



Aviation Investigation Final Report

Location:	Belgrade, Montana	Accident Number:	WPR23LA254
Date & Time:	July 4, 2023, 16:02 Local	Registration:	N3171H
Aircraft:	Maule MX7-180C	Aircraft Damage:	Substantial
Defining Event:	Runway excursion	Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot of the tailwheel equipped airplane reported that during landing, the airplane's tail swung to the right and the airplane veered to the left. The airplane struck a runway edge cone, then exited the turf runway and nosed over. The left wing, both wing struts, the vertical stabilizer, and the rudder were substantially damaged. The pilot said there was a 6-10 kt left quartering tailwind when he exited the airplane. He reported that there were no preaccident mechanical malfunctions or failures 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 failure to maintain directional control during landing with a quartering tailwind, which resulted in a runway excursion and nose over.

Findings

Environmental issues	Tailwind - Ability to respond/compensate
Aircraft	Directional control - Not attained/maintained
Personnel issues	Aircraft control - Pilot

Factual Information

History of Flight

Landing-landing roll	Other weather encounter
Landing-landing roll	Runway excursion (Defining event)
Landing-landing roll	Nose over/nose down

Pilot Information

Certificate:	Private	Age:	67,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	July 10, 2023
Occupational Pilot:	No	Last Flight Review or Equivalent:	May 10, 2022
Flight Time:	(Estimated) 3250 hours (Total, all aircraft), 57 hours (Total, this make and model), 3000 hours (Pilot In Command, all aircraft), 8 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Maule	Registration:	N3171H
Model/Series:	MX7-180C	Aircraft Category:	Airplane
Year of Manufacture:	2018	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	22045C
Landing Gear Type:	Tailwheel	Seats:	4
Date/Type of Last Inspection:	January 31, 2023 Annual	Certified Max Gross Wt.:	2500 lbs
Time Since Last Inspection:	14 Hrs	Engines:	1
Airframe Total Time:	142.3 Hrs as of last inspection	Engine Manufacturer:	
ELT:	C126 installed, activated, did not aid in locating accident	Engine Model/Series:	
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:	KBZN, 4431 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	15:56 Local	Direction from Accident Site:	325°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/ None
Wind Direction:		Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	30.21 inches Hg	Temperature/Dew Point:	20°C / 7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Belgrade, MT	Type of Flight Plan Filed:	None
Destination:	Belgrade, MT	Type of Clearance:	VFR
Departure Time:		Type of Airspace:	Class D

Airport Information

Airport:	BOZEMAN YELLOWSTONE INTL KBZN	Runway Surface Type:	Grass/turf
Airport Elevation:	4473 ft msl	Runway Surface Condition:	Dry;Vegetation
Runway Used:	11	IFR Approach:	None
Runway Length/Width:	2802 ft / 80 ft	VFR Approach/Landing:	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	45.780047,-111.15131(est)

Administrative Information

Investigator In Charge (IIC):	Blocher, Kristyn
Additional Participating Persons:	Tracy Brendal; Federal Aviation Administration; Helena, MT
Original Publish Date:	November 2, 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=192532

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](#).