



National Transportation Safety Board Aviation Accident Data Summary

Location:	KING SALMON, AK	Accident Number:	ANC01LA136
Date & Time:	09/02/2001, 1430 AKD	Registration:	N177BM
Aircraft:	Cessna 185F	Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The commercial certificated pilot was back-taxiing on a runway in preparation for takeoff, and then began a 180 degree turn on the runway. During the turn, the pilot said he heard a scraping sound, the airplane wobbled and shimmied, and the right brake was not functioning. The right main landing gear strut collapsed near the axle attach point, and the right main wheel and tire rolled away from the airplane. The right wingtip and the propeller struck the ground, and the right gear strut was torn loose from its upper attach point. A postexamination of the right wheel and strut by the owner revealed the axle assembly separated from the lower end of the landing gear strut. There are four hex head bolts utilized to secure the axle to the landing gear strut. Each are inserted through the axle assembly and gear leg, and have a nut threaded and then torqued onto the bolt shaft. All four of the bolts were bent. Two of the nuts were stripped off their respective bolt shafts. The remaining two bolts were broken about mid-shaft. The owner of the airplane reported that about five days before the accident, new brake assemblies were installed on the airplane. The original bolts were re-used for the installation. One of the broken bolts was submitted to the National Transportations Safety Board's Materials Laboratory for examination. According to an NTSB materials engineer, the bolt was bent about 35 degrees, it had necking deformation adjacent to the fracture, and displayed features consistent with an overstress fracture in bending.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: An overload failure of the main axle attaching bolts, and subsequent separation of the axle from the landing gear strut.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: TAXI - TO TAKEOFF

Findings

1. (C) MISCELLANEOUS,BOLT/NUT/FASTENER/CLAMP/SPRING - OVERLOAD
2. (C) LANDING GEAR,AXLE - SEPARATION

Occurrence #2: MAIN GEAR COLLAPSED
Phase of Operation: TAXI - TO TAKEOFF

Findings

3. LANDING GEAR,MAIN GEAR ATTACHMENT - OVERLOAD

Pilot Information

Certificate:	Commercial	Age:	63
Airplane Rating(s):	Single-engine Land; Single-engine Sea	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	12000 hours (Total, all aircraft), 2500 hours (Total, this make and model), 70 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N177BM
Model/Series:	185F	Engines:	1 Reciprocating
Operator:	BILL MARTIN FISH ALASKA INC.	Engine Manufacturer:	Continental
Operating Certificate(s) Held:	On-demand Air Taxi (135)	Engine Model/Series:	IO-520
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	PAKN, 57 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	Broken / 3600 ft agl	Wind Speed/Gusts, Direction:	11 knots / , 270°
Temperature:	17° C	Visibility:	10 Miles
Precipitation and Obscuration:			
Departure Point:	KING SALMON, AK (PAKN)	Destination:	YANTARNI, AK

Airport Information

Airport:	KING SALMON (PAKN)	Runway Surface Type:	Asphalt
Runway Used:	11	Runway Surface Condition:	Dry
Runway Length/Width:	8500 ft / 150 ft		

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
Latitude, Longitude:	58.676944, -156.649167		

Administrative Information

Investigator In Charge (IIC): SCOTT ERICKSON

Adopted Date: 06/18/2002

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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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.