

## Press Release

SPACE SYSTEMS

### **ESA's Aeolus wind sensing satellite successfully launched from Kourou**

Airbus-built Aeolus satellite to map Earth's wind in real-time

Kourou, 22/08/2018 - Aeolus, the European Space Agency's wind sensing satellite, built by Airbus, has been successfully launched from Kourou, French Guiana. The satellite will now undergo a series of tests in its operational orbit at 320km before beginning operations.

Built by Airbus, Aeolus is the first satellite capable of performing global wind-component-profile observation on a daily basis in near real-time.

The 1.4-tonne spacecraft features a LIDAR (Light Detection And Ranging) instrument called Aladin, which uses the Doppler effect to determine the wind speed at varying altitudes.

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.

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.

Nicolas Chamussy, Head of Space Systems at Airbus said: "Aeolus is another first for Airbus, delivering a revolutionary Earth observation satellite that will give wind profile data in near real time, improving weather forecasting and helping to bring the benefits of space down to every citizen on Earth."

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 have a lifetime of three years.

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#### **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,

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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

Mathias Pikelj	+49 (0)162 2949 666	<a href="mailto:mathias.pikelj@airbus.com">mathias.pikelj@airbus.com</a>
Jeremy Close	+44 (0)7766 536 572	<a href="mailto:jeremy.close@airbus.com">jeremy.close@airbus.com</a>
Guilhem Boltz	+33 (0)6 34 78 14 08	<a href="mailto:guilhem.g.boltz@airbus.com">guilhem.g.boltz@airbus.com</a>
Francisco Lechón	+34 630 196 993	<a href="mailto:francisco.lechon@airbus.com">francisco.lechon@airbus.com</a>