



**NATIONAL TRANSPORTATION SAFETY BOARD
Western Pacific Regional Office
Federal Way, Washington**

**On-Site Examination Report
September 18, 2016
Broadus, Montana**

Accident

NTSB Accident Number: **WPR16FA182**
IIC: **T. Cornejo**
Aircraft: **N413D – Beech 95-B55**

Summary

On September 17, 2016, about 1130 mountain daylight time, a twin-engine Beech (Baron) 95-B55 airplane, N413D, impacted terrain about 20 miles east of Broadus, Montana. The owner/Airline Transport Pilot operated the airplane under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. The pilot and two passengers were fatally injured, and the airplane sustained substantial damage. The flight departed from the Billings Logan International Airport (BIL), Billings, Montana, about noon, with an intended destination of Rapid City Regional Airport (RAP), Rapid City, South Dakota.

The airplane wreckage was found by a ranch caretaker as he was returning to work from lunch, about 1300. The caretaker reported hearing an airplane during lunch (between 1130-1200), but he did not go outside to look for it nor did he hear the airplane impact the ground.

PERSONNEL INFORMATION

Review of the pilot's logbook showed that he obtained a flight review in a Cessna 172 on March 18, 2016. His previous flight review was in PA-18-150 in March 2014. The pilot had approximately 4,200 hours.

AIRCRAFT INFORMATION



Photo 1 – Front View of Wreckage (NTSB)



Photo 2 – Left Side View of Airplane (NTSB)

Representatives from the NTSB, Textron, and the Federal Aviation Administration participated. The main wreckage was confined to the impact area, with debris spanning outward from the wreckage. All major

components were identified at the accident site. All control surfaces remained attached. The left propeller was separated from the engine and found just forward of the wreckage. The right propeller was separated from the engine and located underneath right-side cabin fuselage. The nose gear was retracted and had been pushed up and aft into the cabin and impacted the front carry through spar. The cockpit was compressed downward. Diagonal buckling was present from the left aft window and downward 4 feet. The front and rear main carry through spars were canted forward.

The wreckage was located at an elevation of 3,970 feet and at N 45 degrees 7 minutes 8.76 seconds W 105 degrees 2 minutes 8.88 seconds. The initial impact heading was about 120 degrees magnetic. The heading of the airplane where it came to rest was about 143 degrees magnetic. The Hobbs meter read 4,355.9.

Left Wing

The left wing was canted forward and the upper aft wing attachment housing was separated but the attachment bolt was intact. The left-wing bladder fuel tank was breached, although the smell of 100LL fuel was evident. The left flap remained attached the wing and the left flap actuator was separated from the flap attachment point. The left aileron with attached trim tab remained attached to the left wing. The left-wing tip remained attached to the wing and from the tip inboard about 5 feet 4 inches, there was a 45-degree aft diagonal buckling. The left-wing fuel cap remained attached and the indicator showed 55 gallons. The fuel capacity was 68 gallons for the left tank. Outboard from the engine about 2 feet 6 inches the leading edge was flattened aft toward the wing front spar. The left engine was partially separated from the left wing. The left propeller separated from the left engine and was found about 10 to 15 feet forward of the left engine. The engine crankshaft propeller flange remained attached to the separated propeller. The right magneto separated from its attach point. The starter separated from its attachment. The inboard leading edge (between the fuselage and the left engine) showed aft impact and was canted aft.

The nose cone was fragmented into multiple pieces. The nose baggage door was identified forward in the debris field.

The left propeller had light chordwise scratches. Propeller blade designated as 1 was bent aft mid blade but attached at the hub. Propeller blade designated as 2 was loose in the hub and red mark on face of blade. The propeller spring was buried vertically in the ground just aft of left wing leading edge ground scar.

The left flap actuator extension was about 1 ¾ inches (approximately 0 degrees). The aileron trim actuator extension was 1 3/8 inches (equates to 2 ¼ degrees trailing edge up). The Continental IO-470-L engine, SN 454399 will be recovered for further examination.



Photo 3 - Close up View of the Left Side of the Airplane (NTSB)



Photo 4 – Left Propeller (NTSB)

Right Wing

The right wing was breached of fuel and canted forward. The right engine was partially attached, and the case was cracked forward of cylinders 5 and 6. The magnetos and oil cooler separated. The back of the case was fractured. The fuel indicator need was separated. The right aileron and flap were attached. The cabin door entry was buckled upward. The aft baggage door was crushed upward and aft. The right propeller blades showed no chordwise striations. Blade 1 was bent aft at hub and slightly curved about 12 inches inboard. It was loose in the hub. Blade 2 had minimal damage and remained in the hub. The right flap actuator extension was 1 ¾ inches (approximately 0 degrees). The Continental IO-470-L engine, SN 454385 will be recovered for further examination.



Photo 5 – Right View of Airplane (NTSB)



Photo 6 – Right Propeller (NTSB)

The empennage remained intact with minimal damage. The right and left elevator trim tabs were extended about 1 inch (approximately 0 degrees). The rudder trim extension was about 3 ¾ inches (equates to 5 degrees right).

Control continuity was obtained to the control wheel for the ailerons, elevator, and rudder. The bridle cable for the autopilot servo was separated and broomstrawed.

FUEL INFORMATION

The left fuel selector handle was positioned to the left and the right fuel selector handle was positioned to the right tank. Both fuel filters were clean. The auxiliary fuel pump in each wing operated in both low and high positions when hooked up to an electrical source. The fuel line from the auxiliary pump to the left engine was separated at the engine and contained residual fuel when air was blown through it. Air was blown from the auxiliary fuel pump to the fuel selector and fuel was present. The fuel line from the auxiliary pump to the right engine was separated at the engine, but the end of the line was not visible when air was blown through it. The left and right fuel selector valves were not accessible on site due to impact damage.

GENERAL OBSERVATIONS

The landing gear was retracted.

The following instruments were documented:

Autopilot: HDG selected

Airspeed 245 knots

Attitude Indicator: facing displaced
Altimeter: 29.92, 5,350 feet
Rate of climb indicator: 2,000 feet
Compass/DG: moves freely, 030
Turn Coordinator: wings level, left ball
ADF

Transponder 1200
Frequencies 118.5, 108.2 and Com 1 119.5, unk (numbers rolled)
ELT: armed Artex406 Emergency Locator Transmitter (ELT)
Circuit breakers: extensive impact damage

A Garmin 496 GPS was recovered from the wreckage and sent to the investigator-in-charge. The unit showed that the last flight was 172.6 miles from KBIL to 3V7 (Bell Creek now closed) and 1 hour in duration. The previous flight was KMGB to KBIL on September 11 and was 2.3 hours in duration.

According to emergency responders, the passenger's watch was stopped at 12:05. A local ranch hand reported discovering the wreckage between 1130 and 1200. Although he heard an airplane around the time of the accident, he was listening to a TV and did not hear anything unusual.