Space Systems

Airbus delivers new life support system for the ISS
ACLS technology demonstrator generates oxygen and water in a closed system

Friedrichshafen, 19/03/2018 – Airbus has delivered the ACLS (Advanced Closed Loop System), an advanced life support system to purify air and produce oxygen for the International Space Station (ISS). The system also produces water, more or less as a by-product of the technology. ACLS was developed by Airbus for the European Space Agency (ESA) and is set to be used as a technology demonstrator on the ISS from summer 2018.

The ACLS extracts a portion of the carbon dioxide in the cabin atmosphere and, using hydrogen obtained from splitting water molecules, converts it to methane and water in what is known as the Sabatier process. Oxygen is then produced from this water using electrolysis. This increases overall system efficiency and reduces the need for supplies from Earth.

The ACLS will now be installed in the HTV-7 space transporter at the Tanegashima Space Center in Japan and is due to be transported to the ISS in August 2018.

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About Airbus
Airbus is a global leader in aeronautics, space and related services. In 2017 it generated revenues of € 67 billion 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.

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