



# Aviation Investigation Final Report

<b>Location:</b>	MONCKS CORNER, South Carolina	<b>Accident Number:</b>	ATL95LA103
<b>Date &amp; Time:</b>	June 3, 1995, 15:55 Local	<b>Registration:</b>	N6923U
<b>Aircraft:</b>	MOONEY M20E	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 Serious, 1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

THE FLIGHT DEPARTED MILLVILLE, NEW JERSEY ON A VFR FLIGHT TO CHARLESTON, SOUTH CAROLINA. AS A RESULT OF DETERIORATING WEATHER CONDITIONS ABOUT 135 MILES NORTHEAST OF CHARLESTON, THE PILOT FILED AND RECEIVED AN IFR FLIGHT PLAN. ABOUT TWELVE MINUTES PRIOR TO THE ACCIDENT, THE PILOT REPORTED THAT HIS FUEL GAUGES HAD 'DROPPED OUT', AND WAS GIVEN VECTORS TO THE NEAREST AIRPORT. JUST PRIOR TO THE ACCIDENT, THE PILOT REPORTED THAT HE WAS OUT OF FUEL, AND ATTEMPTING AN EMERGENCY LANDING. EXAMINATION OF THE AIRCRAFT WRECKAGE REVEALED THAT THERE WAS NO FUEL IN THE RUPTURED RIGHT WING FUEL TANK, AND LESS THAN ONE GALLON OF FUEL IN THE LEFT WING FUEL TANK. THE AIRCRAFT ENGINE OPERATED NORMALLY DURING A TEST RUN FOLLOWING THE ACCIDENT.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to properly calculate the fuel required and his fuel consumption for the flight.

### Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL  
Phase of Operation: CRUISE

#### Findings

1. (C) FLUID,FUEL - EXHAUSTION

2. (C) FUEL CONSUMPTION CALCULATIONS - IMPROPER - PILOT IN COMMAND

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Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - EMERGENCY

## Factual Information

On June 3, 1995, at 1555 eastern daylight time, a Mooney M20E, N6923U, was substantially damaged following a collision with terrain, during a forced landing near Moncks Corner, South Carolina. The commercial pilot and one passenger received serious injuries, and the other passenger received minor injuries in the accident. The aircraft was being operated under the provision of 14 CFR Part 91 by the pilot. Visual meteorological conditions existed at the time, and an instrument flight rules flight plan was in effect for the flight. The flight departed Millville, New Jersey at 1205, and was destined for Charleston, South Carolina.

The pilot reported that the aircraft had been fueled prior to his departure from Millville, New Jersey. He stated that the flight departed Millville, on a visual flight rules flight plan. The flight was conducted at 2,500 feet above mean sea level (MSL). About 135 miles northeast of Charleston, the pilot reported that the weather was deteriorating, and he filed for and received an instrument flight rules flight plan into Charleston. He reported that about 45 miles northeast of Charleston, the engine began to surge, and would not smooth out. He stated that he switched from the right fuel tank to the left fuel tank. The engine then smoothed out and ran normally for a short period of time. He stated that at the time the engine stopped producing power, he was at 700 feet MSL.

The pilot executed a forced landing into a wooded area, about 3 miles east of the Moncks Corner Airport.

At 1543, the pilot of N6923U reported to Charleston Approach that he had a fuel problem, and that his fuel gauges had "dropped out", and he needed vectors to the nearest airport. At 1852 the pilot stated that the aircraft was out of fuel, and that he was attempting an emergency landing. (See Transcript of Conversation Between the Pilot of N6923U and Charleston Approach Attached to This Report.)

Immediately after the accident, the pilot reported to rescue personnel, that the aircraft was out of fuel.

The right wing fuel tank was ruptured during impact, and the left wing contained less than one gallon of fuel after the accident.

A test run of the aircraft engine, following the accident, revealed that the engine, when supplied with fuel, started, and operated normally; up to maximum operating revolutions per minute.

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	49, Male
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	January 19, 1994
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	2237 hours (Total, all aircraft), 150 hours (Total, this make and model)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	MOONEY	<b>Registration:</b>	N6923U
<b>Model/Series:</b>	M20E M20E	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	293
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	December 14, 1994 Annual	<b>Certified Max Gross Wt.:</b>	2575 lbs
<b>Time Since Last Inspection:</b>	67 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	793 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	IO-360-A1A
<b>Registered Owner:</b>	LACASSE, L.F. AND THERIAULT, T	<b>Rated Power:</b>	200 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	CHS ,46 ft msl	<b>Distance from Accident Site:</b>	20 Nautical Miles
<b>Observation Time:</b>	15:03 Local	<b>Direction from Accident Site:</b>	180°
<b>Lowest Cloud Condition:</b>	Scattered / 900 ft AGL	<b>Visibility</b>	7 miles
<b>Lowest Ceiling:</b>	Broken / 6000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	0°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	MILLVILLE , NJ (MIV )	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	CHARLESTON , SC (CHS )	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	12:05 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 Serious, 1 Minor	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Serious, 1 Minor	<b>Latitude, Longitude:</b>	33.19067,-79.990379(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Sasser, Roff
<b>Additional Participating Persons:</b>	MARLENE VAN BUREN; COLUMBIA, SC LEWIS BLACKWELL; COLUMBIA, SC
<b>Original Publish Date:</b>	January 16, 1996
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=3565">https://data.nts.gov/Docket?ProjectID=3565</a>

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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](#).