

# National Transportation Safety Board Aviation Accident Final Report

Location:	Gustavus, AK	Accident Number:	ANC03LA076
Date & Time:	07/13/2003, 2135 AKD	Registration:	N6296Q
Aircraft:	Cessna 401	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	4 Fatal, 1 Minor, 1 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

# Analysis

The private pilot departed on a cross-country personal flight with five passengers, en route to an Alaskan coastal community. The airplane had about 140 gallons of usable fuel aboard. The flight's intended destination was located about 757 nautical miles away. The pilot planned to make one stop in order to purchase fuel before continuing on to the destination airport. As the accident flight progressed towards the intended fuel stop airport, the pilot requested to continue on to another airport located about 100 miles away, and closer to the final destination airport. As the flight neared the second fuel stop airport, the pilot again made a request to the Air Traffic Control (ATC) specialist on duty, and said, in part: "I'm going to change my destination ah...one more time, this will be the final time..." The flight was then cleared to the pilot's intended destination airport. When the flight was about 22 miles southeast of the destination airport, the pilot informed the ATC specialist that he was concerned about his remaining fuel. He stated, in part: " ... I'm really low on fuel, and still 30 miles out." When asked by the ATC specialist how much fuel he had remaining, the pilot responded by saying: " Well... lets see, its very low... Below 5 gallons in both tanks." The ATC specialist then informed the pilot of an alternate airport that was located closer to the flight's present position, but the pilot was not familiar with the airport, and he elected to proceed on. Shortly thereafter, the pilot reported to the ATC specialist he was "...out of gas, both engines." The pilot selected a forced landing site located about 12 miles short of his intended destination airport, in open ocean waters. According to the two surviving passengers, after the collision with the water, all of the airplane's occupants lost consciousness momentarily. When the two survivors regained consciousness, there was about 2 feet of water in the airplane, and the airplane was sinking. The survivors said four of the six occupants successfully evacuated the airplane into the water. They added that the pilot was one of the four occupants who exited the sinking airplane. The two remaining occupants remained inside the airplane as it sank. The four survivors then began to swim to the closest shoreline, located about 1 mile from the accident site. During the swim to shore, the two surviving occupants became separated from the other two other occupants. To date, neither the two occupants who remained in the airplane, nor the pilot and the one occupant who were able to exit the airplane before it sank, have been located.

# **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate in-flight decision making process, and failure to refuel the airplane prior to fuel exhaustion, which resulted in a total loss of engine power. A factor associated with the accident was the lack of a suitable forced landing site.

#### **Findings**

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL Phase of Operation: CRUISE - NORMAL

Findings

2 ENGINES
(C) FLUID, FUEL - EXHAUSTION
(C) REFUELING - NOT PERFORMED - PILOT IN COMMAND
(C) IN-FLIGHT PLANNING/DECISION - INADEQUATE - PILOT IN COMMAND

Occurrence #2: FORCED LANDING Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: DITCHING Phase of Operation: EMERGENCY DESCENT/LANDING

Findings 5. TERRAIN CONDITION - WATER

6. (F) TERRAIN CONDITION - NONE SUITABLE

# **Factual Information**

On July 13, 2003, about 2135 Alaska daylight time, a wheel-equipped Cessna 401 airplane, N6296Q, was destroyed during an emergency landing and ditching in open ocean waters, about 12 miles southeast of the flight's planned destination of Gustavus, Alaska. The airplane was being operated as an instrument flight rules (IFR) cross-country personal flight under Title 14, CFR Part 91, when the accident occurred. Of the six people on board, the certificated commercial pilot and three passengers have not been located and are presumed to have received fatal injuries. One of the two surviving passengers sustained minor injuries, and the other surviving passenger sustained no injuries. Visual meteorological conditions prevailed at Gustavus, and an IFR flight plan was filed. The flight originated at the William R. Fairchild International Airport, Port Angeles, Washington, about 1815 Pacific daylight time (1715 Alaska daylight time).

During a telephone conversation with a National Transportation Safety Board (NTSB) investigator from the Seattle Northwest Regional Office on July 15, the fuel truck driver who serviced the accident airplane in Port Angeles, said that prior to the airplane's departure he added 102.9 gallons of fuel to the airplane's fuel tanks. He said that when the airplane departed for Ketchikan, the pilot's next planned fuel stop before continuing on to Gustavus, the "airplane's fuel tanks were full."

A review of the accident airplane's flight plan revealed that prior to departing Port Angeles, the pilot filed an IFR flight plan to Ketchikan, Alaska. The purpose of the stop in Ketchikan was to purchase fuel before continuing on to Gustavus. According to the fuel vendor in Ketchikan, the pilot contacted their office, about 1710, via cell phone from Port Angeles to arrange to have a fuel truck meet the flight when it arrived in Ketchikan. The fuel vendor's office manager reported to the NTSB investigator-in-charge (IIC) that a fuel truck was dispatched to meet the airplane at 2100, but the airplane did not arrive.

The NTSB IIC reviewed the air-to-ground radio communication tapes maintained by the Federal Aviation Administration (FAA), as well as air-to-ground radio transcripts maintained by Nav Canada. The tapes and transcripts revealed that at 1937, as the accident flight progressed towards Ketchikan, and while operating within Canadian airspace at 16,000 feet msl, the pilot contacted the Vancouver Area Control Center (VACC) specialist on duty, requesting that the flight's destination be changed to Petersburg, Alaska, instead of Ketchikan. Petersburg is located about 100 miles northwest of Ketchikan, along the flight path to Gustavus. The pilot's request was granted, and the destination was changed to Petersburg. As the flight progressed northwest, it once again entered U.S. airspace. As the flight neared Petersburg, the pilot contacted the Anchorage Air Route Traffic Control Center (ARTCC) specialist on duty about 2013, and said, in part: "I'm going to change my destination ah...one more time, this will be the final time, to Gustavus, that's golf-alpha-victor." The ARTCC specialist on duty then cleared the accident flight to Gustavus, via Level Island, and then Sisters Island. Gustavus is located about 135 miles northwest of Petersburg.

At 2113, while operating in instrument meteorological conditions (IMC) approaching Sisters Island, about 22 miles southeast of Gustavus, the pilot informed the ARTCC specialist that he was concerned about his remaining fuel. He stated, in part: " ... I'm really low on fuel, and still 30 miles out." When asked by the ARTCC specialist how much fuel he had remaining, the pilot responded by saying: " Well... lets see, its very low... Below 5 gallons in both tanks." The

ARTCC specialist then informed the pilot of an alternate airport that was located closer to the flight's present position, but the pilot was not familiar with the airport and elected to proceed to Gustavus. At 2121, the pilot estimated that he was about 28 miles from Gustavus.

At 2125, the pilot reported to the ARTCC specialist, in part: "I'm four miles past ah... Sisters [Island] at forty four hundred, on um...intercepting that two eighty eight radial." At 2127, the pilot said: "Ah...six nine six Quebec's out of gas, both engines." The ARTCC specialist immediately responded by saying: "Twin Cessna niner six Quebec, say intentions." The pilot's response was: "I don't know. I'll just...we'll try to glide the best I can here. How ah...I'm twelve miles off the airport, so I'm out in the ocean somewhere, right?" The ARTCC specialist responded by saying, in part: "That's affirmative, you have land closest to you is dead ahead, there appears to be an island before you get to the airport...." At 2128, the pilot informed the ARTCC specialist that: "I got my left engine going again." The ARTCC specialist then stated: "Twin Cessna niner six Quebec, we have alerted the Coast Guard, and they are on the way." At 2130, the ARTCC specialist said: "Twin Cessna niner six Quebec, when able, forward a report please." The pilot's garbled response was: "(unintelligible) water" shortly followed by: "(unintelligible) Island in front of me." At 2130, the ARTCC specialist says: "Twin Cessna niner six Quebec, you're broken on that last part, can you say again please." The pilot's final garbled response was: "I'm, I'm, I'm coming up..." There was no further radio communications received from the accident airplane. A complete transcript of the air-to-air communications between the accident pilot and the Anchorage ARTCC is included in the public docket for this accident.

On July 14, a Federal Aviation Administration (FAA) operations inspector, Juneau Flight Standards District Office, conducted an interview with the two surviving passengers who were aboard the accident airplane. According to the two survivors, after the collision with the water, all of the airplane's occupants lost consciousness momentarily. When the two survivors regained consciousness, there was about 2 feet of water in the airplane, and the airplane was sinking. The survivors said four of the six occupants successfully evacuated the airplane into the water. They added that the pilot was one of the four occupants who exited the sinking airplane. The two remaining occupants remained inside the airplane as it sank below the surface of the water. The survivors said that the airplane was completely submerged in about 3 minutes. Both of the survivors reported that after exiting the airplane, the pilot kept saying over and over: "I'm done, it was all my fault...I'm in big trouble...I'm in big trouble, those guys went down...they went to the bottom with the ship." The four survivors then began to swim to the closest shoreline, located about 1 mile from the accident site. During the swim to shore, the two surviving occupants became separated from the other two other occupants. To date, neither the occupants who remained in the airplane, nor the two occupants who were able to exit the airplane, have been located. A complete transcript of the FAA Inspector's interview is included in the public docket for this accident.

The airplane sank in ocean waters estimated to be between 250 and 300 feet deep, and no recovery effort was initiated.

According to the airplane manufacturer, at a cruise engine power setting, the airplane's total fuel consumption rate was approximately 31.4 gallons per hour. The airplane's maximum usable fuel capacity was 140 gallons, with an estimated maximum endurance time of 4 hours and 24 minutes. After departing from Port Angles, the airplane's estimated total flight time was 4 hours and 20 minutes.

The distance between Port Angeles and Gustavus, via Ketchikan and Petersburg is about 757.8 nautical miles. Winds aloft at 16,000 feet msl, along the airplane's northwesterly flight route, were forecast to be from 220 degrees (True) at 25 knots.

### **Pilot Information**

Certificate:	Commercial	Age:	49, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medicalw/ waivers/lim.	Last FAA Medical Exam:	12/23/2002
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	2100 hours (Total, all aircraft)		

### Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N6296Q
Model/Series:	401	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	401A0096
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	12/09/2002, Annual	Certified Max Gross Wt.:	6300 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	TSIO-520-EB
Registered Owner:	Gary Ostler	Rated Power:	300 hp
Operator:	Gary Ostler	Operating Certificate(s) Held:	None

### Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Dusk
Observation Facility, Elevation:	PAGS, 34 ft msl	Distance from Accident Site:	12 Nautical Miles
Observation Time:	2135 ADT	Direction from Accident Site:	120°
Lowest Cloud Condition:		Visibility	7 Miles
Lowest Ceiling:	Overcast / 2600 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	1
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.96 inches Hg	Temperature/Dew Point:	14°C / 11°C
Precipitation and Obscuration:			
Departure Point:	Port Angeles, WA (KCLM)	Type of Flight Plan Filed:	IFR
Destination:	Gustavus, AK (PAGS)	Type of Clearance:	IFR
Departure Time:	1815 PST	Type of Airspace:	Class D

### **Airport Information**

Airport:	Gustavus (PAGS)	Runway Surface Type:	
Airport Elevation:	34 ft	Runway Surface Condition:	
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced Landing

#### Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	3 Fatal, 1 Minor, 1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 Fatal, 1 Minor, 1 None	Latitude, Longitude:	58.431111, -135.712500

#### Administrative Information

Investigator In Charge (IIC):	Clinton O Johnson	Report Date:	03/30/2004
Additional Participating Persons:	John Fisher; Federal Aviation Administration; Juneau, AK Dennis J Hogenson; National Transportation Safety Board; Seattle, WA		
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 <u>publing@ntsb.gov</u> , or at 800-877-6799. Dockets released after this date are available at <u>http://dms.ntsb.gov/pubdms/</u> .		

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 <u>here</u>.