

Aviation Investigation Final Report

Location: Roundup, Montana Accident Number: WPR14CA401

Date & Time: May 23, 2014, 12:30 Local Registration: N3460A

Aircraft: Piper PA 22 Aircraft Damage: Substantial

Defining Event: Runway excursion **Injuries:** 2 None

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

The pilot reported that during takeoff from a 1,200-foot long turf airstrip, the airplane accelerated beyond a speed he anticipated for rotation and remained on the ground. Despite the pilot's attempt to abort the takeoff and stop the airplane, it overran the departure end of the runway and struck multiple trees before it came to rest upright. The fuselage and both wings were substantially damaged. The pilot stated that at the time of the accident, it was unseasonably warm and the degradation of the airplane's performance was significantly more than he had anticipated. The pilot reported no mechanical malfunctions or failures 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 delayed action to abort the takeoff. Contributing to the accident was the pilot's inadequate preflight planning and a high density altitude.

Findings

Personnel issues Use of equip/system - Pilot

Personnel issues Delayed action - Pilot

Environmental issues High density altitude - Effect on operation

Personnel issues Performance calculations - Pilot

Environmental issues Tree(s) - Not specified

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Factual Information

History of Flight

Takeoff-rejected takeoff	Runway excursion (Defining event)	
Takeoff-rejected takeoff	Collision with terr/obj (non-CFIT)	

Pilot Information

Certificate:	Private	Age:	27
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	October 21, 2010
Occupational Pilot:	No	Last Flight Review or Equivalent:	October 5, 2012
Flight Time:	448 hours (Total, all aircraft), 8 hours (Total, this make and model), 436 hours (Pilot In Command, all aircraft), 19 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N3460A
Model/Series:	PA 22 UNDESIGNAT	Aircraft Category:	Airplane
Year of Manufacture:	1953	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	22-1744
Landing Gear Type:	Tailwheel	Seats:	
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	1801 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:	C91 installed, activated, did not aid in locating accident	Engine Model/Series:	0-320
Registered Owner:	WHITE JOHN M	Rated Power:	0 Horsepower
Operator:	John Bake	Operating Certificate(s) Held:	None

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Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KBIL,3570 ft msl	Distance from Accident Site:	38 Nautical Miles
Observation Time:	18:53 Local	Direction from Accident Site:	186°
Lowest Cloud Condition:	Few / 6500 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	110°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	26°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Roundup, MT (None)	Type of Flight Plan Filed:	None
Destination:	Roundup, MT (None)	Type of Clearance:	None
Departure Time:	12:30 Local	Type of Airspace:	

Airport Information

Airport:	Private Airstrip None	Runway Surface Type:	Grass/turf
Airport Elevation:	3520 ft msl	Runway Surface Condition:	Dry
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	1200 ft / 40 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	46.432498,-108.453613(est)

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Administrative Information

Investigator In Charge (IIC):	Cawthra, Joshua
Additional Participating Persons:	Jeremy Gouley; Federal Aviation Administration; Helena, MT
Original Publish Date:	April 7, 2015
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=90761

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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