3AF MP

The European Space Agency Awards Two Studies to EADS Astrium

PHILIPPE MAIRET, 3AF MP AND DOUGLAS YAZELL, EDITOR

The European Aeronautic Defense and Space Company (EADS) Astrium has been selected by the European Space Agency (ESA) to conduct two studies, both to be complete, if possible, before the meeting of the ESA member states at the next Ministerial Council in November 2012.

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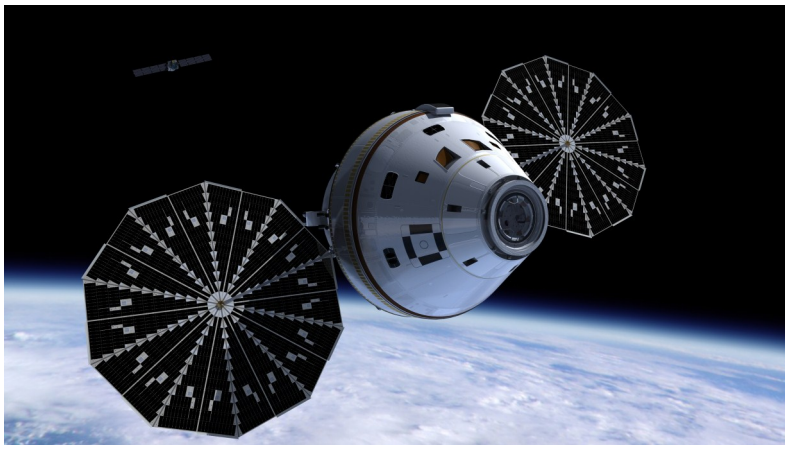

Left: Orion MPCV and its service module with solar panels attached to the service module. Image credit: NASA Glenn Research Center (GRC).

Our French sister section is 3AF MP, l'Association Aeronautique et Astronautique de France, Midi-Pyrenees chapter, www.3af-mp.fr. More information was on our web page at www.aiaa-houston.org, and as of July 1, 2012, that web site is moving to www.aiaahouston.org. Click on technical committees, then International Space Activities Committee (ISAC). The ISAC is chaired by Ludmila Dmitriev-Odier. See the Section News page of this issue for the 3AF MP organization chart.

ISS030-E-175090 (28 March 2012) --- European Space Agency's Edoardo Amaldi"Automated Transfer Vehicle-3 (ATV-3) approaches the International Space Station. The cargo spacecraft docked to the space station at 6:31 p.m. (EDT) on March 28, 2012, delivering 220 pounds of oxygen, 628 pounds of water, 4.5 tons of propellant, and nearly 2.5 tons of dry cargo, including experiment hardware, spare parts, food and clothing. Image credit: NASA.

The AIAA Houston Section logo is a preliminary version in work as of June 29, 2012.

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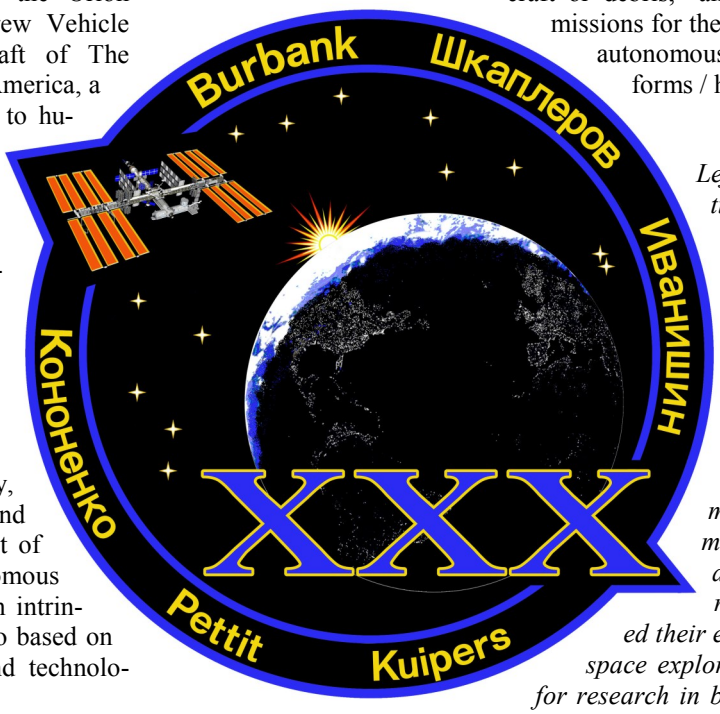
The first study will, "… explore different service module solutions for the Orion Multi-Purpose Crew Vehicle (MPCV) spacecraft of The United States of America, a vehicle dedicated to human spaceflight exploration. These solutions will be based on technologies developed for the service module of [ESA's] Automated Transfer Vehicle (ATV)."

The second study, "…will identify and define the concept of [a new] autonomous spacecraft with an intrinsic versatility, also based on the know-how and technologies of the ATV." The adjustments made to this vehicle will ensure it many future missions, mainly in the areas of, "transport missions to infrastructure in Low Earth Orbit (LEO)", "in-orbit service missions targeting a spacecraft or debris," and "supply missions for the benefit of autonomous platforms / habitats."



Left: ISS030-S-001 (April 2011) --- The International Space Station (ISS) program is completing the transition from assembly to full utilization as humankind celebrates the golden anniversary of human space exploration. In recognition of these milestones and especially of the contribution of those whose dedication and ingenuity make spaceflight possible, a fully assembled ISS is depicted rising above a sunlit Earth limb. Eastward of the sunlit limb, the distinctive portrayal of Earth's surface illuminated by nighttime city lights is a reminder of mankind's presence on the planet, most readily apparent from space only by night, and commemorates how human beings have transcended their early bonds throughout the previous 50 years of space exploration. The ISS, a unique space-based outpost for research in biological, physical, space and Earth sciences, in the words of the crew members, is an impressive testament to the tremendous teamwork of the engineers, scientists and technicians from 15 countries and five national space agencies. The six crew members of Expedition 30, like those who have gone before them, express that they are honored to represent their countries and the ISS team in conducting research aboard the station and adding to the body of knowledge that will enable the world's space faring countries to more safely and more productively live, work and explore outer space, paving the way for future missions beyond low Earth orbit, and inspiring young people to join in this great adventure. Image credit: NASA.

Left: JSC2011-E-120614 (20 Sept. 2011) --- European Space Agency astronaut Andre Kuipers, Expedition 30/31 flight engineer, poses for a portrait following an Expedition 30/31 preflight press conference at NASA's Johnson Space Center. Image credit: NASA.