



Aviation Investigation Final Report

Location:	Ava, Missouri	Accident Number:	CEN24LA234
Date & Time:	June 13, 2024, 20:15 Local	Registration:	N123WJ
Aircraft:	Mooney M20J	Aircraft Damage:	Substantial
Defining Event:	Runway excursion	Injuries:	1 Minor, 3 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that after landing, he moved the throttle to idle; however, the engine speed remained at 1,550 rpm. After verifying that the throttle friction lock was fully released, he decided to move the mixture control to idle/cutoff to stop the engine. The airplane subsequently went off the end of the runway and impacted some bushes. The left wing separated at the wing root during the impact sequence. He noted that a throttle linkage issue may have prevented the engine from reducing to idle power.

An examination conducted by a Federal Aviation Administration inspector confirmed throttle control continuity from the cockpit to the fuel servo, and that the fuel servo throttle arm rotated smoothly from stop to stop. Additionally, the left and right wheel brakes appeared to be leaking, and the pads were worn below minimums. In a supplemental statement, the pilot noted that the brakes were functional but required more pressure than normal. He added that there was no issue holding the airplane in place during the before takeoff engine runup. The airplane pilot operating handbook (POH) specified an engine speed of 1,900 – 2,000 rpm for the before takeoff engine runup.

Automatic Dependent Surveillance – Broadcast (ADS-B) data depicted the airplane approaching to land on an extended final. The final data point was located about 0.5 miles from the runway. At that time, the airplane groundspeed was about 108 knots. Additionally, a left quartering tailwind prevailed which provided a 3-knot tailwind component to the landing runway. The airplane POH specified a final approach airspeed of 71 knots.

There was no evidence of an anomaly with respect to the throttle linkage. However, there was evidence that the wheel brakes were likely not performing at an optimal level. The brakes in combination with the airplane inertia during landing likely resulted in the runway excursion.

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 control of the airplane resulting in a runway excursion during landing. Contributing to the accident was the degraded brake system on the airplane.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Brake - Damaged/degraded

Factual Information

History of Flight

Landing	Runway excursion (Defining event)
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Pilot Information

Certificate:	Private	Age:	34, 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:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	November 15, 2023
Occupational Pilot:	No	Last Flight Review or Equivalent:	November 30, 2023
Flight Time:	462 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Mooney	Registration:	N123WJ
Model/Series:	M20J	Aircraft Category:	Airplane
Year of Manufacture:	1987	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	24-1620
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	January 1, 2024 Annual	Certified Max Gross Wt.:	2740 lbs
Time Since Last Inspection:	22.5 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4041 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	IO-360-A3B6D
Registered Owner:	On file	Rated Power:	200 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None
Operator Does Business As:	On file	Operator Designator Code:	N/A

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KSGF, 1268 ft msl	Distance from Accident Site:	38 Nautical Miles
Observation Time:	20:52 Local	Direction from Accident Site:	296°
Lowest Cloud Condition:	Clear	Visibility	11 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots / 0 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	190°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.89 inches Hg	Temperature/Dew Point:	26°C / 21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Morristown, TN (MOR)	Type of Flight Plan Filed:	None
Destination:	Ava, MO (AOV)	Type of Clearance:	None
Departure Time:	18:07 Local	Type of Airspace:	Class G

Airport Information

Airport:	Ava Bill Martin Memorial AOV	Runway Surface Type:	Asphalt
Airport Elevation:	1311 ft msl	Runway Surface Condition:	Dry
Runway Used:	31	IFR Approach:	None
Runway Length/Width:	3634 ft / 50 ft	VFR Approach/Landing:	Full stop; Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor, 2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 3 None	Latitude, Longitude:	36.971887, -92.681946(est)

Administrative Information

Investigator In Charge (IIC):	Sorensen, Timothy
Additional Participating Persons:	Thomas Davis; FAA Flight Standards; Kansas City, MO
Original Publish Date:	December 6, 2024
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=194521

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