



National Transportation Safety Board Aviation Accident Data Summary

Location:	SKWENTNA, AK	Accident Number:	ANC96LA140
Date & Time:	09/01/1996, 1505 AKD	Registration:	N4366Y
Aircraft:	Piper PA-28-161	Injuries:	1 Minor, 2 None
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled - Sightseeing		

Analysis

The pilot & 2 passengers departed on a local area sightseeing flight. While in cruise flight at about 4,000 ft, the engine developed a vibration, then lost power. Oil spray was deposited on the windshield. The pilot performed an emergency landing on a sand bar. After landing, he noticed that the entire propeller, propeller flange, & the outboard end of the engine crankshaft were missing from the engine. Examination of the engine revealed evidence of fatigue cracking, emanating from a corrosion pit on the inner diameter surface of the crankshaft bore. Numerous other corrosion pits were found adjacent to the fracture origin. The engine manufacturer reported the engine was built & shipped from the factory on 4/13/81. The engine was the subject of a mandatory service bulletin (S/B), dated 1018/94, that addressed the inspection of the inside bore of the crankshaft for the presence of corrosion. The S/B required that an initial inspection be conducted within the next 200 hrs of operation or 1 year from the date of the S/B. The operator's company manual stated the Director of Maintenance shall ensure that current manufacturer's mandatory S/B's were complied with. No record of compliance with the S/B was noted in the engine maintenance records.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: corrosion and subsequent fatigue failure of the crankshaft, which resulted in engine failure and a forced landing. Factors related to the accident were: the lack of suitable terrain for a forced landing, and the operator's non-compliance with a service bulletin.

Findings

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

Findings

1. (C) ENGINE ASSEMBLY,CRANKSHAFT - CORRODED
2. (C) MAINTENANCE,SERVICE BULLETIN/LETTER - NOT COMPLIED WITH - COMPANY MAINTENANCE PERSONNEL
3. (C) ENGINE ASSEMBLY,CRANKSHAFT - FATIGUE
4. PROPELLER SYSTEM/ACCESSORIES - SEPARATION

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

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY LANDING

Findings

5. (F) TERRAIN CONDITION - NONE SUITABLE

Pilot Information

Certificate:	Commercial	Age:	63
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	3100 hours (Total, all aircraft), 1586 hours (Total, this make and model), 3069 hours (Pilot In Command, all aircraft), 70 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N4366Y
Model/Series:	PA-28-161 PA-28-161	Engines:	1 Reciprocating
Operator:	VERNIAIR	Engine Manufacturer:	Lycoming
Operating Certificate(s) Held:	On-demand Air Taxi (135)	Engine Model/Series:	O-320-D3G
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled - Sightseeing		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Weather Information Source:	Pilot
Lowest Ceiling:	None / 0 ft agl	Wind Speed/Gusts, Direction:	Calm / ,
Temperature:	7° C	Visibility	100 Miles
Precipitation and Obscuration:			
Departure Point:	ANCHORAGE, AK (MRI)	Destination:	

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC): SCOTT R ERICKSON Adopted Date: 03/31/1998

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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