

# **Aviation Investigation Final Report**

Location: OAK CREEK, Wisconsin Accident Number: CHI90LA072

Date & Time: January 25, 1990, 05:42 Local Registration: N48K

Aircraft: BEECH E18S Aircraft Damage: Substantial

**Defining Event:** 1 None

Flight Conducted Under: Part 135: Air taxi & commuter - Non-scheduled

### **Analysis**

THE PILOT STATED THAT, WHILE EN ROUTE TO HIS DESTINATION ON A NIGHT CARGO FLIGHT, HE EXPERIENCED DIFFICULTY WITH THE RIGHT ENGINE WHICH HE ATTRIBUTED TO CARBURETOR ICING. WITH APPLICATION OF MANIFOLD HEAT, THE PROBLEM CLEARED UP; A SHORT WHILE LATER, THE RIGHT ENGINE LOST POWER COMPELTELY. ATTEMPTS AT RESTART WERE UNSUCCESSFUL; THE PILOT DECLARED AN EMERGENCY AND DIVERTED TO AN ALTERNATE AIRPORT. WEATHER CONDITIONS IN THE AREA WERE BAD, WITH A WINTER STORM IN PROGRESS; MOST LOCAL AIRPORTS WERE CLOSED DUE TO WEATHER. THE PILOT WAS CLEARED FOR THE ILS RWY 1 APPROACH. HE REPORTED THE AIRCRAFT HAD ICED UP WHILE EN ROUTE, AND THAT WHILE ON THE ILS APCH, IT 'PICKED UP MORE' (ICE) AT ABOUT 300 TO 400 FT AGL. HE WAS UNABLE TO REACH THE RWY. SUBSEQUENTLY, HE MADE AN EMERG LANDING APPROXIMATELY ONE MILE SHORT OF THE RUNWAY. A POST-ACCIDENT INVESTIGATION REVEALED NO EVIDENCE OF A PRE-IMPACT MECHANICAL MALFUNCTION OF THE RIGHT ENGINE.

### **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: IMPROPER PLANNING/DECISION BY THE PILOT. FACTORS RELATED TO THE ACCIDENT WERE: THE ADVERSE WEATHER CONDITIONS, ACCUMULATION OF STRUCTURAL AND/OR INDUCTION ICE, AND DARK NIGHT.

#### **Findings**

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER

Phase of Operation: CRUISE - NORMAL

#### **Findings**

- 1. (C) PLANNING/DECISION IMPROPER PILOT IN COMMAND
- 2. (F) WEATHER CONDITION RAIN
- 3. (F) WEATHER CONDITION ICING CONDITIONS
- 4. (F) WEATHER CONDITION CARBURETOR ICING CONDITIONS
- 5. (F) FUEL SYSTEM, CARBURETOR ICE
- 6. (F) FUSELAGE ICE

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Occurrence #2: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL

Phase of Operation: CRUISE

#### **Findings**

7. 1 ENGINE

8. PROPELLER FEATHERING - PERFORMED - PILOT IN COMMAND

9. FLIGHT TO ALTERNATE DESTINATION - PERFORMED - PILOT IN COMMAND

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Occurrence #3: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

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Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: LANDING

#### **Findings**

10. (F) LIGHT CONDITION - DARK NIGHT

11. TERRAIN CONDITION - SNOW COVERED

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## **Factual Information**

### **Pilot Information**

Commercial; Flight instructor	Age:	22,Male
Single-engine land; Multi-engine land	Seat Occupied:	Left
None	Restraint Used:	
Airplane	Second Pilot Present:	No
Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Class 2 Valid Medicalno waivers/lim.	Last FAA Medical Exam:	March 7, 1989
Yes	Last Flight Review or Equivalent:	
2600 hours (Total, all aircraft), 230 hours (Total, this make and model), 2410 hours (Pilot In Command, all aircraft), 273 hours (Last 90 days, all aircraft), 34 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		
	Single-engine land; Multi-engine land  None  Airplane  Airplane multi-engine; Airplane single-engine; Instrument airplane  Class 2 Valid Medicalno waivers/lim.  Yes  2600 hours (Total, all aircraft), 230 h Command, all aircraft), 273 hours (L	Single-engine land; Multi-engine land  None  Restraint Used:  Airplane  Airplane multi-engine; Airplane single-engine; Instrument airplane  Class 2 Valid Medical-no waivers/lim.  Yes  Last Flight Review or Equivalent:  2600 hours (Total, all aircraft), 230 hours (Total, this make and model), 24 Command, all aircraft), 273 hours (Last 90 days, all aircraft), 34 hours (Last

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## **Aircraft and Owner/Operator Information**

Aircraft Make:	BEECH	Registration:	N48K
Model/Series:	E18S E18S	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	BA-202
Landing Gear Type:	Retractable - Tailwheel	Seats:	2
Date/Type of Last Inspection:	December 13, 1989 AAIP	Certified Max Gross Wt.:	10100 lbs
Time Since Last Inspection:	38 Hrs	Engines:	2 Reciprocating
Airframe Total Time:	16147 Hrs	Engine Manufacturer:	P&W
ELT:	Installed, activated	Engine Model/Series:	R-985-14B
Registered Owner:	BLACKHAWK AIRWAYS	Rated Power:	450 Horsepower
Operator:		Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:		Operator Designator Code:	BAKA

# Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	Condition of Light:	Night/dark
Observation Facility, Elevation:	MKE ,723 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	05:51 Local	Direction from Accident Site:	360°
<b>Lowest Cloud Condition:</b>	Unknown	Visibility	
Lowest Ceiling:	300 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	1
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:	N/A - None - Fog		
Departure Point:	YPSILANTI , MI (YIP)	Type of Flight Plan Filed:	IFR
Destination:	JANESVILLE , WI (JVL )	Type of Clearance:	IFR
Departure Time:	04:00 Local	Type of Airspace:	Class E

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## **Airport Information**

Airport:		Runway Surface Type:	Asphalt
Airport Elevation:	0 ft msl	<b>Runway Surface Condition:</b>	Snow
Runway Used:	1	IFR Approach:	ILS
Runway Length/Width:	9690 ft / 200 ft	VFR Approach/Landing:	Forced landing;Full stop

# Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	42.980121,-87.900451(est)

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#### **Administrative Information**

Investigator In Charge (IIC): Reeves, Jodi

Additional Participating E P HARRIGAN; MILWAUKEE, WI

M CLARK; MILWAUKEE, WI

Original Publish Date: June 28, 1991

Last Revision Date:
Investigation Class: Class

Note:
Investigation Docket: https://data.ntsb.gov/Docket?ProjectID=14624

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 Code of Federal Regulations section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 United States Code section 1154(b)). A factual report that may be admissible under 49 United States Code section 1154(b) is available here.

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