



Aviation Investigation Final Report

Location: Lake Louise, Alaska Accident Number: ANC20CA087

Date & Time: August 22, 2020, 10:00 Local Registration: N3251Z

Aircraft: Piper PA22 Aircraft Damage: Substantial

Defining Event: Loss of control in flight **Injuries:** 2 None

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

The pilot reported that during takeoff from a remote unimproved gravel bar, after becoming airborne, the airplane began to descend. He added that there was "plenty of runway left" and he allowed the airplane to bounce on the airstrip. The pilot continued the takeoff attempt, and after an additional bounce, the airplane descended for a third time onto "much larger rocks". Subsequently, the airspeed diminished, and the airplane came to rest in the trees and rocks.

The pilot added that during the takeoff, the headwind switched to a tailwind.

The airplane sustained substantial damage to the wings, fuselage, and empennage.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

Probable Cause and Findings

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

The pilot's decision to takeoff in shifting winds from a remote unimproved gravel bar, which resulted in a failure to attain an airspeed suitable for flight and a loss of control.

Findings

Aircraft Airspeed - Not attained/maintained

Personnel issues Aircraft control - Pilot

Personnel issues Decision making/judgment - Pilot

Environmental issues Sudden wind shift - Effect on operation

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Factual Information

History of Flight

Takeoff	Loss of control in flight (Defining event)
Takeoff	Nose over/nose down
Takeoff	Other weather encounter

Pilot Information

Certificate:	Private	Age:	31,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	October 2, 2019
Occupational Pilot:	No	Last Flight Review or Equivalent:	November 22, 2019
Flight Time:	(Estimated) 159.8 hours (Total, all aircraft), 64.5 hours (Total, this make and model), 110.4 hours (Pilot In Command, all aircraft), 63.9 hours (Last 90 days, all aircraft), 30.5 hours (Last 30 days, all aircraft)		

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Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N3251Z
Model/Series:	PA22 150	Aircraft Category:	Airplane
Year of Manufacture:	1959	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	22-7199
Landing Gear Type:	Tailwheel	Seats:	4
Date/Type of Last Inspection:	100 hour	Certified Max Gross Wt.:	2000 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3597.7 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	C91 installed, activated, did not aid in locating accident	Engine Model/Series:	O-320-A1B
Registered Owner:	On file	Rated Power:	
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	PAGK,1562 ft msl	Distance from Accident Site:	58 Nautical Miles
Observation Time:	17:53 Local	Direction from Accident Site:	102°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	140°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.79 inches Hg	Temperature/Dew Point:	13°C / 7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Talkeetna, AK (TKA)	Type of Flight Plan Filed:	None
Destination:	Anchorage, AK (MRI)	Type of Clearance:	VFR
Departure Time:		Type of Airspace:	Class G

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Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	62.366943,-147.48361(est)

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Administrative Information

Investigator In Charge (IIC):	Swenson, Eric
Additional Participating Persons:	Matthew Mrzena; FAA; Anchorage, AK
Original Publish Date:	
Last Revision Date:	
Investigation Class:	Class 4
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=101899

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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