National Transportation Safety Board
Aviation Accident Final Report

Location:	CORDOVA, AK	**Accident Number:**	ANC95LA119
Date & Time:	07/29/1995, 1150 AKD	**Registration:**	N800DD
Aircraft:	CESSNA 421C	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	4 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

THE FLIGHT DEPARTED JUNEAU, ALASKA ON A VFR FLIGHT TO KING SALMON, ALASKA. WHEN THE FLIGHT WAS 50 MILES SOUTHWEST OF THE YAKUTAT VOR, THE PILOT REQUESTED AN IFR CLEARANCE. HE WAS CLEARED DIRECT TO MIDDLETON ISLAND VOR, THEN DIRECT TO KING SALMON VOR. WHEN THE FLIGHT WAS 20 MILES NORTHWEST OF MIDDLETON ISLAND, THE PILOT CONTACTED ARTCC AND INDICATED HIS RIGHT ENGINE HAD COME APART. THE PILOT ATTEMPTED TO FLY TO AND LAND AT MIDDLETON ISLAND, ALASKA. DURING THE FLIGHT, THE AIRPLANE CONSISTENTLY LOST ALTITUDE. HE FLEW PAST THE ISLAND AND WAS SOUTHEAST OF THE ISLAND, WHEN RADAR CONTACT WAS LOST. THE AIRPLANE WAS NOT RECOVERED. FLIGHT CREW OF RESCUE AIRCRAFT STATED THEY SAW BUBBLES, AN OIL SLICK, AND AIRPLANE DEBRIS IN THE OCEAN APPROXIMATELY 3 MILES SOUTH OF THE MIDDLETON ISLAND AIRPORT. THE 1126 ADT WEATHER AT THE AIRPORT WAS IN PART: 600' BROKEN, VISIBILITY 5 MILES, WIND FROM 117 DEG AT 17 GUSTING 25 KNOTS.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: MECHANICAL LOSS OF ENGINE POWER FOR UNDETERMINED REASON(S), AND SUBSEQUENT IN-FLIGHT COLLISION WITH WATER (OR DITCHING AT SEA).

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: CRUISE - NORMAL

Findings
1. 1 ENGINE
2. (C) POWERPLANT - UNDETERMINED

Occurrence #2: ALTITUDE DEVIATION,UNCONTROLLED
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings
3. FLIGHT TO NEW DESTINATION - ATTEMPTED - PILOT IN COMMAND
4. PRECAUTIONARY LANDING - ATTEMPTED - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings
5. WEATHER CONDITION - LOW CEILING
6. TERRAIN CONDITION - WATER,ROUGH

Factual Information

HISTORY OF FLIGHT

On July 29, 1995, a retractable gear, wheel equipped Cessna 421C, N800DD, registered to Business Flying Enterprises Inc., of Milwaukee, Wisconsin, and operated by the owner/pilot, departed the Juneau Airport, Juneau, Alaska, at 0842 Alaska daylight time.

The destination was King Salmon, Alaska. While en route, the pilot of N800DD requested and received an instrument flight rules clearance. Approximately 20 miles west of Middleton Island, Alaska, the pilot indicated via a radio transmission that the airplane's right engine had come apart. He received a clearance to fly direct to the Middleton Island very high frequency omni range (VOR). The airplane descended to visual meteorological conditions for class G airspace while flying directly to the island. The Anchorage Air Route Traffic Control Center (ARTCC) maintained radar and radio contact with the flight until 1150 when they observed the flight pass Middleton Island and fly over the ocean southeast of the island. Rescue aircraft observed bubbles, an oil slick, and debris in the water approximately 3 nautical miles south of the Middleton Island Airport. The personal flight was operating under 14 CFR Part 91. The airplane wreckage has not been recovered from the ocean. One body was recovered. The pilot and remaining two passengers have not been located and are presumed fatally injured.

WITNESSES

There were two Federal Aviation Administration (FAA) technicians on Middleton Island at the time of the accident. They were able to transmit a weather observation to ARTCC but neither saw or heard the airplane overfly Middleton Island.

DAMAGE TO AIRCRAFT

The airplane is presumed to have crashed in the ocean waters and has not been recovered. Airplane debris that washed up onto the shore of Middleton Island consisted of the following:

1. outer left main gear door 2. outer right main gear door 3. 2 pieces of wood grain colored, wood trim 4. 1 life vest, eastern aero marine, part number P0201-105, serial number J43762; it was unopened 5. 1 small strip of plexiglass which had one edge lined with weather stripping material 6. 2 antennas, a fin antenna 14 inches high by 5 inches long and a small fin antenna 2.25 inches high by 10.5 inches long 7. 3 pieces of fuel cell float material; one piece was marked with "s/n 3701 L CTR."

The parts were returned to Scott Air Charter, P.O. Box 37554, 5480 S Howell Ave, Milwaukee, WI 53237.

PERSONNEL INFORMATION

The 61 year old pilot was the holder of a commercial pilot certificate, number 001682420, with airplane single and multi engine land, and instrument airplane ratings. The pilot's total flight time was derived from his last application for medical certificate, dated 9/30/94. He showed a total flight time of 2000 hours and that he had flown 10 hours within the previous six months.

The pilot was the holder of a FAA second class medical certificate which required that he have glasses available for near vision. The medical certificate was dated 9/30/94.

It could not be determined if the pilot met the biennial flight review requirement.

AIRCRAFT INFORMATION

N800DD, a Cessna 421C, was registered to a corporation owned by the pilot. The pilot leased the airplane to Scott Air Charter of Milwaukee, WI. Scott Air Charter maintained the airplane and the airplane records. According to those records the airplane was on a continuous airworthiness inspection program. The last entry in the logbook, which complied with the continuous airworthiness inspection program, was dated 5/24/95. The inspection was termed routine and the exhaust system airworthiness directive, number 75-23-08, was complied with and no defects were found. The total time on the airplane at this inspection was 4,912 hours.

The airplane was equipped with 2 Continental GTSIO-520- MCL engines, each capable of producing 375 horsepower. The left engine, serial number 272193R, was installed on the airplane on 10/20/88. The engine was last inspected on 5/24/95 and had a total time since overhaul of 1362 hours. The right engine, serial number 606050, was installed on the airplane on 5/18/93. The engine was last inspected on 5/24/95 and had a total time since overhaul of 645.8 hours. The engine logbook entries for both engines referred to the inspection as "routine."

A review of the right engine logbook records shows that most of the logbook entries referred to the inspections as "routine." However, the alternator on the right engine was replaced 4 times with a serviceable unit on the following days; 3/2/94, 6/4/94, 5/28/94, and 2/1/95. The only entry that was not listed as a routine inspection was dated 11/14/94 and involved the number 5 cylinder change with a balanced cylinder assembly which included the cylinder, piston, and rings. The ring fit tolerances were listed on the rear of the yellow serviceable tag attached to the right engine's logbook.

METEOROLOGICAL INFORMATION

Middleton Island is located in the North Gulf Coast of Alaska, approximately 75 nautical miles south, southwest of Cordova, Alaska. Middleton Island is equipped with an Automatic Meteorological Observation System (AMOS) which reports the temperature, dewpoint, wind speed and direction, and the barometric pressure. The FAA occasionally staffs the Middleton Island remote communications outlet and radar facility with technicians and they are qualified to take and submit weather observations. Upon the request of the ARTCC, the technicians accomplished a weather observation approximately 1120 and transmitted the ceiling as estimated 600 broken, 9,000 overcast, visibility 5 miles with light rain and fog, temperature 53 degrees fahrenheit, dewpoint 43 degrees fahrenheit, winds from 117 degrees at 17 knots gusts to 25 knots, and the barometric pressure was 29.89 inches of mercury.

The area forecasts for the North Gulf Coast Area, which were provided by the FAA Air Traffic Evaluation division, showed that an AIRMET existed for: "IFR/MTN obscuration," with occasional ceilings below 1,000 feet and visibilities below 3 miles with light rain and fog. The forecast called for surface winds to be 15 knots with gusts to 25 knots. Moderate turbulence below 6,000 feet near channeled terrain and moderate rime ice in clouds and precipitation was also forecast. The freezing level was forecast to be 7,500 feet.

According to the FAA transcripts, a conversation between Juneau Flight Service Station, preflight station 6 (PF6), and a person identifying himself as the pilot of N800DD, showed that he was briefed about a lot of clouds and precipitation on the route of flight between Juneau and King Salmon. The weather was associated with an old typhoon that moved up into the Central Gulf of Alaska. He was further briefed about the freezing levels which were forecast to be

between 6,000 and 7,000 feet.

AIDS TO NAVIGATION

N800DD departed Juneau on a visual flight rules flight plan. Approximately 50 miles southwest of Yakutat, Alaska, at 1009, N800DD called Anchorage Center and requested an instrument flight rules flight clearance from present position direct to King Salmon, Alaska. At 1011 ARTCC cleared N800DD present position direct to King Salmon. ARTCC was unable to establish radar contact so the clearance was amended to cleared direct Middleton VOR then direct King Salmon VOR.

Middleton Island is equipped with a VOR, frequency 115.3, identifier MDO. A non-directional beacon (NDB,) the Wessels NDB, is also located on Middleton Island and it has a frequency of 260 Mhz with an identifier of ESS. According to the Low Altitude En Route Chart, a VOR airway, V440, connects the Yakutat VOR, located east of Middleton Island, and the Middleton Island VOR. The airway V440 departs Middleton VOR westbound and connects with the Kenai VOR. There is no airway directly connecting the Middleton Island VOR and the King Salmon VOR.

King Salmon is located 420 nautical miles west of Middleton Island.

COMMUNICATIONS

According to the FAA transcripts, N800DD contacted ARTCC at 1009 requesting an instrument flight rules clearance. When N800DD attempted to give its position in reference to a navigational aid the radio transmission was not clear. The voice on the radio stated: "ah ak y a k." ARTCC later confirmed N800DD's position as 50 miles southwest of "Yakutat." ARTCC cleared N800DD to an altitude of 10,000 feet.

At 1025, the ARTCC position R7 contacted N800DD and instructed him to report 50 miles northeast of Middleton Island on Frequency 133.6. N800DD acknowledged the transmission and reported level at 10,000 feet. At 1059 N800DD reported: "picking up some light rime icing." ARTCC offered a block altitude clearance which was declined by N800DD.

At 1115:57 N800DD transmitted: "we're having terrible problems---delta." ARTCC called N800DD and he responded with "we're having some sort of mechanical problem." At 1116:20 N800DD transmitted that: "something's coming apart." ARTCC asked for N800DD's intentions and offered assistance. At 1118:49 ARTCC called N800DD and stated that he was at 6,400 feet of altitude. ARTCC asked if he would be able to maintain that altitude. N800DD responded by saying: "I don't know I'm trying---trying right now." At 1121 N800DD had descended to 5,500 feet. N800DD indicated that he was not sure if he could maintain that altitude.

At 1124:43 N800DD stated that: "roger we've got the right engine out some---something came apart on the right engine." ARTCC repeated: "understand your right engine is out," and N800DD stated: "affirmative."

At 1126:50 ARTCC transmitted the weather observation from Middleton Island and N800DD elected to fly to Middleton Island. The airplane's altitude was now 3,900 feet. At 1132:21 N800DD was heading directly for Middleton Island at 3,100 feet and he stated that he was in solid "IFR" conditions. ARTCC asked N800DD if he had approach plates for Middleton Island and he responded: "yes, but I can't get my hands on them." At 1141 N800DD reported over Middleton Island and radar depicted the airplane leaving 700 feet. N800DD confirmed

the information. At 1142 N800DD transmitted: "where's the runway we can't we're trying to find." ARTCC tells N800DD the runway is on the 011 radial from Middleton Island for 1.3 miles. ARTCC asks N800DD if he is heading out on the 011 degree radial because the radar depicts the airplane traveling southeast. N800DD asks: "is it past the island on the water"? ARTCC transmits the location of the runway in relation to the VOR once more and also states that he sees the airplane in a left turn going back north. N800DD transmits: "we're on the 011 1.6 I don't see it."

At 1143:53 ARTCC stated: "ok if you could turn back to the island and go to the north end do a left turn to radar depicts you at four hundred feet and turning left going north." There were no further transmissions from N800DD and radar contact was lost at 1145:24 Alaska daylight time.

AERODROME

Middleton Island Airport is located on Middleton Island at geographic coordinates 59 degrees, 27 minutes north and 146 degrees, 18 minutes west. The airport is unattended and has no services available. Communications available are with the Juneau Flight Service Station through the RCO. The runway is a 4200 foot long soft gravel strip. It is aligned with 010 and 190 degrees. The runway threshold is marked with wooden panels and the runway lights are out of service and many are missing according to the Alaska Flight Information Supplement. The airport is serviced by three instrument approaches, a VOR/DME to runway 19, a VOR to runway 1 and an NDB-A approach. The minimum safe altitude for a 25 mile area is listed as 1,500 feet.

WRECKAGE AND IMPACT INFORMATION

No main airplane wreckage was sighted or recovered. A Canadian P3 rescue airplane, call sign Rescue 116, offered assistance but never descended below the cloud cover. He did not see any wreckage. A Coast Guard helicopter reached the scene and fixed the position of the bubbles, oil slick, and airplane debris.

ADDITIONAL INFORMATION

During a telephone conversation with Michael Lindner in August 1995, whose father and brother were passengers on the airplane, he stated that he drove his father and brother to the airport for the trip. Upon arriving he asked the pilot, Mr. Allen Gelin, "Allen look at your poor aircraft." Michael Lindner stated that the wheels were compressed and the struts were compressed to the maximum. He stated that the pilot replied: "Oh it's a little bit overloaded, 4 hours of fuel burn then it'll be down to the limits." Michael Lindner stated that airplane was capable of carrying 255 gallons of fuel.

Pilot Information

Certificate:	Commercial	**Age:**	61, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	**Seat Occupied:**	Unknown
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane Single-engine	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	**Last FAA Medical Exam:**	09/30/1994
Occupational Pilot:		**Last Flight Review or Equivalent:**	
Flight Time:	2000 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	**Registration:**	N800DD
Model/Series:	421C 421C	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	No
Airworthiness Certificate:	Normal	**Serial Number:**	421C-0469
Landing Gear Type:	Retractable - Tricycle	**Seats:**	8
Date/Type of Last Inspection:	05/24/1995, Continuous Airworthiness	**Certified Max Gross Wt.:**	7610 lbs
Time Since Last Inspection:		**Engines:**	2 Reciprocating
Airframe Total Time:	4912 Hours	**Engine Manufacturer:**	CONTINENTAL
ELT:	Installed	**Engine Model/Series:**	GTSIO-520-MCL
Registered Owner:	ALLEN M. GELIN	**Rated Power:**	375 hp
Operator:	ALLEN M. GELIN	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	**Condition of Light:**	Day
Observation Facility, Elevation:	MDO, 87 ft msl	**Distance from Accident Site:**	3 Nautical Miles
Observation Time:	1126 ADT	**Direction from Accident Site:**	360°
Lowest Cloud Condition:	Unknown / 0 ft agl	**Visibility**	5 Miles
Lowest Ceiling:	Broken / 600 ft agl	**Visibility (RVR):**	0 ft
Wind Speed/Gusts:	17 knots / 25 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	117°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	12°C / 6°C
Precipitation and Obscuration:			
Departure Point:	JUNEAU, AK (JNU)	**Type of Flight Plan Filed:**	VFR/IFR
Destination:	KING SALMON, AK (AKN)	**Type of Clearance:**	IFR
Departure Time:	0842 ADT	**Type of Airspace:**	Class E

Airport Information

Airport:	MIDDLETON ISLAND (MDO)	**Runway Surface Type:**	Gravel
Airport Elevation:	87 ft	**Runway Surface Condition:**	Wet
Runway Used:	1	**IFR Approach:**	None
Runway Length/Width:	4200 ft / 115 ft	**VFR Approach/Landing:**	Precautionary Landing

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	3 Fatal	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	4 Fatal	**Latitude, Longitude:**	

Administrative Information

Investigator In Charge (IIC):	GEORGE KOBELNYK	**Report Date:**	02/14/1996
Additional Participating Persons:	PEYTON STARR; 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, or at 800-877-6799. Dockets released after this date are available at http://dms.ntsb.gov/pubdms/.		