



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

July 14 & 15, 2021

ACCIDENT SITE EXAMINATION SUMMARY

WPR21FA270

This document contains 22 embedded photos.

A. ACCIDENT

Location: Monterey, California
Date: July 13, 2021
Aircraft: Cessna, 421C, N678SW
NTSB Investigator-in-Charge: Eric M. Gutierrez

B. DETAILS OF THE INVESTIGATION

1.0 Accident Site Examination

GPS Location: 36.575343, -121.825234

Elevation: 447 ft MSL

Address: [REDACTED] Monterey, CA 93940

Examination of the accident site revealed that the airplane impacted trees about 1 mile south of the departure end of runway 10R. The first identifiable point of contact (FIPC) was a 50 to 75 ft tall tree that had damaged limbs near the top of the tree. The debris path was oriented on a heading of about 067° and was about 995 ft in length from the FIPC to right engine. The main wreckage was located about 405 ft from the FIPC. Throughout the debris path, various portions of aluminum wing skin, right wing, flap, aileron, engine, propeller blades, and propeller hub were observed. Additionally, several trees were damaged throughout the debris path. Within the damaged trees, about 95 ft prior to the main wreckage, fragments of a green navigational lens were observed. The fuselage came to rest upright against a residential structure on a heading of about 045° magnetic at an elevation of 447 ft msl. The wreckage was recovered to a secure location for further examination.



Figure 1: View of accident site diagram (photo courtesy of the NTSB)



Figure 2: View of green navigational lens (photo courtesy of the NTSB)

2.0 Airframe Examination

Examination of the fuselage revealed that it was mostly destroyed by thermal and impact damage. Both wings, center section, left and right horizontal, elevators, vertical stabilizer, and rudder were separated. The fuselage came to rest upright against a residential structure on a heading of about 045° magnetic. The instrument panel was thermal and impact damaged with instruments separated. The nose landing gear was separated from the fuselage in the retracted position.



Figure 3: View of main wreckage (photo courtesy of the NTSB)



Figure 4: View of airplane instruments (photo courtesy of the NTSB)

The left wing was separated at the wing root and came to rest under the southeast corner of the residence. The left wing had various portions of the wing structure separated. The outboard section of the left wing was mostly destroyed. A section of about 3 ft leading edge with fuel cap attached exhibited thermal damage. The portion that remained attached to the center section was bent, buckled, and torn throughout. The left flap, aileron, outboard portion of the wing structure were separated. A 15-inch section of outboard left aileron and a 3 ft section of aileron trim hinge (full pin length) had thermal and impact damage. Sections of the left lower wing skin were

identified by fuel panels. A 2 ft section of leading edge exhibited extensive compression damage consistent with tree impact. The left main landing gear was separated from the wing attachment points, was in the retracted position and thermal damaged. While the landing gear was being recovered from under the residence, it was extended.



Figure 5: View of left wing location (photo courtesy of the NTSB)

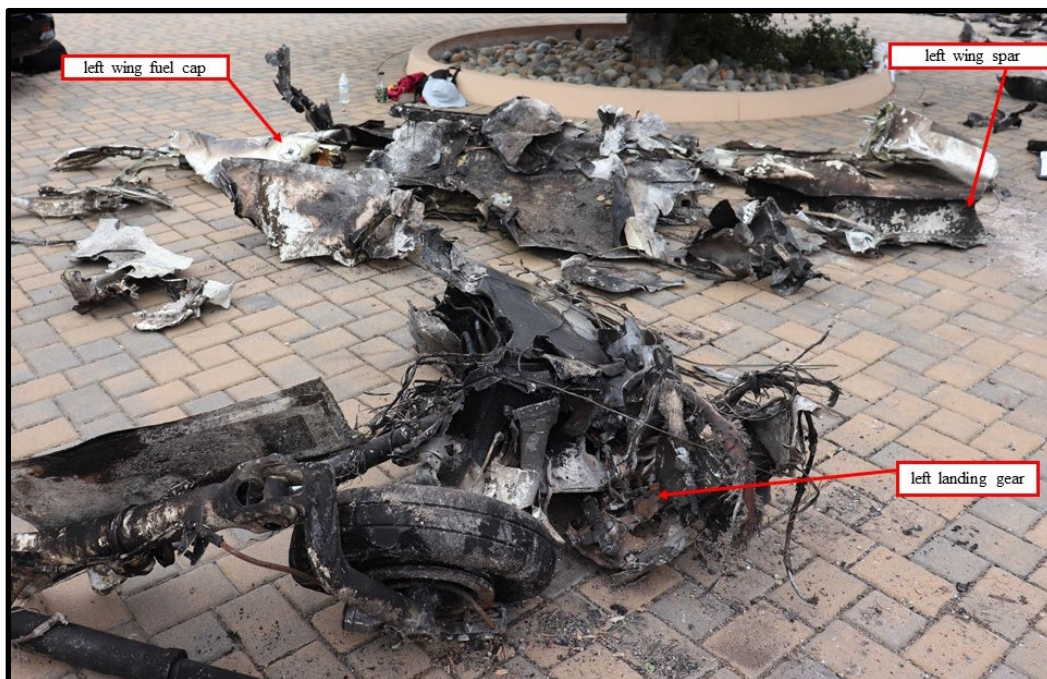


Figure 6: View of left wing (photo courtesy of the NTSB)

The right wing was separated at the wing root and came to rest in a field about 460 ft northeast of the main wreckage. The right wing had various portions of the wing structure separated. A section of about 5 ft leading edge with fuel cap attached exhibited impact damage. The portion that remained attached to the center section was thermal damaged, bent, buckled, and torn throughout. The right aileron separated and was mostly intact, however, bent and buckled throughout. The right flap separated, had thermal damage about mid span, was bent and buckled throughout. The right main landing gear was separated from the wing attachment points and was in the retracted position.



Figure 7: View of right wing in field (photo courtesy of the NTSB)



Figure 8: View of right wing (photo courtesy of the NTSB)

The empennage was separated from the fuselage and came to rest in room on the southeast corner of the residence. The vertical stabilizer was separated from the empennage, exhibited thermal damage, crushing and bending throughout. The rudder remained attached to the vertical stabilizer buy the attachment points and exhibited thermal damage, crushing, and bending throughout. The left and right horizontal stabilizers were separated from the empennage and mostly destroyed. The left and right elevators were separated from the horizontal stabilizers and mostly destroyed.



Figure 9: View of empennage location (photo courtesy of the NTSB)



Figure 10: View of vertical stabilizer and rudder (photo courtesy of the NTSB)



Figure 11: View of horizontal stabilizer and elevator (photo courtesy of the NTSB)

Flight control continuity, throttle control continuity, propeller control continuity and mixture control continuity were not established due to thermal and impact damage.

3.0 Engine Examination

Left Engine: Continental
Engine Model Number: GTSIO-520
Serial Number: 610066

The left engine was separated from the wing and came to rest adjacent to the main wreckage. All four engine mounts had fracture separated. All six cylinders remained attached, exhibited thermal and impact damage. All engine accessories, both magnetos, fuel manifold valve, intake and exhaust were separated, exhibited thermal and impact damage. The fuel manifold valve was observed in the closed position. The propeller hub and reduction gearbox were separated from the engine.



Figure 12: View of the left engine location (photo courtesy of the NTSB)



Figure 13: View of left engine (photo courtesy of the NTSB)

Right Engine: Continental GTSIO-520
Engine Model Number: GTSIO-520
Serial Number: 808275-R

The right engine was separated from the wing and came to rest in a field about 590 ft northeast of the main wreckage. All six cylinders remained attached, exhibited thermal and impact damage. All engine accessories, both magnetos, fuel manifold valve, intake and exhaust were separated, exhibited thermal and impact damage. The fuel manifold valve was intact and observed in the open position. The propeller hub and reduction gearbox were separated from the engine.

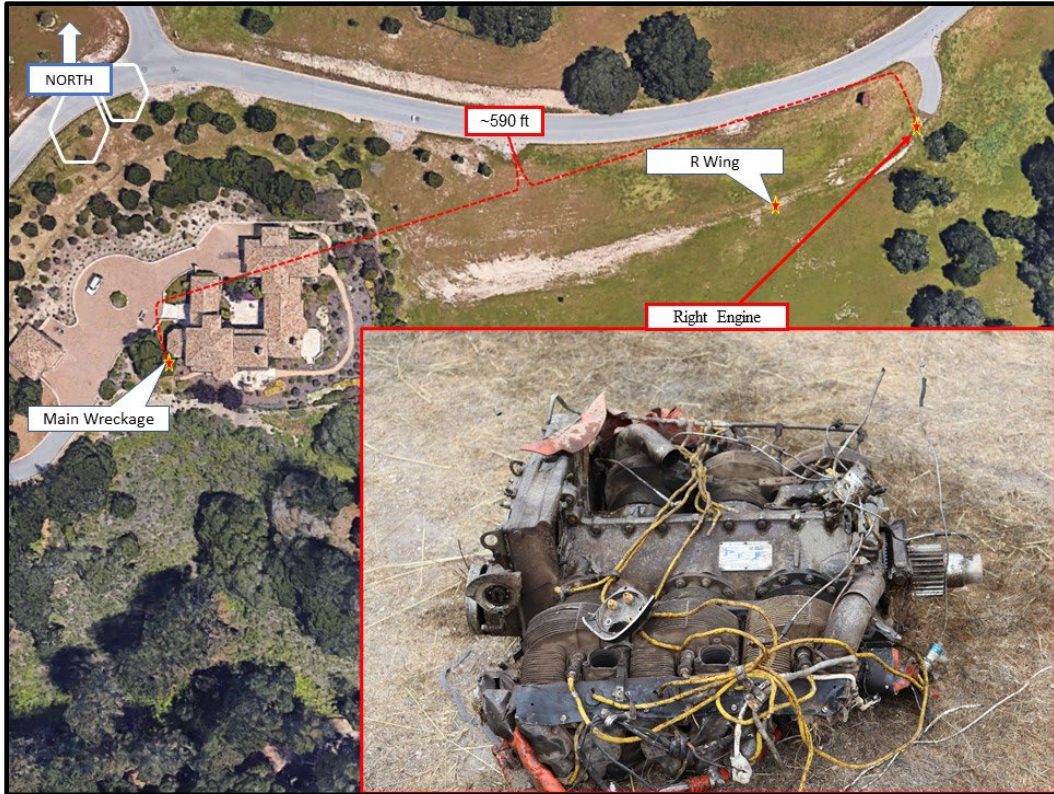


Figure 14: View of right engine location (photo courtesy of the NTSB)



Figure 15: View of right engine (photo courtesy of the NTSB)

The airplane was equipped with two, three blade McCauley propellers. Both propeller hubs separated from the reduction gearbox. Propeller blades A–C are likely the right engine propellers, propeller blades D–F are likely the left engine propellers; a review of the recovered

maintenance records could not establish positive confirmation. Propeller blade A (sr# K133404), separated from the propeller hub and came to rest about 45 ft southwest of the main wreckage. Propeller blade B (sr# K133386), separated from the propeller hub and came to rest about 10 ft south of the main wreckage. Propeller blade C (sr# K rest unreadable), separated from the propeller hub and came to rest about 30 ft southeast of the main wreckage. Propeller blade D (sr# CB 163), separated from the propeller hub and came to rest about 10 ft west of the main wreckage. Propeller blade E (sr# unknown), remained attached to the propeller hub (sr# 001202) and came to rest adjacent to the main wreckage. Propeller blade F (sr# CB 268), separated from the and came to rest adjacent to the main wreckage.

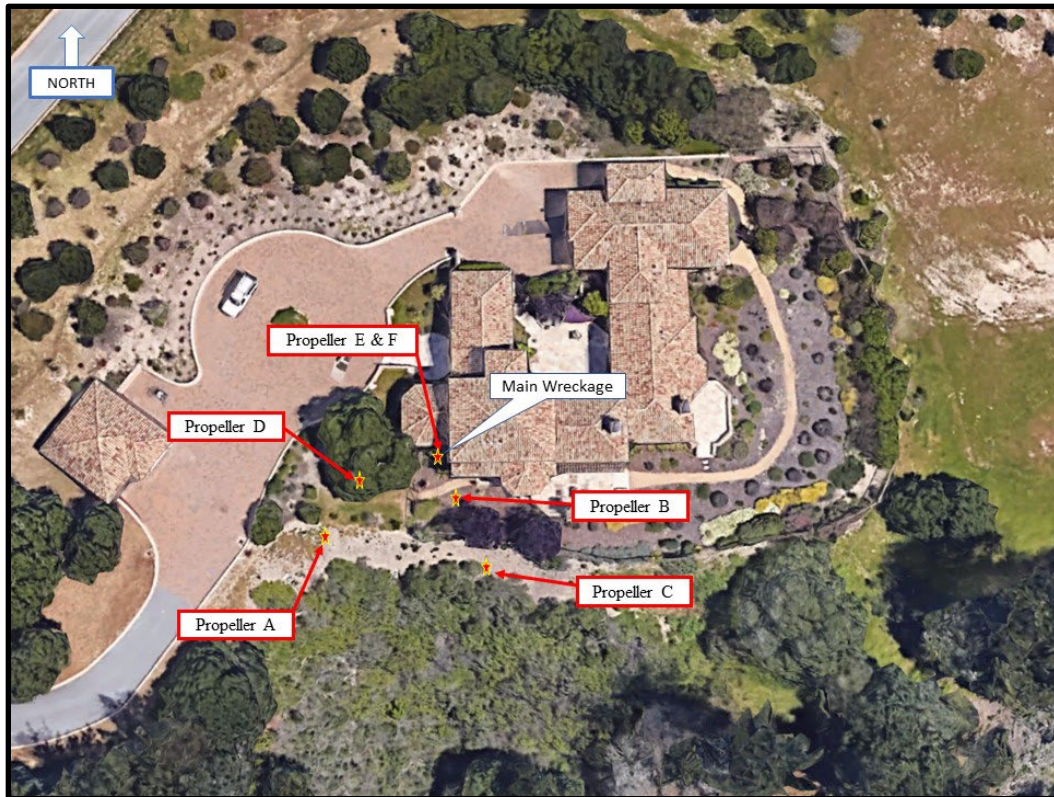


Figure 16: View of propeller locations (photo courtesy of the NTSB)

Propeller blade A exhibited bending aft near the tip, with polishing of the blade face along with chordwise striations on the cambered side of the blade. Propeller blade B exhibited bending aft about mid span with polishing of the blade face along with unidirectional striations on the cambered side of the blade. Propeller blade C exhibited bending aft near the tip, with polishing of the blade face along with chordwise striations on the cambered side of the blade. Propeller blade D exhibited impact damage on the trailing edge near mid span, with aft bending near the tip and polishing of the blade face along with chordwise striations on the cambered side of the blade. Propeller blade E remained attached to the propeller hub, exhibited S bending about mid span with polishing of the blade face along with unidirectional striations on the cambered side of the blade. Propeller blade F exhibited bending aft about mid span with polishing of the blade face along with unidirectional striations on the cambered side of the blade.



Figure 17: View of propeller blade A (photo courtesy of the NTSB)



Figure 18: View of propeller blade B (photo courtesy of the NTSB)



Figure 19: View of propeller blade C (photo courtesy of the NTSB)



Figure 20: View of propeller blade D (photo courtesy of the NTSB)



Figure 21: View of propeller blade E (photo courtesy of the NTSB)



Figure 22: View of propeller blade F (photo courtesy of the NTSB)

Submitted by: Eric M. Gutierrez