

National Transportation Safety Board

Office of Aviation Safety
Central Region



CEN21LA156

BENCH TEST SUMMARY FOR ALTERNATOR, VOLTAGE REGULATOR, AND BATTERY

ACCIDENT

Location: Poplar Bluff, Missouri
Date: March 9, 2021
Time: 1215 CST
Latitude: 36.8544° North
Longitude: 90.4375° West
Airplane: Cessna 170A, Registration No. N9515A

PARTICIPANTS

Investigator-In-Charge	Andrew Todd Fox National Transportation Safety Board Denver, Colorado
Test Bench Technician	Robert L. Bejna RLB Accessories Addison, Illinois
Test Bench Technician	Robert "Butch" Benja RLB Accessories Addison, Illinois

BENCH TEST SUMMARY

On March 2, 2022, the NTSB IIC traveled to RLB Accessories, Addison, Illinois, to bench test the alternator, external voltage regulator, and battery.

Jasco Aircraft Alternator

Part number (p/n) 6560T
Serial number (s/n) 14007-047
50 amps

Jasco Aircraft Voltage Controller

p/n J12M20SP
s/n 1030202

Odyssey Extreme Battery

p/n PC680
s/n 0769-2016 0920
12 volts, 16 amp/hour

The alternator output was more than 30 amps at 15 volts when bench tested.

The as-received battery voltage measured 12.7 volts before it was connected to the alternator and voltage regulator per the manufacturer's wiring diagram.

The alternator, voltage regulator, and battery were tested as an assembly to verify if the voltage regulator output was sufficient to charge the battery. When tested, the voltage regulator output was 15.5 volts and the voltage at the battery increased from 12.7 volts to 14.4 volts, consistent with the battery being charged.

The voltage regulator output, 15.5 volts, was at the lowest setting (in the as-received position). The voltage regulator output increased as the adjustment potentiometer was rotated clockwise.

The testing confirmed that the alternator output to the voltage regulator was sufficient to charge the battery.