



Aviation Investigation Final Report

Location: Enumclaw, Washington Accident Number: SEA07CA086

Date & Time: March 30, 2007, 16:45 Local Registration: N968A

Aircraft: Piper PA-22 Aircraft Damage: Substantial

Defining Event: 1 None

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

While in cruise flight in ambient weather conditions under which the aircraft's carburetor was susceptible to icing (temperature 10 degres C, and dew point 7 degrees C), the engine began to lose power. Although the pilot switched fuel tanks, she did not apply carburetor heat, and eventually all engine power was lost. The pilot attempted a forced landing in a nearby field, but during the landing roll the aircraft encountered soft, muddy terrain, whereupon it rocked from side to side with sufficient amplitude to result in the wingtips coming in contact with the terrain. A post-accident inspection of the engine found no anomalies that would have kept the engine from running under non-icing conditions.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to apply carburetor heat during cruise flight. Factors include ambient weather conditions that were conducive to carburetor icing, and soft, muddy terrain at the location where the pilot attempted the power-off forced landing.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL

Phase of Operation: CRUISE

Findings

1. (C) CARBURETOR HEAT - NOT USED - PILOT IN COMMAND

2. (F) WEATHER CONDITION - ICING CONDITIONS

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

Findings

3. (F) TERRAIN CONDITION - SOFT

4. (F) TERRAIN CONDITION - MUDDY

Page 2 of 6 SEA07CA086

Factual Information

While in cruise flight in ambient weather conditions under which the aircraft's carburetor was susceptible to icing (temperature 10 degrees C, and dew point 7 degrees C), the engine began to lose power. Although the pilot switched fuel tanks, she did not apply carburetor heat, and eventually all engine power was lost. The pilot attempted a forced landing in a nearby field, but during the landing roll the aircraft encountered soft, muddy terrain, whereupon it rocked from side to side with sufficient amplitude to result in the wingtips coming in contact with the terrain. A post-accident inspection of the engine found no anomalies that would have kept the engine from running under non-icing conditions.

Pilot Information

Certificate:	Private	Age:	60,Female
Airplane Rating(s):	Single-engine land	Seat Occupied:	
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3	Last FAA Medical Exam:	February 1, 2007
Occupational Pilot:		Last Flight Review or Equivalent:	January 1, 2007
Flight Time:	616 hours (Total, all aircraft), 370 hours (Total, this make and model), 2 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft)		

Page 3 of 6 SEA07CA086

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N968A
Model/Series:	PA-22	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	22-280
Landing Gear Type:	Tricycle	Seats:	
Date/Type of Last Inspection:	April 1, 2006 Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3763 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-290D
Registered Owner:	James Masura	Rated Power:	125 Horsepower
Operator:	Judith Masura	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KTIW,292 ft msl	Distance from Accident Site:	12 Nautical Miles
Observation Time:	16:53 Local	Direction from Accident Site:	270°
Lowest Cloud Condition:	Few / 800 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 3200 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.12 inches Hg	Temperature/Dew Point:	10°C / 7°C
Precipitation and Obscuration:	Light - None - Rain		
Departure Point:	Puyallup, WA (KPLU)	Type of Flight Plan Filed:	None
Destination:	Puyallup, WA (KPLU)	Type of Clearance:	None
Departure Time:	16:00 Local	Type of Airspace:	

Page 4 of 6 SEA07CA086

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	
Total Injuries:	1 None	Latitude, Longitude:	47.215,-122.013336

Page 5 of 6 SEA07CA086

Administrative Information

Investigator In Charge (IIC):
Additional Participating Persons:

Original Publish Date:
Last Revision Date:
Investigation Class:
Class
Note:
This accident report documents the factual circumstances of this accident as described to the NTSB.

Investigation Docket:

https://data.ntsb.gov/Docket?ProjectID=65514

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.

Page 6 of 6 SEA07CA086