



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	SKWENTNA, AK	<b>Accident Number:</b>	ANC97LA025
<b>Date &amp; Time:</b>	02/01/1997, 1427 AST	<b>Registration:</b>	N7235D
<b>Aircraft:</b>	Piper PA-22	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	3 Fatal
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

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## Analysis

The noninstrument-rated private pilot and two passengers were on a cross country flight on top of an overcast at 10,000 feet msl when the pilot radioed FAA air traffic controllers for assistance. The pilot told controllers he thought he was a few miles from Anchorage, Alaska, his intended destination, but he was actually about 124 miles northwest of Anchorage. The pilot was asked if he could turn towards and cross a nearby mountain range to reach VFR conditions. He indicated he did not have enough fuel left, and that he was presently flying through the tops of the overcast. During his communications with the controllers, the pilot noted a marked disparity between his wet compass and his gyro driven heading indicator; he also said his only electronic navigation instrument aboard, a loran, was not reliable. Radio contact was lost with the pilot, and soon thereafter, an ELT was heard. The airplane was discovered crashed in a near vertical position on a glacier. Postaccident inspection disclosed no mechanical anomalies with the airplane and a functional loran. About five to six gallons of fuel was remaining in the left wing fuel tank.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's continued VFR flight into instrument meteorological conditions, and subsequent failure to maintain control of the airplane. Factors associated with the accident are the pilot's inadequate weather evaluation, his becoming lost/disoriented, and spatial disorientation.

## Findings

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

### Findings

1. WEATHER CONDITION - CLOUDS
2. (F) WEATHER EVALUATION - INADEQUATE - PILOT IN COMMAND
3. (F) BECAME LOST/DISORIENTED - PILOT IN COMMAND

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Occurrence #2: LOSS OF CONTROL - IN FLIGHT  
Phase of Operation: MANEUVERING

### Findings

4. (C) VFR FLIGHT INTO IMC - CONTINUED - PILOT IN COMMAND
5. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
6. (F) SPATIAL DISORIENTATION - PILOT IN COMMAND

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT - UNCONTROLLED

## Factual Information

### HISTORY OF FLIGHT

On February 1, 1997, about 1427 Alaska standard time, a wheel equipped Piper PA-22 airplane, N7235D, was destroyed when it collided with terrain about 45 miles northwest of Skwentna, Alaska. The private certificated pilot and two family members/passengers aboard were fatally injured. The personal, 14 CFR Part 91, cross country flight departed Port Alsworth, Alaska, about 1200, en route to Merrill Field, Anchorage, Alaska. A visual flight rules flight plan was filed.

The pilot contacted the Kenai FAA Flight Service Station (FSS) about 1113 and requested a weather briefing for a route of flight from Port Alsworth, to Merrill Field, via Lake Clark pass. The FAA specialist briefed the pilot, issuing information which included the current conditions of low fog and stratus over Cook Inlet and the Kenai Peninsula, with pockets of IFR weather. The forecast was for improving weather, with VFR conditions along the route of flight after 1200. The pilot filed a VFR flight plan, and asked the FAA FSS specialist to open the flight plan for him at 1200, the time the pilot estimated he would be airborne. On the flight plan, the pilot estimated his time en route as 2-1/2 hours, and his total fuel on board as three hours.

The pilot radioed the Anchorage Air Traffic Approach Control facility about 1350 and requested assistance in determining his position. He indicated he was on top of an overcast, and believed he was near Fire Island, a few miles from Anchorage. The pilot was not instrument rated, and his airplane was not equipped with a transponder, or for flight in instrument meteorological conditions. With the assistance of approach controllers and flight service station specialists, the pilot's position was tentatively determined at 1415 to be in the vicinity of Mt. Russell, located about 53 statute miles northwest of Skwentna, or about 124 miles northwest of Anchorage.

Attempts were made to help orient the pilot and direct him to an area of better weather. The pilot indicated he did not believe his loran navigation unit was working properly, and he noted a large disparity between his wet (magnetic) compass and his DG (directional gyro-heading indicator). At one point, he noted his DG was 340 degrees, and his compass was reading 180 degrees. At 1413 the pilot was asked if he could see the ground at all. He responded: "ah no that's a negative", and later, at 1414, "okay ah yeah I can't see anything now I'm not exactly sure where we are but we need to do something quick." At 1415 the pilot radioed he was: "...at ten one right now right at the cloud tops going through some right now." A FSS specialist contacted the pilot at 1419 and advised of VFR conditions on the west side of the Alaska Range near Mc Grath, and offered a heading to fly that direction. The pilot responded he didn't have enough fuel to fly over the range, noting he had about 1/2 hour left. Radio contact with the pilot was lost about 1424 (see attached FAA air traffic control transcripts of radio communications).

At 1521, an emergency locator transmitter signal was received from the accident airplane in the vicinity of the Dall Glacier, about 45 miles northwest of Skwentna.

Rescue personnel reached the accident site on February 5, after numerous weather delays. The crash location was approximately 2,700 feet msl on the Dall Glacier, geographic coordinates North 62.37.60, West 152.03.66. The accident site is approximately 116 statute miles northwest of Merrill Field, the pilot's intended destination.

Rescuers discovered the airplane in a near vertical position. The front portion of the airplane was imbedded in snow and ice up to approximately the leading edge of the wings.

An FAA inspector and a representative of Piper Aircraft went to the crash site. They discovered all major components of the airplane were located with the airplane at the crash site. Control continuity was established from the flight control surfaces to the cabin floor near the control column, where cabin crushing precluded further investigation. The airplane's fuel selector handle was positioned to the left wing tank. The left wing tank held an estimated 5 to 6 gallons of gasoline. The right wing had a trace of fuel. The airplane was not equipped with any electronic navigational aids other than a loran. It did have an artificial horizon, and a heading indicator installed. No evidence of any preimpact mechanical anomaly with the airplane was discovered during their examination.

#### PILOT INFORMATION

Bradley W. Johnson was the 27 year old pilot-in-command. He held a Private Pilot certificate with an airplane single engine land rating. His pilot and medical certificates indicated he was prohibited from flying at night.

At the time his pilot's certificate was issued on March 3, 1992, his application noted 81 total flight hours, with 61 hours of instruction. His last FAA Class 3 Medical Certificate was issued on April 18, 1995. On his last application for a medical certificate, the pilot indicated his total flight time was 90 hours, with zero hours flown in the last six months.

No pilot records were made available to the FAA or NTSB investigators. Based on the number of hours noted on the pilot's last medical application, and the amount of time the accident airplane was flown since its last annual inspection, the pilot's total flight time was estimated to be approximately 120 hours.

#### METEOROLOGICAL INFORMATION

The area outlook for Cook Inlet and the Susitna Valley, valid until 1800 local, noted scattered clouds at 2,000 feet, broken at 10,000 feet, with tops to 14,000 feet, and a few layers above the tops to flight level 200. Until 1200, isolated ceilings below 1000 feet and visibility below three miles were forecast.

The nearest airport to the accident site with weather reporting capabilities was at Talkeetna, Alaska. Talkeetna is located about 65 miles east of the accident site. Reported cloud bases and visibility for Talkeetna at 1357 was: few clouds at 800 feet, ceiling 1,500 broken, 3,000 feet overcast; visibility, seven miles in light snow. A special weather observation at 1437 recorded: ceiling 800 feet broken, 1,500 feet overcast; visibility 2 miles in light snow and mist.

#### MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot by the Medical Examiner's Office of the State of Alaska, 5700 East Tudor Road, Anchorage, Alaska. The cause of death was noted as blunt impact injuries.

#### ADDITIONAL INFORMATION

The Apollo brand Loran found in the accident airplane was removed and taken to Northern Lights Avionics in Anchorage for testing. The unit functioned normally when the power was applied, and the memory displayed numerous stored waypoints, including Anchorage International Airport, and Merrill Field.

The FAA inspector who participated in the on scene investigation, interviewed two air taxi pilots who had been flying in the vicinity of Cook Inlet and the Alaska Range on the day of the accident. Both pilots noted convective cloud activity throughout much of the afternoon hours.

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	27, Male
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 3 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	04/18/1995
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	100 hours (Total, all aircraft), 20 hours (Total, this make and model), 80 hours (Pilot In Command, all aircraft), 3 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N7235D
<b>Model/Series:</b>	PA-22 PA-22	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	22-5061
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	01/24/1996, Annual	<b>Certified Max Gross Wt.:</b>	2000 lbs
<b>Time Since Last Inspection:</b>	36 Hours	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3780 Hours	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, activated, aided in locating accident	<b>Engine Model/Series:</b>	O-320-A1A
<b>Registered Owner:</b>	JOEL NATWICK	<b>Rated Power:</b>	150 hp
<b>Operator:</b>	BRADLEY W. JOHNSON	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	0 Miles
Lowest Ceiling:	Overcast / 10000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:			
Departure Point:	PORT ALSWORTH, AK	Type of Flight Plan Filed:	VFR
Destination:	ANCHORAGE, AK (MRI)	Type of Clearance:	None
Departure Time:	1200 AST	Type of Airspace:	Class G

## Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	2 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Fatal	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	JAMES D LABELLE	Report Date:	05/04/1998
Additional Participating Persons:	FRANK L MCGARR; 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 <a href="mailto:pubinquiry@ntsb.gov">pubinquiry@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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](#).