



National Transportation Safety Board Aviation Accident Final Report

Location:	Gustavus, AK	Accident Number:	ANC06LA084
Date & Time:	07/01/2006, 1040 AKD	Registration:	N8690M
Aircraft:	Beech P35	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The private certificated pilot was in cruise flight about 2,000 feet above the ground (agl) on a Title 14, CFR Part 91, cross-country personal flight. He began to smell, and then see, what appeared to be smoke emanating from the engine, which subsequently lost power. He lowered the flaps and landing gear and performed an emergency landing on a beach. During the landing roll, the nose gear collapsed. The pilot reported that while waiting for rescue, he discovered that the number four cylinder connecting rod had fractured, and was protruding through the top of the engine case. Postaccident examination of the engine revealed that the number 4 connecting rod was fractured at the base of the rod beam. Fragments of the rod cap, the rod bearing, and the connecting rod bolts had thermal and mechanical damage. The rod cap bolts were necked down at the point of fracture. Fragments of the rod bearing were located in the engine oil sump. The engine had accrued 1,482 hours since its last overhaul in 1970, and 9 hours since its last annual inspection on June, 24, 2006. The engine manufacturer's recommended Time Between Engine Overhaul (TBO) for the accident engine is 1,500 hours, or every 12 years.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The fracture of an engine connecting rod during cruise flight, which resulted in a forced landing on a beach, a collapsed nose landing gear, and substantial damage to the fuselage.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: CRUISE

Findings

1. (C) ENGINE ASSEMBLY,CONNECTING ROD - FRACTURED

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

2. TERRAIN CONDITION - SAND BAR
3. LANDING GEAR,NOSE GEAR - COLLAPSED

Factual Information

On July 1, 2006, about 1040 Alaska daylight time, a wheel-equipped Beech P35 airplane, N8690M, sustained substantial damage during a forced landing on a remote beach following a loss of engine power during cruise, about 63 miles west of Gustavus, Alaska. The airplane was being operated as a visual flight rules (VFR) cross-country personal flight under Title 14, CFR Part 91, when the accident occurred. The airplane was operated by the pilot. The private certificated pilot and the sole passenger were not injured. Visual meteorological conditions prevailed, and a VFR flight plan was filed. The flight originated at the Juneau International Airport, Juneau, Alaska, about 0945, and was en route to Yakutat, Alaska.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC), on July 1, the pilot reported that his airplane was the lead airplane in a group of five airplanes that were traveling through Alaska. He said he was in cruise flight about 2,000 feet above the ground (agl) when he began to smell, and then see, what appeared to be smoke emanating from the engine. The engine subsequently lost power, and the pilot said he lowered the flaps and landing gear and performed an emergency landing on a beach area near Lituya Bay. During the landing roll, the nose gear collapsed. Other airplanes in the group reported the accident, and the pilot and passenger were transported to Sitka, Alaska, by a U.S. Coast Guard helicopter.

The pilot reported that while waiting for rescue, he discovered that the number four cylinder connecting rod had fractured, and was protruding through the top of the engine case. The airplane was recovered and transported to Juneau, Alaska.

During a telephone conversation with the NTSB IIC on July 6, a Federal Aviation Administration (FAA) inspector from the Juneau Flight Standards District Office (FSDO), reported that his examination of the airplane confirmed the engine damage, and also revealed structural damage to the fuselage in the area of the collapsed nose gear.

Following recovery of the airplane to Juneau, the engine was examined on July 1, 2006, by an FAA inspector, and an air safety investigator from the manufacturer. The examination revealed a protruding hole in the engine case above the number 4 cylinder. Disassembly of the engine revealed that the number 4 connecting rod was fractured at the base of the rod beam. Fragments of the rod cap, the rod bearing, and the connecting rod bolts had thermal and mechanical damage. The rod cap bolts were necked down at the point of fracture. Fragments of the rod bearing were located in the engine oil sump.

According to the information contained in the Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1) submitted by the pilot, the engine had accrued a total time of 2,552 hours since it was manufactured in 1963. The engine had accrued 1,482 hours since its last overhaul, and 9 hours since its last annual inspection on June, 24, 2006. The manufacturer's investigator reported that the last overhaul occurred in 1970.

The engine manufacturer issued Service Letter SIL98-9A in 1998, and revised it on March 28, 2003, which listed recommended Time Between Engine Overhaul (TBO) for their engine models. The recommended TBO for the accident engine is 1,500 hours, or every 12 years.

Pilot Information

Certificate:	Student	Age:	51, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With Waivers/Limitations	Last Medical Exam:	05/01/2006
Occupational Pilot:		Last Flight Review or Equivalent:	01/01/2005
Flight Time:	657 hours (Total, all aircraft), 531 hours (Total, this make and model), 584 hours (Pilot In Command, all aircraft), 17 hours (Last 90 days, all aircraft), 12 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	Beech	Registration:	N8690M
Model/Series:	P35	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	D-7279
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	06/01/2006, Annual	Certified Max Gross Wt.:	3100 lbs
Time Since Last Inspection:	9 Hours	Engines:	1 Reciprocating
Airframe Total Time:	2592 Hours	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	IO-470N
Registered Owner:	Steven C. Scruggs	Rated Power:	260 hp
Operator:	Steven C. Scruggs	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	PAGS, 34 ft msl	Observation Time:	1056 ADT
Distance from Accident Site:	63 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:	90°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:		Temperature/Dew Point:	13° C / 8° C
Lowest Ceiling:	Broken / 1600 ft agl	Visibility	10 Miles
Wind Speed/Gusts, Direction:	3 knots, 165°	Visibility (RVR):	
Altimeter Setting:	30.27 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Juneau, AK (PAJN)	Type of Flight Plan Filed:	VFR
Destination:	Yakutat, AK (PAYA)	Type of Clearance:	None
Departure Time:	0945 ADT	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None		

Administrative Information

Investigator In Charge (IIC):	Scott Erickson	Adopted Date:	04/25/2007
Additional Participating Persons:	Mick Green; FAA-AL-JNU FSDO 05; Juneau, AK Jason Lukasik; Teledyne Continental Motors; Mobile, AL		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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