

National Transportation Safety Board

Office of Aviation Safety

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CEN22FA375

N51YX EXAMINATION REPORT

August 11, 2022

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A. ACCIDENT

Location: Maxwell, California
Date: August 9, 2022
Time: 1106 Local Time
Airplane: N51YX, Sonex Aircraft, Waix

B. N51YX EXAMINATION REPORT

IIC Michael Hodges
National Transportation Safety Board
Denver, Colorado

Party Coordinator Steven Gustison, Aviation Safety Inspector (Airworthiness)
Federal Aviation Administration
Sacramento, California

C. DETAILS OF THE EXAMINATION

1.0 Accident Site

The experimental airplane came to rest nose down in a flat dirt field on private property. The NTSB IIC, the FAA, and various members from the Colusa County Sheriff's Department responded to the accident site on August 10, 2022.

- There was the final impact point only. The airplane came to rest on a heading of about 339 degrees. The accident site elevation was about 100 ft above mean sea level.
- The airplane was destroyed from the impact sequence.
- The wings were found with about an 85-degree impact angle, down into the dirt.
- There was one person onboard, the pilot, and he sustained fatal injuries.
- There were no ground injuries.
- There were no signs of an obstacle being impacted such as a tree, tower, wires, building, etc.
- There were no propeller strikes observed on the dirt.
- A postimpact fire ensued and the wreckage sustained thermal damage.
- No signs of snarge were observed in the wreckage.
- The fuel system was destroyed.
- No residual fuel samples were obtained from the wreckage.
- The cockpit was destroyed. No cockpit readings were able to be obtained.

- The seats and seatbelts were destroyed.
- The airframe flight controls were destroyed.
- The tailwheel was found separated from the airframe. The main landing gear remained intact but with impact and fire damage.
- All major structural airframe components were located at the accident site.
- The team walked about 0.5 miles, in all directions, around the accident site, and found various pieces of the canopy and some personal items (a baseball-style hat, a screwdriver, and a burned Gatorade bottle).
- Various pieces of Plexiglas were found about 25-30 ft forward of the accident site. Several pieces of the Plexiglas displayed heat damage and black soot.
- The canopy system was destroyed.
- The pilot was removed from the wreckage after the NTSB IIC arrived. First responders cut parts of the restraint system to remove the pilot's body.
- The wreckage was recovered from the accident site for future examination work.

2.0 Airframe Examination (Sonex Aircraft, Waix, serial number W0051)

The NTSB IIC examined the experimental airframe at Plain Parts in Pleasant Grove, California, on August 11, 2022. Various staff members from Plain Parts assisted with the examination work.

- Flight control continuity was established from the cockpit to the empennage, and from the wings to the cockpit. For the cockpit, the flight controls were destroyed from the fire. The flight control hardware appeared to be intact. In the cockpit, the control rods were destroyed from the fire.
- The fuel tank was breached, and it was destroyed, along with the fuel system lines. No fuel sample was able to be obtained from the airframe.
- Both wings and the fuselage were destroyed. The empennage remained intact but with fire and impact damage.
- The cockpit was destroyed. A damaged Dynon Avionics unit was recovered.
- Various pieces of heat damage and non-heat damage windscreen pieces were laid out to be documented.
- The fuselage had fire damage.
- The emergency locator transmitter and battery were not observed.
- No cargo was observed.
- There were no preimpact mechanical malfunctions or failures with the airframe.

3.0 Engine Examination (CAMit, 33SLRE, serial number 33SLRE-0099)

The NTSB IIC examined the experimental engine at Plain Parts in Pleasant Grove, California, on August 11, 2022. Various staff members from Plain Parts assisted with the examination work.

- The engine case appeared intact. The cylinders sustained impact damage. The rear of the engine had sustained some fire damage to the main rubber belt in the rear.
- The sump sustained impact damage.
- The engine accessories appeared to be damaged from the impact.
- The oil and fuel lines were not intact.
- Cockpit to engine control continuity could not be observed due to the damage sustained.
- The engine oil level could not be determined. The oil filter was not observed.
- The spark plugs all sustained impact damage, the spark plugs could not be removed due to impact damage sustained to the cylinders.
- The crankshaft flange was able to be rotated by hand to confirm internal engine continuity with no issues noted. Rocker arm movement was confirmed on all cylinders for the intake and exhaust. All pistons moved within the cylinders and each of the accessory gears moved when the propeller was rotated by hand.
- The sump remains were removed and all internal components were found to be connected and moved when the engine was rotated.
- The magneto harness and the ignition leads all sustained impact damage.
- The exhaust system sustained impact damage and were found mostly removed from the engine.
- Both magnetos were destroyed.
- A gascolotoar was not observed.
- No fuel sample was able to be obtained from the engine.
- The carburetor was found separated from the engine. Control cables were found attached to the carburetor. The carburetor (including the inside areas) was found saturated with dirt.
- There were no preimpact mechanical malfunctions or failures with the engine.

4.0 Propeller Examination (Sensenich 62" x 54", wood - fixed pitch, serial number A67062)

The NTSB IIC examined the propeller at Plain Parts in Pleasant Grove, California, on August 11, 2022. Various staff members from Plain Parts assisted with the examination work.

- The wood propeller was destroyed from the impact sequence and the postimpact fire.
- The propeller remains were found attached to the engine.
- The spinner was found mostly intact but had impact damage.
- Propeller operation signatures could not be obtained due to the damage sustained.
- There were no preimpact mechanical malfunctions or failures with the propeller.

5.0 Maintenance Records

The airframe, engine, and propeller records were reviewed and documented. There was no evidence of any uncorrected mechanical issues listed in the maintenance records.

6.0 FAA Historical Airworthiness Records

The FAA historical airworthiness records were obtained and reviewed.

Submitted by:

Michael J. Hodges
Investigator-In-Charge