

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



ERA23FA182

WRECKAGE EXAMINATION

April 8, 2023

TABLE OF CONTENTS

A. ACCIDENT.....	3
B. WRECKAGE EXAMINATION.....	3
C. SUMMARY	3
D. DETAILS OF THE EXAMINATION.....	3
1.0 ACCIDENT SITE	3
2.0 AIRFRAME EXAMINATION.....	4
2.1 Fuselage.....	4
2.2 Empennage	4
2.3 Wing....	5
2.4 Landing Gear.....	6
2.5 Cockpit.....	6
2.6 Survivability.....	6
2.7 Fuel/Fuel System.....	6
3.0 ENGINE EXAMINATION	7
4.0 PROPELLER EXAMINATION	7

A. ACCIDENT

Location: Jesup, Georgia
Date: April 6, 2023
Time: 0750 EDT
1150 UTC
Airplane: N911TK, Cirrus SR22

B. WRECKAGE EXAMINATION

IIC: Ralph E. Hicks
NTSB/ERA
Marietta, Georgia

NTSB Investigator: Christopher Freeze
NTSB/ERA
Washington, DC

FAA Inspector: David Detscher
FAA/FSDO
Atlanta, Georgia

Party to Investigation: Brannon Mayer
Cirrus Aircraft
Duluth, Minnesota

C. SUMMARY

On April 6, 2023, about 0750 eastern daylight time, a Cirrus Design Corp SR22, N911TK, was substantially damaged when it was involved in an accident at Jesup, Georgia. The private pilot was fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

D. DETAILS OF THE EXAMINATION

1.0 Accident Site

The initial impact point (IIP) was on flat, dry, sandy terrain on a heading of 040° and came to rest adjacent to the IIP at coordinates 31.55222, -81.86972. There was no discernible wreckage path; a few light items were thrown about 15-20 ft north of the main wreckage during impact. Ground scars were indicative of a right wing low, nose low impact with terrain. The elevation at the accident site was about 60 ft. There was no fire.

The crash site was about 1,200 ft from the runway 29 approach threshold and about 40 ft north of the runway centerline.

There was a medium-size dog on board.

2.0 Airframe Examination

The wreckage was examined and documented at the accident site on April 7, 2023. The wreckage was transported to Atlanta Air Recovery, Griffin, Georgia and a layout examination of the airframe and engine occurred on April 8, 2023.

2.1 Fuselage

The fuselage exhibited impact damage and multiple fractures to roof, sides, and to the roll cage. The windows were shattered and blown out. The right cabin, left cabin, and baggage doors all separated. The lower fuselage channel was crushed.

The instrument panel was destroyed. The Hobbs meter read 977.8. The ignition key was located in the switch; it was bent and damaged.

The fuel selector was set to the left tank, the flaps set to 0. Engine controls were too damaged to determine position.

2.2 Empennage

The empennage was found separated, just forward of horizontal stabilizers. All control surfaces were attached.

The right elevator exhibited light damage.

Rudder control cable continuity was confirmed from the center console to the control surface.

Elevator control cable continuity was confirmed from the center console to the control surface. The pitch trim motor was found in a position between neutral and full nose up.

2.3 Wing

Left Section of Wing

The left section of wing remained attached to the fuselage and exhibited impact damage. The wing spar was damaged. The leading edge exhibited heavy impact damage and multiple fractures. The upper wing skin exhibited fractures. The wing tip was attached but exhibited damage from ground impact.

The flap remained attached; it was found in the down position due to fractured torque tube linkage.

The aileron was found attached at the inboard hinge, separated at outbound hinge, and exhibited impact damage. Left aileron control cable continuity was confirmed from the center console to the control surface.

The fuel tank was breached. The fuel cap was found in place; its locking handle in the upright position. No fuel present. No smell observed.

The roll trim was found in the approximately neutral trim position.

The flap jackscrew was found in the "UP" or 0% position.

Right Section of Wing

The right section of wing was attached to the fuselage and exhibited impact damage. The wing spar was damaged. The leading edge exhibited heavy impact damage and multiple fractures. The upper wing skin was fractured and exhibited heavy damage. The wing tip was found separated from ground impact. In comparison to the left wing, more damage was noted to the right wing.

The flap exhibited impact damage.

The aileron was found separated from the wing. Right aileron control cable continuity confirmed from the center console to the control surface.

The fuel tank was breached. The fuel cap was found in place; its locking handle was in the upright position. No fuel present. No smell observed.

2.4 Landing Gear

The nose landing gear separated; the gear fractured at the upper weldment. The right main landing gear separated; it exhibited impact damage. The left main landing gear remained attached to wing.

2.5 Cockpit

The Avidyne Primary Flight Display (PFD) was retained for NTSB Laboratory examination.

The Avidyne Multi-Function Display (MFD) was located. The removable Compact Flash memory card was removed and retained for NTSB Laboratory examination.

The Stratus ADS-B unit was located and retained for NTSB Laboratory examination.

2.6 Survivability

The four-point seat belt webbing was cut by first responders to aid extraction of the occupant. The cabin seats remained in place.

The Cirrus Airframe Parachute System (CAPS) was not activated. The CAPS safety pin was found in place in the CAPS handle holder and was not secured by first responders. Investigators disassembled the rocket onsite and rendered it inert.

ELT: Ack Technologies model E-04. C-126b, Manufactured April 11, 2019. Replace date April 11, 2024. Switch in OFF position.

2.7 Fuel/Fuel System

Fuel pump: a small amount of fuel was observed during removal from engine. Pump rotated freely and drive shaft was intact.

Flow divider/spider: Removed for examination. The diaphragm was clean and supple. Spring intact. Small amount of residual fuel remained inside.

Gascolator: Removed and opened for examination. No fuel inside (line compromised). No debris or contamination/screen clear.

3.0 Engine Examination

Both the left and right magnetos were broken free of mounts. Both magnetos produced spark to all leads when rotated by hand. Oil filter removed. Internal paper element was clean and no evidence of metallic particulates.

Top spark plugs removed - no abnormalities observed. Normal in color and wear (fine wire) when compared to Champion Check-A-Plug chart.

Fuel injector nozzles: All six removed and examined; all ports were clean and clear/no obstructions or contamination.

Ignition harness: Some leads cut by investigators to facilitate disassembly; leads were normal in appearance.

Engine internal continuity: Suction and compression observed on all cylinders except #2 and #5 when crankshaft rotated manually (via propeller). Valve action correct on all cylinders. Lighted borescope examination of #2 and #5 cylinders showed no anomalies. Piston faces were normal, and no evidence of detonation damage found. There was some internal debris noted inside both cylinders from impact.

4.0 Propeller Examination

Blade "A": (Labeled by investigators from most damage to least damage) Blade was fractured at root and buried under the engine at the main wreckage area. Blade exhibited chordwise scratching, "S" bending, blade surface polishing, leading edge gouging, and tip curl.

Blade "B": Blade remained attached to the hub. Moderate "S" bending, chordwise scratching, "S" bending, blade surface polishing.

Blade "C": Blade remained attached to the hub. Light "S" bending, chordwise scratching, blade surface polishing.

Spinner was deformed and compressed against the propeller hub with torsional signatures.

Submitted by:

Ralph E. Hicks
Sr. Air Safety Investigator, NTSB