Aviation Investigation Final Report

Location:	FAIRBANKS, Alaska	**Accident Number:**	ANC99LA033
Date & Time:	March 14, 1999, 18:28 Local	**Registration:**	N4721U
Aircraft:	Cessna 180G	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The certificated commercial pilot pushed the airplane out of a hanger and sumped the wing fuel tanks. The airplane remained outside throughout the day while the ambient temperature warmed. No further sumping of the wing tanks was conducted. After departure, the pilot reduced the engine power to level the airplane at the airport traffic pattern altitude. The engine began to run rough, and the pilot began an emergency landing approach to a snow-covered airstrip located near the approach end of an asphalt runway. The engine roughness diminished, and the pilot was cleared to land on the larger asphalt runway. The engine then quit. The airplane touched down in an area of snow between the end of the small airstrip and the beginning of the asphalt runway. The airplane nosed over, and received damage to the vertical stabilizer, the rudder, and the left wing lift strut. An examination of the airplane revealed a wrinkle in the left wing fuel bladder, and 3 ounces of water in the gascolator.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Water contamination of the fuel supply, and the pilot's inadequate preflight inspection to ensure all water was removed from the fuel supply. Factors in the accident were a wrinkle in the wing fuel tank bladder, and snow covered terrain.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
1. (C) FLUID,FUEL - CONTAMINATION,WATER
2. (F) FUEL SYSTEM,TANK - OTHER
3. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND

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

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

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings
4. (F) TERRAIN CONDITION - SNOW COVERED

Factual Information

On March 14, 1999, about 1828 Alaska standard time, a wheel equipped Cessna 180G airplane, N4721U, sustained substantial damage during an emergency landing at the Fairbanks International Airport, Fairbanks, Alaska. The airplane was being operated as a visual flight rules (VFR) local area personal flight when the accident occurred. The airplane was registered to, and operated by, the pilot. The certificated commercial pilot, the sole occupant, was not injured. Visual meteorological conditions prevailed. The flight originated at the Fairbanks Airport at 1825.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC), on March 15, 1999, at 1115, the pilot reported that after departure, he reduced engine power to level the airplane at 1,500 feet, which is the airport traffic pattern altitude. The engine began to run rough, and he began an emergency landing approach to the ski strip, runway 01 at the Fairbanks airport.

The ski strip, 01/19, is a gravel surface runway 3,978 feet long and 75 feet wide, and is oriented on the same magnetic heading as runway 01R/19L. There is no lateral displacement between the two runways. The departure end of the ski strip 01 is displaced directly south of the approach end of runway 01R about 650 feet, and is intersected by taxiway B.

The pilot said the engine roughness diminished, and he was cleared to land on runway 01R. The pilot said the engine then quit. The airplane touched down in an area of snow between the end of the ski strip 01, and the approach end of runway 01R. The airplane then nosed over, and received damage to the vertical stabilizer, the rudder, and the left wing lift strut.

A Federal Aviation Administration (FAA) airworthiness inspector with the Fairbanks Flight Standards District Office (FSDO) examined the airplane on March 28, 1999, and interviewed the pilot. The inspector reported the pilot pushed the airplane out of a hanger, and sumped the wing fuel tanks. The airplane remained outside, and the ambient temperature warmed throughout the day. The pilot did not re-sump the airplane before departing. The inspector's examination of the airplane revealed a longitudinal wrinkle in the left wing fuel bladder. The wrinkle was positioned near the wing sump drain. The inspector also found about 3 ounces of water in the airframe gascolator.

Pilot Information

Certificate:	Commercial; Flight instructor	**Age:**	58,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Glider	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Glider	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	July 10, 1998
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	3500 hours (Total, all aircraft), 275 hours (Total, this make and model), 3400 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft), 8 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N4721U
Model/Series:	180G 180G	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	18051421
Landing Gear Type:	Tailwheel	**Seats:**	4
Date/Type of Last Inspection:	April 1, 1998 Annual	**Certified Max Gross Wt.:**	2800 lbs
Time Since Last Inspection:	26 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	2663 Hrs	**Engine Manufacturer:**	Continental
ELT:	Installed, not activated	**Engine Model/Series:**	O-470-R
Registered Owner:	ROBERT W. TAYLOR	**Rated Power:**	230 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:	PAF ,434 ft msl	**Distance from Accident Site:**	
Observation Time:	18:43 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Scattered / 8000 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	Broken / 13000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	20°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	-4°C / -11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	VFR
Departure Time:	18:25 Local	**Type of Airspace:**	Class D

Airport Information

Airport:	FAIRBANKS INTERNATIONAL PAFA	**Runway Surface Type:**	Asphalt
Airport Elevation:	434 ft msl	**Runway Surface Condition:**	Snow
Runway Used:	1R	**IFR Approach:**	None
Runway Length/Width:	3190 ft / 60 ft	**VFR Approach/Landing:**	Forced landing;Traffic pattern

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:**	64.900375,-148.159179(est)

Administrative Information

Investigator In Charge (IIC):	Erickson, Scott
Additional Participating Persons:	KATHY THOMAS (FAA); FAIRBANKS , AK
Original Publish Date:	April 20, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=45955