



National Transportation Safety Board Aviation Accident Data Summary

Location:	Brainerd, MN	Accident Number:	CEN09CA120
Date & Time:	01/03/2009, 1340 CST	Registration:	N70DD
Aircraft:	BEECH 58	Injuries:	2 None
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

The pilot diverted to a nearby airport after he encountered unforecasted freezing rain. He made two low passes over the airport while trying to clear ice off of the windshield; however, the windshield alcohol de-ice could not keep up with the ice accumulation. The pilot stated that he had to look out of the side window during the landing and once he descended below the tree line, he was unable to accurately judge his height over the runway. He stated that this was compounded by the light color of the new concrete runway which had snow blowing across it. A hard landing resulted after which the pilot taxied the airplane to the ramp. The right wing sustained substantial damage during the landing. The pilot stated that the de-ice systems on the airplane were working, but they could not keep up with the rate of ice accumulation

Flight Events

Landing-flare/touchdown - Hard landing

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper flare which resulted in a hard landing. Contributing to the accident was the unforecasted freezing rain that obscured the windshield and hindered the pilot's ability to judge the height of the airplane above the runway.

Findings

Aircraft-Aircraft structures-Windows-windshield system-Flight compartment windows-Not specified - C

Personnel issues-Psychological-Perception/orientation/illusio-Perception-Pilot - C

Personnel issues-Task performance-Use of equip/info-Aircraft control-Pilot - C

Environmental issues-Conditions/weather/phenomena-Ceiling/visibility/precip-Freezing rain/sleet-Effect on equipment - C

Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	56
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane
Flight Time:	8680 hours (Total, all aircraft), 1560 hours (Total, this make and model), 8304 hours (Pilot In Command, all aircraft), 80 hours (Last 90 days, all aircraft), 56 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	BEECH	Registration:	N70DD
Model/Series:	58	Engines:	2 Reciprocating
Operator:	BEMIDJI AVIATION SERVICES INC	Engine Manufacturer:	Continental
Air Carrier Operating Certificate:	On-demand Air Taxi (135)	Engine Model/Series:	IO-520-CB7
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	BRD, 1232 ft msl	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	Overcast / 2600 ft agl
Condition of Light:	Day	Wind Speed/Gusts, Direction:	4 knots, 120°
Temperature:	-7° C / -11° C	Visibility	2.5 Miles
Precipitation and Obscuration:	Haze; No Precipitation		
Departure Point:	Bemidji, MN (BJI)	Destination:	Anoka, MN (ANE)

Airport Information

Airport:	Brainerd - Lakes Regional (BRD)	Runway Surface Type:	Concrete
Runway Used:	16	Runway Surface Condition:	Ice
Runway Length/Width:	6500 ft / 150 ft		

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC):	Pamela S Sullivan	Adopted Date:	10/21/2010
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
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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