



Aviation Investigation Final Report

Location:	Myrtle Beach, South Carolina	Accident Number:	ERA17LA175
Date & Time:	May 9, 2017, 16:30 Local	Registration:	N20835
Aircraft:	Mooney M20R	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (total)	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

During initial climb from a coastal airport for the personal flight, when the airplane was about 300 ft above ground level, the engine lost total power. The private pilot ditched the airplane in the ocean near the shore. The pilot was rescued, but the airplane sank and was not recovered. The airplane's most recent annual inspection was completed about 7 months before the accident. The airplane's engine was overhauled about 6 months before the accident and had accrued 138 hours of operation from the time of overhaul until the accident. During that time, the oil had been changed and the filter element inspected three times with no abnormalities noted. Because the airplane was not recovered from the ocean and could not be examined, the reason for the total loss of engine power could not be determined.

Probable Cause and Findings

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

A total loss of engine power during initial climb for reasons that could not be determined because the airplane sank in the ocean and was not recovered.

Findings

Not determined	(general) - Unknown/Not determined
Environmental issues	Water - Contributed to outcome

Factual Information

History of Flight

Initial climb	Loss of engine power (total) (Defining event)
Emergency descent	Ditching

On May 9, 2017, about 1630 eastern daylight time, a privately owned and operated Mooney M20R, N20835, was ditched in the Atlantic Ocean shortly after takeoff from Myrtle Beach International Airport (MYR), Myrtle Beach, South Carolina. The private pilot was not injured. The airplane was not recovered and presumed substantially damaged. The flight was destined for Charleston International Airport (CHS), Charleston, South Carolina. Visual meteorological conditions prevailed, and no flight plan was filed for the personal flight, which was conducted under the provisions of 14 Code of Federal Regulations Part 91.

According to the pilot, he departed runway 18 and began climbing on a 180° heading. About 300 feet above ground level, he "felt a strong jolt, as if something had hit [the airplane]" and a few seconds later he realized the engine had stopped. He advised the tower controller that he had a problem and performed a ditched landing straight ahead. The airplane initially remained afloat, he egressed through the cabin door, and stood on the wing until the airplane began to sink. A tour helicopter operating in the area responded and dropped a life preserver to the pilot. He was rescued by an individual on a personal watercraft.

Attempts by a salvage company to locate the submerged airplane were unsuccessful.

According Federal Aviation Administration (FAA) records, the pilot held a private pilot certificate with ratings for airplane single and multi-engine land, and instrument airplane. His most recent FAA third-class medical certificate was issued July 28, 2015. The pilot reported that he had accrued 2,727 total hours of flight experience, of which 1,500 hours were in the same make and model as the accident airplane.

Review of the airplane's maintenance records revealed that the most recent annual inspection was completed on October 1, 2016, about 154 flight hours prior to the accident. The engine was overhauled in November 2016 and had accrued 138 hours since overhaul. The engine oil was changed and the oil filter element was inspected three times (January 3, February 2, and March 20, 2017) since overhaul with "no abnormalities found". The engine accrued 46 hours since the last oil change.

Pilot Information

Certificate:	Private	Age:	65, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	July 28, 2015
Occupational Pilot:	No	Last Flight Review or Equivalent:	December 20, 2016
Flight Time:	2727 hours (Total, all aircraft), 1500 hours (Total, this make and model), 2625 hours (Pilot In Command, all aircraft), 108 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Mooney	Registration:	N20835
Model/Series:	M20R NO SERIES	Aircraft Category:	Airplane
Year of Manufacture:	2000	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	29-0214
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	October 1, 2016 Annual	Certified Max Gross Wt.:	3369 lbs
Time Since Last Inspection:	154 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	3694 Hrs at time of accident	Engine Manufacturer:	Continental Motors
ELT:	C91A installed, activated, did not aid in locating accident	Engine Model/Series:	IO-550-G6B
Registered Owner:	PREMIER METALS RECOVERY LLC	Rated Power:	300 Horsepower
Operator:	PREMIER METALS RECOVERY LLC	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KMYR,25 ft msl	Distance from Accident Site:	3 Nautical Miles
Observation Time:	16:50 Local	Direction from Accident Site:	344°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	150°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.97 inches Hg	Temperature/Dew Point:	24°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Myrtle Beach, SC (MYR)	Type of Flight Plan Filed:	None
Destination:	CHARLESTON, SC (CHS)	Type of Clearance:	None
Departure Time:	16:30 Local	Type of Airspace:	Class C

Airport Information

Airport:	MYRTLE BEACH INTL MYR	Runway Surface Type:	Asphalt
Airport Elevation:	24 ft msl	Runway Surface Condition:	Water-calm
Runway Used:	18	IFR Approach:	None
Runway Length/Width:	9503 ft / 150 ft	VFR Approach/Landing:	Forced landing

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:	33.642223,-78.918609(est)

Administrative Information

Investigator In Charge (IIC):	Brazy, Douglass
Additional Participating Persons:	Daryl McMillan; FAA/FSDO ; Columbia, SC John Kent; Continental Motors; Mobile , AL
Original Publish Date:	November 6, 2019
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=95142

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).