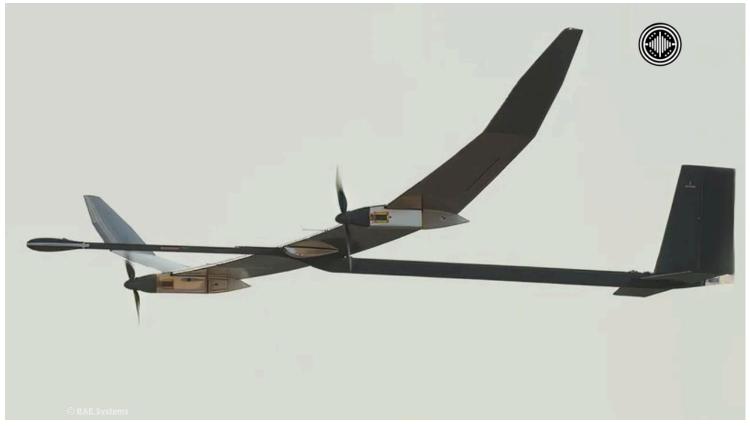
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U.S. Navy Completes Three-Day Unmanned Flight Trial with Solar Drone

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The U.S. Navy has completed a 73-hour unmanned endurance flight using the solar-powered Skydweller drone, marking a key milestone in long-duration, autonomous aviation. The flight, conducted from Stennis, Mississippi, demonstrates the potential of solar-electric propulsion and autonomous control in future naval intelligence and surveillance operations.

The Skydweller drone, developed by Skydweller Aero, flew continuously for over three days using solar panels and backup batteries. The platform autonomously managed power, navigated changing weather, and maintained stable communications throughout the mission. It completed the test without the need for refuelling or direct human intervention.

Rear Admiral Todd Evans of the Naval Air Warfare Center Aircraft Division praised the trial as a result of successful collaboration between government and industry. He highlighted the technological achievement as a reflection of the Navy's growing engineering capabilities. Bill Macchione, who leads Special Purpose Unmanned Aircraft Systems (UAS) at NAWCAD, added that Skydweller is expected to become a critical part of a resilient, layered surveillance network.

The drone is capable of operating above 45,000 feet at approximately 100 knots. Its 72-meter wingspan airframe is constructed from carbon fibre and can carry up to 800 pounds of sensors and mission equipment. The energy management system sustained a positive balance during the entire flight, confirming its suitability for extended operations during both day and night.

Originally tested in 2020, Skydweller has been evaluated by the Navy for missions aligned with U.S. Southern Command objectives, including maritime patrol, counter-smuggling, and border surveillance. Future trials will assess performance across the Caribbean and parts of Central and South America under operational conditions.

The trial positions Skydweller as one of the Navy's leading candidates for persistent, unmanned surveillance. It joins a class of endurance platforms, such as the ULTRA program, that aim to deliver extended ISR

(intelligence, surveillance, and reconnaissance) without relying on traditional fuel or crewed operations.

Navy officials plan additional evaluations later this summer, aiming to integrate Skydweller into broader surveillance architecture. The successful flight illustrates the growing role of energy-efficient, autonomous systems in strengthening maritime situational awareness and extending operational reach without the logistical burden of frequent resupply or piloted flight.