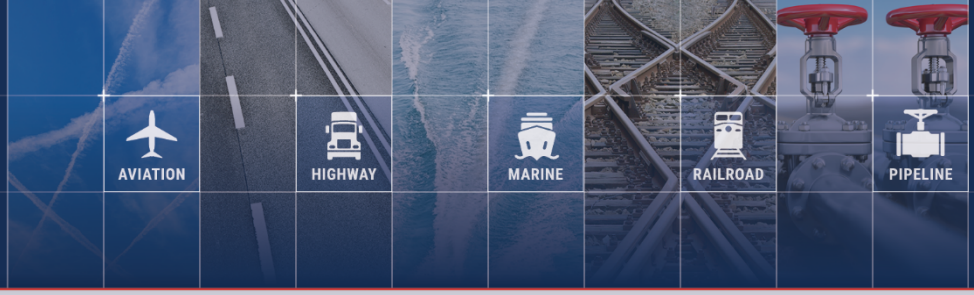

Aviation Investigation Final Report

Location:	RED BAY, Alabama	**Accident Number:**	ATL84LA214
Date & Time:	July 1, 1984, 18:00 Local	**Registration:**	N3207F
Aircraft:	MOONEY M-20F	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Serious, 1 Minor, 2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE ACFT LANDED GEAR UP SHORT OF THE RWY IN AN ATTEMPT TO RETURN TO THE RWY AFTER A POWER LOSS AT LOW ALT. DURING TAKEOFF THE ARPT MANAGER SAID THE ENGINE SOUND CHANGE WAS CONSISTENT WITH POWER LOSS FROM FUEL STARVATION. FAA DID A POST ACCIDENT ENGINE TEST RUN AND HAD TO RUN THE ENGINE RICH WITH BOOST PUMP ON TO KEEP IT RUNNING. THE FUEL SYSTEM WAS EXAMINED TO DETERMINE WHY IT WAS RUNNING LEAN. THE FUEL INJECTOR INLET SCREEN SHOWED EVIDENCE OF CORROSION AND RUST. FUEL FLOW WAS FOUND TO BE LEAN. INJECTORS AND FLOW DIVIDER WERE REMOVED FOR A CHECK. THE INJECTOR WAS FOUND TO BE CONTAMINATED WITH DIRT, RUST AND WATER. THE THROTTLE LINKAGE WAS WORN AND BINDING. THE IDLE MIXTURE SETTING WAS ADJUSTEDTO THE LEAN SIDE. WHEN THE FUEL INJECTOR WAS REINSTALLED, THE ENGINE RAN ROUGH AND RICH. LEANED WITH THE MIXTURE CONTROL THE ENGINE RAN SMOOTHLY AT ALL SETTINGS. THERE WAS NO PROBLEM WITH THE THROTTLE LINKAGE.

Probable Cause and Findings

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

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
1. (C) FUEL SYSTEM,INJECTOR - FOREIGN OBJECT
2. (C) FUEL SYSTEM,INJECTOR - BLOCKED(PARTIAL)
3. (F) FLUID,FUEL - WATER
4. (F) FLUID,FUEL - CONTAMINATION
5. (C) FLUID,FUEL - STARVATION

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

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings
6. (F) WHEELS UP LANDING - INTENTIONAL - PILOT IN COMMAND
7. OBJECT - FENCE

Factual Information

Pilot Information

Certificate:	Private	**Age:**	56,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	April 9, 1984
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	468 hours (Total, all aircraft), 92 hours (Total, this make and model), 428 hours (Pilot In Command, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	MOONEY	**Registration:**	N3207F
Model/Series:	M-20F M-20F	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	670361
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	August 22, 1983 Annual	**Certified Max Gross Wt.:**	2740 lbs
Time Since Last Inspection:	95 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	2383 Hrs	**Engine Manufacturer:**	LYCOMING
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	IO-360-A1A
Registered Owner:	HORACE V. MORROW	**Rated Power:**	200 Horsepower
Operator:		**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:	MSC	**Distance from Accident Site:**	
Observation Time:	17:50 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Scattered / 5000 ft AGL	**Visibility**	7 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	300°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	29°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		**Type of Flight Plan Filed:**	None
Destination:	SIKESTON , MO (SIK)	**Type of Clearance:**	None
Departure Time:	18:00 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 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Minor, 2 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Serious, 1 Minor, 2 None	**Latitude, Longitude:**	34.430942,-88.129722(est)

Administrative Information

Investigator In Charge (IIC):	Drake, John
Additional Participating Persons:	JOHNNY R HARDY; BIRMINGHAM , AL HARLEY B PICKETT; BIRMINGHAM , AL LEONARD R ABOTT; ATLANTA , GA
Original Publish Date:	
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=6490