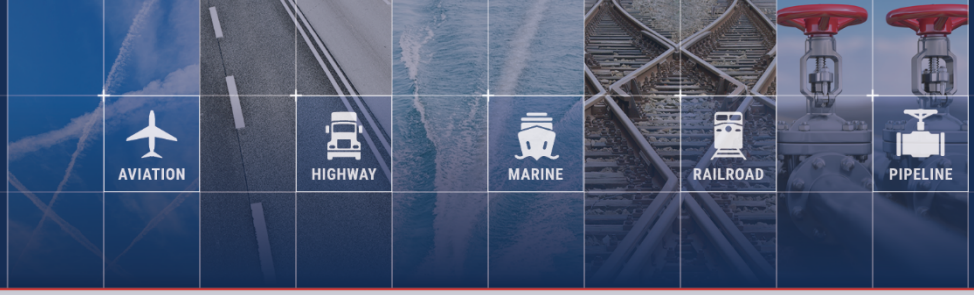

Aviation Investigation Final Report

Location:	Norwood, Colorado	**Accident Number:**	DEN05LA063
Date & Time:	March 20, 2005, 12:00 Local	**Registration:**	XB-FRU
Aircraft:	Mooney M20F	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

While descending, the airplane's engine started "missing" and began to lose power. Unable to maintain altitude, the pilot declared an emergency and executed a forced landing to a field. During the landing, the nose landing gear collapsed and the outboard 4 feet of the left wing was bent upward. Examination of the engine revealed no anomalies that would have precluded normal engine operation. The reason for the reported partial loss of engine power was not determined.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the reported partial loss of engine power for undetermined reasons. A contributing factor was the lack of suitable terrain for the forced landing.

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - NONMECHANICAL
Phase of Operation: DESCENT

Findings
1. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: EMERGENCY LANDING

Findings
2. (F) TERRAIN CONDITION - NONE SUITABLE

Factual Information

On March 20, 2005, approximately 1200 mountain standard time, a Mooney M20F single-engine airplane, XB-FRU (Mexican Registration), operated by a private pilot, was substantially damaged during a forced landing following a partial loss of engine power while descending near Norwood, Colorado. Visual meteorological conditions prevailed at the time of the accident. The personal cross-country flight was being conducted under the provisions of Title 14 CFR Part 91 without a flight plan. The pilot was not injured. The flight originated at Lubbock, Texas, at 0810, and was destined for Telluride (TEX), Colorado.

According to the pilot, while en route he requested an update of the weather conditions at TEX. Due to deteriorating weather conditions at TEX, the pilot requested an instrument rules flight (IFR) approach to TEX. Denver Air Route Traffic Control Center was vectoring him from the "CONES" VOR (VHF Omnidirectional Radio Range) to Telluride. The pilot stated that there was a snowstorm approaching from the northwest.

During the vectored approach and while maneuvering the airplane to stay "clear of clouds," the airplane's engine started "missing" and began to lose power. The pilot noted no abnormal indications on the engine instruments. Unable to maintain altitude, he declared an emergency, and executed a forced landing in a field. During the landing, the airplane's nose landing gear collapsed, the right main landing gear separated, and the outboard 4 feet of the airplane's left wing was bent upward approximately 10 degrees. After a visual examination, the pilot stated that he had approximately 2 hours of fuel remaining.

At 1229, the reported weather conditions at Telluride Regional Airport (TEX), Telluride, CO, located approximately 20 nautical miles at 110 degrees from the accident site, at an elevation of 9,078 feet msl, was, wind, 000 degrees at 0 knots; visibility, 1 1/4 statute miles; sky condition, scattered at 300 feet; broken at 700 feet; temperature, 1 degree C.; dew point, minus 4 degrees C.; altimeter setting, 29.78. The calculated density altitude was 9,681 feet msl.

On April 26, 2005, at the facilities of Beegles Aircraft, Greeley, Colorado, under the supervision of the NTSB investigator-in-charge, the engine and propeller was examined. The engine remained attached to the airframe. The engine crankshaft was rotated by hand via the propeller and continuity was established throughout the engine and accessories. Thumb compression was noted on all cylinders. The top spark plugs were removed and according to the Champion Spark Check-A-Plug chart AV-27, the spark plug electrodes displayed coloration consistent with normal operation. When the engine crankshaft was rotated, the magnetos produced spark through the ignition harnesses to the sparkplugs. No anomalies were noted with the engine. The reason for the reported partial loss of engine power was not determined.

Examination of the propeller blades revealed the blades bent aft and displayed chordwise

scratching and leading edge gouging.

Pilot Information

Certificate:	Foreign; Private	**Age:**	50,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	December 1, 2004
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	December 1, 2004
Flight Time:	1428 hours (Total, all aircraft), 1200 hours (Total, this make and model), 1363 hours (Pilot In Command, all aircraft), 44 hours (Last 90 days, all aircraft), 32 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Mooney	**Registration:**	XB-FRU
Model/Series:	M20F	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	22-0050
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	2740 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	IO-360-A1A
Registered Owner:	Tomas Ortega	**Rated Power:**	200 Horsepower
Operator:		**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KTEX,9078 ft msl	**Distance from Accident Site:**	20 Nautical Miles
Observation Time:	12:29 Local	**Direction from Accident Site:**	110°
Lowest Cloud Condition:	Scattered / 300 ft AGL	**Visibility**	1.25 miles
Lowest Ceiling:	Broken / 700 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	0 knots / 0 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	0°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.78 inches Hg	**Temperature/Dew Point:**	1°C / -4°C
Precipitation and Obscuration:	Light - None - Snow		
Departure Point:	Lubbock, TX (LBB)	**Type of Flight Plan Filed:**	None
Destination:	Telluride, CO (TEX)	**Type of Clearance:**	VFR
Departure Time:	08:10 Local	**Type of Airspace:**	Class E

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	38.151111,-108.271667

Administrative Information

Investigator In Charge (IIC):	Sauer, Aaron
Additional Participating Persons:	Brent Robinson; Federal Aviation Administration; Salt Lake City, UT
Original Publish Date:	October 27, 2005
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=61176