



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

# Aviation Investigation Final Report

<b>Location:</b>	Camas, Washington	<b>Accident Number:</b>	GAA18CA184
<b>Date &amp; Time:</b>	March 4, 2018, 13:30 Local	<b>Registration:</b>	N3756W
<b>Aircraft:</b>	Piper PA32	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Fuel exhaustion	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that, before departure, he estimated that the right tip fuel tank was three-quarters full (about 14 gallons), and each main fuel tank had about 20 gallons of fuel.

The pilot reported that, during cruise, he decided to use the right tip fuel tank, even though he was aware that the right tip fuel tank gauge was inoperative. He added that, after about 25-30 minutes, he performed various stall maneuvers before returning to the departure airport to land. The pilot noticed a reduction in engine power and a drop in the manifold pressure and concluded that the airplane would not be able to return to the airport, so he continued a left turn toward a farm field. The pilot began to troubleshoot for carburetor ice to no avail. The airplane landed in the farm field and impacted a ditch.

The airplane sustained substantial damage to the engine mounts.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

The pilot added that, during a postaccident examination, it was revealed that the right tip fuel tank was dry and "that the engine lost power due to fuel starvation."

## Probable Cause and Findings

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

The pilot's inadequate inflight fuel management and his failure to switch to a fuel tank with adequate fuel, which resulted in fuel starvation.

## Findings

<b>Aircraft</b>	Fuel - Fluid level
<b>Aircraft</b>	Fuel - Fluid management
<b>Personnel issues</b>	Lack of action - Pilot
<b>Environmental issues</b>	(general) - Effect on operation
<b>Aircraft</b>	Fuel indication system - Inoperative
<b>Personnel issues</b>	Fuel planning - Pilot

## Factual Information

### History of Flight

<b>Enroute</b>	Fuel exhaustion (Defining event)
<b>Landing</b>	Collision with terr/obj (non-CFIT)

### Pilot Information

<b>Certificate:</b>	Airline transport; Commercial; Military	<b>Age:</b>	36,Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Lap only
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	September 9, 2017
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	April 30, 2017
<b>Flight Time:</b>	(Estimated) 1978 hours (Total, all aircraft), 89.8 hours (Total, this make and model), 1900 hours (Pilot In Command, all aircraft), 35 hours (Last 90 days, all aircraft), 12 hours (Last 30 days, all aircraft), 1.5 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N3756W
<b>Model/Series:</b>	PA32 260	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1966	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	32-671
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	November 7, 2017 Annual	<b>Certified Max Gross Wt.:</b>	3400 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3731.4 Hrs as of last inspection	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, activated, aided in locating accident	<b>Engine Model/Series:</b>	O-540 SERIES
<b>Registered Owner:</b>		<b>Rated Power:</b>	260 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KPDX, 107 ft msl	<b>Distance from Accident Site:</b>	4 Nautical Miles
<b>Observation Time:</b>	20:53 Local	<b>Direction from Accident Site:</b>	125°
<b>Lowest Cloud Condition:</b>	Few / 3500 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 25000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	10 knots /	<b>Turbulence Type Forecast/Actual:</b>	/ None
<b>Wind Direction:</b>	190°	<b>Turbulence Severity Forecast/Actual:</b>	/ N/A
<b>Altimeter Setting:</b>	30.23 inches Hg	<b>Temperature/Dew Point:</b>	11°C / 2°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	SALEM, OR (SLE )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	CAMAS, WA (1W1 )	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	12:45 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	GROVE FIELD 1W1	<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>	429 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>		<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	45.349998,-122.239997(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Benhoff, Kathryn
<b>Additional Participating Persons:</b>	Elaine Soule; FAA; Hillsboro, OR
<b>Original Publish Date:</b>	July 5, 2018
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=96942">https://data.nts.gov/Docket?ProjectID=96942</a>

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