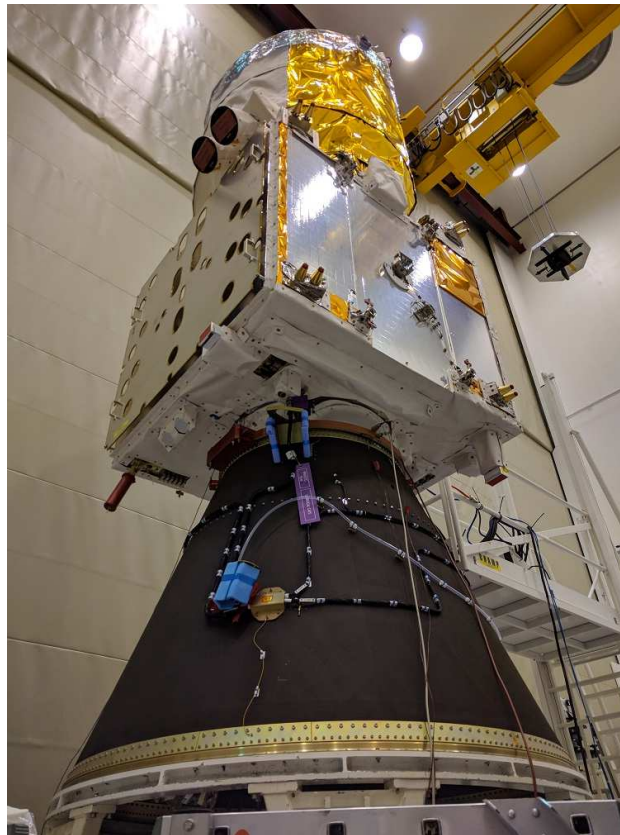


Photo Release

SPACE SYSTEMS

Airbus-built Aeolus wind sensor satellite ready for shipment

First ever satellite able to perform global wind component profile observation
ESA's Aeolus will provide measurements on a daily basis in near real-time to improve the accuracy of weather forecasts



Legend: ESA's spacecraft Aeolus, built by Airbus is now ready for launch

Toulouse, 05/06/2018 - Aeolus, the European Space Agency's wind sensing satellite, is now ready for its upcoming launch. It will be shipped across the Atlantic on the Airbus vessel "Ciudad de Cádiz" to Kourou, French Guiana, where a Vega launcher will send it to orbit on 21 August. The instrument is so sensitive that it could be damaged by a sudden loss of pressure. For this reason, air transportation has to be avoided and for the first time Airbus will transport one of its satellites on-board its own vessel.

The 1.33-tonne spacecraft, primed by Airbus, features the first ever space-borne LIDAR (Light Detection And Ranging) instrument called Aladin, which uses the Doppler effect to determine the wind speed at varying altitudes.

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Aladin fires a powerful ultraviolet laser pulse down through the atmosphere and collects backscattered light, using a large 1.5m diameter telescope, which is then analysed on-board by highly sensitive receivers to determine the Doppler shift of the signal from layers at different heights in the atmosphere.

“Aeolus is a world first with break-through technology that will make a huge contribution to weather forecasting on a global scale. Pioneering a LIDAR instrument in Space is quite a challenge – but a great example of what Europeans can achieve when we work together!”, said Nicolas Chamussy, Head of Space Systems at Airbus.

The data from Aeolus will provide reliable wind-profile data on a global scale and is needed by meteorologists to further improve the accuracy of weather forecasts and by climatologists to better understand the global dynamics of Earth’s atmosphere.

Aeolus will orbit the Earth 15 times a day with data delivery to users within 120 minutes of the oldest measurement in each orbit. The orbit repeat cycle is 7 days (every 111 orbits) and the spacecraft will fly in a 320 km orbit for three years.

About Airbus

Airbus is a global leader in aeronautics, space and related services. In 2017 it generated revenues of € 59 billion restated for IFRS 15 and employed a workforce of around 129,000. Airbus offers the most comprehensive range of passenger airliners from 100 to more than 600 seats. Airbus is also a European leader providing tanker, combat, transport and mission aircraft, as well as one of the world’s leading space companies. In helicopters, Airbus provides the most efficient civil and military rotorcraft solutions worldwide.

Media contacts

Ralph Heinrich	+49 (0)171 30 49 751	ralph.heinrich@airbus.com
Jeremy Close	+44 (0)7766 536 572	jeremy.close@airbus.com
Guilhem Boltz	+33 (0)6 34 78 14 08	guilhem.g.boltz@airbus.com
Francisco Lechón	+34 630 196 993	francisco.lechon@airbus.com