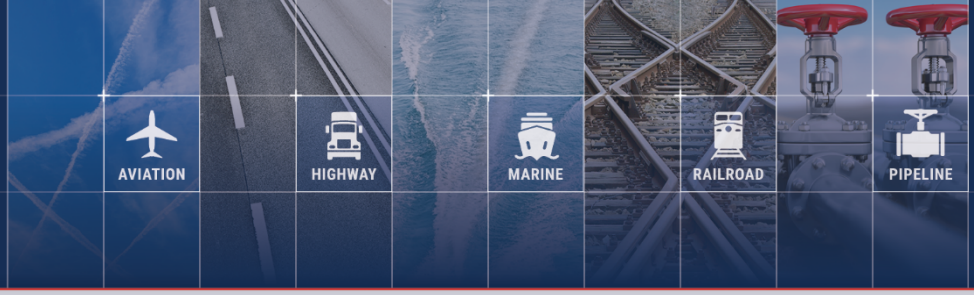

Aviation Investigation Final Report

Location:	San Diego, California	**Accident Number:**	WPR18FA046
Date & Time:	December 9, 2017, 16:33 Local	**Registration:**	N248SB
Aircraft:	Beech A36	**Aircraft Damage:**	Destroyed
Defining Event:	Loss of engine power (total)	**Injuries:**	2 Fatal, 2 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airline transport pilot and three passengers departed on a cross-country flight in the single-engine airplane. About 2 minutes after takeoff, the pilot reported a total loss of engine power to air traffic control. He conducted a forced landing to a school yard and, during the landing sequence, the airplane impacted a fence and an adjacent residence. The airplane was destroyed by a postcrash fire. Examination of the airframe and the engine revealed no anomalies that would have precluded normal operation; however, the scope of the examination was limited due to fire damage. Additionally, the amount of fuel onboard the airplane at the time of the accident and its distribution could not be determined due to fire damage. The reason for the loss of engine power could not be determined based on the available information.

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 based on the available information.

Findings

Not determined	(general) - Unknown/Not determined

Factual Information

History of Flight

Enroute-climb to cruise	Loss of engine power (total) (Defining event)
Landing-landing roll	Collision with terr/obj (non-CFIT)
Post-impact	Fire/smoke (post-impact)

On December 9, 2017, about 1633 Pacific standard time, a Beech A36 airplane, N248SB, was destroyed when it impacted a residence during a forced landing shortly after takeoff from Montgomery-Gibbs Executive Airport (MYF), San Diego, California. The airline transport pilot and one passenger sustained serious injuries and two passengers were fatally injured. The airplane was registered to Altitude Aviation, Inc., and was being operated by the pilot as a Title 14 *Code of Federal Regulations* Part 91 personal flight. Visual meteorological conditions prevailed in the area, and a visual flight rules flight plan was filed for the flight, which was destined for Zamperini Field Airport (TOA), Torrance, California. The flight originated from MYF about 1630.

The pilot reported that he flew from TOA to MYF to pick up the passengers, and that flight was uneventful. The pilot and passengers then departed MYF on runway 28R; the airplane had 45 gallons of fuel on board. About 1.5 nautical miles (nm) west of MYF, about 700 ft above ground level (agl), the airplane experienced a total loss of engine power. The pilot reported that the loss of engine power was "possibly accompanied by a clacking sound." The surviving passenger reported hearing a loud "bang" before the loss of engine power. Review of recorded radio transmissions from the air traffic control tower at MYF revealed that, about 2 minutes after departure, the pilot reported the engine failure to the controller. The pilot was instructed to enter right traffic for runway 28R and was cleared to land. The pilot performed a steep, 180° right turn and completed the emergency procedure for a loss of engine power. The pilot could not restore engine power and subsequently performed a forced landing to a nearby school yard. During the landing roll, the airplane impacted and traveled through a fence before colliding with a residence. The surviving passenger stated that several tree branches shattered the window next to her and the right side door was engulfed in flames. After the airplane came to rest, the passenger noted that the other two passengers were unresponsive; she and the pilot subsequently egressed the airplane through the broken window. A postcrash fire ensued.

Radar data provided by the Federal Aviation Administration (FAA) revealed that, at 1632:08, the airplane was in an established climb at 800 ft mean sea level (msl) about 0.3 miles from the departure end of runway 28R. The airplane continued to climb on the runway heading until it reached about 1,400 ft msl. At 1632:58, the airplane began to descend in a right turn toward the southwest. The final radar return at 1633:40 depicted the airplane at 575 ft msl about 0.33 nm northeast of the accident site.

A witness located southeast of the accident site recorded a video that showed the airplane in a steep right bank. The landing gear was extended and visible. The airplane briefly disappeared from view and about 1 second later, it touched down in the middle of a school yard.

Pilot Information

Certificate:	Airline transport; Commercial; Private	**Age:**	41,Male
Airplane Rating(s):	Single-engine sea; Multi-engine sea	**Seat Occupied:**	Front
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane single-engine	**Toxicology Performed:**	No
Medical Certification:	Class 1 Without waivers/limitations	**Last FAA Medical Exam:**	November 17, 2017
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	(Estimated) 5500 hours (Total, all aircraft), 150 hours (Total, this make and model)		

Passenger Information

Certificate:		**Age:**	
Airplane Rating(s):		**Seat Occupied:**	Rear
Other Aircraft Rating(s):		**Restraint Used:**	3-point
Instrument Rating(s):		**Second Pilot Present:**	No
Instructor Rating(s):		**Toxicology Performed:**	No
Medical Certification:		**Last FAA Medical Exam:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:			

Passenger Information

Certificate:		**Age:**	
Airplane Rating(s):		**Seat Occupied:**	Rear
Other Aircraft Rating(s):		**Restraint Used:**	3-point
Instrument Rating(s):		**Second Pilot Present:**	No
Instructor Rating(s):		**Toxicology Performed:**	No
Medical Certification:		**Last FAA Medical Exam:**	
Occupational Pilot:		**Last Flight Review or Equivalent:**	
Flight Time:			

Passenger Information

Certificate:		**Age:**	
Airplane Rating(s):		**Seat Occupied:**	Rear
Other Aircraft Rating(s):		**Restraint Used:**	3-point
Instrument Rating(s):		**Second Pilot Present:**	No
Instructor Rating(s):		**Toxicology Performed:**	No
Medical Certification:		**Last FAA Medical Exam:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:			

The pilot, age 41, held an airline transport pilot certificate with airplane single- and multi-engine land ratings and a flight instructor certificate with instrument and airplane single-engine ratings. The pilot was issued a first-class FAA medical certificate on November 17, 2017, with no limitations.

The pilot reported 5,500 total hours of flight experience, with 150 hours in the accident airplane make and model.

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	**Registration:**	N248SB
Model/Series:	A36 UNDESIGNAT	**Aircraft Category:**	Airplane
Year of Manufacture:	1995	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	E-2931
Landing Gear Type:	Retractable - Tricycle	**Seats:**	
Date/Type of Last Inspection:	September 8, 2017 100 hour	**Certified Max Gross Wt.:**	3651 lbs
Time Since Last Inspection:		**Engines:**	Reciprocating
Airframe Total Time:	1358.2 Hrs as of last inspection	**Engine Manufacturer:**	Continental Motors
ELT:		**Engine Model/Series:**	IO-550-B
Registered Owner:	On file	**Rated Power:**	
Operator:	On file	**Operating Certificate(s) Held:**	None

The six-seat, single-engine, low-wing, retractable-gear airplane was manufactured in 1995 and powered by a Continental IO-550-B, air-cooled reciprocating engine equipped with a three-bladed McCauley propeller. Review of maintenance records showed that the most recent 100-hour inspection was completed on September 8, 2017, at 1,354.7 hours since engine overhaul.

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KMYF,417 ft msl	**Distance from Accident Site:**	2 Nautical Miles
Observation Time:	00:53 Local	**Direction from Accident Site:**	109°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	3 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	50°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.12 inches Hg	**Temperature/Dew Point:**	26°C / -8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	SAN DIEGO, CA (MYF)	**Type of Flight Plan Filed:**	VFR
Destination:	Torrance, CA (TOA)	**Type of Clearance:**	VFR
Departure Time:	16:30 Local	**Type of Airspace:**	Class D

The MYF weather observation at 1753 included calm wind, 10 statute miles visibility, clear sky, temperature 26°C, dew point -8°C, and an altimeter setting of 30.12 inches of mercury.

Airport Information

Airport:	MONTGOMERY-GIBBS EXECUTIVE MYF	**Runway Surface Type:**	Dirt
Airport Elevation:	427 ft msl	**Runway Surface Condition:**	Dry
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Destroyed
Passenger Injuries:	2 Fatal, 1 Serious	**Aircraft Fire:**	On-ground
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Fatal, 2 Serious	**Latitude, Longitude:**	32.825,-117.170555(est)

The airplane impacted a chain link fence and a tree before it came to rest in the backyard of a residence; the wreckage was oriented on a magnetic heading about 240°. Most of the airplane was destroyed by postimpact fire. The touchdown point was defined by the right main landing gear tire imprint located about 380 ft from the main wreckage. Tire tracks from the nose gear and left main landing gear adjacent to the touchdown point indicated that the right main landing gear and the nose landing gear made continuous contact with the ground until 50 ft prior to the chain link fence.

The left wing outboard section and wing tip separated from the airframe; the engine was attached to the firewall. Flight control continuity was established from the elevator and rudder to the cockpit. Partial control continuity of the ailerons was established from the aileron bellcranks to the cabin. The flaps were found in the retracted position.

The elevator trim actuator measured a 10° tab-down deflection. The fuel selector handle and valve were both in the right tank position. Blood was observed inside the fuel selector.

The propeller remained attached to the engine. The spinner and two of the propeller blades were fire damaged. One blade was bent aft under the engine. The landing gear was in the extended position.

The engine was consumed by fire and the accessories were heavily damaged. The magneto cases were melted and brittle. Both magnetos displayed a significant amount of internal and external thermal damage and were not capable of producing spark. The spark plug leads were burnt and most of them were missing from the plugs. Valve train continuity was established to the rear accessory gears when the propeller was rotated by hand. Thumb compression was obtained on all cylinders except the No. 2 cylinder, which displayed a compressed intake valve spring consistent with fire damage; the valve was not fully seated. The throttle and metering assembly as well as the manifold valve exhibited heavy thermal damage. The fuel pump was burned, and no fuel was present in the pump, sump, or lines. The alternator, vacuum pump, and oil filter were all intact but heavily damaged by postcrash fire. The engine did not display any preimpact anomalies that would have precluded normal engine operation.

Medical and Pathological Information

The San Diego County Medical Examiner, San Diego, California, performed an autopsy of the two passengers. The cause of death for both individuals was listed as thermal injuries and inhalation of products of combustion.

Administrative Information

Investigator In Charge (IIC):	Smith, Maja
Additional Participating Persons:	Oded Moore; FSDO; San Diego, CA Kurt Gibson; Continental Motors; Mobile, AL Ricardo Asensio; Textron; Wichita, KS
Original Publish Date:	November 6, 2019
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=96448