



Aviation Investigation Final Report

Location: Nikolai Creek, Alaska Accident Number: GAA16CA252

Date & Time: May 18, 2016, 19:00 Local Registration: N5589H

Aircraft: Piper PA 20 Aircraft Damage: Substantial

Defining Event: Nose over/nose down **Injuries:** 1 None

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

According to the pilot of the tailwheel landing gear-equipped airplane, he took off from grassy, wet, down sloping terrain. He recalled that he walked the area of intended takeoff and found no obstacles that would prevented a safe takeoff. However, he reported that during the takeoff roll, he kept the airplane tailwheel off of the ground, while rolling down slope, and the airplane main landing gear wheels rolled over a patch of mud creating a pivot point, and the airplane nosed over. The airplane sustained substantial damage to the vertical stabilizer, rudder, and wing struts.

The pilot reported that there were not any mechanical malfunctions or anomalies with any portion of the airplane, prior to the takeoff roll that would have precluded normal flight operations.

Probable Cause and Findings

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

The pilot's selection of an unsuitable takeoff area resulting in an airplane nose over during the takeoff roll.

Findings

Environmental issues	Wet surface - Effect on equipment
Environmental issues	wet surface - Effect on equipment

Environmental issues Wet/muddy terrain - Decision related to condition

Personnel issues Decision making/judgment - Pilot

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Factual Information

History of Flight

Takeoff	Nose over/nose down (Defining event)
Takeoff	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Airline transport; Commercial	Age:	29,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 None	Last FAA Medical Exam:	July 14, 2015
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	December 9, 2015
Flight Time:	(Estimated) 4149 hours (Total, all aircraft), 95 hours (Total, this make and model), 3393 hours (Pilot In Command, all aircraft), 201 hours (Last 90 days, all aircraft), 37 hours (Last 30 days, all aircraft)		

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Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N5589H
Model/Series:	PA 20 150	Aircraft Category:	Airplane
Year of Manufacture:	1951	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	20-651
Landing Gear Type:	Tailwheel	Seats:	4
Date/Type of Last Inspection:	April 7, 2016 Annual	Certified Max Gross Wt.:	1950 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	1004.6 Hrs as of last inspection	Engine Manufacturer:	LYCOMING
ELT:	C91A installed, not activated	Engine Model/Series:	0-320-A
Registered Owner:	On file	Rated Power:	150 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Night
Observation Facility, Elevation:	PAEN,92 ft msl	Distance from Accident Site:	32 Nautical Miles
Observation Time:	02:53 Local	Direction from Accident Site:	173°
Lowest Cloud Condition:	Scattered / 4300 ft AGL	Visibility	10 miles
Lowest Ceiling:	Overcast / 6500 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	13 knots / 23 knots	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	230°	Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	30.09 inches Hg	Temperature/Dew Point:	10°C / 6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Anchorage, AK (PALH)	Type of Flight Plan Filed:	None
Destination:	West Cook Inlet, AK	Type of Clearance:	None
Departure Time:	14:30 Local	Type of Airspace:	Class G

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Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	61.104442,-151.37416(est)

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Administrative Information

Investigator In Charge (IIC):	Hicks, Michael
Additional Participating Persons:	Paula Huckleberry; Federal Aviation Administration; Anchorage, AK
Original Publish Date:	September 12, 2016
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=93226

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.

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