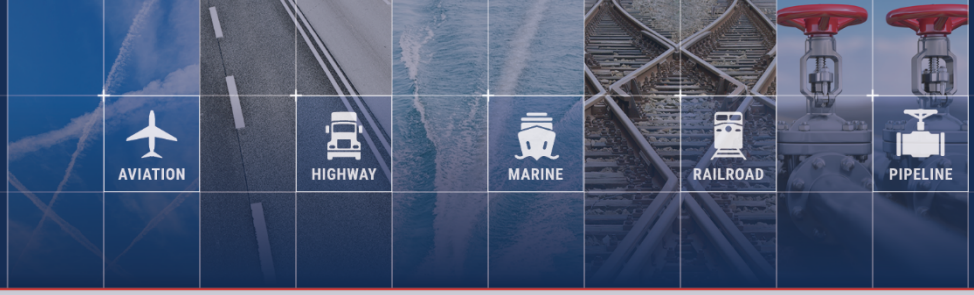

Aviation Investigation Final Report

Location:	Iuka, Mississippi	**Accident Number:**	ERA15LA283
Date & Time:	July 26, 2015, 15:20 Local	**Registration:**	N195AP
Aircraft:	Cessna 195A	**Aircraft Damage:**	Substantial
Defining Event:	Loss of engine power (total)	**Injuries:**	2 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airline transport pilot reported that he had just departed on a long cross-country flight. He said that the takeoff was normal until the airplane reached an altitude of between about 600 and 800 ft above the ground, at which point he looked at the engine monitor and saw an exhaust gas temperature "drop." The engine then started to run roughly, and the pilot immediately turned the airplane back to the airport. Shortly after, the engine suddenly stopped, and the pilot subsequently made a forced landing to a narrow road adjacent to the airport.

During postaccident examinations, no mechanical anomalies were observed with the engine and fuel system that would have precluded normal operation. Although a small amount of water was found in the airframe fuel filter, no evidence of water was found in the fuel lines. 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 for reasons that could not be determined because a postaccident examination of the engine and fuel system found no mechanical anomalies that would have precluded normal operation.

Findings

Not determined	(general) - Unknown/Not determined

Factual Information

History of Flight

Initial climb	Loss of engine power (total) (Defining event)
Emergency descent	Off-field or emergency landing
Landing-flare/touchdown	Hard landing

On July 26, 2015, at 1520 central daylight time, N195AP, a Cessna 195A, sustained substantial damage during a forced landing after a total loss of engine power on takeoff from the Iuka Airport (15M), Iuka, Mississippi. The airline transport pilot and the passenger sustained minor injuries. The airplane was registered to and operated by the pilot. A visual flight rules flight plan was field for the flight that was destined for Mesquite Metro Airport (HQZ), Mesquite, Texas. Visual meteorological conditions prevailed for the personal flight conducted under the provisions of 14 Code of Federal Regulations Part 91.

The pilot stated that he had landed at 15M and purchased 64 gallons of 100LL fuel. He then departed for Texas. The pilot said the takeoff was normal until he reached an altitude of about 600 to 800-ft above the ground. At that point, he looked down at his engine monitor and saw one of the EGT bars "drop." The pilot said the engine "felt a little rough" and he made an immediate turn back to the airport. Shortly after, the engine suddenly stopped producing power and the pilot made a forced landing to a narrow road adjacent to the airport. The airplane landed hard resulting in substantial damage to both wings, the firewall, and the right horizontal stabilizer. The landing gear and propeller were also damaged.

A postaccident examination of the airplane and engine revealed that the right-hand lower engine mount was broken in two places and the engine had pushed up and back causing the starter to be forced back thru the firewall. The fuel supply hose bushing that screwed into the inlet side of the engine driven fuel pump was also fractured at the back of the pump. The fuel pump was removed and the fuel pump drive was undamaged. Continuity was then established to the fuel drive by manual rotation of the propeller. An electric drill was then used to turn the engine driven fuel pump as fuel was poured into the pump. The pump forced fuel out of the pump as designed. The engine driven fuel pump was sent to the National Transportation Safety Board's Materials Lab and the fractured section of the supply hose bushing was examined. The examination revealed the brass bushing failed due to overload stresses and no pre-exisiting anomalies were noted.

The fuel servo was not damaged and a sample of fuel was taken from the main fuel supply. The sample was absent of water and debris. Continuity of the fuel selector valve was confirmed thru the left, right and off positions. The electric boost pump was tested and operated normally. The fuel line that would normally run to the inlet side of the engine driven fuel pump was then attached to the fuel servo and all but one of the fuel injector lines were disconnected. When the electric fuel boost pump was turned on, fuel spray was observed coming from each injector. The airframe fuel filter was removed and a small amount of water was observed in the bowl. A visual inspection of the spark plugs found no anomalies. The distributor was turned on and the engine was rotated with the starter and spark was observed on

several leads. No mechanical discrepancies were observed that would have precluded normal operation of the engine.

The pilot held an airline transport pilot rating for airplane single and multi-engine land. He reported a total of 12,000 total flight hours, of which, 1,500 hours were in the accident airplane. The pilot's last Federal Aviation Administration second class medical was issued on July 14, 2014.

Pilot Information

Certificate:	Airline transport	**Age:**	45,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 2 Without waivers/limitations	**Last FAA Medical Exam:**	July 1, 2014
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	June 15, 2015
Flight Time:	(Estimated) 12000 hours (Total, all aircraft), 1500 hours (Total, this make and model), 11800 hours (Pilot In Command, all aircraft), 150 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N195AP
Model/Series:	195A	**Aircraft Category:**	Airplane
Year of Manufacture:	1951	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	7684
Landing Gear Type:	Tailwheel	**Seats:**	5
Date/Type of Last Inspection:	Annual	**Certified Max Gross Wt.:**	3350 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	JACOBS
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	R755A SERIES
Registered Owner:		**Rated Power:**	300 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	CRX,630 ft msl	**Distance from Accident Site:**	1 Nautical Miles
Observation Time:	15:15 Local	**Direction from Accident Site:**	90°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/ None
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.96 inches Hg	**Temperature/Dew Point:**	33°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Iuka, MS (15M)	**Type of Flight Plan Filed:**	None
Destination:	Dallas, TX (DAL)	**Type of Clearance:**	None
Departure Time:	15:00 Local	**Type of Airspace:**	Unknown

Airport Information

Airport:	IUKA 15M	**Runway Surface Type:**	Asphalt
Airport Elevation:	630 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	18	**IFR Approach:**	None
Runway Length/Width:	4000 ft / 75 ft	**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Minor	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Minor	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Minor	**Latitude, Longitude:**	34.764999,-88.165275(est)

Administrative Information

Investigator In Charge (IIC):	Read, Leah
Additional Participating Persons:	Robert Mahaffey; FAA; Jackson, MS
Original Publish Date:	July 11, 2016
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=91632