Aviation Investigation Final Report

Location:	Healy, Alaska	**Accident Number:**	ANC18FA071
Date & Time:	September 22, 2018, 16:00 Local	**Registration:**	N7511H
Aircraft:	Piper PA-12-150	**Aircraft Damage:**	Substantial
Defining Event:	Unknown or undetermined	**Injuries:**	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot was performing a personal flight with one passenger to hunt sheep in remote mountainous terrain. After the pilot failed to report to his place of employment 4 days after their departure, an extensive SAR operation was launched the following day. The wreckage was located 2 days after the SAR operation began in a remote snow-covered mountainous valley. The airplane came to rest upright, with the fuselage banking to the right, both wings indicating forward/aft crushing, and the tail slightly elevated with little impact damage. The date and time of the accident could not be determined. Thus, the meteorological conditions before and at the time of the accident could not be determined.

A postaccident examination of the airframe and engine revealed no pre-impact mechanical malfunctions or failures that would have precluded normal operation. The aft right wing spar exhibited signs of compression bending, with the right forward spar exhibiting aft bending. The aft left wing spar bolt indicated a failure in tension, and the left forward spar indicated forward bending. A postcrash fire incinerated a large portion of the wreckage.

The pilot did not file a flight plan. If the pilot had filed a flight plan, SAR assets would have focused on a specific search area which would likely have reduced the time to find the airplane. Although the accident was likely not survivable due to the impact forces, a filed flight plan would have reduced the risk to aerial SAR assets operating in remote mountainous terrain.

Probable Cause and Findings

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

An impact with terrain for reasons that could not be determined based on the available information.

Findings

Not determined	(general) - Unknown/Not determined

Factual Information

History of Flight

Unknown	Unknown or undetermined (Defining event)

On September 22, 2018, the wreckage of a tailwheel-equipped Piper PA-12 airplane, N7511H, was located in remote mountainous terrain about 35 miles east of Healy, Alaska. The private pilot and the passenger were fatally injured, and the airplane was substantially damaged by impact forces and a postcrash fire. The airplane was registered to the pilot who was operating it as a Title 14 *Code of Federal Regulations* Part 91 personal flight. The flight departed from Fairbanks International Airport (FAI), Fairbanks, Alaska, on September 15, 2018, and no flight plan had been filed.

The purpose of the flight was to fly to the Alaska Range, which is a mountain range located about 50 miles south of Fairbanks, where the pilot and his passenger would hunt sheep. No communications from the pilot, such as from a satellite phone or a satellite communication device, were received by the family after the pilot's departure from FAI.

After the pilot did not report to his place of employment on September 19, a Federal Aviation Administration (FAA) alert notice "ALNOT" was issued at 1620 Alaska daylight time, and an extensive search and rescue (SAR) operation began the next day. The operation consisted of aerial SAR assets from multiple agencies, including the Alaska Air National Guard, the Alaska Army National Guard, the Civil Air Patrol, and the Alaska State Troopers, as well as several individual volunteers. The accident airplane was located by a volunteer, and an Alaska Army National Guard helicopter responded to the accident site and the aircrew found both occupants deceased inside of the wreckage.

Pilot Information

Certificate:	Private	**Age:**	45,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	**Seat Occupied:**	
Other Aircraft Rating(s):	None	**Restraint Used:**	Unknown
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	January 16, 2018
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	(Estimated) 128.8 hours (Total, all aircraft), 77.5 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N7511H
Model/Series:	PA-12-150	**Aircraft Category:**	Airplane
Year of Manufacture:	1946	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	12-372
Landing Gear Type:	Tailwheel	**Seats:**	3
Date/Type of Last Inspection:	June 12, 2018 Annual	**Certified Max Gross Wt.:**	1750 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	4141.4 Hrs as of last inspection	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-320-A2B
Registered Owner:	On file	**Rated Power:**	150 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

The airplane was equipped with a Garmin Aera GPS device, which was sent to the National Transportation Safety Board's (NTSB) Vehicle Recorder Division Laboratory in Washington, DC. The device is capable of storing data in nonvolatile memory. However, the circuit board was delaminated due to the thermal damage, and most of the components were burned off. The extent of the damage precluded recovery of the data.

The airplane was also equipped with an emergency locator transmitter (ELT), which did not broadcast after the accident. The ELT sustained postimpact fire damage, so the NTSB could not definitively determine why the ELT did not broadcast.

Meteorological Information and Flight Plan

Conditions at Accident Site:	Unknown	**Condition of Light:**	Not reported
Observation Facility, Elevation:	PAHV,12944 ft msl	**Distance from Accident Site:**	33 Nautical Miles
Observation Time:		**Direction from Accident Site:**	267°
Lowest Cloud Condition:		**Visibility**	
Lowest Ceiling:		**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	
Precipitation and Obscuration:			
Departure Point:	Fairbanks, AK (FAI)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	Unknown
Departure Time:		**Type of Airspace:**	Class G

The exact meteorological conditions before and at the time of the accident could not be determined.

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Fatal	**Aircraft Fire:**	
Ground Injuries:	N/A	**Aircraft Explosion:**	Unknown
Total Injuries:	2 Fatal	**Latitude, Longitude:**	63.900276,-147.733337

The wreckage of the airplane was located in a remote snow-covered mountainous valley with rocks, alder trees, and a small creek. The wreckage was positioned on the east side of the creek on a heading of about 220° and at an elevation of about 4,300 ft mean sea level. Most of the wreckage showed evidence of a postimpact fire. The airplane came to rest upright, with the fuselage banking to the right, both wings indicating forward/aft crushing, and the tail slightly elevated with little impact damage.

All of the major structural components of the airframe were located at the accident site. An examination of the airframe revealed no pre-impact mechanical malfunctions or failures that would have precluded normal operation.

The engine was examined after the recovery of the wreckage. The examination revealed no pre-impact

mechanical malfunctions or failures that would have precluded normal operation.

During examination, the AFT right wing spar exhibited signs of compression bending, with the right wing forward spar exhibiting aft bending. The AFT left wing spar bolt indicated a failure in tension, and the left wing forward spar indicated forward bending.

Medical and Pathological Information

The State of Alaska Medical Examiner's Office, Anchorage, Alaska, conducted an autopsy of the pilot. According to the autopsy report, the cause of death for the pilot was multiple blunt force injuries. The report also indicated that there was no evidence of soot-like material found in the pilot's airway.

Toxicology testing performed at the FAA Forensic Sciences Laboratory found that the pilot's specimens were negative for drugs and ethanol.

Administrative Information

Investigator In Charge (IIC):	Swenson, Eric
Additional Participating Persons:	Craig Kenmonth ; Federal Aviation Administration ; Fairbanks , AK Troy R Helgeson; Lycoming Engines; Williamsport, PA
Original Publish Date:	April 8, 2020
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=98342