



Aviation Investigation Factual Report

Location:	Salem, Oregon	Accident Number:	SEA03LA082
Date & Time:	May 15, 2003, 16:00 Local	Registration:	N2913F
Aircraft:	Cessna 182J	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Factual Information

On May 15, 2003, approximately 1600 Pacific daylight time, a Cessna 182J, N2913F, collided with the terrain during the landing roll when the pilot attempted a forced landing in an open field about four miles east of Salem, Oregon. The commercial pilot, who was the sole occupant, was not injured, but the aircraft which is owned by a relative of the pilot, but operated primarily by the pilot, sustained substantial damage. The 14 CFR Part 91 personal pleasure flight, which departed Hillsboro, Oregon, about 40 minutes earlier, was being operated in visual meteorological conditions. No flight plan had been filed. There was no report of an ELT activation.

According to the pilot, while cruising at 11,500 feet in order to get over some clouds, the engine slowly started losing power. Because it appeared to him that it might be carburetor icing, the pilot applied carburetor heat, but the engine continued to lose more power. Eventually the engine lost enough power that the pilot was unable to hold altitude, and he therefore found it necessary to descend and attempt a forced landing in an open field. Prior to reaching the field, the engine lost all power, but the pilot was able to reach the field he was aiming for. Although the touchdown was uneventful, during the landing roll the aircraft encountered some rough terrain, resulting in substantial damage.

According to the FAA inspector who responded to the scene, the engine crankcase had fractured and although the oil filler cap was in place, all but a very small amount of engine oil was missing. During a post-accident engine inspection it was observed that there was a large hole in the top of the crankcase between cylinders #1 & #2. Connecting rods #1 & #3 were disassociated from their rod journals. Connecting rods #4, 5 and 6 were dry and brown in color. The crankshaft cheeks adjacent to these rods were discolored, as were the rod journals for #1 & #3 connecting rods. The four connecting rod bolts for rods #1 & #3 were all a dark blue color and separated at mid bolt with the points of separation severely necked down. All of the recovered parts of the connecting rods #1 & #3 were a dark blue color. Both pistons #1 & #2 had been broken up during the failure event. The tops of piston's #1, 3, 4, 5 and 6 all exhibited normal operating signatures. The top of piston #2 had been fragmented and was in the oil sump. The chrome cylinder walls were blue in color and heavily scored. All valves were found to be intact. The oil sump was removed and was found to contain most of the fragment engine parts and very little oil. The exterior of the engine was checked for oil leaks as well as the oil filter, oil filter adapter, propeller governor, push rod seals, oil pressure line, dipstick tube, oil sump quick drain, oil pump, tachometer drive, and oil filler port/cap, and no evidence of a leak was noted. According to the pilot, he added one quart of oil just prior to the flight, and this brought the oil level to a point about half way between the low-oil mark and the fully filled line.

Although the engine displayed the aforementioned signs of catastrophic internal failure, the event initiating that failure sequence could not be determined.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	59, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine; Helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical—no waivers/lim.	Last FAA Medical Exam:	April 2, 2003
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	7600 hours (Total, all aircraft), 2000 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N2913F
Model/Series:	182J	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	18257013
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	2800 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	O-470R
Registered Owner:	On file	Rated Power:	230 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:	KSLE, 214 ft msl	Distance from Accident Site:	4 Nautical Miles
Observation Time:	15:56 Local	Direction from Accident Site:	250°
Lowest Cloud Condition:	Scattered / 3500 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	11 knots / 20 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	260°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.13 inches Hg	Temperature/Dew Point:	13°C / 4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Hillsboro, OR (HIO)	Type of Flight Plan Filed:	None
Destination:	Placerville, CA (HNW)	Type of Clearance:	None
Departure Time:	15:20 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	44.915554,-122.897781

Administrative Information

Investigator In Charge (IIC):	Anderson, Orrin
Additional Participating Persons:	Bill McKibbin; FAA/Portland FSDO; Hillsboro, OR
Report Date:	April 5, 2004
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=56996

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