



Aviation Investigation Final Report

Location:	Anchorage, Alaska	Accident Number:	ANC18LA051
Date & Time:	June 29, 2018, 13:07 Local	Registration:	N7675D
Aircraft:	Piper PA18	Aircraft Damage:	Substantial
Defining Event:	Fuel starvation	Injuries:	1 Minor, 1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airline transport pilot stated that he and the pilot-rated passenger fueled the airplane from his private fuel tank at his floatplane slip before the flight and that the preflight inspection and engine run-up were normal. He was conducting a takeoff from the rear seat with a pilot-rated passenger in the front seat. When the airplane was between about 100 and 200 ft above ground level, the engine started to “sputter” and lose power. The pilot attempted to restore power by cycling the throttle to no avail. Realizing he would not be able to land on the water, he turned the airplane to land on a nearby gravel runway. He asked the pilot-rated passenger to check that the fuel selector valve was in the “on” position, and he responded that it was. He could not recall the impact attitude or the impact itself. The passenger’s statement corroborated the pilot’s statement, but he added that the airplane landed with a nose-high attitude and then banked right. Impact ground scars were evident across a gravel taxiway and a grassy area next to the runway. The airplane sustained substantial damage to the fuselage and wings.

The engine was found attached to the airframe and intact, and the fuel and oil lines were secure. Postaccident examination of the engine and fuel system revealed that there was corrosion on the top spark plugs, and no spark could be produced at the leads; however, these were likely caused by the airplane’s exposure to water with the engine cowling off during the 2 months after the accident. No fuel was present in the carburetor or the fuel line from the fuel strainer to the engine. The fuel tanks had sufficient fuel and no water or debris was found in fuel samples from the fuel system or from the pilot’s private fuel tank. One of the propeller blades was found straight with extensive trailing edge impact damage and dirt and grass dried onto the cambered face, indicative of no rotation at impact. No evidence of any preaccident mechanical malfunctions or failures were noted with the engine or airframe that would have precluded normal operation. Based on the evidence, it is likely that fuel was not reaching the engine, which led to fuel starvation and a subsequent total loss of engine power.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The total loss of engine power due to fuel starvation for reasons that could not be determined, which resulted in impact with and subsequent sliding across terrain.

Findings

Not determined	(general) - Unknown/Not determined
Aircraft	Fuel - Unknown/Not determined

Factual Information

History of Flight

Initial climb	Fuel starvation (Defining event)
Initial climb	Loss of engine power (total)
Landing	Collision with terr/obj (non-CFIT)

On June 29, 2018, about 1307 Alaska daylight time, a float-equipped Piper PA-18 airplane, N7675D, sustained substantial damage when it was involved in an accident at Lake Hood Seaplane Base (LHD), Anchorage, Alaska. The pilot sustained minor injuries and the passenger was uninjured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot stated that he and the pilot-rated passenger fueled the airplane before the flight from his private fuel tank at his floatplane slip and that the preflight inspection and engine run-up were normal. The pilot was conducting a takeoff from the rear seat. During the initial climb from the north water lane, when the airplane was between about 100 and 200 ft above ground level (agl), the engine began to "sputter" and lose power. Realizing he would not be able to land on the water, the pilot turned the airplane to land on a nearby gravel runway and asked the passenger to check that the fuel selector valve was in the "on" position, and he responded that it was. He "pumped" the throttle to restore power to no avail. The airplane subsequently impacted the grassy area between the runway and a taxiway. The passenger statement corroborated the pilot's statement, but he added that the airplane landed with a nose-high attitude and then banked right. The airplane then slid across a taxiway and another grassy area and sustained substantial damage to the fuselage and wings.

The airplane came to rest on a heading of about 070°. Examination of the airplane revealed that it had sustained substantial damage to the fuselage and wings. At the accident site, a large amount of fuel was observed leaking from the left wing root. Examination of the pilot's private fuel tank and system revealed that some debris was in the fuel nozzle, but no water or debris was found in a fuel sample taken from the nozzle.

Postaccident examination of the engine and fuel system was conducted 2 months after the accident, during which time, the engine cowling was off, and the wreckage and engine were exposed to rain. The engine was attached to the airframe and intact, and the fuel and oil lines were secure. The fuel selector switch was found positioned to the "left fuel on" position. The propeller assembly remained connected to the engine crankshaft and could be rotated by hand. One propeller blade had a rearward curl and slight S bend at the outer 8 inches and exhibited leading edge impact damage and scrapes. The other blade was straight with extensive trailing edge impact damage and dirt and grass dried onto the cambered face.

Corrosion and some carbon deposits were found around the spark plug threads, gasket, and neck. Spark could not be produced at the leads when the propeller was rotated. The magnetos were then bench tested with no anomalies noted. The propeller and crank shaft could be manually rotated, and crank case and

valve train continuity was established. The fuel strainer was full of fuel, and minimal debris was present. The fuel line from the strainer to the engine and the carburetor had no fuel present, and no blockages were found. All fuel samples taken from the system and all system filters were clear of sizeable debris, consistent with avgas, and no water was found. No evidence of any preaccident mechanical malfunctions or failures were found that would have precluded normal engine operation.

Pilot Information

Certificate:	Airline transport; Sport Pilot	Age:	83,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	None None	Last FAA Medical Exam:	June 1, 2013
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	June 9, 2015
Flight Time:	(Estimated) 25000 hours (Total, all aircraft), 600 hours (Total, this make and model), 16000 hours (Pilot In Command, all aircraft), 2.5 hours (Last 90 days, all aircraft), 2.5 hours (Last 30 days, all aircraft)		

Pilot-rated passenger Information

Certificate:	Commercial; Private	Age:	
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N7675D
Model/Series:	PA18 150	Aircraft Category:	Airplane
Year of Manufacture:	1957	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	18-5897
Landing Gear Type:	Tailwheel; Float	Seats:	2
Date/Type of Last Inspection:	September 2, 2017 Annual	Certified Max Gross Wt.:	1750 lbs
Time Since Last Inspection:	6.6 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2772 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	C91 installed	Engine Model/Series:	O-320-B2B
Registered Owner:		Rated Power:	160 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	PALH,90 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	12:53 Local	Direction from Accident Site:	180°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 11000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.79 inches Hg	Temperature/Dew Point:	17°C / 8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Anchorage, AK	Type of Flight Plan Filed:	Unknown
Destination:	Rainy Pass, AK	Type of Clearance:	VFR
Departure Time:		Type of Airspace:	Class D

Airport Information

Airport:	LAKE HOOD LHD	Runway Surface Type:	Gravel
Airport Elevation:	79 ft msl	Runway Surface Condition:	Soft;Vegetation
Runway Used:	14/32	IFR Approach:	None
Runway Length/Width:	2200 ft / 75 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Minor, 1 None	Latitude, Longitude:	61.186668,-149.96611(est)

Administrative Information

Investigator In Charge (IIC):	Price, Noreen		
Additional Participating Persons:	Mark Griffin; FAA FSDO; Anchorage, AK		
Original Publish Date:	May 27, 2021	Investigation Class:	3
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=97649		

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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 [here](#).