



DEFENCE AND SPACE

Zephyr

Focus of an aircraft.
Endurance of a satellite.

AIRBUS

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Endurance of a Satellite

Zephyr is a High Altitude Pseudo-Satellite (HAPS).

Unique, Proven Technology

Zephyr delivers a truly unique, real-time pseudo satellite capability to provide wide area persistent presence at low through-life cost. Running exclusively on solar power, Zephyr flies at about 65,000 ft, above the weather and other air traffic. It flies autonomously for months, filling a capability gap between satellites and Unmanned Aerial Systems (UAS) by providing an affordable, adaptable and persistent solution. Airbus has a unique, demonstrated lead in the design, build and operation of HAPS allowing low risk access to a world class development and the ability to continuously evolve with advances in payload technology.

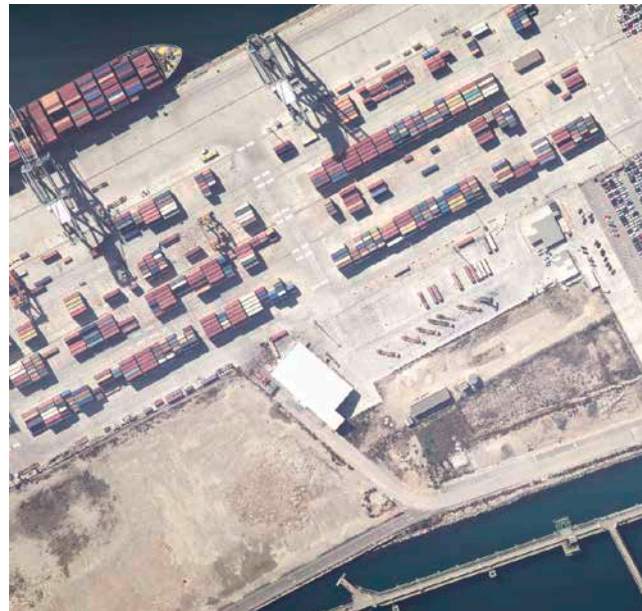
World Record Holder for Endurance

Zephyr has already flown safely for over 900 hours, proving Airbus' technology. Zephyr holds 3 World records including the endurance record of 14 days – which is several times longer than any other UAV.

Furthermore, Zephyr is the only vehicle to have demonstrated sustainable, unmanned, solar powered flights.

Offers a Range of Payloads

Zephyr provides continuous surveillance, communications and monitoring services across areas of tens of thousands of square kilometres. Airbus has developed proven high-resolution imaging and high bandwidth communication services and is developing ever more capable payloads to further improve the range and value of services available. As technology advances, Zephyr can be landed and re-equipped to take full advantage of the next generation of payloads and re-deployed in short timescales.



15cm resolution from 60,000 feet altitude

Key Features

- Autonomous, high reliability platform
- Exclusively solar powered – no fuel limitation on flight endurance
- Operating at altitudes above the weather and conventional air traffic
- Low vibration and structural loads to allow high efficiency, lightweight payloads
- Operable globally as a “Constellation” – markedly reducing operating costs
- World's most advanced and only flight proven HAPS
- Over 14 continuous days of flight – longer than any other High Altitude UAV
- Not constrained by the flying hours limitation of manned flying vehicles
- Designed and tested to allow routine flight clearance by military and civil authorities

Performance and Specification



Zephyr S



Zephyr T

	Zephyr S	Zephyr T
Description	Next generation of the world record setting Zephyr providing greater operational flexibility	Advanced power system to improved endurance and allow year round routine operations. Enlarged platform with increased payload capability
Wingspan	25 m	> 32 m
Weight	62 - 65 kg	145 kg
Availability	2017/2018	From 2020
Example payload capabilities	HD Optical / IR Video NIIRS 6 imagery AIS Narrowband mobile comms (e.g. Tetra) 100 Mbps broadcast	NIIRS 8 imagery RADAR LIDAR ESM/ELINT Broadband Comms
Flight Clearance	Military and civil flight approved	Certified for routine flight operations