

Zephyr S drone may be satellite contender as Airbus sets endurance record

12 August 2018, by Nancy Owano



Credit: Airbus

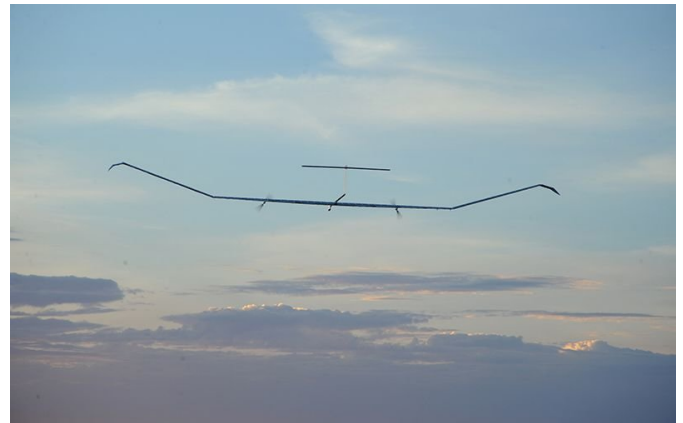
A drone has set an endurance record that has made headlines. Specifically, *The Engineer* and other sites reported it was in the air for 25 days, 23 hours and 57 minutes. The UK-built pilotless drone took off from Arizona and safely landed. Reports said the flight broke a previous endurance record of 14 days.

This is the Airbus SE's Zephyr spy drone, its first production version. Zephyr is a High Altitude Pseudo-Satellite (HAPS). The Zephyr operates in the stratosphere (the second layer of the atmosphere as you go upward). "The Zephyr [operates](#) at an altitude above the planet's weather systems where only the Concorde, the U2 spy plane and Mach 3 SR-71 Blackbird previously flew," Christopher Jasper said in *Bloomberg*.

Other than setting an [endurance record](#), the talking points of this drone center around its being a less costly alternative to conventional satellites—and more [nimble](#). The key words are satellite NOT; it fulfills the role of the satellite, though. The pseudo word is apt, in staying aloft to work like a [satellite](#). *The Economist* said the "solar-

powered aircraft of this sort can compete with satellites in the markets for Earth observation and telecommunications."

Airbus said this was "The first unmanned aircraft of its kind to fly in the stratosphere." As for solar features, Airbus said that Zephyr runs on solar power, "above the weather and conventional air traffic. It is a HAPS: a High Altitude Pseudo Satellite."



Credit: Airbus

A popular talking point has been its light weight—75 kilos (165 pounds). It has a 25-meter wingspan (82 feet). *The Economist*: "the craft... lacks an undercarriage—or, indeed, anything else that would add unnecessary [weight](#)."

The Engineer said the carbon [fibers](#) for its construction were thinner than a human hair.

Jasper in *Bloomberg* said the construction was so light, that it can be hand-launched by three people. The company made note of "flexibility" in this regard. "Zephyr's launch requirements are simple compared to traditional aviation. No runway, no

airport."

What's next? According to *The Economist*, a base at Wyndham, Western Australia, will open later this year.

Several reports quoted Airbus on plans. "We will in the coming days check all engineering data and outputs and start the preparation of additional flights planned for the second half of this year from our new operating site at the Wyndham airfield in Western Australia," said Airbus' Jana Rosenmann.

Applications discussed involve remote communications, maritime surveillance, border patrols, gauging environmental change and monitoring the spread of wildfires and oil spills.

Marco Margaritof in *The Drive* saw the Zephyr S as good news on three levels. "Ultimately, this is a huge boon to rural and remote [areas](#) in desperate need of stable cellular and internet service, Airbus as a drone company, and the entire UAV industry at-large."

More information:

www.airbus.com/defence/uav/zephyr.html

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