

## AIRCRAFT

# Global Observer successfully completes first flight

By Darren Quick  
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*Global Observer takes to the air for the first time*

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After AeroVironment's recent announcement that its [Global Observer](#) unmanned aircraft system (UAS) had successfully completed a series of [Wing Load tests](#) the team apparently wasted no time getting the craft in the air for its maiden flight. On August 5 Global

Observer 1001 took off from Edwards Air Force Base (EAFB) in California and climbed to an altitude of 4,000 feet where it performed a series of maneuvers before landing successfully one hour later.

The aircraft was operated remotely from the portable Launch and Recovery Element (LRE) by AeroVironment's chief test pilot, Andy Thurling, a retired U.S. Air Force Lieutenant Colonel and former USAF flight test pilot. Thurling successfully guided the aircraft through a pre-determined flight path as the first step in a flight test campaign that will gradually demonstrate increasing flight endurance and operating altitude.

The first flight saw the hybrid-electric aircraft flying under battery power but it will ultimately carry a liquid hydrogen-fueled propulsion system to power it through high altitude, long endurance joint operational utility assessment planned for later this year. When flying in its battery-powered test configuration or in its liquid hydrogen-fueled operational configuration the air vehicle's propulsion system produces no carbon emissions.



*Global Observer*

“This flight marks the beginning of an exciting new phase in the Global Observer technology demonstration program, and it represents a significant leap forward in the evolution of airborne communications and sensor platforms,” said Tim Conver, AV’s

chairman and chief executive officer. “In the 20th century conventional airplanes opened the lower atmosphere to practical use, and satellites did the same for space. I believe that Global Observer soon will establish the stratosphere as a valuable and practical area of operation.”

Each aircraft in a Global Observer system is designed to fly at an altitude of between 55,000 and 65,000 feet for 5 to 7 days. In addition to flying above weather and above other conventional aircraft, operation at these altitudes permits communications and sensor payloads on the aircraft to service an area on the surface of the earth up to 600 miles in diameter, equivalent to more than 280,000 square miles of coverage. Equipped with payloads that are readily available today, two Global Observer aircraft would alternate coverage over any location on the globe every 5 to 7 days.

The joint test team is now preparing communications and intelligence, surveillance and reconnaissance (ISR) payloads for aircraft integration. Once development flight tests are complete, payloads will be installed and joint operational utility flight demonstrations will be performed at EAFB.

Via [AeroVironment](#)

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**Darren Quick**

Darren's love of technology started in primary school with a Nintendo Game & Watch Donkey Kong (still functioning) and a Commodore VIC 20 computer (not still functioning). In

high school he upgraded to a 286 PC, and he's been following Moore's law ever since. This love of technology continues as Managing Editor of New Atlas.