National Transportation Safety Board
Office of Aviation Safety
Washington, DC 20594

WPR22FA160

ACCIDENT SITE EXAMINATION

April 20 - 21, 2022

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A. ACCIDENT

Location: Sylmar, California
Date: April 20, 2022
Time: 1226 Pacific daylight time (PDT)
Airplane: Textron Aviation Cessna 337; N13JB

B. ACCIDENT SITE EXAMINATION

IIC	Tealeye Cornejo National Transportation Safety Board Federal Way, Washington
FAA Inspector	Juan P Herrera Cervantes Federal Aviation Administration Van Nuys, California
FAA Inspector	Cotry Shearrill Federal Aviation Administration Van Nuys, California
Party Coordinator	Ernest Hall Textron Aviation Wichita, Kansas

C. SUMMARY

On April 20, 2022, at 1226 Pacific daylight time, a Cessna 337, N143JB, was substantially damaged when it was involved in an accident near Sylmar, California. The pilot was fatally injured. The airplane was operated as a Title 14 Code of Federal Regulations Part 91 personal flight.

After takeoff, from Whiteman Airport (WHP), Los Angeles, California, tower personnel instructed the pilot to change radio frequency. The pilot replied that his landing gear had not fully retracted and requested to stay over the airport. The tower queried his intentions, and the pilot stated that he was going to climb to 2,500 ft and circle the airport. Tower personnel approved his request. There were no further radio transmissions from the pilot.

Witnesses in the surrounding area, and traveling on the 210 freeway, observed the airplane in a left turn. Shortly after, they observed the airplanes nose drop and spiral to the ground.

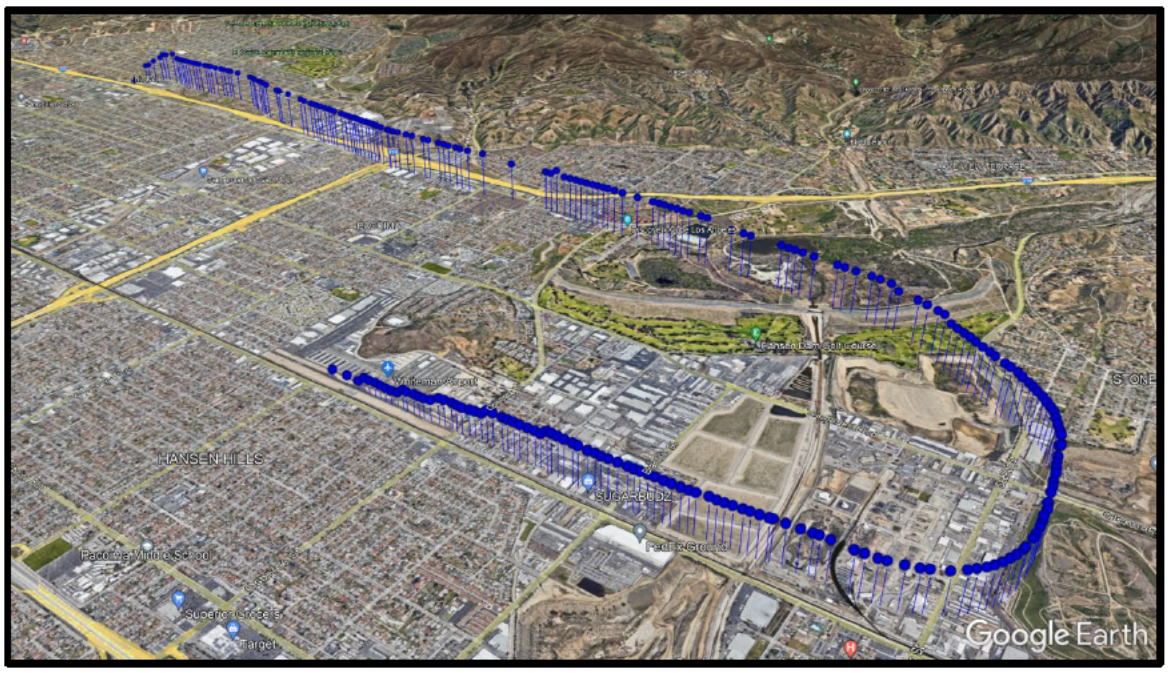

Figure 1 – Radar Track

D. DETAILS OF THE INVESTIGATION

1.0 Accident Site

The accident site was in an urban industrial area adjacent to a Southern California Edison (SCE) substation. The airplanes' left wing clipped a perimeter fence and separated from the airplane and remained near the top of the embankment. The entire airplane came to rest on a sandy embankment wedged in between two trees, in an upright, nose-low attitude about 80 ft from the westbound lanes of Interstate 210.

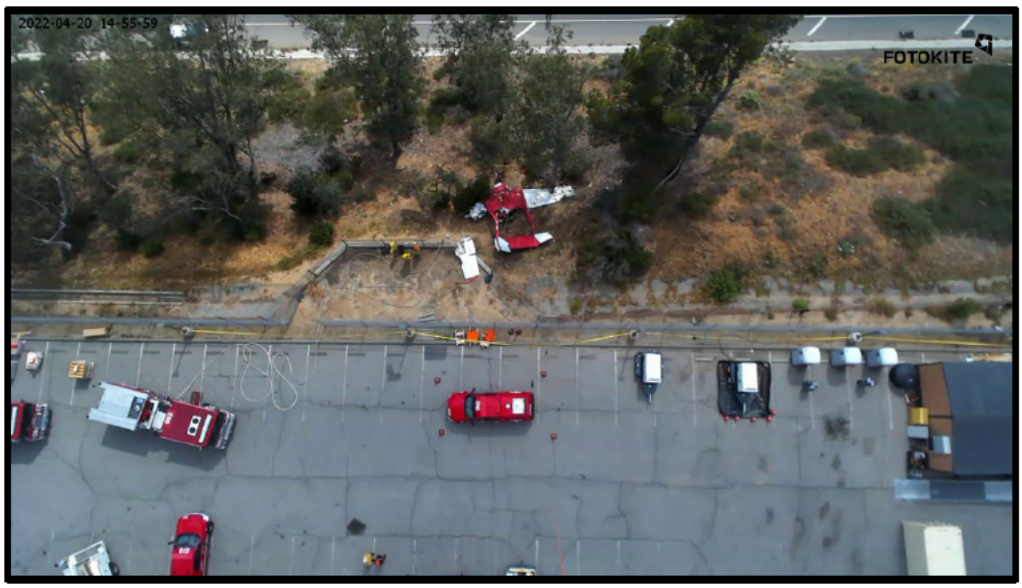

Figure 2 – Aerial View of Accident Site (Photo Courtesy of LAFD)

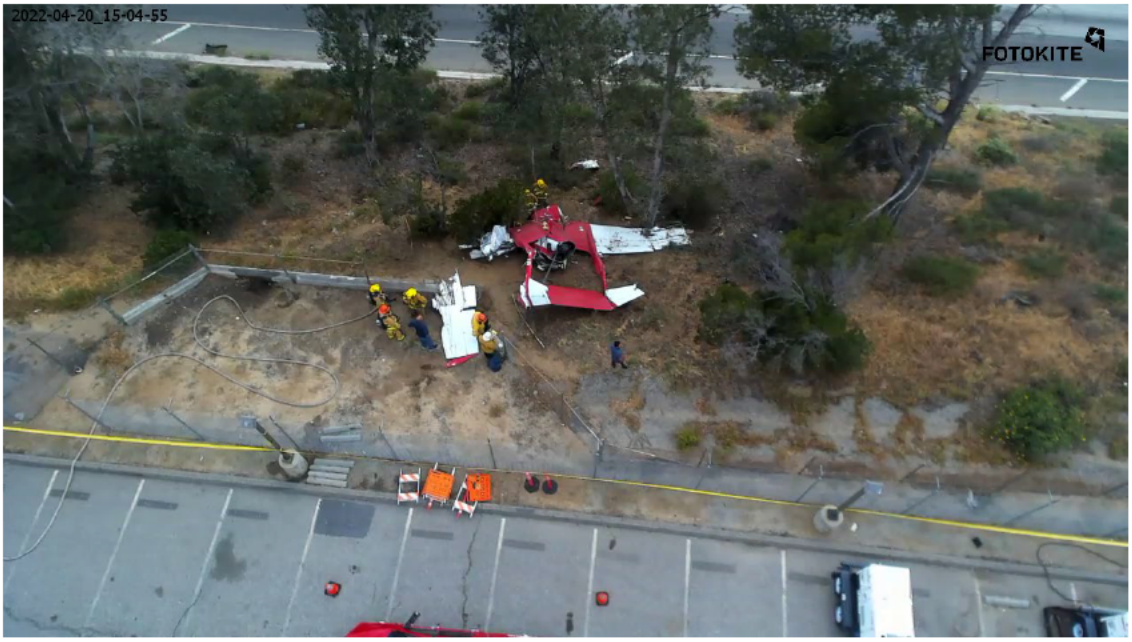

Figure 3 – Close-up Aerial View of the Accident Site (Photo Courtesy of LAFD)

2.0 Airframe Examination

The entire airplane came to rest mostly intact at the accident site. The left outboard portion of the wing struck a perimeter fence during the accident sequence, separated, and remained near the top of the embankment, above the main wreckage. Flight control continuity was established from the cockpit to each flight control surface either from movement of each control cable, or

visually. The smell of fuel was present at the accident site; the left outboard wing and inboard fuel tanks had been breached. The right-wing inboard fuel tank had not been breached and fuel was observed in the fuel tank. The right outboard fuel tank had been breached.

Figure 4 – Recovered Main Wreckage at Accident Site

The undercarriage sustained crushing damage the entire length of the fuselage.

Figure 5 – Front View of the Accident Airplane (Photo Courtesy of Textron Aviation)

Figure 6 – Right View of Accident Airplane (Photo Courtesy of Textron Aviation)

Most of the right wing remained attached to the airframe; the tip separated. The wing was crushed and sustained leading to tailing edge damage. The right tailboom was buckled and crushed to the right.

Figure 7 – Left View of Accident Airplane (Photo Courtesy of Textron Aviation)

The left tailboom remained attached to the fuselage and was buckled up and toward the right.

Figure 8 – Rear View of Accident Airplane (Photo Courtesy of Textron Aviation)

Both left and right vertical stabilizers remained attached but were canted toward the right.

Figure 9 – Aft Elevator Trim Cable (Photo Courtesy of Textron Aviation)

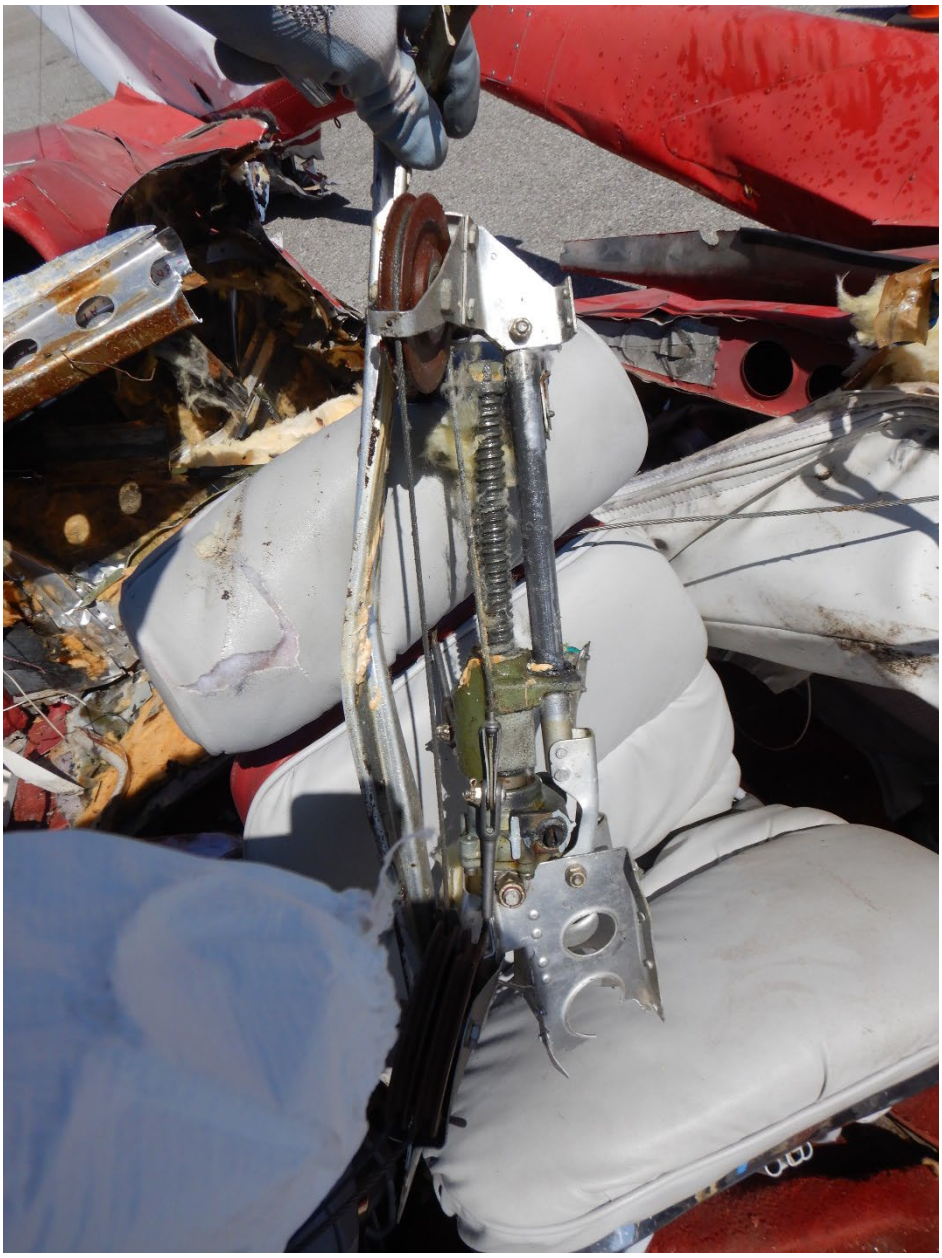

Figure 10 – Flap Motor/Actuator – Full Retracted Position – Flaps up (Photo Courtesy of Textron Aviation)

Figure 11 – Right Wing Outboard Flap Bellcrank (Photo Courtesy of Textron Aviation)

Figure 12 – Left Wing Inboard Flap Bellcrank (Photo Courtesy of Textron Aviation)

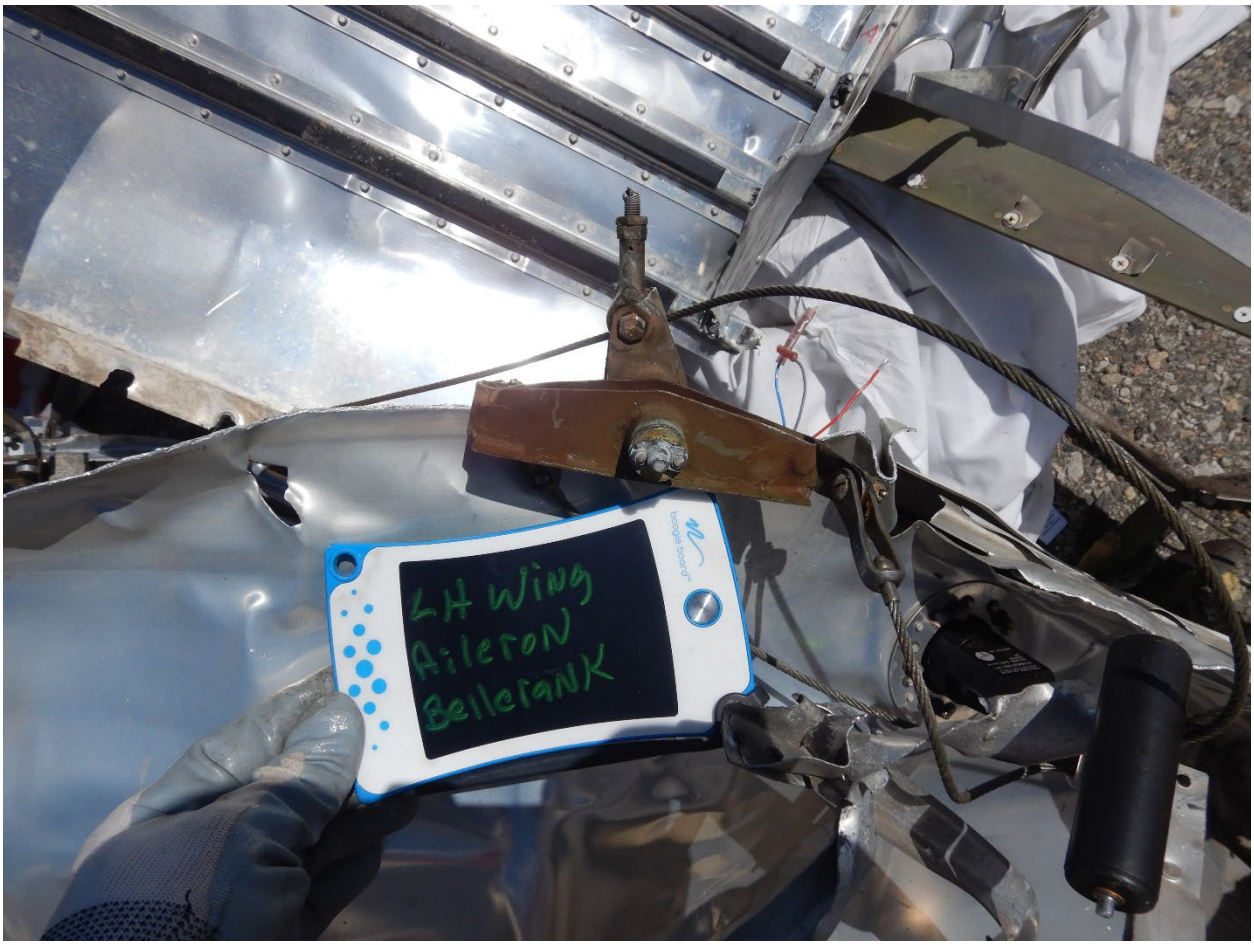

Figure 13 – Left Wing Aileron Bellcrank (Photo Courtesy of Textron Aviation)


Figure 14 – Instrument Panel (Photo Courtesy of Textron Aviation)

Instruments panel was destroyed during impact sequence.

Control Quadrant:
The front throttle position was approximately mid-range.
The rear throttle position was approximately mid-range.

The front RPM (prop) lever had separated from its mechanism.
The rear RPM (prop) lever was bent over to the left and appeared to be in the lower range.

Both mixtures levers were in the open position with the rear mixture lever not flush with the front mixture lever.

Figure 15 – Hobbs Hour Meter

Figure 16 – Fuel Selector Handles

The fuel selector handles were positioned:
Front Engine – Left Main
Rear Engine – Auxiliary tank

Figure 17 – ELT (Photo Courtesy of Textron Aviation)

3.0 Engine Examination

Forward Engine

The forward engine had separated from the airframe; the engine case remained intact with no visible holes in the case. The propeller blade assembly separated from the engine crankshaft flange.

Figure 18 – View of Forward Engine


Figure 19 – View of Forward Engine


Figure 20 - View of Accessory Section of Forward Engine

The left magneto separated from its mounting pad but remained attached via the ignition harness.

Rear Engine

The rear engine remained attached to the airframe; the engine case remained intact with no visible holes in the case. The propeller blade assembly separated from the engine crankshaft flange.

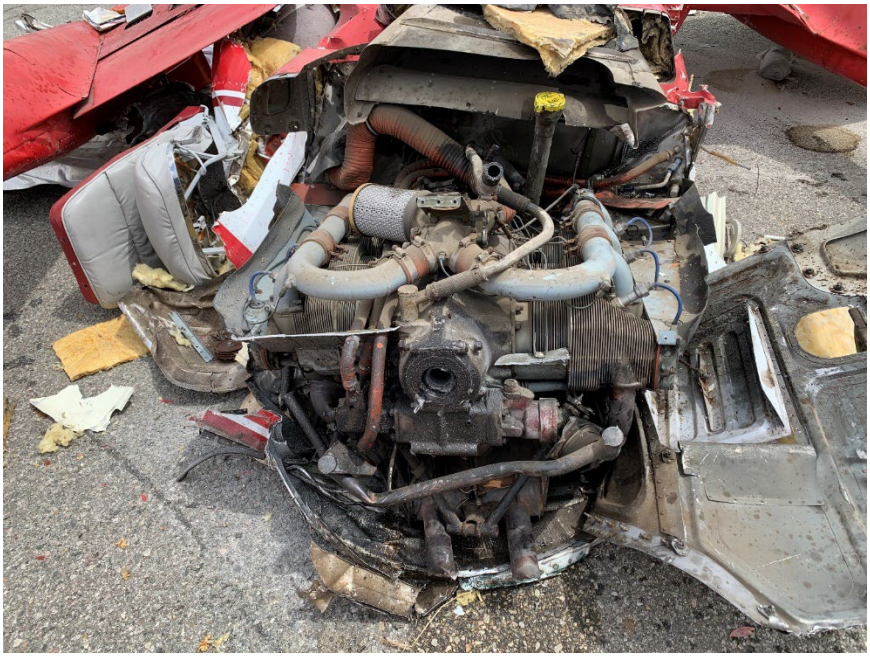

Figure 21 - View of Rear Engine

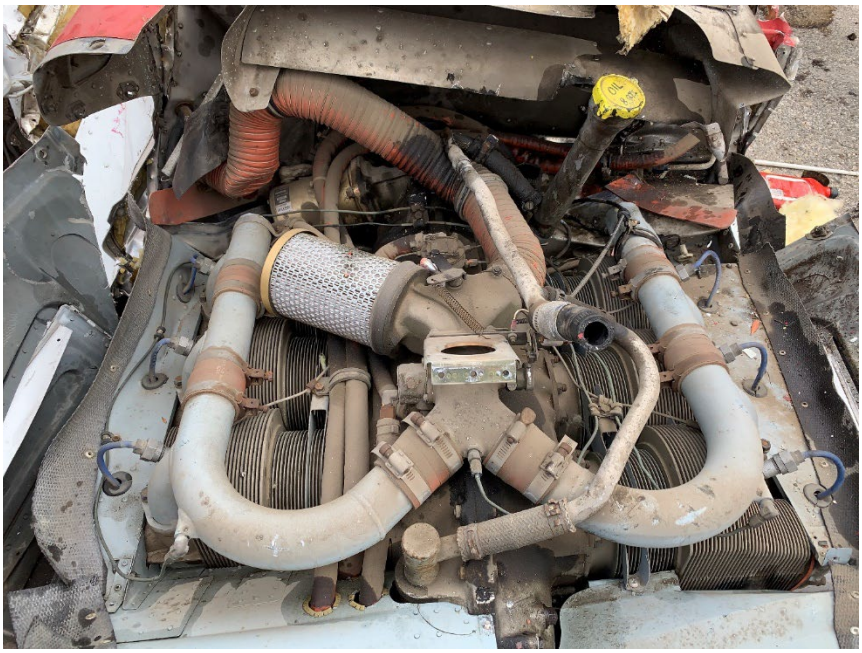

Figure 22 – Top View of Rear Engine

Figure 23 – View of Rear Engine Top Spark Plugs and Fuel Injectors

The top spark plugs for the rear engine were removed, and they were the massive electrode type. According to the Aviation Check-A-Plug Chart AV-27, the spark plug electrodes exhibited a normal worn-out appearance and were carbon and oil fouled. The fuel injector screens were free of debris.

Figure 24 – Rear Engine Driven Fuel Pump

The rear engine driven fuel pump drive shaft remained intact. A residual amount of a blue colored liquid was removed from the fuel pump.


Figure 25 – Residual Fuel from Fuel Pump

4.0 Propeller Examination

Figure 26 – Propeller assemblies for Both Engines

Forward Propeller

The forward engine propeller assembly had separated at the engine crankshaft propeller flange, with the propeller blades remaining attached at the hub. It was located underneath the engine in its relative normal position. The propeller blades were relatively straight with chordwise scratching the full length of the blades to include the cambered and face sides. The spinner showed rotational damage. The tip section of one of the propeller blades had separated.

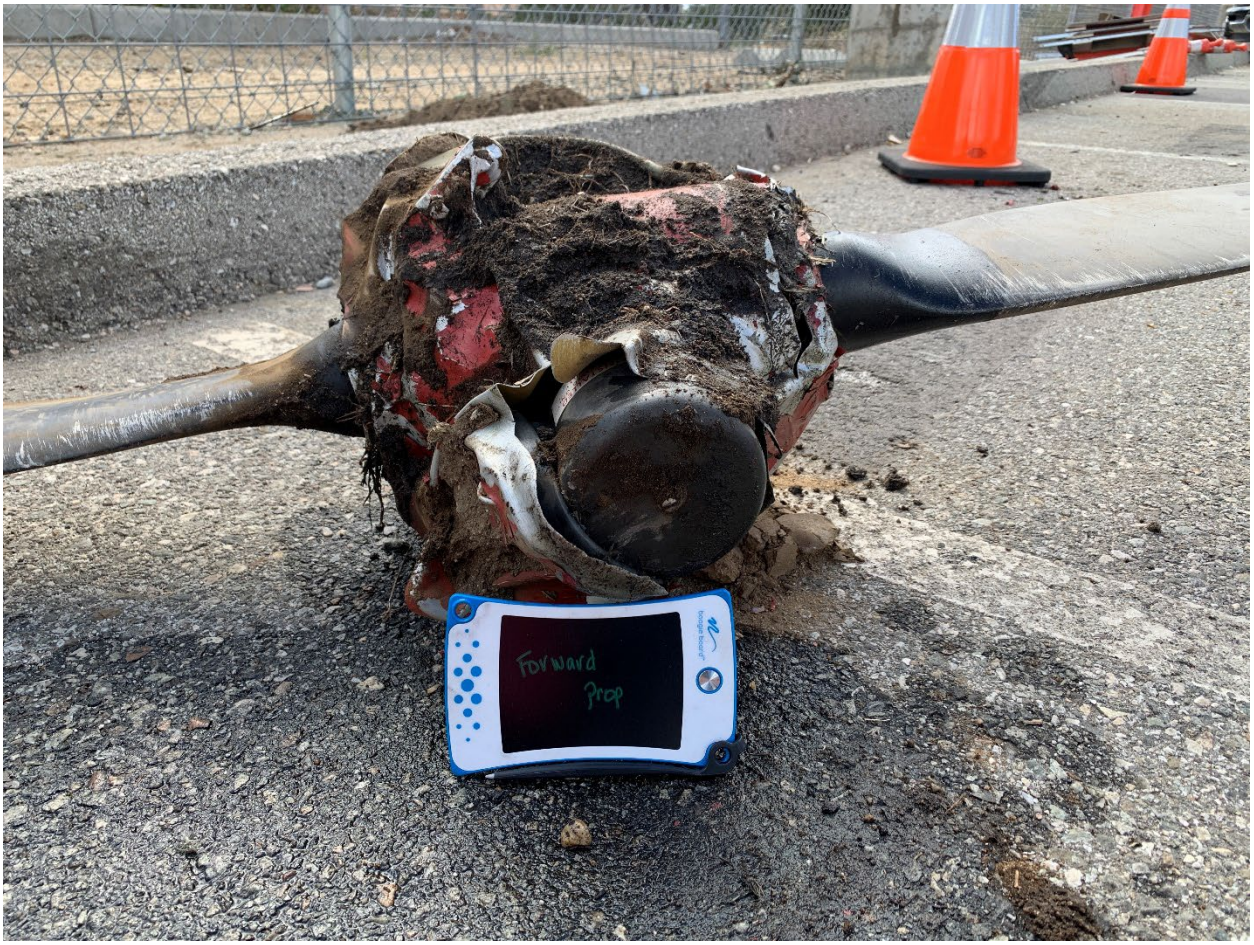

Figure 27 – Close up Forward Propeller Assembly

Figure 28 – Forward Propeller Assembly

Rear Propeller

The rear engine propeller assembly separated at the engine crankshaft propeller flange, and the spinner remained intact with minimal postcrash damage. It came to rest just forward of the right wing. The propeller blades remained attached at the hub. One propeller blade exhibited S-bending and was bent aft about mid-span; the remainder of the blade was bent forward with a tear at the leading edge.

Figure 29 – Close up Rear Propeller Assembly

Figure 30 – View of Rear Propeller Assembly

Submitted by:

Tealeye Cornejo
Air Safety Investigator (Field)