



Joshua Lindberg
Sr. Aviation Accident Investigator
Aviation Safety - Central Region

Date: April 7, 2025

Subject: CEN23LA402, N14NP Examination

Contact: Raymond Villalba, E&E Aviation, A&P mechanic

On September 4, 2023, about 1100 central daylight time, an RV-14A airplane, N14NP, was substantially damaged when it was involved in an accident near Orchard, Texas. The pilot and pilot-rated-passenger were not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

In a phone conversation with Mr. Villalba, he stated that the two original aircraft batteries were completely dead and did not show any voltage when tested with a multimeter. They also exhibited burning and melting signatures. While examining the electrical and avionics wiring, he noted that there were several wires not connected and several that had been wired incorrectly. The alternator was wired such that alternator No. 2 was the only alternator charging the batteries. He stated when the alternator No. 2 belt had failed in flight, the airplane would have been able to operate using battery power for a short period before a loss of power would occur. Since the airplane had an electronic ignition and injection system, the airplane would have experienced a loss of power when the alternator failed to charge the batteries, and the batteries ran out of adequate voltage. When he removed the No. 2 alternator and tested it, it worked as expected with no issues.

He did not find any other anomalies during the examination that would have resulted in a loss of electrical power or engine power.

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