



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	Skwentna, AK	<b>Accident Number:</b>	ANC03LA048
<b>Date &amp; Time:</b>	05/03/2003, 1200 AKD	<b>Registration:</b>	N8240P
<b>Aircraft:</b>	Piper PA-18-160	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

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## Analysis

The pilot reported he was operating the airplane about 100 feet above the ground when he initiated a downwind turn. He said that during the turn, the airplane encountered a downdraft, which pushed the airplane closer to the ground. He immediately applied full power, but the engine did not appear to produce full power, and the airplane continued to descend. He said due to the airplane's low altitude, he was unable to select a better landing area than a nearby frozen river. The airplane landed hard on the ice, damaging the wings, fuselage, and landing gear. The pilot indicated that he believed that the engine did not produce full power due to carburetor ice, which had accumulated since he had been operating the engine at a reduced power setting without carburetor heat.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to use carburetor heat, which resulted in the accumulation of carburetor ice, a partial loss of engine power, and a subsequent forced landing. Factors contributing to the accident are a downdraft, the pilot operating the airplane at a low altitude, the presence of carburetor icing conditions, and the lack of suitable terrain for a forced landing.

## Findings

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Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER

Phase of Operation: MANEUVERING

### Findings

1. (F) WEATHER CONDITION - DOWNDRAFT
2. (F) LOW ALTITUDE FLIGHT/MANEUVER - PERFORMED - PILOT IN COMMAND

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

Phase of Operation: MANEUVERING

### Findings

3. (F) WEATHER CONDITION - CARBURETOR ICING CONDITIONS
4. (C) CARBURETOR HEAT - NOT USED - PILOT IN COMMAND

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Occurrence #3: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

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Occurrence #4: HARD LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

### Findings

5. (F) TERRAIN CONDITION - NONE SUITABLE

## Factual Information

On May 3, 2003, about 1200 Alaska daylight time, a wheel-equipped Piper PA-18-160 airplane, N8240P, sustained substantial damage when it collided with the frozen surface of a river during a forced landing following a partial loss of engine power. The accident occurred about 80 miles northwest of Skwentna, Alaska. The airline transport certificated pilot and the sole passenger were not injured. The Title 14, CFR Part 91 personal flight operated in day visual meteorological conditions without a flight plan. The flight departed from an airstrip near Wasilla, Alaska, about 1030, and the destination was the area of the accident site.

The pilot contacted the NTSB investigator-in-charge (IIC) on May 7. He related that he and a passenger were on a pleasure flight, and that he had been flying about 100 feet above the ground at a reduced power setting. He said he had initiated a 90 degree downwind turn, and hit a "sinker," which pushed the airplane towards the ground. He immediately applied full power, but the engine did not seem to respond with maximum power. The pilot indicated he did not have sufficient altitude to select a more desirable forced landing spot other than the frozen river nearby. He said he leveled the wings, and the airplane hit hard on the ice, damaging the fuselage, wings, and landing gear. When asked by the IIC if he was aware of why the engine did not seem to respond with maximum power, the pilot stated that he thought the engine had accumulated carburetor ice since he had been flying at a reduced power setting without the application of carburetor heat.

## Pilot Information

<b>Certificate:</b>	Airline Transport; Commercial	<b>Age:</b>	25, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land; Single-engine Sea	<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	05/02/2003
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	04/18/2003
<b>Flight Time:</b>	2250 hours (Total, all aircraft), 250 hours (Total, this make and model), 1200 hours (Pilot In Command, all aircraft), 120 hours (Last 90 days, all aircraft), 36 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N8240P
<b>Model/Series:</b>	PA-18-160	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal; Utility	<b>Serial Number:</b>	18-8045
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	02/17/2003, Annual	<b>Certified Max Gross Wt.:</b>	2000 lbs
<b>Time Since Last Inspection:</b>	18.5 Hours	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2666.5 Hours as of last inspection	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-320
<b>Registered Owner:</b>	Keith Forsgren	<b>Rated Power:</b>	160 hp
<b>Operator:</b>	Kyle Forsgren	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	20 Miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	15 knots / 20 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	360°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	4° C
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	WASILLA, AK (OAK1)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Skwentna, AK	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	1030 ADT	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	62.500000, -153.333333

## Administrative Information

**Investigator In Charge (IIC):** James D La Belle **Report Date:** 11/25/2003

**Additional Participating Persons:** Maurice Hendrickson; FAA, Anchorage FSDO-3; Anchorage, AK

**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](mailto: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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