

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



CEN24FA101

EXAMINATION SUMMARY

January 30, 2024

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A. ACCIDENT

Location: Ranchitos Las Lomas, Texas
Date: January 29, 2024
Time: 1441 CDT
Airplane: N315GW- Aircam, S/N AC283-3

B. EXAMINATION SUMMARY

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C. SUMMARY

On January 29, 2024, about 1441 central standard time, an Aircam, was substantially damaged when it was involved in an accident near Ranchitos Las Lomas, Texas. The pilot and passenger sustained fatal injuries. The flight was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The FAA and NTSB conducted an on-site examination of the wreckage on January 30 & 31, 2024. A Meteorological Evaluation Tower was located north of the main wreckage with debris from the left wing just below and in the vicinity of the tower. The airframe was released to the owner's family and both engines were retained by the NTSB for follow-up examination.

D. DETAILS OF THE EXAMINATION

1.0 Accident Site



Figure 1: Accident site

- Location is +027.641949° / -099.112511°
- Location is 238 ft about 134° MH from a 197 ft MET Tower
- Airplane came to rest on about a 171° MH.
- Altitude is about 605 ft MSL.
- Wreckage was located in a flat desert with scrub brush and mesquite trees.

The fuselage, right wing, and inboard section of the left wing came to rest together inverted in desert scrub brush.

The debris path measured about 238 ft in length on a heading of 134° MH. The first impact point was along the top 28 ft section of a steel pole meteorological evaluation tower. According to local authorities and the land owner, the top guy wire with marker ball was pulled and separated from the tower and found in a rough coil at the guy wire footer. The guy wire had bird caging consistent with overload. The outboard 2.5 ft of the left flap was found 57 ft from the base of the tower. Numerous paint and airplane fragments were found between the tower to the main wreckage site. The outboard 9 ft and 6 in of the left wing along with an additional 33 in of attached aft spar was found separated and in the canopy of a low mesquite tree 25 ft behind the fuselage in the direction of the tower.

The debris were limited to the immediate area around the fuselage and both wings.

The Meteorological Evaluation Tower (MET) was a steel 60M XHD Tall tower produced by NRG System and operated by Apex Energy. The tower was 197 ft tall with four sets of guy wires at 90° separation extending out to a radius of about 107 ft. Each guy wire set consists for six individual wires connected to a cradle around the pole. The tower was painted and marked in accordance with FAA Advisory Circulars for unlit obstruction. The top sixth wire had two high visibility marker balls situated along the wire. Additionally, the pole was painted in seven alternating 28 ft sections of aviation orange and white paint. The tower was not registered nor was it required to be registered with the FAA, listed in the voluntary <201 ft obstacle database or marked on any government aeronautical charts. The tower was registered with the Texas Department of Transportation per Texas transportation code.



Figure 1: Damage MET Tower

The top painted section of the tower was bent in the south direction towards the wreckage. The sixth north guy wire was separated near the upper marker ball. The upper separated section of wire with the marker ball was still attached to the cradle and on the south side of the tower. The remaining section of the guy wire along with the lower marker ball was found on the ground. The west 58 m weather anemometer structure was bent towards the tower in a south direction.

1.1 Fuselage



Figure 2: Accident airplane

The fuselage came to rest inverted. The left struts and forward spar were cut during victim recovery by first responders. The forward fuselage consisted of the instrument panel, forward flight controls, and forward seat. The forward fuselage had crush deformation of the structure forward to the main landing gear. The rear occupant seat, rear flight controls, and cargo bin were intact with crush damage present.

1.2 Empennage

The empennage was intact with wrinkling present from the fuselage to the partial separation about 5 ft from the tailwheel. The aft 5 ft of the empennage, with the tail control surfaces and stabilizers, was partially separated on three sides and bent roughly level with terrain. The vertical stabilizer and rudder had lengthwise wrinkling and deformation of the stabilizer tip from crush damage. The left horizontal stabilizer and elevator control surface had numerous fabric tears and holes along the upper surface. The right horizontal stabilizer and elevator control surface had no observed damage. Flight control continuity of the rudder and both elevators were established from the control surface to the fuselage. Fuselage to yoke continuity was not established due to impact damage of the fuselage.

1.3 Wings

Right Wing



Figure 3: Right wing

Found attached to the wing carry through structure with recovery separations of both lift struts. The entire leading edge had crush damage and separation of the fabric. The forward spar was found separated consistent with overload separation at the lift strut attachment bracket.

Right Aileron

Found attached to the wing structure. The aileron had crush damage and fabric tears consistent with contact with impact damage.

Flight control continuity was established from the control surface to the fuselage. Fuselage to yoke continuity was not established due to impact damage of the fuselage and wing root.

Right Flap

- Found attached with no trailing edge damage.

Left Wing



Figure 4: Inboard left wing

Inboard 5 ft of structure was found attached to the wing carry through structure with recovery separations of both lift struts and fuselage to carry through connection strut. The inboard structure had crush damage of the skin to the engine mount with separated fabric from the engine to the separation point. Forward and aft spar fracture surfaces were consistent with overload at the separation point.



Figure 5: Outboard Left Wing

Outboard 9 ft and 6 in was found separated from the main wing structure. An additional 33 in of aft spar was also found still attached to the separated wing structure. The leading edge from the wing tip inboard about 2 ft had crush damage along with separation for the forward spar. The fracture surfaces of the forward spar had damage consistent with overload. The aft spar had crush damage about 1 ft from the separation fracture with witness marks. The fabric skin was observed to be intact through out the rest of the wing structure. A separated control cable was found in a nearby tree with consistent with overload.

Left Aileron

Found attached to the wing with crush damage and fabric skin tears. Flight control continuity was established from the control surface to the outboard separation. Inboard wing to yoke continuity was not established due to impact damage to the wing and fuselage.

Left Flap

Found separate with two major sections and with no trailing edge damage. The flap was separated from the wing structure about 5 ft from the wing root. 2 ft and 6 in of the outboard flap structure was found in the debris path about 57 ft from the base of the tower. The fracture surfaces had damage consistent with overload. Numerous sections of flap structural tubing was found within the main wreckage.

1.4 Landing Gear

The main and tail wheel landing gear were found still attached with no damage noted.

1.5 Cabin and Instrument Panel



Figure 6: Cabin and instrument panel

Crush damage prevented verification of the majority of the flight instruments. The altimeter was found intact with the altimeter of 30.36" inHg selected in the Kollsman window. The airspeed indicator needle was found at 92 MPH with the faceplate broken. An oil pressure gauge was found with the needle at 160°F with the faceplate separated. The right engine coolant gauge was found with the needle at 240°F with the faceplate separated. All other readable gauges with needles were found at their respective minimum limits. The forward seat left and right throttle were found in MID position. The aft seat left and right throttle were found loose within the assembly. Both occupant seat harnesses were found attached with recovery cuts and both seatbelts were found separated with recovery cuts. Both lower control stick structures were found with crush damage. Both seat rudder control pedals were found attached and connected to their respective rudder cable.

1.6 Fuel/Fuel System

The odor of fuel was present with an unknown quantity of fuel observed in both 14 gal fuel tanks and respective engine fuel lines. One fuel tank was breached.

1.7 Other Systems

The Emergency Locator Transmitter (ELT) was found in the OFF position. The ELT was secured in the cradle and attached to the empennage.

2.0 Engine Examination

Right Engine



Figure 7: Right engine and propeller

The right engine remained attached to the engine mount and was inverted. The engine had crush damage and impact damage of various components. A large electrical cable was found pulled free from the connector with no damage to the cable. The 3 bladed propeller was found attached to the propeller flange. The engine was retained and a follow-up examination with the manufacturer will be performed at a later date.

Left Engine

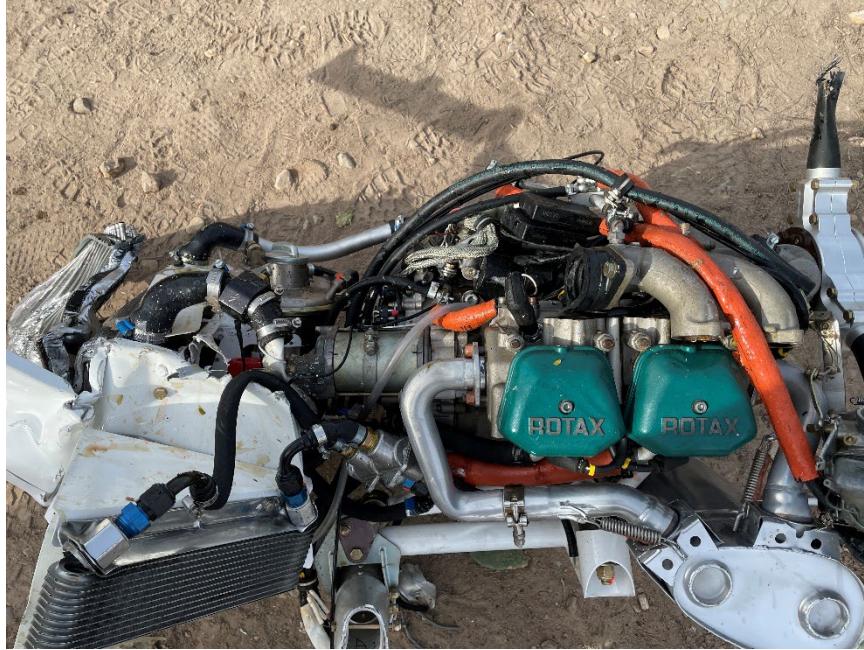


Figure 8: Left engine

Found attached to the engine mount and in an inverted position. The engine had crush damage and impact damage of various components. The 3 bladed propeller was found attached to the propeller flange. The engine was retained and a follow-up examination with the manufacturer will be performed at a later date.

3.0 Propeller Examination

Right Propeller



Figure 9: Right propeller

The propeller blades were identified from right to left as A, B, and C for documentation purposes. All three blades were found attached to the hubs. Blade A had a no damage with no scuffing of the leading edge. Blade B was fractured midspan with some scuffing of the leading edge. Blade C was fractured and separated at the hub with some scuffing of the leading edge. The fractured portion was at the ground level in the opposite direction of flight when the airplane was in the accident resting position.

Left Propeller



Figure 10: Left propeller

The propeller blades were identified from right to left as A, B, and C for documentation purposes. All three blades were found attached to the hubs and separated. All three blades had scuffing of the leading edges and one separated blade and a separated tip.

4.0 Pilot Information

The pilot held various category and class Private Pilot certificates. The pilot had Basic Med dated March 3, 2023, with an expired FAA Third Class medical dated April 25, 2017. The last medical application listed a total flight time of 13,000 hours.

5.0 Aircraft Information

Aircam, N315GW, S/N AC283-3, a multi-engine airplane land, built by the owner in 2023.

6.0 Meteorological Information

Visual metrological conditions were reported with wind from 150° at 7 knots and temperature 23°C.

Submitted by:

Andrew Finne
Air Safety Investigator