



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

October 15, 2020

EXAMINATION SUMMARY

ERA20LA262

A. ACCIDENT

Location: Malbis, Alabama
Date: July 28, 2020
Time: 1901 CDT
Airplane: Beech F33A, N3156W

B. INVESTIGATION PARTICIPANTS

Ralph E. Hicks – Sr. ASI
Eastern Region Aviation (ERA)
National Transportation Safety Board
Marietta, Georgia 30068

C. SUMMARY

On July 28, 2020, about 1901 central daylight time, a Beech F33A, N3156W, was substantially damaged when it was involved in an accident in Malbis, Alabama. The private pilot and the passenger were fatally injured. The airplane was operated as a Title 14 Code of Federal Regulations Part 91 personal flight.

The wreckage examination was conducted at the facilities of Florida Air Recovery, Jacksonville, Florida on October 14 through 15, 2020.

1.0 Fuselage

The forward fuselage was consumed by a postaccident fire. All recovered fuselage components were contained in two large recovery bags. The ELT was loose inside one of the bags and was intact and lightly sooted. The ELT switch was in the armed position. The ELT was an Artex ELT 345, manufactured 09/19. The ELT was a C126 (406 MHz).

There were Garmin 5 and an Aspen Evolution control heads in the cockpit items. The Garmin did not have a micro SD card installed. The Aspen contained a micro SD card.

The nose landing gear was loose in the wreckage and was not exposed to fire.

The extensive postaccident fire prevented any flight control continuity checks inside the forward fuselage and cockpit areas.

2.0 Left Wing

The left wing was removed by recovery personnel. The area adjacent to the wheel well was burned by postaccident fire. Fire damage extended along the leading edge of the wing outboard to an area about 5 ft from the wing tip. The flaps were in the up position and the left main landing gear was in the retracted position. The fuel filler cap was in place and secure. The fuel tank was breached by the postaccident fire. Aileron continuity was confirmed from the control surfaces to cable cuts made by recovery personnel at the wing root.

3.0 Right Wing

The right wing was removed by recovery personnel. About 50% of the wing was burned by postaccident fire; the only unburned position consisted of the outboard 5 ft of wing area. About 80% of the leading edge was burned away. The flaps were in the up position and the left main landing gear was in the retracted position. The fuel filler cap was missing. The fuel tank was consumed by the postaccident fire. Aileron continuity was confirmed from the control surfaces to cable cuts made by recovery personnel at the wing root.

4.0 Empennage

The empennage was generally intact. The vertical stabilizer had impact damage on the leading edge at the top 1 ft of its height. The rudder was attached and exhibited minor impact damage.

The left horizontal stabilizer and elevator were removed by recovery personnel. The surfaces exhibited minor impact damage. The elevator trim tab was found about 10° tab low.

The right horizontal stabilizer and elevator were connected to the empennage. The surfaces exhibited minor impact damage. The elevator trim tab was found about 10° tab low.

Flight control cable continuity was confirmed from the elevator and rudder surfaces to cables cuts made by recovery personnel. These cuts were about 100 in forward of the tail light.

5.0 Engine

Engine: Continental IO-520-BA, S/N 120370-4-B, 285 HP @ 2700 rpm.

The engine was broken free from the firewall when examined. The propeller remained securely attached to the engine. Several rocker covers exhibited impact damage. The throttle body was broken from its mount and held in place by control cables and fuel lines.

The top spark plugs were removed for examination. The nos. 1, 3, and 5 plugs were normal in wear and color when compared to a Champion Check-A-Plug chart. The nos. 2, 4, and 6 plugs were oil-soaked and were normal in wear. All 6 plugs exhibited light corrosion and/or rust signatures.

The engine-driven fuel pump was removed for examination. The unit turned freely by hand. The drive attachment was undamaged.

The fuel manifold was removed for examination. The unit was disassembled; the rubber diaphragm was clean and supple with no perforations. The screen was clean and clear. There was no residual fuel inside the unit.

The fuel injector nozzles were removed for examination. All injectors were clear. The number one injector was bent from impact damage.

The throttle body was intact except for impact damage to its mount. The linkages were secure. The inlet fuel screen was clean and clear.

The magnetos were removed for examination on a test bench. The left magneto would not spark on any lead when tested. The right magneto sparked on all leads when tested.

6.0 Propeller

Propeller: The Hartzell 3-bladed propeller remained attached to the engine crankshaft.

Blade “A” was bent forward about 25° and there was blade tip twist and leading edge damage observed.

Blade “B” was bent aft about 45° and there was blade tip twist and leading edge damage observed.

Blade “C” was bent aft about 35° near the tip and there was blade tip twist and leading edge damage observed.