

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



ERA24LA227

WRECKAGE EXAMINATION SUMMARY

January 20, 2026

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A. ACCIDENT

Location: Gulf of Mexico, ENE of Alligator Point, Florida
Date: May 25, 2024
Time: 2155 EDT
0155 coordinated universal time (UTC), UTC date May 26, 2024
Airplane: N446KW, Glasair 1

B. WRECKAGE EXAMINATION SUMMARY

IIC	Todd Gunther NTSB-OAS/ERA Washington, DC
Party Coordinator	Daniel Crawford FAA Flight Standards District Office Tampa, Florida
Party Coordinator	David Harsanyi Lycoming Engines Williamsport, Pennsylvania

C. SUMMARY

On May 25, 2024, about 2155 eastern daylight time, an amateur built Glasair 1, N446KW, was destroyed when it descended into the Gulf of Mexico east-northeast of Alligator Point, Florida. The private pilot was fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to Passur OpsVue data and air traffic control audio information, the flight departed from Destin Executive Airport (DTS), Destin, Florida, about 2001 central daylight time¹, and proceeded in an east-southeasterly direction. When the flight was over the Gulf of Mexico about 10 nautical miles east-northeast from Alligator Point, Florida, the flight turned right and proceeded for a short distance in a south-southeast direction followed by left turns, completing more than 810°. At about 2154 while in a steep descent, the pilot broadcast a mayday call and advised the controller that the flight was going down in Apalachee Bay.

A search was initiated by The United States Coast Guard (air and sea assets) as well as Florida Fish And Wildlife Conservation Commission (sea assets). Some of the wreckage was spotted at 0028 hours on May 26, 2024.

¹ 2101 EDT.

The NTSB did not respond to the accident site.

The recovered wreckage was taken to a secure facility for examination by personnel from the National Transportation Safety Board (NTSB), Federal Aviation Administration (FAA), and Lycoming Engines (Lycoming).

D. DETAILS OF THE INVESTIGATION

1.0. General Airplane Information

1.1 Airplane Description

The two-place, retractable landing gear, experimental amateur built, Scott Glassair 1 airplane (Figure 1), serial number 1474R, was built in 2011. It was equipped with a Lycoming O-320-E2D engine, and a two-bladed propeller.



Figure 1 Image Courtesy of Jeremy D Dando². Right Side View of the Airplane In-Flight taken September 9, 2023

² Written permission (by e-mail) was obtained by Mr. Dando to use this photograph in a document that will be put into the NTSB public docket for the investigation.

1.2 Airplane Airworthiness and Maintenance Record Information

An amended Special Airworthiness Certificate in the experimental category was issued on August 21, 2012.

The airframe maintenance records were not located.

2.0. General Engine Information

2.1 Engine Description

The Lycoming O-320-E2D engine, SN L-35638-27A, was rated at 150 horsepower at 2,700 rpm. It was equipped with dual independent magnetos, an engine-driven fuel pump, and an engine-driven vacuum pump powering the installed gyroscopic flight instruments.

2.2 Engine Maintenance History

The engine maintenance records were not located.

3.0. General Propeller Information

3.1 Propeller Description

The two-bladed, fixed pitch, maple wood core propeller was encapsulated with high tensile strength carbon fiber. It was manufactured by Prince Aircraft Company as a P-Tip, and designated serial number (SN) 8074P68SAT76LK.

3.2 Propeller Maintenance History

The propeller maintenance records were not located.

4.0. Accident Site

The wreckage was located in 13 to 15 ft of water. A marker buoy was placed on the wreckage, which came to rest on a sand shoal in a nose and left wing down position, with the empennage being visible above the water (Figure 2).



Figure 2 Courtesy of United States Coast Guard. View of the Empennage Before Recovery

5.0. Airframe Examination

Examination of the airplane revealed that the aft fuselage (with the empennage still attached) had separated from the rest of the fuselage structure just aft of the instrument panel (Figure 3).

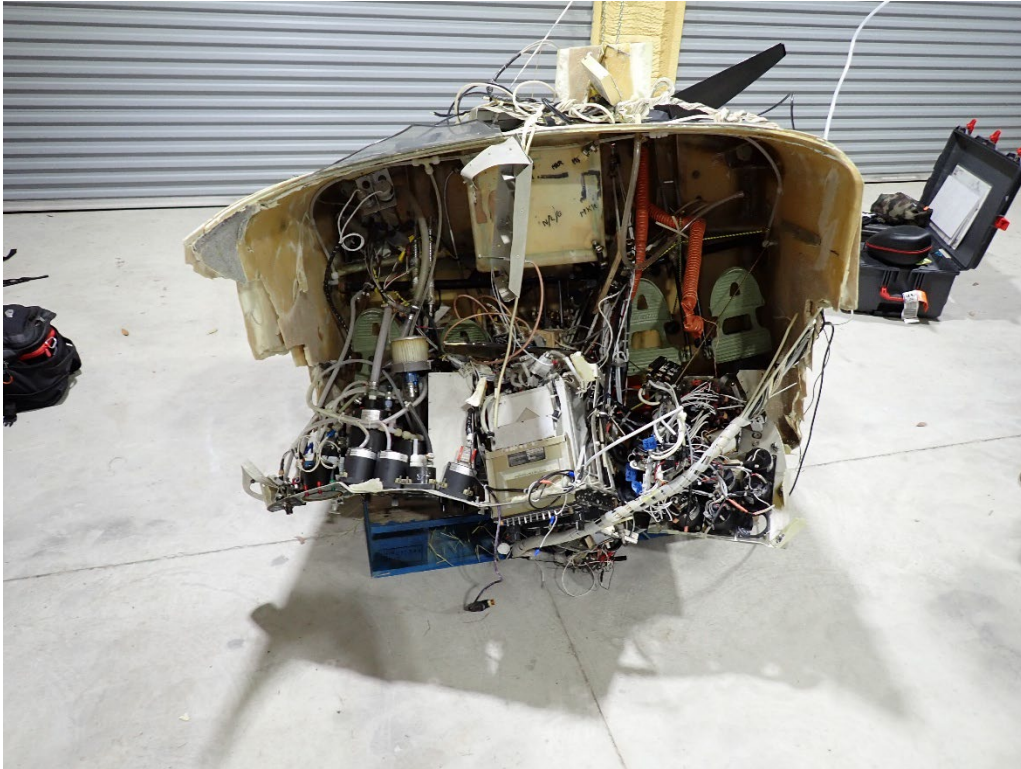


Figure 3 View of the Fuselage with Attached Engine and Propeller, and Instrument Panel

5.1 Fuselage/Empennage

As previously described in section 4.2, the fuselage with attached aft fuselage was structurally separated at the cockpit area (Figure 4).



Figure 4 Right Side View of Fuselage/Empennage

5.2 Wing

Both wings and the carry through structure were separated from the fuselage (Figure 5). The left and right winglets were separated from the left and right wings, and the pitot tube mast was separated from the bottom of the left wing. The left wing outboard fuel filler port was also missing, with its mounting location displaying evidence of the filler port having been hydraulically separated from the wing. The left wing's inboard fuel filler port was still intact, but an approximate 4-foot section of the left wing's upper composite surface near the inboard fuel filler port was missing.



Figure 5 View of Nearly the Entire Span of the Wing and Carry-Thru Structure

5.3 Flight Controls and Flaps

Flight control continuity was established from the rudder, elevator, and ailerons to the breaks in the system, and from the breaks in the system, to their respective flight controls. The wing flaps were in the 0° (wing flaps up) position.

The rudder was still attached to its hinge points. Both elevators were also still attached, with the left elevator displaying minimal damage and the right elevator's lower panel having been separated from the rest of the right elevator.

There was no evidence of preimpact failure or malfunction of the flight controls for roll, pitch, and yaw.

5.4 Landing Gear

All landing gears were in the "up" position.

5.5 Cockpit

The cockpit was fragmented (Figure 6). The instrument panel was separated but remained attached by electrical wires and hoses. Both seats were structurally separated.

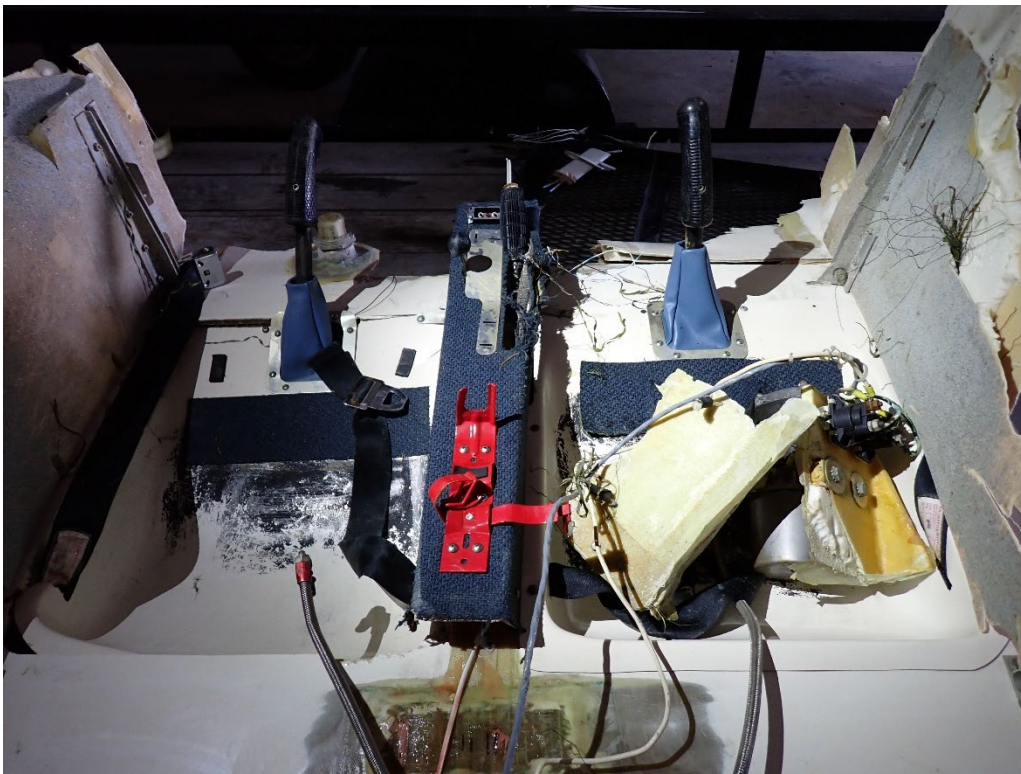


Figure 6 View of the Lower Section and Sides of the Cockpit

Examination of the cockpit controls and instrumentation indicated that the throttle and mixture controls were all in the full forward position. The carburetor heat control was in the "OFF" position, and the primer was in and locked. The landing gear switch was in the "UP" (retracted) position, and the handle was broken off. The wing flap handle was in 0° (wing flaps up) position.

The manifold pressure gauge, and the tachometer were off-scale low. The airspeed indicator needle was frozen at around 190 knots. The vacuum driven attitude indicator displayed a nose down pitch attitude and left wing down roll

attitude. The electric turn and bank indicator displayed a left bank. The directional gyro indicated 202°, and the vertical speed indicator was frozen at a 600 ft per minute rate of descent.

The selector switches were visually inspected for position, documented, then tactically checked. The switches for the navigation lights, electric fuel pump, and turn coordinator³ were all on. The autopilot switch was in the off position (Figure 7).

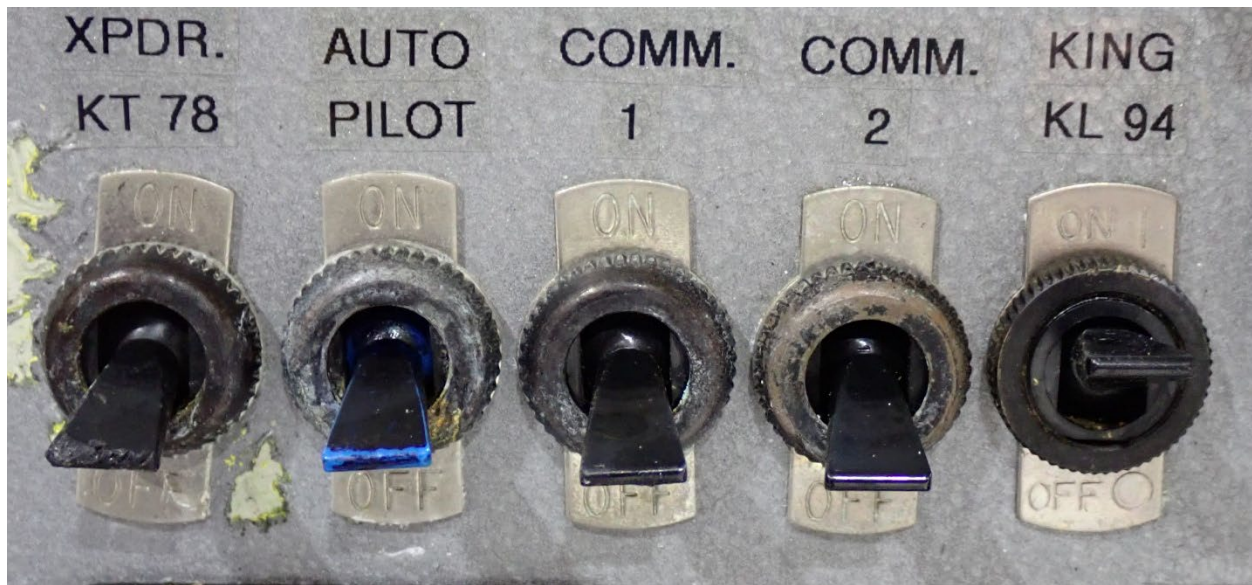


Figure 7 View of the Autopilot Switch in Off Position

5.6 Attitude Gyro and Turn Coordinator

The vacuum operated Sigma Tek, Inc., attitude gyro, model 5000B-36, PN 23-501-06-16, SN T73999M, and electrically powered Electric Gyro Corporation⁴ turn coordinator, model 1394T100-7Z, SN F11-10310, both of which remained secured in the instrument panel, were removed for further examination.

Disassembly examination of the attitude gyro revealed the rotor exhibited very light scoring on the top of the rotor near one end (Figure 8), and light scoring was also noted at one end of the rotor housing (Figure 9). This was consistent with rotation at impact.

³ The placard on the instrument panel for the 3 amp circuit breaker and switch for the turn coordinator was labeled "Turn&Bank."

⁴ A division of Mid-Continent Instrument Company, Wichita, Kansas.

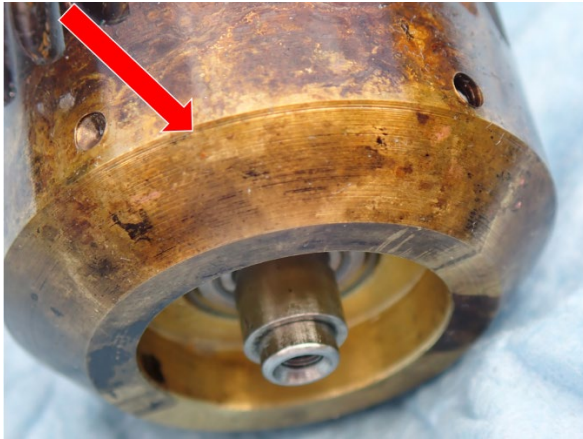


Figure 8 Arrow Points to Light Scoring Near End of Rotor

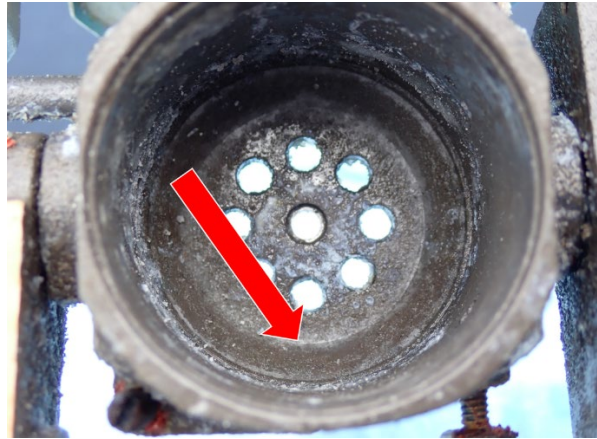


Figure 9 Arrow Points to Scoring at End of Rotor Housing

Disassembly examination of the turn coordinator revealed the rotor exhibited light scoring on top near one end consistent with rotation at impact (Figure 10).

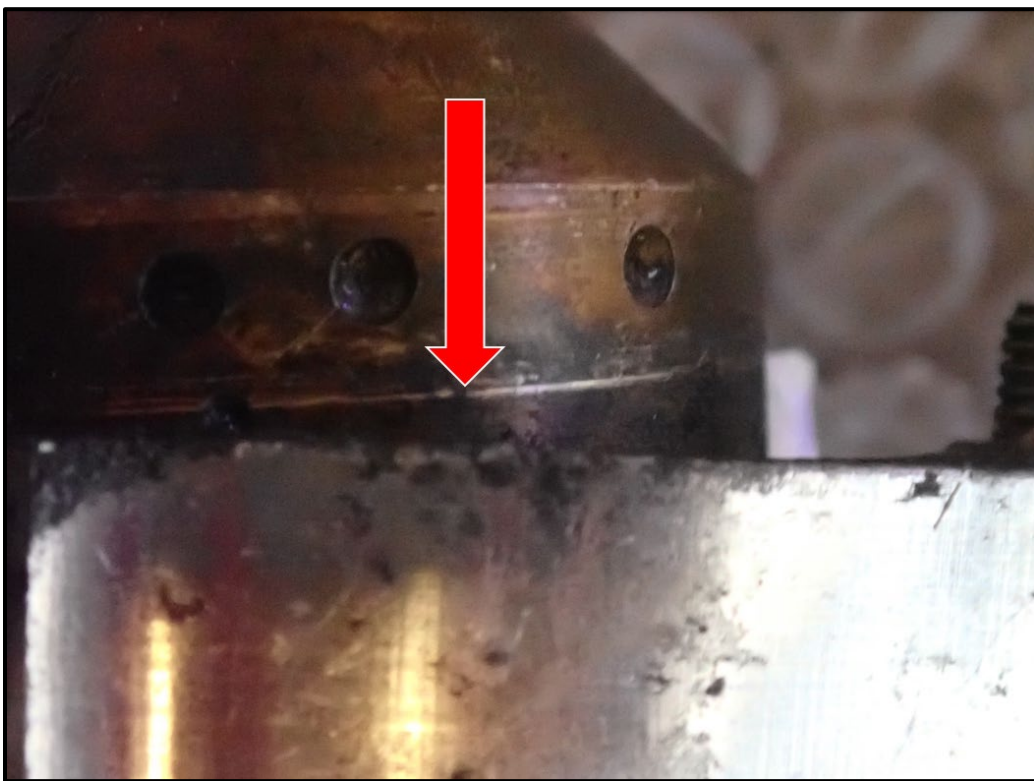


Figure 10 Arrow Points to Light Scoring on the Rotor

5.7 Windshield/Doors

The windshield was missing, along with both gull wing doors.

5.8 Survivability/Restraints

The accident was not survivable.

5.9 Pitot/Static System

Examination of the pitot tube and static ports revealed no evidence of blockage.

6.0. Engine Preparation and Examination

The engine remained attached to some of the airplane's structure via the engine mount and firewall. Damage was noted to various exhaust tubes in the form of bends. Abrasion was visible on the ignition harness, and corrosion and various components of the engine displayed damage consistent with submersion in saltwater.

Water was drained from the engine to perform an inspection of the engine power train.

6.1 Engine PowerTrain

Crankshaft, camshaft, and valve train continuity were confirmed during rotation of the crankshaft, including continuity to the engine accessory section which actuated the engine-driven fuel pump actuating rod.

6.2 Engine-Driven Fuel Pump

The engine-driven fuel pump was found tightly installed to the accessory section of the engine, but the housing displayed a large amount of saltwater corrosion. Suction and compression were present at the inlet and outlet ports when actuated by hand.

6.3 Engine-Driven Vacuum Pump

The engine-driven vacuum pump, a RAPCO, Inc., part number RAP215CC, SN A77207, remained attached to the engine. Disassembly inspection following removal from the engine revealed the drive and driven couplings, as well as the rotor and vanes were intact (Figure 11).

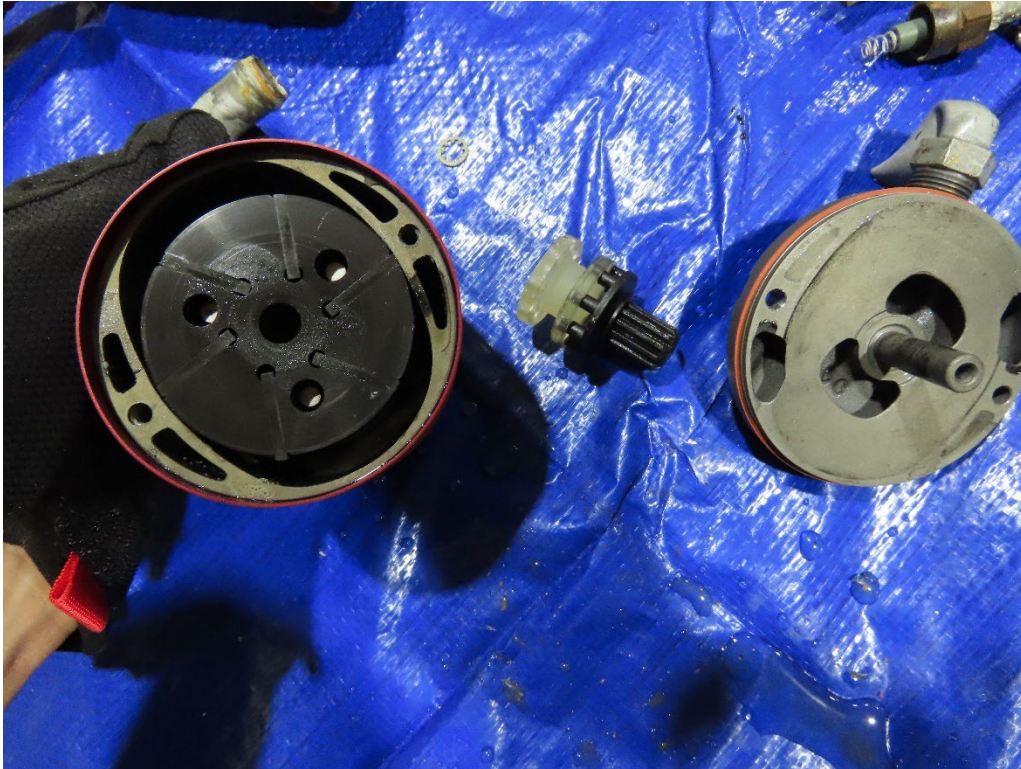


Figure 11 View of the Partially Disassembled Engine-Driven Vacuum Pump

6.4 Ignition System

The left Slick Magneto, model number 4373, SN 02080455, and right Slick Aircraft Products model number 4370, SN 93080167, were tightly installed to the accessory section of the engine. The magnetos were removed and the respective input drives were rotated by hand but did not produce any spark. Both units were disassembled and found to have large amounts of water, corrosion, and a jellylike substance was noted inside consistent with submersion in saltwater. Neither magneto displayed any evidence internally of preimpact failure or malfunction.

6.5 Fuel Metering System

The Precision Airmotive⁵ carburetor, model MA-4SPA, manufacture part number 10-5009N, SN BL 18 7130, stamped with "MF" (metal float), "V" (1 piece venturi), and "A1", was found attached to the lower side of the engine. The housing of the carburetor was fractured at the attach flange, and the airbox was separated. No other damage was noted. The throttle and mixture control cables remained attached at their respective attach points on the carburetor, and the throttle and mixture control levers at the carburetor were in full throttle and full rich positions, which

⁵ With a red data plate.

matched the cockpit control positions. The brass carburetor floats were found attached with minor hydraulic crushing on one float. When shaken they did not produce any sound indicative of leakage. The fuel inlet screen was found free and clear of any debris.

6.6 Lubrication System

The oil suction screen was found tightly installed and safety wired to the oil sump. The screen was removed and found to be free and clear of debris. The oil filter was also tightly installed, and safety wired to the rear of the engine. A date of May 9, 2022 was written on the oil filter canister. The oil filter was cut open and inspection of the oil filter element after removal revealed it was free of metallic debris; carbon was noted (Figure 12). No discrepancies with the lubricating system were noted.



Figure 12 View of the Engine Oil Filter Element

7.0. Propeller

Examination of the propeller which remained attached to the crankshaft flange revealed one blade was fractured near the hub while the other blade was full span but exhibited spanwise damage on the cambered side of the blade near the hub, a chordwise scrape on the cambered side of the blade near the tip at the trailing edge, and damage to the trailing edge near the hub (Figure 13).



Figure 13 View of the Propeller Assembly

8.0. PARTS RETENTION/WRECKAGE RELEASE

The attitude gyro and turn coordinator were retained for examination then returned to John Louk, Division of Emergency Management, Taylor County Sheriff's Office. The wreckage was then released to Danny Glover, EOC Director for Taylor County Sheriff's Office on November 7, 2024⁶.

Submitted by:

Todd Gunther
Sr. Air Safety Investigator

⁶ Refer to NTSB Wreckage Release and Evidence Control Forms contained in the public docket for the investigation.