



National Transportation Safety Board Aviation Incident Data Summary

Location:	TANANA, AK	Incident Number:	ANC00IA063
Date & Time:	06/01/2000, 1330 AKD	Registration:	N3536B
Aircraft:	Piper PA-31-350	Injuries:	5 None
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Scheduled		

Analysis

A passenger aboard a twin-engine, scheduled commuter airplane reported to the pilot that there was black smoke, fire, and oil coming from the left engine. The pilot shut down the left engine, made a 180-degree turn to return the departure airport, and alerted emergency fire crews to standby for his return. On arrival, fire department personnel extinguished the fire. The airplane was equipped with two TEXTRON Lycoming TIO-540-J2BD engines. A postincident inspection revealed the oil filter adapter plate gasket material displayed obvious signs of degradation and deformation. A subsequent investigation revealed that the manufacturer that supplied TEXTRON Lycoming with the oil filter adapter plate gaskets, recently changed material suppliers. The new gasket material did not meet the existing specifications, and deteriorated when in contact with hot engine oil. A subsequent oil leak sprayed engine oil within the engine cowling, near the rear of the engine, adjacent to the engine turbocharger.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this incident to be: An in-flight oil leak due to the deterioration of oil filter adapter plate gasket material, and the supplier's distribution of inadequate material. A factor associated with the accident was the engine manufacturer's inadequate quality control.

Findings

Occurrence #1: FIRE
Phase of Operation: CRUISE

Findings

1. (C) LUBRICATING SYSTEM,OIL GASKET - DETERIORATED
2. (C) MATERIAL INADEQUATE - SUPPLIER/DISTRIBUTOR OF PARTS
3. (F) INADEQUATE QUALITY CONTROL - MANUFACTURER

Pilot Information

Certificate:	Airline Transport	Age:	29
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	Airplane Multi-engine
Flight Time:	4200 hours (Total, all aircraft), 250 hours (Total, this make and model), 4100 hours (Pilot In Command, all aircraft), 200 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N3536B
Model/Series:	PA-31-350 PA-31-350	Engines:	2 Reciprocating
Operator:	FRONTIER FLYING SERVICE, INC	Engine Manufacturer:	Lycoming
Operating Certificate(s) Held:	Commuter Air Carrier (135); On-demand Air Taxi (135)	Engine Model/Series:	TIO-540-J2BD
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Scheduled		

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:	Broken / 7000 ft agl	Wind Speed/Gusts, Direction:	/ ,
Temperature:		Visibility	10 Miles
Precipitation and Obscuration:			
Departure Point:	TANANA, AK (TAL)	Destination:	FAIRBANKS, AK (FAI)

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Minor
Passenger Injuries:	4 None	Aircraft Fire:	In-Flight
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:			

Administrative Information

Investigator In Charge (IIC):	CLINTON O JOHNSON	Adopted Date:	07/10/2001
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 pubin@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report.