



Aviation Investigation Final Report

Location:	Talkeetna, Alaska	Accident Number:	ANC04LA035
Date & Time:	March 22, 2004, 15:15 Local	Registration:	N2472F
Aircraft:	Cessna 180H	Aircraft Damage:	Substantial
Defining Event:		Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airline transport certificated pilot was departing from a snow-covered area on a remote glacier in a ski-equipped airplane. During the downhill takeoff from the glacier, the pilot said that the left main landing gear ski collided with snow-covered terrain just after the airplane became airborne, and the left main landing gear strut was torn off the fuselage. During the subsequent emergency landing on the snow, the airplane received additional damage to the left wing and fuselage. The pilot said the weather conditions were clear, and the visibility was unrestricted. An emergency locator transmitter (ELT) signal was received by search and rescue personnel, and the airplane's occupants were picked up by a rescue helicopter. In the Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1) submitted by the pilot, the pilot indicated that the landing/takeoff area had 6 to 8 feet high snow drifts, but the area was still being used by local ski-equipped aircraft.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's selection of unsuitable terrain for takeoff, which resulted in a collision with a snow drift during takeoff/initial climb. Factors contributing to the accident were the snow-covered and uneven terrain.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (F) TERRAIN CONDITION - ROUGH/UNEVEN
2. (C) UNSUITABLE TERRAIN OR TAKEOFF/LANDING/TAXI AREA - SELECTED - PILOT IN COMMAND
3. (F) TERRAIN CONDITION - SNOW COVERED

Factual Information

On March 22, 2004, about 1515 Alaska standard time, a ski-equipped Cessna 180H airplane, N2472F, sustained substantial damage when it collided with snow-covered terrain during takeoff-initial climb from a remote glacier, about 43 miles northwest of Talkeetna, Alaska. The airplane was being operated as a visual flight rules (VFR) cross-country personal flight under Title 14, CFR Part 91, when the accident occurred. The airplane was operated by the pilot. The airline transport certificated pilot, and the two passengers, were not injured. Visual meteorological conditions prevailed. The pilot departed from Palmer, Alaska, at 1122 on a round-robin VFR flight plan to the Lake Hood Seaplane Base, Anchorage, Alaska, to the Ruth Glacier, and return.

At 1745, Federal Aviation Administration personnel received a relayed report from an overlying aircraft that the accident airplane was disabled on the Ruth Glacier. The airplane was declared overdue, and search and rescue personnel were notified. An emergency locator transmitter (ELT) signal was received by search and rescue personnel in the area of the accident. The occupants of the airplane were picked up by a rescue helicopter at 2025.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC), on March 23, the pilot reported that he departed Finger Lake Seaplane Base in Palmer to pick up passengers at Lake Hood. The flight then continued to the Sheldon Mountain House, located on the Ruth Glacier in the Alaska Range. During the downhill takeoff from the glacier, the pilot said that the left main landing gear ski collided with snow-covered terrain just after the airplane became airborne, and the left main landing gear strut was torn off the fuselage. During the subsequent emergency landing on the snow, the airplane received additional damage to the left wing and fuselage. The pilot said the weather conditions were clear, and the visibility was unrestricted.

In the Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1) submitted by the pilot, the pilot indicated that the landing/takeoff area had 6 to 8 feet high snow drifts, but the area was still being used by local ski-equipped aircraft.

Pilot Information

Certificate:	Airline transport; Commercial; Flight engineer; Flight instructor	Age:	55, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	December 16, 2003
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	October 9, 2003
Flight Time:	19900 hours (Total, all aircraft), 1250 hours (Total, this make and model), 16500 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N2472F
Model/Series:	180H	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	18051674
Landing Gear Type:	Tailwheel; Ski	Seats:	4
Date/Type of Last Inspection:	November 20, 2003 Annual	Certified Max Gross Wt.:	2800 lbs
Time Since Last Inspection:	39 Hrs	Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Continental
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-470-K
Registered Owner:	Rex L Gray	Rated Power:	230 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	50 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	0°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Talkeetna, AK	Type of Flight Plan Filed:	VFR
Destination:	Palmer, AK (99Z)	Type of Clearance:	None
Departure Time:	15:15 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	62.974998,-150.800003

Administrative Information

Investigator In Charge (IIC):	Erickson, Scott
Additional Participating Persons:	Scott Schweizer; FAA-AL-ANC FSDO 03; Anchorage, AK
Original Publish Date:	September 29, 2004
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=58938

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).