



# Aviation Investigation Final Report

<b>Location:</b>	Belgrade, Montana	<b>Accident Number:</b>	WPR23LA254
<b>Date &amp; Time:</b>	July 4, 2023, 16:02 Local	<b>Registration:</b>	N3171H
<b>Aircraft:</b>	Maule MX7-180C	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Runway excursion	<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	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

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

<b>Aircraft Make:</b>	Maule	<b>Registration:</b>	N3171H
<b>Model/Series:</b>	MX7-180C	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2018	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	22045C
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	January 31, 2023 Annual	<b>Certified Max Gross Wt.:</b>	2500 lbs
<b>Time Since Last Inspection:</b>	14 Hrs	<b>Engines:</b>	1
<b>Airframe Total Time:</b>	142.3 Hrs as of last inspection	<b>Engine Manufacturer:</b>	
<b>ELT:</b>	C126 installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KBZN, 4431 ft msl	<b>Distance from Accident Site:</b>	1 Nautical Miles
<b>Observation Time:</b>	15:56 Local	<b>Direction from Accident Site:</b>	325°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/ None	<b>Turbulence Type Forecast/Actual:</b>	/ None
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/ N/A
<b>Altimeter Setting:</b>	30.21 inches Hg	<b>Temperature/Dew Point:</b>	20°C / 7°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Belgrade, MT	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Belgrade, MT	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>		<b>Type of Airspace:</b>	Class D

## Airport Information

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

## Wreckage and Impact Information

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

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Blocher, Kristyn
<b>Additional Participating Persons:</b>	Tracy Brendal; Federal Aviation Administration; Helena, MT
<b>Original Publish Date:</b>	November 2, 2023
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 4</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=192532">https://data.nts.gov/Docket?ProjectID=192532</a>

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