

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



WPR22FA304

ACCIDENT SITE EXAMINATION

August 16, 2022

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A. ACCIDENT

Location: Yellow Pine, Idaho
Date: August 15, 2022
Airplane: Aviat, A-1A, N26HV

B. ACCIDENT SITE EXAMINATION

1.0 Participants

IIC	Eric M. Gutierrez National Transportation Safety Board Federal Way, Washington
Air Safety Investigator	Paul Rho National Transportation Safety Board Federal Way, Washington
Inspector	Edwin "Brian" Lord Federal Aviation Administration Boise, Idaho
Party Coordinator	Troy Helgeson Lycoming Engines Williamsport, Pennsylvania
Party Coordinator	Earl Polenz Aviat Aircraft Inc. Afton, Wyoming

C. SUMMARY

On August 15, 2022, about 0630 mountain daylight time, an Aviat Aircraft Inc., A-1A, N26HV, was substantially damaged when it was involved in an accident near Yellow Pine, Idaho. The pilot and passenger were fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

D. DETAILS OF THE INVESTIGATION

1.0 Accident Site

GPS Location: N44.916435 W-115.483152
Elevation: 4892 ft mean sea level (MSL)

Examination of the accident site revealed that the airplane impacted heavy brush near a creek bed, about 265 ft northeast of the departure end of runway 35. The airplane came to rest upright in the Johnson Creek, on a heading of about 116° magnetic, at an altitude of 4,892 ft mean sea level. No visible ground scars were observed in the area near the wreckage. All major structural components of the airplane were located at the accident location.



Figure 1: View of accident site diagram

2.0 Airframe Examination

Manufacturer: Aviat
Model: A-1A
Serial Number: 1410

Flight control continuity was not established due to impact damage and multiple separations of the flight control cables throughout the entire airplane. Additionally, law enforcement cut various flight control cables while recovering the occupants.

The forward section of the fuselage sustained extensive impact damage. The engine, engine mount, firewall and instrument panel were partially separated. The instrument panel remained attached to the firewall with various instruments separated. The aft section of the fuselage exhibited buckling, compression and crushing throughout.

Instrument Panel / Cockpit Documentation:

Throttle: Full forward

Mixture: Full forward

Propeller: Full forward

Trim: Neutral

Ignition switch: L

MSTR: On

ALT FLD: Off

NAV LTS: Off

STROBES: Off

TAXI LTS: Off

LDG LT: Off

AVNICS MASTER: On

Instruments:

Airspeed: 0

Attitude: pitch was about 15° up and about a 50° bank to the right

Altimeter: 2990 / kollsman: 30.02

Turn Coordinator: Bank to the right, ball was to the right

Heading indicator: 190°

VSI: 1000 up

Manifold Pressure: No indication

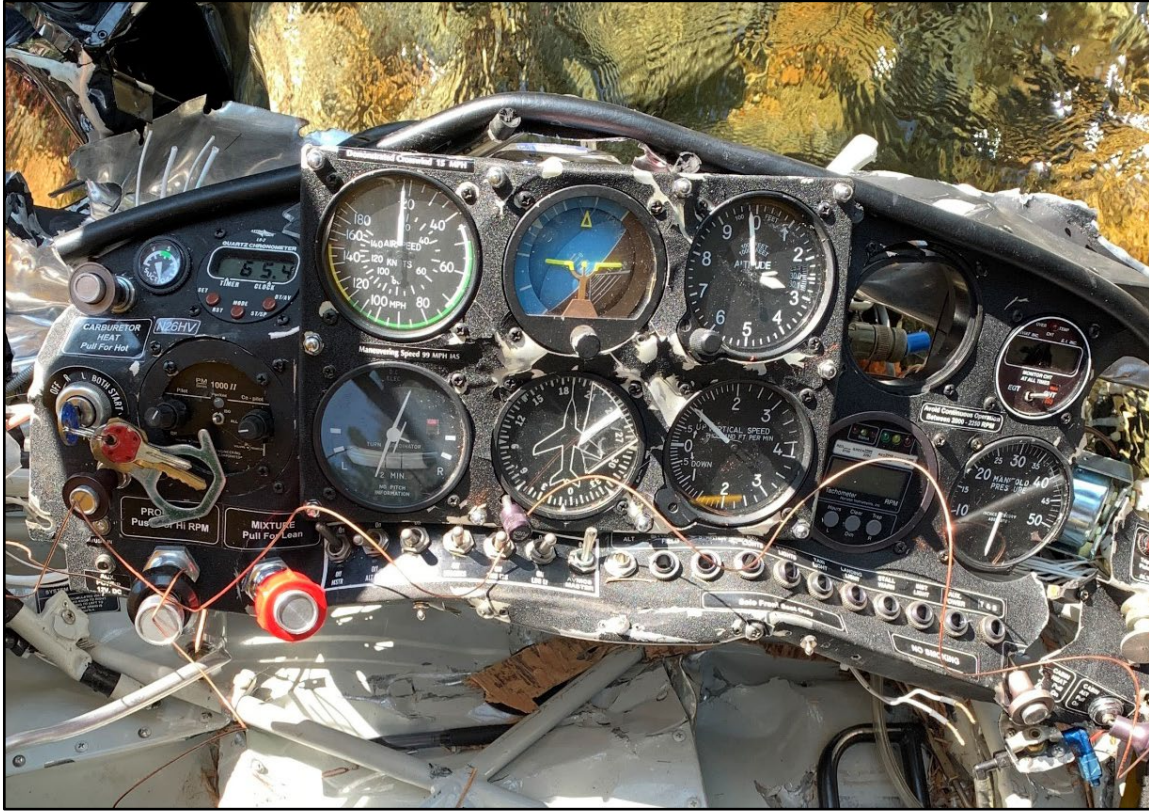


Figure 2: View of airplane instrument panel

The left wing remained attached to the fuselage. Crushing and bending was observed throughout the wing. The left flap remained attached via its mounts. The left aileron remained attached via its inboard attachment mount and separated at the outboard attachment mount; the fracture surfaces exhibited signatures consistent with overload. The outboard aileron attachment mount was separated, and the fracture surfaces exhibited signatures consistent with overload. The flap was observed partially extended and would rotate freely when moved by hand. The main fuel tank fuel cap was in place and secure; the fuel cap was opened and a blue colored liquid consistent with 100 LL was present.



Figure 3: View of airplane left wing

The right wing remained attached to the fuselage. Crushing and bending was observed throughout the wing. The right flap remained attached via its mounts. The right aileron remained attached via its inboard attachment mount. The outboard aileron attachment mount was separated, and the fracture surfaces exhibited signatures consistent with overload. The flap was observed partially extended and would rotate freely when moved by hand. The main fuel tank fuel cap was in place and secure; a blue colored liquid consistent with 100 LL was observed leaking from the fuel tank.



Figure 4: View of airplane right wing

The fuselage structure aft of the cabin area exhibited minor bending and crushing. The vertical stabilizer, rudder, horizontal stabilizers, elevator, and elevator trim tabs remained attached and secure to their respective mounts. Both elevator and rudder flight control cables remained attached to their respective mounts; the control cables were traced to the center of the fuselage, where they had separated from the flight controls.



Figure 5: View of airplane empennage

3.0 Engine Examination

Engine Manufacturer: Lycoming
Engine Model Number: O-360-A1P
Engine Serial Number: L-35980-36A

The engine remained attached to the engine mount, displaced to the left, and came to rest adjacent to the main wreckage. Impact damage was observed to all four engine mounts. The engine was partially submerged in creek water. All four cylinders and engine accessories remained attached to the engine. The propeller governor remained attached to the engine and exhibited impact damage.



Figure 6: View of airplane engine

The carburetor separated from the engine and a small section of the carburetor flange remained attached to the plenum. The carburetor remained tethered to the engine via the throttle, mixture control cables and fuel line. The carburetor flange fracture surfaces exhibited signatures consistent with overload. The intake and exhaust remained attached to the engine, bending and crushing was observed throughout.

4.0 Propeller Examination

The airplane was equipped with a two blade MT composite propeller. The propeller hub remained attached to the engine. Both propeller blades splintered and

separated near the propeller hub. Both propeller blade fragments were not observed within the debris field.

The wreckage was recovered to a secure location for further examination.

Submitted by:

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Air Safety Investigator