



Aviation Investigation Final Report

Location:	West Glacier, Montana	Accident Number:	WPR21LA239
Date & Time:	June 20, 2021, 15:00 Local	Registration:	N5765N
Aircraft:	Mooney M20J	Aircraft Damage:	Substantial
Defining Event:	Collision during takeoff/land	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, he was departing to the south on a 2,500 ft long grass runway at a mountain airport with an estimated 5,000 ft mean sea level density altitude. The pilot calculated the airplane’s performance using the pilot’s operating handbook, which revealed a takeoff distance of 1,800 ft on grass. According to the pilot, during the takeoff run, the airplane lifted off the ground after traveling between 1,250 ft and 1,870 ft down the runway as the airplane reached 60 mph. However, the airplane touched back down to the runway surface near the end of the runway and impacted fallen timber before it came to rest. The airplane sustained substantial damage to the rudder and right wing. The pilot reported that there were no mechanical failures or malfunctions with the airplane that would have precluded normal operation.

The pilot stated that, before his takeoff run, he observed the windsock, which indicated winds from the east at 9 kts. However, wind data retrieved from a nearby station and sounding information indicated that winds may have been from the north at 5 kt, which would have resulted in a tailwind.

Probable Cause and Findings

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

The pilot’s inadequate performance planning and decision to continue the takeoff which, resulted in a runway overrun and collision with terrain.

Findings

Personnel issues	Performance calculations - Pilot
Personnel issues	Decision making/judgment - Pilot
Environmental issues	Tailwind - Effect on operation
Environmental issues	High density altitude - Effect on operation

Factual Information

History of Flight

Takeoff	Collision during takeoff/land (Defining event)
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Pilot Information

Certificate:	Private	Age:	57, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	December 23, 2020
Occupational Pilot:	No	Last Flight Review or Equivalent:	January 9, 2020
Flight Time:	805 hours (Total, all aircraft), 409 hours (Total, this make and model), 716 hours (Pilot In Command, all aircraft), 15 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Mooney	Registration:	N5765N
Model/Series:	M20J	Aircraft Category:	Airplane
Year of Manufacture:	1984	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	24-1482
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	February 19, 2021 Annual	Certified Max Gross Wt.:	2740 lbs
Time Since Last Inspection:	42 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	1306.7 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	C91 installed, activated, did not aid in locating accident	Engine Model/Series:	IO-360-A3B6D
Registered Owner:	INTEGRATIVE AEROSPACE CORP	Rated Power:	200 Horsepower
Operator:	INTEGRATIVE AEROSPACE CORP	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KGPI,2973 ft msl	Distance from Accident Site:	16 Nautical Miles
Observation Time:	14:55 Local	Direction from Accident Site:	229°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Overcast / 7500 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	350°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.17 inches Hg	Temperature/Dew Point:	21°C / 8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	West Glacier, MT	Type of Flight Plan Filed:	None
Destination:	Kalispell, MT (S27)	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class G

Airport Information

Airport:	RYAN FLD 2MT1	Runway Surface Type:	Grass/turf
Airport Elevation:	3660 ft msl	Runway Surface Condition:	Dry
Runway Used:	15/33	IFR Approach:	None
Runway Length/Width:	2500 ft / 65 ft	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:	48.48,-113.96

Administrative Information

Investigator In Charge (IIC):	Stein, Stephen
Additional Participating Persons:	John Russell; Federal Aviation Administration; Helena, MT
Original Publish Date:	November 16, 2021
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=103320

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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](#).