



National Transportation Safety Board Aviation Accident Final Report

Location:	Nome, AK	Accident Number:	ANC14CA014
Date & Time:	01/04/2014, 1445 AST	Registration:	N8177A
Aircraft:	CESSNA 170 - B	Aircraft Damage:	Substantial
Defining Event:	Fuel contamination	Injuries:	1 Minor, 1 None
Flight Conducted Under:	Part 91: General Aviation - Flight Test		

Analysis

According to the pilot, the airplane was pulled out of the hangar and preflighted for a maintenance test flight, following an extensive annual inspection. Approximately 10 minutes after departure the airplane lost all engine power, and made an emergency landing on the sea ice. During the emergency landing the airplane sustained substantial damage to the fuselage. While inspecting the airplane after the accident, the pilot said he found water in the airplane's gascolator. A postaccident examination of the airplane by a Federal Aviation Administration aviation safety inspector revealed water in the fuel system, including the carburetor bowl. The pilot indicated that other than the water in the fuel, there were no preaccident mechanical malfunctions or anomalies that would have precluded normal operation.

In the pilot's written statement to the National Transportation Safety Board he noted that the accident might have been avoided if the airplane had been placed on level ground after it was pulled from the hangar, thereby allowing the water to be drained from the fuel system.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to adequately remove water-contaminated fuel during the preflight inspection, which resulted in a total loss of engine power.

Findings

Aircraft	Fuel - Inadequate inspection (Cause) Fuel - Fluid condition (Cause)
Personnel issues	Preflight inspection - Pilot (Cause)
Environmental issues	Snowy/icy terrain - Contributed to outcome

Factual Information

History of Flight

Prior to flight	Preflight or dispatch event
Enroute	Fuel contamination (Defining event)
Emergency descent	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Airline Transport	Age:	74
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 1 With Waivers/Limitations	Last Medical Exam:	05/13/2013
Occupational Pilot:	No	Last Flight Review or Equivalent:	04/01/2013
Flight Time:	30000 hours (Total, all aircraft), 120 hours (Total, this make and model), 30000 hours (Pilot In Command, all aircraft), 3 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	CESSNA	Registration:	N8177A
Model/Series:	170 - B B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	25029
Landing Gear Type:	Tailwheel	Seats:	4
Date/Type of Last Inspection:	01/04/2014, Annual	Certified Max Gross Wt.:	2200 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	5172 Hours	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	C-145
Registered Owner:	James West	Rated Power:	145 hp
Operator:	James West	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	PAOM, 38 ft msl	Observation Time:	1453 AST
Distance from Accident Site:	9 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:	270°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Scattered / 3400 ft agl	Temperature/Dew Point:	-3° C / -6° C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	6 knots, 360°	Visibility (RVR):	
Altimeter Setting:	29.98 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Nome, AK	Type of Flight Plan Filed:	None
Destination:	Nome, AK	Type of Clearance:	None
Departure Time:	1430 AST	Type of Airspace:	Class E

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 1 None		

Administrative Information

Investigator In Charge (IIC):	David B Banning	Adopted Date:	04/01/2014
Additional Participating Persons:	Brian Weckwerth; Federal Aviation Administration; Fairbanks, AK		
Publish Date:	07/06/2015		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=88642		

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.

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