



National Transportation Safety Board Aviation Accident Data Summary

Location:	FORT YUKON, AK	Accident Number:	ANC92LA152
Date & Time:	09/01/1992, 1742 AKD	Registration:	N8070Z
Aircraft:	CESSNA 206	Injuries:	1 Serious, 1 Minor, 1 None
Flight Conducted Under:	Part 91: General Aviation - Business		

Analysis

THE PILOT LOADED THE 2 PASSENGERS AND GEAR IN THE AIRPLANE TO THE EXTENT THAT IT TOOK SUCCESSIVE ATTEMPTS TO CLOSE THE DOOR DUE TO THE GEAR WHICH 'FILLED UP THE AIRPLANE TO THE ROOF.' THE REAR PAX HAD TO LAY ON TOP OF MEAT AND CAMP SUPPLIES WITH 2 DOGS IN HIS LAP. THE AIRPLANE WAS ESTIMATED TO BE 772 LBS OVER MAX GROSS WEIGHT AT TAKEOFF. AFTER TAKEOFF THE AIRPLANE CLIMBED SLOWLY FOR APRX 55 MIN AT TAKEOFF POWER. A 'SLEDGEHAMMER' SOUND PRECEDED THE APPEARANCE OF OIL FLOWING INTO THE CABIN AREA. NO REDUCTION OF POWER WAS OBSERVED. THE OIL PRESSURE BEGAN DROPPING RAPIDLY, AND THE PILOT MADE A PRECAUTIONARY LANDING ON A BEACH. THE AIRPLANE NOSED OVER IN GRASS. ENGINE TEARDOWN EXAMINATION REVEALED THAT THE #6 CYLINDER HAD FAILED THROUGH THE HEAD-TO-BARREL THREADED JOINT. METALLURGICAL EXAMINATION REVEALED THAT THE FAILURE WAS THE RESULT OF FATIGUE CRACKING IN THE CYLINDER HEAD CASTING. THIS TYPE OF FAILURE OCCURS WHEN THE CYLINDER IS OPERATED AT ELEVATED TEMPERATURES (ABOVE MAXIMUM ALLOWABLE) FOR A CONSIDERABLE PERIOD OF TIME.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FATIGUE FAILURE OF AN ENGINE CYLINDER PRECIPITATED BY THE PILOT-IN-COMMAND INTENTIONALLY EXCEEDING THE ENGINE PERFORMANCE RATINGS IN ORDER TO SUSTAIN FLIGHT IN THE GROSSLY OVERWEIGHT CONDITION. A FACTOR CONTRIBUTING TO THE ACCIDENT WAS THE HIGH GRASS. A FACTOR CONTRIBUTING TO THE SEVERITY OF THE PASSENGER'S INJURY WAS THE UNSECURED CARGO.

Findings

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

Findings

1. (C) AIRCRAFT WEIGHT AND BALANCE - EXCEEDED - PILOT IN COMMAND
2. (C) ENGINE ASSEMBLY,CYLINDER - OVERTEMPERATURE
3. (C) POWERPLANT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND
4. (C) ENGINE ASSEMBLY,CYLINDER - FATIGUE

Occurrence #2: FORCED LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Occurrence #3: NOSE OVER

Phase of Operation: LANDING - ROLL

Findings

5. (F) TERRAIN CONDITION - HIGH VEGETATION

6. (F) TIE DOWN - NOT PERFORMED - PILOT IN COMMAND

Pilot Information

Certificate:	Private	Age:	44
Airplane Rating(s):	Single-engine Land; Single-engine Sea	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	4900 hours (Total, all aircraft), 720 hours (Total, this make and model), 4830 hours (Pilot In Command, all aircraft), 155 hours (Last 90 days, all aircraft), 148 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N8070Z
Model/Series:	206 206	Engines:	1 Reciprocating
Operator:	LARRY R. RIVERS	Engine Manufacturer:	CONTINENTAL
Operating Certificate(s) Held:	None	Engine Model/Series:	IO-520A
Flight Conducted Under:	Part 91: General Aviation - Business		

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:	Overcast / 7000 ft agl	Wind Speed/Gusts, Direction:	Light and Variable / , Variable
Temperature:	10° C	Visibility	50 Miles
Precipitation and Obscuration:			
Departure Point:	RED SHEEP CREEK, AK	Destination:	

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC): DOUGLAS R HERLIHY Adopted Date: 12/16/1993

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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