

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



WPR23LA104

AIRFRAME AND ENGINE EXAMINATION SUMMARY

Factual Report

Dec 6, 2023

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A. ACCIDENT

Location: Gladewater, TX
Date: 02/05/2023
Time: 1300 CST
1900 UTC
Airplane: N123JV, Bonanza F-35

B. AIRFRAME AND ENGINE EXAMINATION SUMMARY PARTICIPANTS

NTSB-IIC Albert Nixon
 NTSB, AS-WPR
 Phoenix, Arizona

C. SUMMARY

Examination of the airplane wreckage was conducted on December 6, 2023, at the facilities of Air Savage of Dallas, in Lancaster, Texas. No evidence of preimpact mechanical failures or malfunctions that would have precluded normal operation were noted during the examination of the airplane wreckage.

D. DETAILS OF THE EXAMINATION

1.0 Airframe Examination

The wings were found separated from the fuselage. The left wing was removed, and the flap and aileron were attached to the wing. The left-wing inboard portion of the flap sustained damage. The left main landing gear was in the retracted position but had mud in the wheel area consistent with it being extended during impact.

The right wing sustained damage mid-span from an impact that damaged the wing from the leading edge to the trailing edge portion of the wing. The right flap and aileron were attached. The right flap was separated in half about mid-span.

The flap actuators were found in the fully retracted position.

Flight control continuity was confirmed through ruddervators and ailerons.

The fuel selector valve was selected to the left fuel tank position. Fuel continuity was confirmed to the engine from the fuel selector by pressurizing the system with

compressed air. The fuel selector was frozen in place consistent with corrosion from being submerged in the water.



Figure 1: Airplane wreckage as viewed from the left.

The fuselage was relatively intact with some damage sustained to the front bottom section and the bottom section of the fuselage aft of the cabin.

Richard Ball of Lone Star Retrieval came by to discuss the recovery. The left wing was attached and about half of inboard section of the right was attached. The right stabilizer and ruddervator were removed for recovery. The engine was partially attached, and the engine control cables were cut for recovery. The left wing had about 13 gallons of fuel and the left auxiliary tank had about ½ gallon. No fuel in the

right wing because it was breached. The fuel selector was in the left tank position. The fuel screens (bayonets) in each wing tank were clear of contaminants.

A couple of trash bags of personal items were found that weighted about 45 pounds. The landing gear was extended.

The airplane was located in about 7-8 ft of water. The airplane came to rest on about a heading of west. The outboard portion of the right wing and right flap separated and were located about 40 ft from the main wreckage. The tree that the right wing struck was located about 40 ft away from the main wreckage and was still standing and was about 50 ft tall. There were power lines nearby.

The fuel cap seals were intact and in good condition.

The following instruments were observed. The throttle, mixture, and propeller levers were full forward (however, the cables were pulled during the engine separation and cut during recovery). The ignition switch was in both, the battery and generator were selected on. The fuel gage was selected to the left auxiliary tank. The autopilot was off. All circuit breaker were in. The flaps selector was off. The altimeter indicated about 200 ft and had 30.17 selected. The electric fuel boost pump switch was in the off position. The landing gear lever was in the gear down extended position.

3.0 Exterior Engine Site Examination

The engine was separated from the fuselage. The exhaust tubing was intact, and examination of the mufflers revealed no anomalies. The propeller remained attached to the crankshaft propeller flange. One blade was bent aft mid-span. and the other blade was slightly bent aft and had a mark about 29 inches, twisted, and a portion of the tip was separated and had a leading gouge about 29 inches from the hub. The spinner was attached and had a few markings.

Throttle and mixture continuity was established at the carburetor connections. The mixture fuel metering valve was free to move, and no anomalies were noted.

The top sparkplugs were removed, and the rocker covers were removed from the cylinders. All sparkplug electrodes were undamaged and showed normal worn-out wear conditions and oily consist with the engine setting submerged in the water and at the recovery facility. The engine was able to be partially rotated through the propeller and engine continuity was confirmed to the accessory drive. Thumb compression was unable to established due to lack of rotation consistent with rust and corrosion from water exposure. During partial rotation, water would exit the

cylinders. The rocker covers were removed, and the cylinder overhead components were lubricated and undamaged.

The carburetor inlet was removed and examined, and no contaminants or anomalies were noted. The engine driven fuel pump was removed and disassembled and examined with no anomalies noted. The drive coupling was intact, but the pump was frozen in place consistent with corrosion from being submerged in the water.



Figure 2: Engine as viewed from the front.

The magnetos were removed and examined. Manual rotation was not able to be accomplished because of rust and corrosion, on the rotating magnet and bearings, consistent with them being submerged in water for an extended length of time. No other anomalies were noted.

The oil tank was attached but breached and no oil was observed.

AIRFRAME AND ENGINE EXAMINATION SUMMARY

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The examination of the engine and the airframe revealed no evidence of pre-impact mechanical anomalies or malfunctions that would have precluded normal operation.

Submitted by:

Albert Nixon
Senior Aviation Accident Investigator