



Aviation Investigation Final Report

Location:	Talkeetna, Alaska	Accident Number:	ANC03LA057
Date & Time:	June 9, 2003, 11:45 Local	Registration:	N5246E
Aircraft:	Cessna 185	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor, 4 None
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled - Sightseeing		

Analysis

The pilot of the wheel ski-equipped airplane was attempting to takeoff down-slope from a remote mountain glacier airstrip for an air taxi sightseeing flight . The pilot reported that the snow on the runway was fresh and wet, which slowed the airplane's acceleration. He said he elected to abort the takeoff because of the airplane's slow acceleration and low airspeed. Following the aborted takeoff, he initiated a left turn to return to the top of the airstrip for another takeoff attempt. As the airplane turned, the pilot said it felt like the right main landing gear wheel ski encountered a soft spot or sink hole, and sank deeper into the snow. As soon the as the ski sank, the airplane nosed over. The airplane received structural damage to the fuselage and right wing. A national park ranger who flew to the accident scene reported that it appeared that the airplane's tailwheel-ski never touched down before the left turn was initiated. He said the proper procedure for an aborted takeoff on the glacier is to come to a complete stop going straight, deplane the passengers, make the turn up-slope, and then taxi back for takeoff.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's excessive taxi speed while attempting to turn the airplane in soft snow, which resulted in a nose over. A factor in the accident was soft snow.

Findings

Occurrence #1: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: TAKEOFF - ABORTED

Findings

1. TERRAIN CONDITION - SNOW COVERED
2. (F) TERRAIN CONDITION - SOFT

Occurrence #2: NOSE OVER
Phase of Operation: MANEUVERING - TURN TO REVERSE DIRECTION

Findings

3. (C) TAXISPEED - EXCESSIVE - PILOT IN COMMAND

Factual Information

On June 9, 2003, about 1145 Alaska daylight time, a wheel-ski equipped Cessna 185 airplane, N5246E, operated by Talkeetna Air Taxi, Talkeetna, Alaska, as a Title 14, CFR Part 135 sightseeing flight, received substantial damage when it nosed over during an aborted takeoff from the Mountain House airstrip on the Ruth Glacier, located in the Denali National Park, and about 30 miles north-northwest of Talkeetna, Alaska. The airline transport pilot received minor injuries; the four passengers were not injured. The flight operated in day visual meteorological conditions, and company flight following procedures were in effect. The local flight departed Talkeetna about 1145, for a sightseeing flight in the vicinity of Mount McKinley.

During a telephone conversation with the NTSB investigator-in-charge on June 10, the pilot related that he was attempting a down-slope takeoff from the glacier air strip. He described the snow as fresh and wet, which slowed the airplane's acceleration. He said he elected to abort the takeoff because of the slow acceleration and low airspeed. As the airplane approached the end of the takeoff area, he initiated a turn to the left, to return up-slope to the takeoff area. As the airplane entered the turn, he said it felt like the right wheel-ski encountered a soft spot, or perhaps a sink hole, and sank deeper into the snow. He said as soon as the wheel-ski sank, the airplane nosed over. The airplane received structural damage to the fuselage and right wing.

On June 10, a federal park ranger flew to the accident site and observed the airplane upside down, and facing up-slope, in the opposite direction of the takeoff run. An excerpt from his written report notes:

It was observed that the tail wheel had not touched down before the plane flipped. The accident appeared to have been triggered as soon the plane started to turn. The accepted procedure when you cannot take off on a glacier is:

1. Come to a complete stop going straight.
2. Unload the passengers.
3. Make the turn.
4. Taxi back up with or without the passengers.

Pilot Information

Certificate:	Airline transport; Flight instructor	Age:	56, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):		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 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	May 14, 2003
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	April 24, 2003
Flight Time:	5000 hours (Total, all aircraft), 400 hours (Total, this make and model), 4800 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:	Cessna	Registration:	N5246E
Model/Series:	185	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	18503943
Landing Gear Type:	Tailwheel; Ski/wheel	Seats:	6
Date/Type of Last Inspection:	June 1, 2003 AAIP	Certified Max Gross Wt.:	3200 lbs
Time Since Last Inspection:	27 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	9192 Hrs as of last inspection	Engine Manufacturer:	Continental
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	IO-520
Registered Owner:	TALKEETNA AIR TAXI INC	Rated Power:	300 Horsepower
Operator:		Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:		Operator Designator Code:	TL7C

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	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Talkeetna, AK (TKA)	Type of Flight Plan Filed:	Company VFR
Destination:		Type of Clearance:	None
Departure Time:	11:00 Local	Type of Airspace:	Class G;Special

Airport Information

Airport:	Mountain House	Runway Surface Type:	Snow
Airport Elevation:	5600 ft msl	Runway Surface Condition:	Snow
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Full stop;Valley/terrain following

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	4 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 4 None	Latitude, Longitude:	62.833332,-150.5

Administrative Information

Investigator In Charge (IIC):	LaBelle, James
Additional Participating Persons:	Craig Johnson; FAA, Anchorage Flight Standards; Anchorage, AK
Original Publish Date:	November 25, 2003
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=57184

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](#).