



Michael J. Hodges
Investigator-In-Charge
Office of Aviation Safety, Central Regional Office

Date: 11/05/2025

Subject: CEN25LA401

Contact: David TerHaar
N40DT (CubCrafters CCK-2000 EX Airplane)
Owner, Builder, and Pilot

The NTSB investigator-in-charge spoke with David on the telephone about the accident involving N40DT that occurred on 09/07/2025 in Thompsonville, Michigan.

The experimental airplane was examined by Michael Thurber and David on 09/08/2025 in David's hangar which is located at the Thompsonville Airport (7Y2), Thompsonville, Michigan. Michael is an aviation safety inspector (avionics) from the FAA Grand Rapids Flight Standards District Office in Grand Rapids, Michigan.

After the accident, David recovered the airplane to his hangar at 7Y2. The airplane sustained substantial damage to both wings and the wing struts.

At the time of the accident, the airplane had accumulated 41 total hours since it was built by David from a kit in 2025.

The airplane was equipped with a CubCrafters CC363i (Lycoming Engines YIO-360-EXP128) reciprocating engine.

The engine has a dual electronic ignition system, and the engine does not have magnetos installed. The electronic ignition system is from Light Speed Engineering, part number 1.334-D-H-22.

The examination of the engine revealed a broken ring terminal for the Denso 021080-0760 12-volt alternator. David reported the broken ring terminal is from a factory-built harness from CubCrafters. The harness does not have a part number or a serial number. The harness came with the kit that David purchased.

The wire is about 10 inches long and the ring terminal is 10 AWG (American Wire Gauge). It seems the ring terminal was a cheap quality. The ring terminal cracked in place.

The ring terminal likely failed from vibrations while the engine was operating. It is possible that there might have been too much tension on the wire that the ring terminal was connected to.

For the area where the ring terminal failed by the alternator, it is not visible during a preflight inspection to a pilot, as the engine cowl covers it.

David did not encounter any issues when he installed the harness to the alternator during the build process. During his time flying the airplane in the 41 hours, prior to the accident, David did not encounter any issues with the alternator.

Since the airplane was built, he did not perform any maintenance work on the alternator.

The airplane did not accumulate enough time to require its first annual inspection for the airframe and the engine.

The backup ignition battery, which came in the kit from CubCrafters, did not hold a charge when it should have. The backup ignition battery is a Power Sonic PS-1221S (12 volt). The backup battery has a decal on it that shows "received 03/14/2023."

David suspects the reason of the backup ignition battery not holding a charge is because it is a cheaper quality battery and it is older. He reported that the battery comes with the kit, and it may take a builder some time to complete the building of the airplane, and that could easily go over a one-year timeline for example. David thinks that it would be best for these airplanes to upgrade to a good quality aftermarket backup ignition battery (instead of the one supplied in the kit from CubCrafters).

For the Garmin G3X unit in the cockpit, David will send a display photograph of the various voltage settings (showing the different color ranges and when an alert will be produced) for the airplane.

The airplane does not have insurance coverage and David has begun the repair process on the airplane.

*** Nothing Follows ***