



National Transportation Safety Board Aviation Accident Data Summary

Location:	GRAND FORKS, ND	Accident Number:	DEN90LA029
Date & Time:	12/01/1989, 2000 CST	Registration:	N130ND
Aircraft:	PIPER PA-28-161	Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

THE CFI RECEIVED A FSS WEATHER BRIEFING FORECASTING SNOW SHOWERS BOTH EN ROUTE AND ON THE RETURN LEG OF THE FLIGHT. WHILE RECEIVING VECTORS DURING THE RETURN LEG, THE FLIGHT ENCOUNTERED HEAVY SNOW SHOWERS. THE DUAL STUDENT FLEW WHILE THE CFI FILED AND OBTAINED IFR CLEARANCE. THE PLANE FLEW FOR 4 MINUTES THROUGH HEAVY SNOW SHOWERS DURING THE CLEARANCE PROCEDURES. BOTH PILOTS SAID THE ENGINE QUIT. THE DUAL STUDENT ENTERED EMERGENCY DESCENT WHILE THE CFI ADDED CARBURETOR HEAT AND ATTEMPTED AN ENGINE RESTART, TO NO AVAIL. WHEN THE STUDENT SAID HE SAW THE TERRAIN, THE CFI TOOK THE FLIGHT CONTROLS AND COMPLETED AN EMERGENCY LANDING. AT TOUCHDOWN, THE NOSE WHEEL COLLAPSED IN THE PLOWED FIELD. THE PLANE SLID TO REST WITH A DAMAGED FUSELAGE AND LEFT WING. A POSTACCIDENT INSPECTION BY AN FAA INSPECTOR REVEALED AN ICE BUILDUP IN THE CARBURETOR AIR INDUCTION SYSTEM.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FAILURE OF THE CFI TO UTILIZE CARBURETOR HEAT PRIOR TO THE INDUCTION ICING AND POWER LOSS. CONTRIBUTING TO THE ACCIDENT WAS THE CFI'S CONTINUED VFR FLIGHT INTO KNOWN AND FORECAST INSTRUMENT METEOROLOGICAL CONDITIONS.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: CRUISE - NORMAL

Findings

1. (F) WEATHER CONDITION - SNOW
 2. (F) WEATHER FORECAST - DISREGARDED - PILOT IN COMMAND(CFI)
 3. (F) WEATHER CONDITION - CARBURETOR ICING CONDITIONS
 4. (F) VFR FLIGHT INTO IMC - CONTINUED - PILOT IN COMMAND(CFI)
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Occurrence #2: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: DESCENT - NORMAL

Findings

5. SINGLE ENGINE AIRCRAFT
 6. (C) CARBURETOR HEAT - INACCURATE - PILOT IN COMMAND(CFI)
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Occurrence #3: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Findings

- 7. TERRAIN CONDITION - NONE SUITABLE
- 8. TERRAIN CONDITION - SOFT
- 9. LIGHT CONDITION - DARK NIGHT

Occurrence #4: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	22
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	Airplane Single-engine; Instrument Airplane
Flight Time:	540 hours (Total, all aircraft), 19 hours (Total, this make and model), 400 hours (Pilot In Command, all aircraft), 50 hours (Last 90 days, all aircraft), 12 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N130ND
Model/Series:	PA-28-161 PA-28-161	Engines:	1 Reciprocating
Operator:	UNIVERSITY OF NORTH DAKOTA	Engine Manufacturer:	LYCOMING
Operating Certificate(s) Held:	On-demand Air Taxi (135)	Engine Model/Series:	O-320-D3G
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	, 0 ft msl	Weather Information Source:	Pilot
Lowest Ceiling:	Obscured / 0 ft agl	Wind Speed/Gusts, Direction:	25 knots / 34 knots, 340°
Temperature:	-18°C	Visibility	37 Miles
Precipitation and Obscuration:			
Departure Point:	PARK RAPIDS, MN (PKD)	Destination:	GRAND FORKS, ND (GFK)

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Latitude, Longitude:

Administrative Information

Investigator In Charge (IIC): ROBERT B COLLINS Adopted Date: 06/25/1992

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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