



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	POINT LAY, AK	<b>Accident Number:</b>	ANC99LA014
<b>Date &amp; Time:</b>	12/03/1998, 1038 AST	<b>Registration:</b>	N3542H
<b>Aircraft:</b>	Piper PA-31	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None

**Flight Conducted Under:** Part 91: General Aviation - Positioning

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## Analysis

A witness observed the airplane circle to land at the completion of an NDB approach. The nighttime meteorological conditions were an 800 foot ceiling, 1 mile visibility in blowing snow, and 26 knot winds. The surrounding terrain was essentially flat, snow covered, and featureless. The witness saw the airplane on final approach misaligned for the runway, and then disappear below an 18 feet msl bluff. He transmitted on the radio to 'get out of there,' and heard no response. About 10 minutes later the accident pilot walked up to the witness' airplane. The pilot told the investigator-in-charge that he was 'beat around by the winds, ...it was snowing pretty hard, I always had the lights, and I was concentrating on the runway. The next thing I knew I was on the ground short of the runway.' The pilot's previous experience to this airport was during daytime, and during visual conditions. The airport, which was being transferred from the Air Force to the North Slope Borough, has medium intensity runway lights (MIRL), and runway end identifier lights (REILS). It does not have visual approach slope indicator (VASI) lights.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Failure of the pilot to maintain a proper glidepath. Factors associated with this accident were the airport not having a VASI system installed, and the lack of visual perception for the pilot.

## Findings

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Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER

Phase of Operation: APPROACH - FAF/OUTER MARKER TO THRESHOLD (IFR)

### Findings

1. TERRAIN CONDITION - TUNDRA
2. WEATHER CONDITION - SNOW
3. WEATHER CONDITION - GUSTS
4. LIGHT CONDITION - DARK NIGHT

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: APPROACH - FAF/OUTER MARKER TO THRESHOLD (IFR)

### Findings

5. (C) PROPER GLIDEPATH - NOT MAINTAINED - PILOT IN COMMAND
6. (F) VASI - NOT AVAILABLE - OTHER GOVERNMENT PERSONNEL
7. (F) VISUAL/AURAL PERCEPTION - PILOT IN COMMAND

## Factual Information

On December 3, 1998, at 1038 Alaska standard time, a Piper PA-31 airplane, N3542H, sustained substantial damage when it collided with terrain about 1,500 feet short of runway 05 at the Point Lay Long Range Radar Site, Point Lay, Alaska. The solo airline transport pilot received minor injuries. The airplane was operated by Cape Smythe Air Service, Inc., of Barrow, Alaska, as a 14 CFR Part 91 positioning flight for an on-demand air charter. The flight departed Kotzebue, Alaska, at 0919, for Point Lay. Night, instrument meteorological conditions (IMC) prevailed at the time of the accident, and the flight was operating on an Instrument Flight Rules (IFR) flight plan.

The pilot was in contact with the Anchorage Air Route Traffic Control Center, and had been cleared for the NDB (nondirectional beacon) Runway 05 approach. Runway 05 is 3,519 feet long, and 80 feet wide. It is equipped with medium intensity runway lights (MIRL), and runway end identifier lights (REILS). The airport, which was in the process of transfer from the Air Force to the North Slope Borough, does not have visual approach slope indicator (VASI) lights. The airport is located about 1,000 feet inland from the shoreline of the Chuckchi Sea, which was frozen and covered with snow. The terrain surrounding Point Lay is essentially level and featureless.

The pilot of an airplane holding for departure clear of the approach end of runway 05 witnessed the accident. He told the NTSB investigator-in-charge (IIC) that the weather when he landed 20 minutes prior to the accident was a ceiling of 800 feet overcast, winds from the northeast, and visibility of 1 3/4 miles in blowing snow. He transmitted to the pilot of the accident airplane that there was low weather of 800 feet overcast, one mile visibility, and winds from the east at 26 knots.

The witness pilot told the IIC that he heard the accident airplane go over the NDB and then call outbound on the radio. Several minutes later he watched the airplane's lights go over the hangar on the south side of the runway at between 300 feet and 500 feet above the ground. He then observed the airplane circle to the left over the airport, and turn downwind. He lost sight of the airplane, and then saw it again, low, about one mile away, coming right at him. He described the airplane being misaligned for the runway. The lights of the airplane disappeared below a bluff (which is 18 feet above sea level) located between the runway and the shoreline, then reappeared. The witness transmitted on the radio to get out of there, then the lights again disappeared. He heard no more transmissions, and after about 10 minutes, the accident pilot walked up to the witness' airplane.

The NTSB IIC listened to a certified tape recording of the radio transmissions, and heard the witness pilot transmit on 118.9 MHz "get out of there, get out of there."

The accident pilot told the NTSB IIC during a telephone interview on December 4, 1998, and wrote in his pilot/operator report, that during the final segment of the NDB approach, he was beat around by the winds, saw the field about two miles out, and saw he was off course. He decided to circle to land. The pilot said it was snowing pretty hard, he always had the lights, and he was concentrating on the runway. The next thing he knew he was on the ground short of the runway. The pilot stated he believed he started his descent on final, and because of the darkness and snow covered, featureless terrain, it was not possible to differentiate the ground from the frozen ocean. The airplane was not accumulating ice, and the windows were clear. He said there were no mechanical problems with the airplane, and that it was running good.

The accident pilot said he had been to Point Lay on a couple of occasions, in the daytime, a couple of months earlier. He said he had executed the approach procedure before, but it may have been in visual conditions. He was hired by the company on February 9, 1998. He received his initial training in the Cessna 207. He was trained in the PA-31 in July 1998.

## Pilot Information

<b>Certificate:</b>	Airline Transport; Flight Instructor; Commercial	<b>Age:</b>	27, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane Single-engine; Instrument Airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	07/13/1998
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	3069 hours (Total, all aircraft), 311 hours (Total, this make and model), 2556 hours (Pilot In Command, all aircraft), 298 hours (Last 90 days, all aircraft), 88 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N3542H
<b>Model/Series:</b>	PA-31 PA-31	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	31-7952233
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	8
<b>Date/Type of Last Inspection:</b>	11/07/1998, 100 Hour	<b>Certified Max Gross Wt.:</b>	7368 lbs
<b>Time Since Last Inspection:</b>	77 Hours	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	15638 Hours	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	LTIO-540-32B
<b>Registered Owner:</b>	CAPE SMYTHE AIR SERVICE, INC.	<b>Rated Power:</b>	350 hp
<b>Operator:</b>	CAPE SMYTHE AIR SERVICE, INC.	<b>Operating Certificate(s) Held:</b>	Commuter Air Carrier (135); On-demand Air Taxi (135)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	CSAA

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night/Dark
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	1 Miles
Lowest Ceiling:	Overcast / 800 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	26 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	50°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:			
Departure Point:	KOTZEBUE, AK (OTZ)	Type of Flight Plan Filed:	IFR
Destination:	(PIZ)	Type of Clearance:	IFR
Departure Time:	0919 AST	Type of Airspace:	Class E

## Airport Information

Airport:	POINT LAY LRRS (PIZ)	Runway Surface Type:	Gravel
Airport Elevation:	20 ft	Runway Surface Condition:	Snow--dry
Runway Used:	5	IFR Approach:	ADF/NDB
Runway Length/Width:	3519 ft / 80 ft	VFR Approach/Landing:	

## Wreckage and Impact Information

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

## Administrative Information

Investigator In Charge (IIC):	MATTHEW L THOMAS	Report Date:	02/16/2001
Additional Participating Persons:	JOHN GAMBLE(FAA FSDO); FAIRBANKS, 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:pubinq@ntsb.gov">pubinq@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> .		

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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](#).