

# National Transportation Safety Board Aviation Accident Final Report

Location: BETHEL, AK Accident Number: ANC97FA008

Date & Time: 11/26/1996, 1101 AST Registration: N4704B

Aircraft: Cessna 208B Aircraft Damage: Destroyed

Defining Event: Injuries: 1 Fatal

Flight Conducted Under: Part 135: Air Taxi & Commuter - Non-scheduled

## **Analysis**

The pilot was departing on a cargo flight. Just after takeoff, a company dispatcher attempted to contact the pilot by radio. The pilot replied, 'stand by.' No further communication was received from the pilot. The airplane was observed by ATC personnel in a left turn back toward the airport at an estimated altitude of 200 feet above the ground. The angle of bank during the turn increased, and the nose of the airplane suddenly dropped toward the ground. The airplane struck the ground in a nose and left wing low attitude about 1 mile west of the airport. The terrain around the airport was relatively flat, snow covered tundra. The airplane was destroyed. A postaccident examination of the engine did not reveal any mechanical malfunction. Power signatures in the engine indicated it was developing power. A postaccident examination of the propeller assembly revealed one of three composite blades had rotated in its blade clamp 17/32 inch; however, the propeller manufacturer indicated blade contact with the ground would try to drive the propeller from a high blade angle toward a low blade angle. Movement toward a low blade angle would compress the propeller feathering springs, while movement toward a high blade angle would result in a hydraulic lock condition as oil in the system is compressed. The propeller manufacturer indicated they had no reports of composite blade slippage in the blade clamps.

## **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 control of the airplane, while maneuvering to reverse direction after takeoff, after encountering an undetermined anomaly. The undetermined anomaly was a related factor.

### **Findings**

Occurrence #1: UNDETERMINED

Phase of Operation: TAKEOFF - INITIAL CLIMB

**Findings** 

1. (F) MISCELLANEOUS, AIRFRAME - UNDETERMINED

-----

Occurrence #2: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: MANEUVERING - TURN TO REVERSE DIRECTION

Findings

2. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND

. . . . . . . . . . . . . . . .

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

**Findings** 

3. TERRAIN CONDITION - SNOW COVERED

Page 2 of 11 ANC97FA008

#### **Factual Information**

#### History of the Flight

On November 26,1996, at 1101 Alaska standard time, a Cessna 208B, N4704B, crashed into snow covered terrain following takeoff from the Bethel Airport, Bethel, Alaska. The airplane was being operated as a visual flight rules (VFR) cross-country cargo flight under Title 14 CFR Part 135 when the accident occurred. The airplane, registered to and operated as flight 1604 by Arctic Transportation Services, Anchorage, Alaska, was destroyed. The certificated airline transport pilot, the sole occupant, received fatal injuries. Visual meteorological conditions prevailed. VFR company flight following procedures were in effect.

At 1057:56, the pilot contacted the Bethel Air Traffic Control Tower (ATCT) ground control and requested a southwest departure. The air traffic control specialist cleared the flight for taxi to runway 36. The pilot then contacted the Bethel ATCT local controller, and at 1059:39, the pilot was cleared for takeoff.

The pilot did not communicate with the Bethel ATCT after takeoff. Following departure, the company dispatcher attempted to contact the pilot to obtain his liftoff time. The pilot stated "stand by." After departure from runway 36, tower personnel observed the airplane in a left turn back toward the airport at an estimated altitude of 100 to 200 feet above the ground. The angle of bank increased and the nose of the airplane suddenly dropped toward the ground. The airplane struck the ground in a nose and left wing low attitude about 1101:55, about 1 mile west of the airport.

The accident occurred during the hours of daylight at latitude 60 degrees, 47.434 minutes north, and longitude 161 degrees, 51.515 minutes west.

#### **Crew Information**

The pilot held an airline transport pilot certificate with an airplane multi-engine land rating. He also held commercial pilot privileges with airplane single-engine land and sea ratings. In addition, the pilot held a flight instructor certificate with an airplane single-engine rating and a mechanic certificate with airframe and powerplant ratings. The most recent second-class medical certificate was issued to the pilot on February 10, 1996, and contained no limitations.

According to the pilot/operator report submitted by the operator, the pilot's total aeronautical experience consisted of about 3,622.7 hours, of which 474.4 were accrued in the accident airplane make and model. In the preceding 90 and 30 days prior to the accident, the report listed a total of 270.4 and 98.8 hours respectively.

#### **Aircraft Information**

The airplane and engine had accumulated a total time in service of 3711.3 hours and 5,069 cycles. Examination of the maintenance records revealed the airplane was maintained under an approved inspection program (AAIP). The most recent inspection was a phase 3 inspection completed on November 6, 1996, 61.1 hours before the accident. The engine, propeller, and airframe, received an annual inspection on March 19, 1996, 648.1 hours before the accident.

The engine has a time between overhaul (TBO) requirement of 3,500 hours. The FAA granted a 10 percent extension to a TBO of 3,850 hours with an "on-condition" inspection program of the engine hot section. The extension was granted with the stipulation the operator continue

Page 3 of 11 ANC97FA008

utilizing a trend monitoring program to track the engine parameters. The engine performance parameters were recorded by company pilots on each flight and then entered into a computer tracking program where the performance data was displayed in a graphical format. The performance graphs were reviewed by the operator's director of maintenance. The graphical results revealed an inconsistent pattern of engine performance and a scattering of recorded engine values, but did not reveal any obvious degradation of engine power.

The airplane utilizes a constant speed, full feathering, and reversible propeller. The airplane's propeller assembly has three composite construction propeller blades. The leading edge of each blade is metal. The inboard end of each blade consists of an aluminum base. The blades are retained in their respective hub positions by a steel clamp attached around the base of the blade. The clamp halves are bolted together around the base of the blade. Following assembly of the blades in the propeller hub, each blade is required to be subjected to a 200 ft/lb torque test to see if a blade slips in the clamp. A red mark on the blade and one on the clamp are utilized to provide a visual reference point to check for any sign of blade slippage in the clamp.

At the time of the accident, the propeller assembly had accrued 5,066.9 hours, 746.5 hours since being overhauled. It was overhauled on July 12, 1995, after accruing 4,319.9 hours, total time. The propeller assembly was installed on the accident airplane on February 23, 1996, at 4,399.5 hours total time and 79.1 hours since the overhaul. On July 26, 1996, at 4,699.0 hours total time and 378.6 hours since being overhauled, the propeller blades sustained ground damage and were replaced. Factory overhauled blade serial numbers 9195, 9272, and 9273, were installed by Dominion Propeller Corporation, Anchorage, Alaska. The blades accrued an additional 367.9 hours before the accident.

Fueling records at Hanger One, Bethel, established that the aircraft was last fueled on the accident date with the addition of 50 gallons of Jet A aviation fuel. A Peninsula Airways airplane also received fuel from the same fuel vender as that of the accident airplane, and departed before the accident flight.

A fuel selector "OFF" warning system is located in the inboard end of each wing. The system includes redundant warning horns and an annunciator warning light to alert the pilot if one or both of the fuel tank selectors are in the "OFF" position.

#### **Meteorological Information**

The closest official weather observation station is Bethel, which is located about 1 nautical miles east of the accident site. At 1052, an aviation routine weather report (METAR) was reporting, in part: Wind, 010 degrees (true) at 12 knots; visibility, 40 statute miles; Sky condition and ceiling, few clouds at 4,000 feet, few clouds at 10,000 feet; temperature, -14.0 degrees C; dew point, -16.6 degrees C; altimeter, 29.71 inHg; remarks: Ice crystals ended 45 minutes past the hour.

At 1101, the Bethel ATCT automated airport advisory service (ATIS) was reporting, in part: Bethel tower information Yankee at 1052; wind, 010 degrees at 12 knots; visibility, 40 miles; few clouds at 4,000 feet, a few clouds at 10,000 feet, temperature, -14 degrees; dew point, -16 degrees; altimeter, 29.70; visual approach in use to runway 36; notice to airmen, runway 11/29, thin snow, the taxiways and ramps have thin snow over patchy thin ice, advise on initial contact you have information Yankee.

#### Communications

Page 4 of 11 ANC97FA008

Review of the air-ground radio communications tapes maintained by the FAA at the Bethel ATCT revealed the pilot successively and successfully communicated with the positions of ground and local control. A transcript of the air to ground communications between the airplane and the Bethel ATCT is included in this report.

#### Aerodrome and Ground Facilities

The Bethel airport is equipped with a hard-surfaced runway on a 360/180 degree magnetic orientation. Runway 36 is 6,398 feet long by 150 feet wide. A second gravel surface runway is oriented on a magnetic heading of 110/290 degrees. Runway 11 is 1,850 feet long by 75 feet wide.

The Bethel ATCT is a Federal Contract Tower (FCT) operated by Barton ATC International, Inc.

#### Wreckage and Impact Information

The National Transportation Safety Board investigator-in-charge (IIC) examined the airplane wreckage at the accident site on November 27, 1996. A path of wreckage debris and ground scars from the initial point of ground contact to the wreckage point of rest was observed on a magnetic heading of 140 degrees. (All heading/bearings noted in this report are oriented toward magnetic north.)

All of the airplane's major components were found at the main wreckage area. The first observed point of ground impact was a small gouging of soil in a fan shaped pattern located in tundra and snow covered terrain. The left wingtip position light assembly was located about 25 feet from the first observed point of impact along the wreckage path. A line of snow and soil disruption was present from the first observed point of ground contact along the wreckage path to about a 4 foot diameter crater in the soil and rocks. This was about 36 feet after the first observed point of impact. About 18 inches of the metal leading edge of one propeller blade was located in the crater area. The remaining portion of the blade was shattered and destroyed.

About 10 feet to the left of the crater was a second propeller blade, serial number 9273. The blade was broken at the inboard end of the blade and the face side of the blade displayed several spanwise splintering fractures. The cambered side of the blade displayed minor chordwise scuff marks, about mid-span. Broken pieces of Plexiglas, the pilot's windshield heat assembly, pieces of engine cowling, and portions of the nose wheel assembly were located adjacent to the crater. Wreckage debris, including portions of the cargo, were located along the wreckage path from the crater to the fuselage point of rest.

A third propeller blade was located between the impact crater and the instrument panel. It separated from the hub assembly and displayed extensive spanwise fractures. About 4 inches inboard from the tip, the leading edge exhibited about a 1 inch deep and 4 inch wide indentation and crushing of the blade material. The trailing edge of the blade displayed a similar indentation and crush. The metal leading edge of the blade was fractured and missing from the blade.

The right control yoke of the airplane was located about 36 feet beyond the impact crater along the wreckage path. The left side of the yoke was broken.

The engine, instrument panel, and cockpit seats were located about 130 feet from the first observed point of ground contact. The instrument panel was extensively damaged and distorted. The fuel condition lever was found in the low idle position. The propeller lever knob

Page 5 of 11 ANC97FA008

was broken and found near the maximum position. The power lever was bent to the left and found near the idle position. The emergency power lever was found in a mid-range position. The left sidewall switch and circuit breaker panel was torn from the cockpit. The external power switch was found in the "BUS" position. The battery switch and the number 1 avionics switch were found in the "OFF" position. The generator switch, fuel boost switch, and the standby power switch were found in the "ON" position. The ignition switch was found in the "NORM" position. The starter was found in the "START" position. The avionics standby power, avionics bus, and the number 2 avionics switches were destroyed. The annunciator panel was destroyed.

The engine came to rest standing vertically, propeller hub assembly down. The accessory case separated from the engine at its attach point to the compressor section. The exposed compressor blades exhibited slight curling of blade tips. The exhaust flange was crushed and folded against the engine case. The metal folds did not exhibit any cracking. The fuel control unit's pneumatic section was fractured from the governor section. The accessory case exhibited several holes in the case, exposing several internal gears. The engine oil quantity dip stick was located out of the case. The locking latch was found in the up and open position. The mating surface and lip of the accessory case, into which the dip stick locks, was broken away from the case. Examination of the magnetic reduction gearbox chip detector plug revealed no evidence of contamination.

The propeller hub assembly remained attached to the engine. Each propeller base was retained in the hub. Each blade fractured and separated from their respective base, about 4 inches outboard from each blade clamp. The propeller dome was fractured and bent about 90 degrees under the hub assembly. The base of the dome was torsionally twisted and exhibited a spanwise fold.

The left wing separated from the fuselage and was located about 22 feet to the right of the wreckage path, to the right of the engine point of rest. It came to rest upside down and exhibited extensive leading edge aft crushing on about a 45 degree angle. The leading edge aft crushing and wing destruction is evident from about the outboard flap attach point to the tip. The leading edge, from the outboard flap attach point to the separated inboard end of the wing, displayed aft crushing that produced a flat crush surface. The flat crush surface was deformed and rolled slightly toward the upper surface of the wing. The outboard end of the wingtip was destroyed with aft crushing and folding toward the underside of the wing to about a 90 degree angle.

The left wing aileron was bent about mid-span and also crushed and folded toward the underside of the wing. The aileron remained attached to the wing at its inboard attach point. The left wing lift strut remained attached to the wing. The lower lift strut attach point was still bolted to its respective fuselage attach point but the surrounding fuselage structure was torn from the airplane. The forward leading edge of the lift strut displayed an aft and flat crush signature.

The fuel system warning horn micro switches contained in the separated left wing were visible but were impact damaged. The micro switches in the right wing were not accessible.

The right wing remained attached to the fuselage but the inboard end of the wing was torn and fractured at the fuselage carry-through and displaced away from the fuselage about 1 foot. The lift strut was attached to the wing but the lower end of the strut was pulled out of its lower

Page 6 of 11 ANC97FA008

attach point bracket. The wingtip was resting on the ground and the wing was displaced from the fuselage in a slight forward direction with the trailing edge of the wing displaced downward.

The leading edge of the right wing displayed extensive aft crushing and folding on about a 30 degree angle from the inboard end to the wing tip. The leading edge displayed an aft and flat crush surface oriented toward the underside of the wing from the lift attach point, outward to the tip. The upper surface of the wing, just aft of the leading edge displayed diagonal compression buckling and tearing from the inboard end to about the lift strut attach point. The right wing flap was attached to the wing and visually appeared to be extended about 20 degrees. The aileron remained attached to the wing and was folded in an aft and upward direction at the tip.

The entire nose section, cockpit area, and engine portion of the airplane was sheared off the fuselage just forward of the lower wing lift strut attach point, about fuselage station 170. The upper roof of the fuselage was crushed downward and the floor of the fuselage was crushed upward at the point of separation. The belly mounted cargo pod was also destroyed back to the point of cockpit separation. Items of cargo contained in the rear of the airplane that were secured by straps and cargo netting were still retained in the fuselage.

The fuselage was intact from the main landing gear to the tail and came to rest upright about 220 feet from the first observed point of ground contact. The empennage was bent about 45 degrees to the left and buckled upward, just aft of the rear cargo door, about fuselage station 340. The outboard and trailing end of the left elevator displayed a slight upward curl. The horizontal stabilizer, vertical stabilizer, and the rudder appeared undamaged. The manufacturer reported the elevator trim was displaced to a full nose down trim position.

A sample of fuel was drained from the airplane's fuel reservoir. It was free of contaminants.

Medical and Pathological Information

A postmortem examination of the pilot was conducted under the authority of the Alaska State Medical Examiner, 5700 E. Tudor, Anchorage, Alaska, on November 27, 1996.

**Tests and Research** 

On January 7, 1997, an examination of the engine and propeller assembly was conducted at Pratt & Whitney Canada, Inc., Longueuil, Quebec. The parties noted in this report participated in the examination.

The engine case displayed minor impact deformation. The internal high speed rotating components of the engine, including the compressor disc blades and the power turbine disc blades and adjacent stator blades, did not exhibit extensive damage or destruction.

The compressor 1st, 2nd, and 3rd stage disc blades were deformed opposite the direction of rotation. The blade tips were discolored and scoring was noted on the compressor shroud adjacent to their respective paths of rotation. The root area of the 3rd stage disc blades displayed circumferential deformation. The compressor 1st, 2nd and 3rd stage stator airfoil tips displayed circumferential scoring adjacent to their respective spacers. The stator airfoils at the 10 o'clock position were deformed in the direction of compressor rotation and slightly forward. The centrifugal impeller vane airfoil tips exhibited rub marks, heat discoloration, and smearing with corresponding scoring on the impeller shroud. The compressor front stub shaft was fractured.

Page 7 of 11 ANC97FA008

The number 1 and number 2 air seals displayed circumferential scoring with corresponding scoring on the air seal stator. The combustion section displayed minor impact deformation.

The turbine compressor blade tips and the downstream side of the disk around the root area of the blades, exhibited circumferential scoring, heat discoloration, and material smearing adjacent to the power turbine guide vane ring. Several of the power turbine guide vane airfoils were cracked and fractured. The fracture surfaces displayed clean multiple fracture planes without any evidence of sooting. The root ends of the airfoils exhibited circumferential scoring, heat discoloration, and material smearing adjacent to the compressor turbine disc. The upstream side of the interstage baffle inner cup was scored and deformed adjacent to the compressor turbine disc hub spigot. The inner edge of the downstream side of the power turbine guide vane ring was fractured.

The power turbine disc blades were deformed opposite the direction of rotation. Three blades were fractured. The blade airfoil tips displayed circumferential scoring, heat discoloration, and material smearing adjacent to the power turbine shroud. Numerous nicks and rotational scoring marks were noted on the upstream and downstream airfoil edges. The root ends of the airfoils and rim of the upstream side of the disk exhibited scoring and circumferential smearing adjacent to the power turbine guide vane ring.

The 1st stage planet gear carrier spigot was fractured from the carrier web of the reduction gearbox and the area displayed extensive rotational scoring and material smearing. The 2nd stage planet gear carrier and gear pin retaining nuts exhibited circumferential machining adjacent to the 1st stage planet gear carrier.

The accessory case was fractured from its compressor section attach points. The rear case housing was fractured and exhibited a hole in the case adjacent to the external oil scavenge pump mounting pad. The internal housing diaphragm was fractured and exhibited a hole adjacent to the bearing seats for the scavenge pump idler gear and the high pressure fuel pump drive gear. Portions of the fractured case material were located inside the case. The internal housing bearings for the scavenge pump idler gear and the high pressure fuel pump drive gear exhibited fracturing of the bearing outer race. Semi-circular slivers of the race were separated adjacent to the roller elements of the bearings.

The ignition exciter box, ignition leads, fuel pump, fuel control unit, propeller governor, and overspeed governor, received impact damage. The ignition plugs, fuel nozzles, and compressor bleed valve, function properly. The flow divider exhibited slight external leakage and disassembly revealed internal impact damage. Disassembly of the compressor bleed valve and the overspeed governor, revealed no malfunctions. Disassembly of the fuel control drive body revealed the plastic connecting coupling between the bellows and drive body was shattered. Disassembly of the propeller governor revealed the pilot valve shaft was fractured near the base of the fly-weight assembly. The internal gear housing exhibited several lateral score marks adjacent to the path of the internal gear teeth. Disassembly of the fuel pump revealed the presence of fuel. The inlet and outlet screens were free of contaminants.

Examination of the magnetic accessory gearbox chip detector plug revealed light ferrous slivers on the plug. The oil filter was free of contaminants.

Examination of the propeller hub assembly revealed one propeller blade's slippage marks did not align at the same point. The propeller blade base, serial number 9195, retained in hub number F1016, was found to have moved 17/32 toward a low pitch position. The counter-

Page 8 of 11 ANC97FA008

weight was attached to the hub. Removal of one half of the clamp around the base of blade 9195 revealed the presence of grease lubricants. A score mark on the surface of the blade base, oriented spanwise, was noted under the blade clamp. The other two blade bases, retained in hub numbers F1029, and F1070, had not moved in relation to their respective blade clamps. The counter-weights on hub numbers F1029 and F1070 were broken from the hub base. Disassembly of each blade clamp required the use of a hammer to loosen the clamp bolts. The torque values required to loosen each clamp bolt was not recorded.

The interior of the propeller dome was examined and the resting position of the propeller piston was documented. The propeller manufacturer reported the resting position of the piston corresponded to a blade angle of 22 degrees. The interior of the propeller dome also exhibited a longitudinal score mark adjacent to one corner of the propeller piston. The score mark, measured from the base of the dome, extended from 2 8/32 inches to 3 20/32 inches. The propeller manufacturer reported the mark corresponded to a blade angle of between 5 degrees to 46 degrees. The propeller manufacturer indicated blade contact with the ground will try to drive the propeller from a high blade angle toward a low blade angle. Movement toward a low blade angle would compress the propeller feathering springs. Movement toward a high blade angle would result in a hydraulic lock condition as oil in the system is compressed. The propeller manufacturer also reported the spanwise score mark most likely occurred during the impact sequence.

The propeller manufacturer indicated they have no reports of composite blade slippage in the blade clamps. Service reports of metal blade slippage in the past have been limited to a maximum of 2 degrees. Blade slippage will produce a vibration in the propeller.

### Wreckage Release

The Safety Board released the wreckage, located at Arctic Transportation Services, Bethel, Alaska, to the owner's representatives on November 27, 1996. The engine was retained by the Safety Board for examination until its release on January 9, 1997.

#### **Pilot Information**

Certificate:	Airline Transport; Commercial	Age:	36, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Single-engine	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medicalno waivers/lim.	Last FAA Medical Exam:	02/10/1996
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	3623 hours (Total, all aircraft), 474 hours (Total, this make and model), 3600 hours (Pilot In Command, all aircraft), 270 hours (Last 90 days, all aircraft), 99 hours (Last 30 days, all aircraft)		

Page 9 of 11 ANC97FA008

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N4704B
Model/Series:	208B 208B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	208B0199
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	11/06/1996, AAIP	Certified Max Gross Wt.:	8750 lbs
Time Since Last Inspection:	61 Hours	Engines:	1 Turbo Prop
Airframe Total Time:	3711 Hours	Engine Manufacturer:	P&W
ELT:	Installed, not activated	Engine Model/Series:	PT6A-114
Registered Owner:	ARCTIC TRANSPORTATION SERVICES	Rated Power:	600 hp
Operator:	ARCTIC TRANSPORTATION SERVICES	Operating Certificate(s) Held:	Commuter Air Carrier (135)
Operator Does Business As:		Operator Designator Code:	UATA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	BET, 123 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	1123 AST	Direction from Accident Site:	110°
Lowest Cloud Condition:	Scattered / 2000 ft agl	Visibility	40 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	12 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	10°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	-14°C / -16°C
Precipitation and Obscuration:			
Departure Point:	(BET)	Type of Flight Plan Filed:	VFR
Destination:	KWIGILLINGOK, AK (KWK)	Type of Clearance:	VFR
Departure Time:	1059 AST	Type of Airspace:	Class D

## **Airport Information**

Airport:	BETHEL (BET)	Runway Surface Type:	Asphalt
Airport Elevation:	123 ft	Runway Surface Condition:	Snowdry
Runway Used:	36	IFR Approach:	None
Runway Length/Width:	6398 ft / 150 ft	VFR Approach/Landing:	None

Page 10 of 11 ANC97FA008

#### Wreckage and Impact Information

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

#### **Administrative Information**

Investigator In Charge (IIC):

Additional Participating Persons:

GERALD MARTELLI; ANCHORAGE, AK
BRIAN A ANDRUS; ANCHORAGE, AK
THOMAS A BERTHE; LONGUEUILCANADA, CD
WILLIAM B WELCH; WICHITA, KS

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 pubing@ntsb.gov, or at 800-877-6799. Dockets released after

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.

this date are available at http://dms.ntsb.gov/pubdms/.

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.

Page 11 of 11 ANC97FA008