE OF THE NUMBER THREE INTAKE VALVE IN THE RIGHT ENGINE DUE TO FATIGUE, AND TREES IN THE EMERGENCY LANDING AREA.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. 1 ENGINE
 2. (F) ENGINE ASSEMBLY, VALVE, INTAKE - FATIGUE
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Occurrence #2: FORCED LANDING

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

Findings

3. (C) EMERGENCY PROCEDURE - IMPROPER - PILOT IN COMMAND
 4. (C) WRONG PROPELLER FEATHERED - INADVERTENT - PILOT IN COMMAND
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Occurrence #3: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: LANDING

Findings

5. (F) OBJECT - TREE(S)

Factual Information

Pilot Information

Certificate:	Commercial	Age:	40, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	Yes
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	06/26/1990
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	4000 hours (Total, all aircraft), 900 hours (Total, this make and model), 299 hours (Last 90 days, all aircraft), 90 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BEECH	Registration:	N563W
Model/Series:	E185 E185	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:		Serial Number:	BA-139
Landing Gear Type:	Retractable - Tricycle	Seats:	2
Date/Type of Last Inspection:	08/09/1990, 100 Hour	Certified Max Gross Wt.:	9700 lbs
Time Since Last Inspection:	0 Hours	Engines:	2 Reciprocating
Airframe Total Time:	10323 Hours	Engine Manufacturer:	P&W
ELT:		Engine Model/Series:	R-985-14B
Registered Owner:		Rated Power:	450 hp
Operator:	ROYAL AIR FREIGHT	Operating Certificate(s) Held:	On-demand Air Taxi (135)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	AND, 782 ft msl	Distance from Accident Site:	35 Nautical Miles
Observation Time:	0306 EDT	Direction from Accident Site:	300°
Lowest Cloud Condition:	Scattered / 1500 ft agl	Visibility	7 Miles
Lowest Ceiling:	Overcast / 5000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	30°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	-18°C / -18°C
Precipitation and Obscuration:			
Departure Point:	GREENWOOD, SC (GRD)	Type of Flight Plan Filed:	IFR
Destination:	PONTIAC, MI (PTK)	Type of Clearance:	IFR
Departure Time:	2342 EDT	Type of Airspace:	

Airport Information

Airport:	GREENWOOD COUNTY (GRD)	Runway Surface Type:	Asphalt
Airport Elevation:	631 ft	Runway Surface Condition:	Dry
Runway Used:	9	IFR Approach:	None
Runway Length/Width:	4993 ft / 150 ft	VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	On-Ground
Total Injuries:	1 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	PHILLIP POWELL	Report Date:	05/03/1993
Additional Participating Persons:			
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 pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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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](#).