



Aviation Investigation Final Report

Location:	CASPER, Wyoming	Accident Number:	SEA91LA006
Date & Time:	October 13, 1990, 11:10 Local	Registration:	N9732M
Aircraft:	MOONEY M20F	Aircraft Damage:	Substantial
Defining Event:		Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE PILOT MADE A FORCED LANDING AFTER THE ENGINE FAILED. INVESTIGATION REVEALED THE NUMBER 2 CYLINDER CONNECTING ROD LOWER YOKE WAS FRACTURED. METALLURGICAL EXAMINATION OF THE ROD REVEALED ROTATIONAL POLISHING AND GALLED SPOTS ON THE INSIDE YOKE SURFACES AND A FATIGUE FRACTURE OF THE YOKE THAT ORIGINATED AT THE INSIDE SURFACE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE LOSS OF ENGINE POWER DUE TO FATIGUE FRACTURE OF THE NUMBER 2 CYLINDER CONNECTING ROD. FACTORS RELATED TO THE ACCIDENT WERE: ROUGH AND UNEVEN TERRAIN AT THE ACCIDENT SITE AND THE LACK OF SUITABLE TERRAIN FOR FORCED LANDING.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: CRUISE - NORMAL

Findings

1. (C) ENGINE ASSEMBLY,CONNECTING ROD - FRACTURED

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

Findings

2. (F) TERRAIN CONDITION - ROUGH/UNEVEN
3. (F) TERRAIN CONDITION - NONE SUITABLE

Factual Information

Pilot Information

Certificate:	Commercial	Age:	51, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	June 1, 1990
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	2900 hours (Total, all aircraft), 650 hours (Total, this make and model), 2800 hours (Pilot In Command, all aircraft), 90 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	MOONEY	Registration:	N9732M
Model/Series:	M20F M20F	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	670292
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	October 12, 1989 Annual	Certified Max Gross Wt.:	2740 lbs
Time Since Last Inspection:	213 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4388 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	IO-360
Registered Owner:		Rated Power:	200 Horsepower
Operator:	GLENN A WATTS	Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	CPR ,5348 ft msl	Distance from Accident Site:	30 Nautical Miles
Observation Time:	12:50 Local	Direction from Accident Site:	360°
Lowest Cloud Condition:	Scattered / 5000 ft AGL	Visibility	50 miles
Lowest Ceiling:	Broken / 25000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	20 knots / 26 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	310°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	ALBUQUERQUE , NM (4AC)	Type of Flight Plan Filed:	None
Destination:	CASPER , WY (CPR)	Type of Clearance:	None
Departure Time:	07:30 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:	0 ft msl	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:	0 ft / 0 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	43.170211,-107.319839(est)

Administrative Information

Investigator In Charge (IIC):	Mangum, Prentiss
Additional Participating Persons:	RAY RYAN; DENVER , CO JEAN BERNSTEIN; WASHINGTON , DC
Original Publish Date:	December 14, 1992
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=41353

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