



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.nts.gov/Docket?ProjectID=45955

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).