



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

May 4-6, 2022

EXAMINATION SUMMARY

ERA22FA218

A. ACCIDENT

Location: Altha, Florida
Date: May 3, 2022
Time: 1700 CDT
Airplane: Cessna 172, N6413B

B. INVESTIGATION PARTICIPANTS

Ralph E. Hicks - IIC
Eastern Region Aviation (ERA)
National Transportation Safety Board
Marietta, Georgia

Ernest C. Hall
Textron Aviation Inc.
Wichita, Kansas

Anna Williams
Airworthiness (Maintenance) Aviation
Safety Inspector
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C. SUMMARY

On May 3, 2022, about 1700 central daylight time, a Cessna 172, N6413B, was destroyed when it was involved in an accident near Altha, Florida. The private pilot and one passenger were fatally injured, and two passengers were seriously injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

1.0 Wreckage Examination

The examination of the wreckage was performed on May 4-5, 2022, at the accident site, Altha, Florida and on May 6, 2022, and at the facilities of Florida Air Recovery, Jacksonville, Florida.

Accident Site (General)

The aircraft impacted the flat, grassy terrain, near the airport perimeter fence, in a nose down, right wing low attitude, and came to rest upright. According to witnesses, after the aircraft came to rest, a short period of time (undetermined how long) the aircraft caught fire.

An impact scar exhibited signatures of propeller contact, smearing black paint on the soil and adjacent to the right was the left fiberglass wing tip. Approximately 15' to 20' down the debris path was the separated nose landing gear strut/wheel. Approximately 20' to 30' from the nose landing gear strut/wheel, the main wreckage came to rest. The length of the debris field from the ground scar (propeller blade contact) to the main wreckage was approximately 40' to 50'. The aircraft came to rest on an approximate magnetic heading of 199°. The ground exhibited thermal damage and brown grass consistent with fuel blight approximately 30' to 40' in diameter.

A wing inline fuel screen was observed in the wreckage. It was clear of debris. The fuel selector handle, fuel selector valve, and the left and right fuel tank gauges were not observed in the thermally damaged wreckage.

Fuselage

The instrument panel and instruments and switches were thermally damaged.

The pilot and co-pilot seats and the rear bench seat exhibited thermal and impact damage. The 2nd seat stop metal reel was not observed attached to pilot and co-pilot seats base nor observed in the wreckage.

The Environmental controls and Icing switches exhibited thermal and impact damage.

The ELT exhibited thermal damage.

Left Wing

The left wing leading edge from approximately the wing fence outboard to the tip exhibited an up and aft crushing. The left-wing also exhibited an up and aft bend from approximately the

landing light outboard to the wing tip. The left-wing exhibited thermal damage approximately from the wing forward spar and aft to the flap and aileron and from the wing root outboard to the wing tip.

Right Wing

The right wing exhibited leading edge aft diagonal buckling from approximately mid-section to the wing tip. The right-wing exhibited partial thermal damage.

Empennage

The left horizontal stabilizer and elevator exhibited thermal damage. The vertical stabilizer exhibited partial thermal damage. The rudder exhibited thermal damage. The right horizontal stabilizer exhibited partial thermal damage. The elevator exhibited partial heat damage.

Flight Controls

All primary (elevators, ailerons, and rudder) flight control surfaces with their appropriate trim tabs and flaps were accounted for at the wreckage examination. Continuity of all primary flight control cables were confirmed from the cockpit controls to their respective flight control surface. Continuity of the elevator trim control cables were confirmed from the cockpit to the elevator trim tab. Continuity was confirmed by either visual and/or pulling the cable at one end to see the other same cable end and/or control surface move.

The flap indicator was not observed in the thermally-damaged wreckage. The mechanical flap handle exhibited heat damage and was found in the 10° flap position.

The elevator trim actuator extension was measured and found to be approximately 1 1/4 inches, which corresponds to approximately 0° (neutral position).

Engine

The engine was canted to the left and exhibited thermal damage. The engine was transported to the salvage facility where additional examination was performed.

The engine was raised on a lift to facilitate the examination.

The left and right magnetos were removed and placed on a test bench. The right magneto sparked on all leads when rotated on the bench. The left magneto exhibited heat damage and would not produce spark. It was disassembled and inspected; internal heat damage was evident.

The top spark plugs were removed for inspection and to facilitate a compression check. When the propeller was rotated manually, compression and suction were observed on all cylinders and valve action was correct. Internal engine continuity was confirmed through the rear accessory drive gears. The bottom spark plugs were then removed; all spark plug electrodes were normal in color and wear when compared to a Champion Check-A-Plug chart.

The carburetor inlet screen was clean and clear of contaminants. The vacuum pump drive shaft was intact.

Propeller

The fixed two-blade propeller remained attached to the engine crankshaft flange attachment which partially separated from the engine crankshaft.

The blades were identified with A and B for documentation purposes. Propeller blade identified as A exhibited a bend to the non-camber side. The propeller blade identified as B exhibited an "S"-bend, leading edge polishing, and light chordwise scratches on the camber side.