



Aviation Investigation Final Report

Location:	Marble Canyon, Arizona	Accident Number:	WPR23LA023
Date & Time:	October 15, 2022, 08:30 Local	Registration:	N6031Q
Aircraft:	Mooney M20E	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that during the takeoff roll he noticed a vibration, and a possible loss of power, and the airplane veered to the left off the narrow (35 ft) runway when he decided to abort the takeoff. He therefore aborted the takeoff and subsequently the airplane impacted a dirt berm and came to rest in a ditch.

Postaccident examination of the engine revealed no evidence of mechanical failures or malfunctions that would have precluded normal operation. The engine was run at various power settings with no anomalies noted. The pilot subsequently stated that he had since flown in another Mooney after the accident and, having experienced the effect of a rough surface on the landing gear, that the vibrations were likely an effect of the rough runway surface on the nose gear.

Probable Cause and Findings

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

The pilot's loss of directional control during a takeoff from a rough, narrow runway, resulting in an aborted takeoff and subsequent runway excursion.

Findings

Personnel issues	Aircraft control - Pilot
Environmental issues	(general) - Effect on equipment
Aircraft	Directional control - Not attained/maintained

Factual Information

History of Flight

Takeoff	Loss of control on ground (Defining event)
Takeoff-rejected takeoff	Runway excursion

On October 15, 2022, about 0830 mountain standard time, a Mooney M20E airplane, N6031Q, was substantially damaged when it was involved in an accident near Marble Canyon, Arizona. The pilot and passenger were not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that during the takeoff roll he noticed a vibration, and a possible loss of power, and the airplane veered to the left off the narrow (35 ft) runway when he decided to abort the takeoff. Subsequently, the left main wheel departed off the runway's edge and dug into the sand, causing a loss of performance and directional control of the airplane. The airplane then impacted a dirt berm and came to rest in a ditch.

Postaccident examination of the engine revealed no evidence of mechanical failures or malfunctions that would have precluded normal operation. The engine was run at various power settings with no anomalies noted. The pilot subsequently stated that he had since flown in another Mooney after the accident and, having experienced the effect of a rough surface on the landing gear, that the vibrations were likely an effect of the rough runway surface on the nose gear.

Airport remarks stated that the runway was resurfaced. It further stated that the resurfaced portion of Runway 03-21 is tight with no loose material but is somewhat rough.

Pilot Information

Certificate:	Private	Age:	57, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	September 16, 2021
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	February 3, 2022
Flight Time:	(Estimated) 604.3 hours (Total, all aircraft), 112 hours (Total, this make and model), 469.3 hours (Pilot In Command, all aircraft), 26.4 hours (Last 90 days, all aircraft), 3.9 hours (Last 30 days, all aircraft), 1.5 hours (Last 24 hours, all aircraft)		

Passenger Information

Certificate:		Age:	Female
Airplane Rating(s):		Seat Occupied:	Right
Other Aircraft Rating(s):		Restraint Used:	Lap only
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Mooney	Registration:	N6031Q
Model/Series:	M20E	Aircraft Category:	Airplane
Year of Manufacture:	1965	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	876
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	May 14, 2022 Annual	Certified Max Gross Wt.:	2575 lbs
Time Since Last Inspection:	12.7 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	3062.67 Hrs at time of accident	Engine Manufacturer:	LYCOMING
ELT:	C91A installed, not activated	Engine Model/Series:	I0360 SER
Registered Owner:	On file	Rated Power:	200 Horsepower
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:	KPGA,4288 ft msl	Distance from Accident Site:	11 Nautical Miles
Observation Time:	07:53 Local	Direction from Accident Site:	55°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	310°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.06 inches Hg	Temperature/Dew Point:	15°C / -5°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Marble Canyon, AZ	Type of Flight Plan Filed:	None
Destination:	Henderson, NV (HND)	Type of Clearance:	VFR;VFR flight following
Departure Time:		Type of Airspace:	Class G

Airport Information

Airport:	MARBLE CANYON L41	Runway Surface Type:	Asphalt
Airport Elevation:	3603 ft msl	Runway Surface Condition:	Rough;Soft
Runway Used:	21	IFR Approach:	None
Runway Length/Width:	3715 ft / 35 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	36.810806,-111.64444(est)

Administrative Information

Investigator In Charge (IIC):	Nixon, Albert
Additional Participating Persons:	Carey Atnip; FAA; Las Vegas, NV Rudy Cano; FAA; Las Vegas, NV
Original Publish Date:	May 16, 2024
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=106182

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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](#).