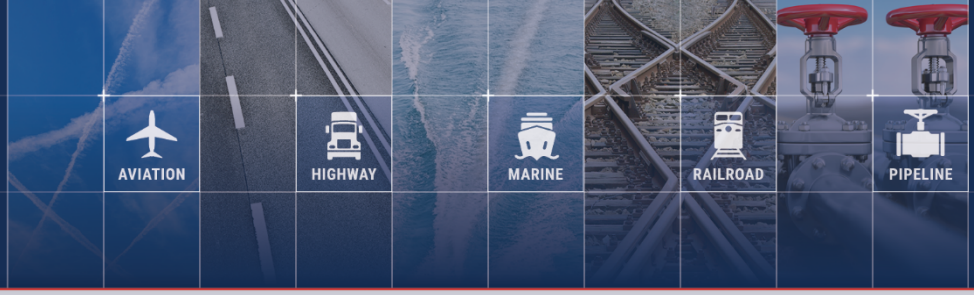

Aviation Investigation Final Report

Location:	SHAKTOOLIK, Alaska	**Accident Number:**	ANC97LA077
Date & Time:	May 21, 1997, 09:30 Local	**Registration:**	N24EJ
Aircraft:	Cessna 180	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation		

Analysis

The pilot was conducting fish spotting flights in a remote area. He was circling to the left about 600 feet above the water when the engine coughed several times and then lost power. The pilot switched fuel tanks several times, but the engine did not restart. He landed (ditched) the airplane in the water about 50 yards from the beach. After touchdown, the airplane nosed over. The pilot reported the left fuel tank was indicating 1/3 and the right tank was near empty. After recovery, the left tank contained 15 gallons of fuel, and the right tank contained 5 gallons of fuel. The pilot estimated he still had 1 and 1/2 hours of fuel on board, and had operated the airplane with the fuel selector in the 'BOTH' position. The airplane's engine had accrued about 30 hours since being overhauled. An examination of the engine did not reveal any mechanical malfunction.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: loss of engine power for undetermined reason(s).

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: MANEUVERING

Findings
1. (C) REASON FOR OCCURRENCE UNDETERMINED

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

Occurrence #3: DITCHING
Phase of Operation: EMERGENCY LANDING

Factual Information

On May 21, 1997, about 0930 Alaska daylight time, a tundra tire equipped Cessna 180, N24EJ, ditched in the ocean about 10 miles west of Shaktoolik, Alaska. The airplane was being operated as a visual flight rules (VFR) local area business flight under Title 14 CFR Part 91 when the accident occurred. The airplane, registered to and operated by the pilot, sustained substantial damage. The certificated commercial pilot, the sole occupant, was not injured. Visual meteorological conditions prevailed. The flight originated at the Shaktoolik airport, about 0910.

On May 27, 1997, at 1018, the pilot reported in a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC), that he was conducting fish spotting flights in the Cape Denbigh, Alaska, area. While spotting fish, the pilot was circling to the left. He was about 600 feet above the water when the engine coughed several times and then quit. The pilot switched fuel tanks several times but the engine did not restart. He performed a landing into the water about 50 yards from the beach. After touchdown, the airplane nosed over.

The pilot indicated he last fueled the airplane before departure from Unalakleet, Alaska, about 0500 but had landed twice at Shaktoolik during the morning flights. The pilot reported the airplane contained about 22 gallons of fuel when he departed on the accident flight. The left fuel tank was indicating 1/3 and the right tank was near empty. The pilot estimated he still had 1 and 1/2 hours of fuel on board, and operated the airplane fuel selector in the "BOTH" position. The airplane's engine had accrued about 30 hours since being overhauled.

The pilot reported the weather conditions in the area were scattered cloud conditions at 600 feet, 1,000 feet broken. The temperature was about 35 degrees F. Numerous rain showers were moving through the area. The visibility was about 20 miles. The wind was from the southwest about 15 knots with gust to 20 knots.

The airplane's fuel system consists of two rubberized bladder fuel cells, one in each wing. Fuel flows by gravity through a fuel selector, fuel strainer, and then to the carburetor. The engine does not have a mechanical or electrical fuel pump.

Following the accident, the pilot sold the airplane to a new owner. The new owner recovered the airplane from the ocean, and reported the fuel selector was found in the "BOTH" position. The carburetor heat control was in the "ON" position. The throttle, mixture, and propeller controls were full forward. About 15 gallons of fuel was drained from the left fuel tank, and about 5 gallons was drained from the right tank. Fuel was found in the gascolator, carburetor bowl, and carburetor accelerator pump.

On June 4, 1997, the engine was examined at John/Mark Air Repair, Birchwood, Alaska. Gear and valve train continuity was established upon hand rotation of the engine crankshaft. The oil screen was free of contaminants. The oil pump housing, and internal gears were free of contaminants, and rotated. The magnetos had been removed from the engine, and upon hand rotation, both produced spark from all towers.

The carburetor's fuel inlet screen exhibited slight evidence of corrosion, but was free of contaminants. The carburetor metal floats were undamaged. Examination of the interior of the carburetor airbox, and venturi, revealed a blackened appearance, and evidence of slight sooting.

Pilot Information

Certificate:	Commercial	**Age:**	44,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land; Multi-engine sea	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	March 6, 1996
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	2034 hours (Total, all aircraft), 248 hours (Total, this make and model), 1961 hours (Pilot In Command, all aircraft), 37 hours (Last 90 days, all aircraft), 30 hours (Last 30 days, all aircraft), 10 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N24EJ
Model/Series:	180 180	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	30593
Landing Gear Type:	Tailwheel	**Seats:**	4
Date/Type of Last Inspection:	November 3, 1996 Annual	**Certified Max Gross Wt.:**	2660 lbs
Time Since Last Inspection:	80 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	5142 Hrs	**Engine Manufacturer:**	Continental
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	O-470-J
Registered Owner:	JAMES M. EDSON	**Rated Power:**	225 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:	Scattered / 600 ft AGL	**Visibility**	20 miles
Lowest Ceiling:	Broken / 1000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	15 knots / 20 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	225°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	2°C
Precipitation and Obscuration:	Light - Showers - Rain		
Departure Point:	(38A)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	09:19 Local	**Type of Airspace:**	Class G

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	64.359962,-161.20935(est)

Administrative Information

Investigator In Charge (IIC):	Erickson, Scott
Additional Participating Persons:	HUGH KEITH; FAIRBANKS , AK
Original Publish Date:	May 29, 1998
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=3009