

ELECTRA SHOWCASES HYBRID-ELECTRIC AIRCRAFT IN DOD'S THUNDERSTORM 24-4

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Electra has completed another military flight demonstration of its hybrid-electric prototype aircraft. The demonstration flights were part of the Thunderstorm 24-4 “Expeditionary Operations” technology showcase sponsored by the Office of the Under Secretary of Defense for Research and Engineering in early November. An invitation-only field technology showcase, Thunderstorm 24-4 highlighted Electra’s unique dual-use technologies that support distributed operations of military forces in contested areas.

During the three-day event, Electra’s EL2 prototype aircraft conducted live overflights, offering hundreds of DoD attendees from all branches and venture capital investors a firsthand experience of its low acoustic signature. The EL2 demonstration showcased the aircraft’s ultra-quiet all-electric mode compared with a conventional aircraft.

Hank Griffiths, AFWERX Chief of Test and Evaluation, emphasized AFWERX’s role in incorporating customer feedback from the EL2 demonstration into Electra’s 9-passenger EL9 aircraft: “The EL2 aircraft’s participation at Thunderstorm demonstrated Electra’s ability to create a novel, dual-use, logistics-enabling aircraft that is also capable of quiet, expeditionary operations.

The next step is to demonstrate how these capabilities can scale with their 9-passenger aircraft.”

Electra’s EL2 validated an overflight noise level of approximately 55 dB at 500 ft, compared with 75 dB from a conventional turbine aircraft flying at the same altitude and flight path. This quieter acoustic signature, paired with hybrid-electric range and payload performance, enables tactically relevant missions with enhanced survivability.

The demonstration also highlighted the aircraft’s versatility across multiple missions such as MEDEVAC, CASEVAC, and quiet ISR, as well as the ability to charge equipment at the edge as a mobile power generator. Electra’s EL9 production aircraft will offer over 600 kW of continuous power and more than 1 MW for short bursts with no charging or infrastructure required. This enables recharging of essential communications equipment and small UAS operations in remote locations.

The Thunderstorm flights follow three earlier U.S. government flight demonstrations in 2024. In June, Electra demonstrated the EL2 prototype’s ultra short takeoff and landing capability at Marine Corps Air Facility Quantico, followed by demonstrations in July at Felker Army Airfield at Joint Base Langley-Eustis, and at NASA’s Langley Research Center.

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