



Aviation Investigation Final Report

Location:	Hunter Creek, Alaska	Accident Number:	ANC23LA037
Date & Time:	May 19, 2023, 17:02 Local	Registration:	N4231Z
Aircraft:	Piper PA-18-150	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that during the takeoff roll from a remote gravel bar in a tundra tire-equipped airplane, a gusting crosswind banked the airplane to the right, and it subsequently came to rest inverted and sustained substantial damage to the wings and empennage. The pilot reported that there were no preimpact mechanical malfunctions or failures with the airplane that would have precluded normal operation. At the time of takeoff, the pilot reported the winds to be gusting about 45 to 50 knots, which he said exceeded rudder and aileron authority.

Probable Cause and Findings

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

The pilot's loss of directional control during takeoff roll in gusting wind conditions.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Directional control - Unknown/Not determined
Environmental issues	Gusts - Effect on operation
Aircraft	Maximum crosswind component - Capability exceeded

Factual Information

History of Flight

Takeoff	Loss of control on ground (Defining event)
Takeoff	Nose over/nose down

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	Age:	35, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	May 4, 2023
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	April 18, 2023
Flight Time:	9420 hours (Total, all aircraft), 714 hours (Total, this make and model), 122 hours (Last 90 days, all aircraft), 24 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N4231Z
Model/Series:	PA-18-150	Aircraft Category:	Airplane
Year of Manufacture:	1966	Amateur Built:	
Airworthiness Certificate:	Utility	Serial Number:	18-8457
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	1750 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:	C126 installed, not activated	Engine Model/Series:	O-320 SERIES
Registered Owner:	On file	Rated Power:	160 Horsepower
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:	PAAQ, 233 ft msl	Distance from Accident Site:	14 Nautical Miles
Observation Time:	17:53 Local	Direction from Accident Site:	309°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	20 knots / 30 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	140°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.92 inches Hg	Temperature/Dew Point:	17°C / 4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Wasilla, AK (0AK1)	Type of Flight Plan Filed:	None
Destination:	Palmer, AK (PVT)	Type of Clearance:	None
Departure Time:	20:54 Local	Type of Airspace:	Class G

Airport Information

Airport:	Palmer Municipal PAQ	Runway Surface Type:	
Airport Elevation:	249 ft msl	Runway Surface Condition:	Dry
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	61.443797,-148.7007

Administrative Information

Investigator In Charge (IIC):	Hill, Millicent
Additional Participating Persons:	Paula Huckleberry; Federal Aviation Administration (FAA) ; Wasilla , AK
Original Publish Date:	October 20, 2023
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=192219

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](#).