



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

# Aviation Investigation Final Report

<b>Location:</b>	Lamar, Colorado	<b>Accident Number:</b>	CEN24LA030
<b>Date &amp; Time:</b>	October 30, 2023, 18:30 Local	<b>Registration:</b>	N1167J
<b>Aircraft:</b>	Mooney M20K	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Fuel exhaustion	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Ferry		

## Analysis

The pilot reported that about 4 hours and 15 minutes after departure, the engine lost all power. The pilot was successful in restoring engine power by switching fuel tanks and turning on the auxiliary fuel pump. However, the engine lost all power again about 5 miles from the destination runway. The pilot conducted a forced landing to a field, during which the airplane struck a fence resulting in substantial damage to both wings.

Postaccident examination of the airplane revealed that the fuel tanks contained no usable fuel. The pilot reported that there were no preaccident mechanical failures or malfunctions 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 inadequate fuel planning and improper in-flight decision making, which resulted in a total loss of engine power due to fuel exhaustion.

## Findings

<b>Aircraft</b>	Fuel - Fluid level
<b>Environmental issues</b>	Fence/fence post - Contributed to outcome
<b>Personnel issues</b>	Monitoring equip/instruments - Pilot
<b>Personnel issues</b>	Fuel planning - Pilot
<b>Personnel issues</b>	Decision making/judgment - Pilot

## Factual Information

### History of Flight

<b>Enroute-cruise</b>	Fuel exhaustion (Defining event)
<b>Landing-flare/touchdown</b>	Off-field or emergency landing

### Pilot Information

<b>Certificate:</b>	Airline transport; Commercial	<b>Age:</b>	71, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	BasicMed Without waivers/limitations	<b>Last FAA Medical Exam:</b>	February 20, 2023
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	August 20, 2022
<b>Flight Time:</b>	6991 hours (Total, all aircraft), 18 hours (Total, this make and model), 6791 hours (Pilot In Command, all aircraft), 32 hours (Last 90 days, all aircraft), 26 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Mooney	<b>Registration:</b>	N1167J
<b>Model/Series:</b>	M20K	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1982	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Special flight (Special)	<b>Serial Number:</b>	25-0690
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	October 27, 2023 Continuous airworthiness	<b>Certified Max Gross Wt.:</b>	2900 lbs
<b>Time Since Last Inspection:</b>	4 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	4231 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	TSIO-360 SER
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	210 Horsepower
<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>	Dusk
<b>Observation Facility, Elevation:</b>	KLAA, 3688 ft msl	<b>Distance from Accident Site:</b>	6 Nautical Miles
<b>Observation Time:</b>	18:53 Local	<b>Direction from Accident Site:</b>	286°
<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>	4 knots /	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	40°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	30.25 inches Hg	<b>Temperature/Dew Point:</b>	6°C / -13°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Centralia, IL (KENL)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Lamar, CO (KLAA)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	14:45 Local	<b>Type of Airspace:</b>	Class E

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	38.070556,-102.63472(est)

## Administrative Information

Investigator In Charge (IIC):	Rutt, Brian
Additional Participating Persons:	Richard Hosker; FAA - Denver FSDO
Original Publish Date:	January 25, 2024
Last Revision Date:	
Investigation Class:	<a href="#">Class 4</a>
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	<a href="https://data.nts.gov/Docket?ProjectID=193338">https://data.nts.gov/Docket?ProjectID=193338</a>

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](#).