



National Transportation Safety Board Aviation Accident Final Report

Location:	BRAINERD, MN	Accident Number:	CHI92LA034
Date & Time:	11/23/1991, 2100 CST	Registration:	N9196N
Aircraft:	AERO COMMANDER 685	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious, 2 Minor
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

THE PILOT REPORTED THAT SHORTLY AFTER TAKEOFF, THE RIGHT ENGINE LOST POWER. AN ABORTED TAKEOFF WAS PERFORMED, BUT THE PILOT WAS UNABLE TO MAINTAIN DIRECTIONAL CONTROL, OR STOP THE AIRPLANE BEFORE IT SWERVED OFF THE REMAINING RUNWAY. THE AIRPLANE TRAVELED DOWN A 40 FOOT EMBANKMENT THEN SLID INTO A FROZEN SWAMP. POST ACCIDENT INSPECTION REVEALED A SEIZED FUEL PUMP ROTOR SHAFT AND A BROKEN COUPLING ON THE RIGHT ENGINE'S FUEL PUMP.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
AN ENGINE FAILURE DUE TO A SEIZED FUEL PUMP ROTOR SHAFT.

Findings

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

Findings

1. 1 ENGINE
2. (C) FUEL SYSTEM,PUMP - SEIZED
3. EMERGENCY PROCEDURE - PERFORMED - PILOT IN COMMAND
4. ABORTED TAKEOFF - PERFORMED - PILOT IN COMMAND

Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: TAKEOFF - ABORTED

Findings

5. TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	35, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	03/22/1991
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	2810 hours (Total, all aircraft), 425 hours (Total, this make and model), 2638 hours (Pilot In Command, all aircraft), 26 hours (Last 90 days, all aircraft), 19 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	AERO COMMANDER	Registration:	N9196N
Model/Series:	685 685	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:		Serial Number:	12019
Landing Gear Type:	Retractable - Tricycle	Seats:	9
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	9000 lbs
Time Since Last Inspection:	0 Hours	Engines:	2 Reciprocating
Airframe Total Time:		Engine Manufacturer:	CONTINENTAL
ELT:	Installed, not activated	Engine Model/Series:	GTSIO-520-K
Registered Owner:		Rated Power:	435 hp
Operator:	GORHAMS, INC.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	BRD, 1226 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	1750 CST	Direction from Accident Site:	1°
Lowest Cloud Condition:	Unknown / 1000 ft agl	Visibility	10 Miles
Lowest Ceiling:	Broken / 1000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	13 knots / 24 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	330°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	-18°C / -18°C
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	None
Destination:	MORA, MN (19D)	Type of Clearance:	None
Departure Time:	1800 CST	Type of Airspace:	

Airport Information

Airport:	BRAINERD (BRD)	Runway Surface Type:	Asphalt
Airport Elevation:	1226 ft	Runway Surface Condition:	Dry
Runway Used:	3	IFR Approach:	None
Runway Length/Width:	4082 ft / 75 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	John Hruban	Report Date:	02/08/1993
Additional Participating Persons:	DICK WINLAND; MINNEAPOLIS, MN JOHN V MOELLER		
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](#).