



National Transportation Safety Board Aviation Accident Final Report

Location:	Nome, AK	Accident Number:	ANC15LA023
Date & Time:	04/23/2015, 1240 AKD	Registration:	N4554F
Aircraft:	CESSNA 185	Aircraft Damage:	Substantial
Defining Event:	Sys/Comp malf/fail (non-power)	Injuries:	1 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The commercial pilot was conducting a personal cross-country flight in the wheel/ski-equipped airplane. The pilot reported that, just as the airplane became airborne, he heard a "loud bang" and that he then noticed that the left wheel/ski assembly had rotated up and near the left window. The pilot then chose to return to the departure runway for an emergency landing, and he crabbed the airplane into the wind to hold the wheel/ski assembly close to the airplane during the return flight back to the airport. During touchdown, as the airplane settled onto the runway, the left main landing gear leg contacted the ground and collapsed, and the left wing struck the ground.

A postaccident examination of the airplane revealed that the left main landing gear leg assembly fractured near the axle through bolts. The fractured gear leg and maintenance records were not made available for examination; therefore, the reason for the failure of the left main landing gear leg could not be determined.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The failure of the left main landing gear leg for reasons that could not be determined based on the available evidence.

Findings

Aircraft	Main landing gear attach sec - Failure (Cause)
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Factual Information

On April 23, 2015, about 1240 Alaska daylight time, a wheel/ski equipped Cessna 185 airplane, N4554F, sustained substantial damage during an emergency landing, shortly after takeoff from the Nome City Field, Nome, Alaska. The airplane was registered to, and operated by, the certificated commercial pilot as a visual flight rules (VFR) personal flight under the provisions of 14 Code of Federal Regulations Part 91. The pilot, who was the sole occupant, was not injured. Visual meteorological conditions prevailed, and no flight plan was filed for the flight destined to White Mountain, Alaska.

During a telephone interview the pilot reported to the NTSB investigator-in-charge that after a normal takeoff roll, just as the airplane became airborne, he heard a "loud bang," and then he noticed that the left side wheel/ski assembly had rotated up and near the left side window. The pilot then elected to return to the departure runway for an emergency landing, and he crabbed the airplane into the wind as to hold the wheel/ski assembly close to the airplane during the return flight back to the airport.

During touchdown, as airplane settled to the runway and the left main landing gear leg contacted the ground, the left main landing gear leg collapsed, and the left wing struck the ground, sustaining substantial damage.

A postaccident inspection of the airplane by an FAA inspector revealed that the left main landing gear leg assembly fractured near the axle through bolts, which caused the ski to rotate up near the window during takeoff. The fractured gear leg and maintenance records were not made available to the NTSB for examination.

The aircraft had been modified via Supplemental Type Certificate (STC), SA1907NM, for the installation of Schnider Model SWS-4000 C-19 wheel skis.

History of Flight

Takeoff	Sys/Comp malf/fail (non-power) (Defining event)
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Pilot Information

Certificate:	Commercial; Private	Age:	58, Male
Airplane Rating(s):	Single-engine Land; Single-engine Sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Lap Only
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 With Waivers/Limitations	Last FAA Medical Exam:	04/01/2015
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	25500 hours (Total, all aircraft), 8000 hours (Total, this make and model), 25500 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N4554F
Model/Series:	185	Aircraft Category:	Airplane
Year of Manufacture:	1966	Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	185-1057
Landing Gear Type:	Ski/wheel; Tailwheel	Seats:	6
Date/Type of Last Inspection:	06/01/2014, Annual	Certified Max Gross Wt.:	3300 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	4400 Hours at time of accident	Engine Manufacturer:	Continental
ELT:	C91A installed, not activated	Engine Model/Series:	I0520D
Registered Owner:	On file	Rated Power:	300 hp
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	94Z, 37 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	2053 UTC	Direction from Accident Site:	270°
Lowest Cloud Condition:		Visibility	5 Miles
Lowest Ceiling:	Overcast / 1000 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	17 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	29.62 inches Hg	Temperature/Dew Point:	0°C / -1°C
Precipitation and Obscuration:	Light - Snow; Moderate - Mist		
Departure Point:	Nome, AK (94Z)	Type of Flight Plan Filed:	None
Destination:	WHITE MOUNTAIN, AK (WMO)	Type of Clearance:	VFR
Departure Time:	AKD	Type of Airspace:	

Airport Information

Airport:	NOME CITY FIELD (94Z)	Runway Surface Type:	Ice; Snow
Airport Elevation:	69 ft	Runway Surface Condition:	Ice; Snow
Runway Used:	03	IFR Approach:	None
Runway Length/Width:	1950 ft / 110 ft	VFR Approach/Landing:	Traffic Pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	64.511389, -165.390278

Administrative Information

Investigator In Charge (IIC):	Millicent M Hill	Report Date:	02/13/2017
Additional Participating Persons:	Jason M Major; FAA; AK		
Publish Date:	02/13/2017		
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=91096		

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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).