



Aviation Investigation Factual Report

Location:	Clearwater, Idaho	Accident Number:	SEA04LA189
Date & Time:	September 13, 2004, 12:45 Local	Registration:	N4661F
Aircraft:	Cessna P206A	Aircraft Damage:	Substantial
Defining Event:		Injuries:	4 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Factual Information

On September 13, 2004, approximately 1245 mountain daylight time, a Cessna P206A, N4661F, nosed over during a forced landing in an open field near Clearwater, Idaho. The airline transport pilot and his three passengers were not injured, but the aircraft, which is owned and operated by the pilot, sustained substantial damage. The 14 CFR Part 91 personal pleasure flight, which departed Weiser, Idaho, about 75 minutes prior to the accident, was being operated in visual meteorological conditions. No flight plan had been filed for the flight to Moose Creek, Idaho. The ELT, which was activated by the accident sequence, was picked up by a Forest Service aircraft, whose crew notified the local Sheriff's Department.

According to the pilot, while en route, the aircraft's engine began to run rough, vibrate, and make a lot of unusual noises. He therefore checked the oil pressure, which was indicating zero psi, so he reduced the power and turned toward lower terrain. About 30 seconds after the onset of the symptoms, the engine seized, and the pilot decided to make an emergency power-off landing in an open field. Due to the fact that the pilot was landing without power on a "fairly steep upslope," the nose gear contacted the surface with sufficient force to result in its collapse, and as the aircraft began to slide across the soft terrain, the nose gear strut dug into the dirt, and the aircraft nosed over onto its back.

A preliminary inspection of the engine revealed that the case was cracked in an area above the number three piston, and the small end of the number three connecting rod was protruding slightly from the top of the case. A further teardown inspection of the engine revealed that the number three piston was no longer connected to its associated connecting rod, but that both the piston pin boss in the piston and the piston pin boss in the small end of the connection rod were intact. A significant portion of the internal components of the engine had been destroyed, and eleven separate pieces of the piston pin were able to be recovered from areas inside the case and in the oil sump. Although the damage to the pin had obliterated any manufacturer's identification markings, all the other piston pins in the engine had the Superior Air Parts "S" stamped into their aluminum caps.

The recovered piston pin pieces were submitted to the NTSB's Materials Laboratory Division, where close examination revealed that four pieces of the pin contained areas of crack propagation along the longitudinal axis of the pin in a plane normal to the surface, with arrest marks consistent with fatigue. Further inspection of the pin revealed that the fatigue regions were all part of a single fatigue crack that initiated from the inner diameter surface of the pin. None of the recovered pieces contained the origin of the crack, but examination of the inner diameter surface of the recovered pieces did not reveal any clear signs of corrosion or other preexisting surface damage.

One small additional fatigue crack was observed in one of the fragments, but the location of that fragment within the pin could not be determined. The macroscopic superficial hardness

measurement of the outer diameter surface of the failed pin (HRC 44) was within the required hardness range of HRC 42-45.

Due to the lack of an origin area, a clear determination of the initiating cause could not be made.

Pilot Information

Certificate:	Airline transport; Flight engineer; Flight instructor	Age:	65, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	July 18, 2003
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	September 24, 2003
Flight Time:	26751 hours (Total, all aircraft), 275 hours (Total, this make and model), 19890 hours (Pilot In Command, all aircraft), 42 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N4661F
Model/Series:	P206A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	P206-0261
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	February 2, 2004 Annual	Certified Max Gross Wt.:	3600 lbs
Time Since Last Inspection:	49 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4248 Hrs as of last inspection	Engine Manufacturer:	Continental
ELT:	Installed, activated, aided in locating accident	Engine Model/Series:	IO-520-A
Registered Owner:	William J. Vaughn	Rated Power:	285 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 7000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	18°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Weiser, ID (S87)	Type of Flight Plan Filed:	Unknown
Destination:	Moose Creek, ID (1U1)	Type of Clearance:	None
Departure Time:	11:30 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	3 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 None	Latitude, Longitude:	46.023887,-115.889442

Administrative Information

Investigator In Charge (IIC):	Anderson, Orrin
Additional Participating Persons:	John Phillips; Spokane FSDO; Spokane, WA
Report Date:	April 28, 2005
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=60146

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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](#).