



Thales Alenia Space signs with European Space Agency the Space Rider preliminary development contract

A successor to the IXV reentry demonstrator, Space Rider is Europe's next-generation reusable transportation system for low Earth orbit

Paris, November 30, 2017 – Thales Alenia Space (Thales 67 %, Leonardo 33 %), with ELV (European Launch Vehicle - 70% Avio SpA, 30% ASI) as co-contractor, has signed a contract with the European Space Agency (ESA) for the engineering and preliminary development of the automated reusable Space Rider transportation system, designed for deployment by the new Vega C light launcher into low Earth orbit (LEO).

The goal of Space Rider is to provide Europe with an affordable, independent, reusable end-to-end integrated space transportation system for unmanned missions and for routine access and return from low orbit. It will be used to transport a variety of payloads into different LEO altitudes and inclinations.

Featuring a lifting body configuration, Space Rider is designed as a free-flying orbital platform, capable of remaining two months in orbit, safely reentering the atmosphere and landing. It can be recovered along with its payload, refurbished, and reused for up to six missions. It combines the characteristics of a space system designed for scientific experiments in low Earth orbit with those needed for guidance outside the atmosphere and through an automated landing, including microgravity experiments, in-orbit validations, testing of science and exploration technologies, etc., plus payload recovery on the ground for examination and retesting.

It follows ESA's Intermediate eXperimental Vehicle (IXV) which on 11 February 2015 performed a flawless suborbital flight with atmospheric reentry and sea landing.

Leading a consortium of European manufacturers, research centers and universities, Thales Alenia Space is responsible for the development of the reentry module (RM), derived from the IXV. ELV is in charge of the development of the service module, derived from the Vega C upper stage AVUM (Attitude and Vernier Upper Module). The partners in this new program are capitalizing on the lessons learned from the IXV, which enjoyed strong support from the Italian space agency ASI.

“For Europe, Space Rider represents a major step forward in our reentry vehicle road map,” said Donato Amoroso, CEO of Thales Alenia Space Italy. “It will be reusable, paving the way to larger and more challenging applications, including reusable stages, point-to-point flights, spaceplanes and even space tourism. The contract signed today confirms Thales Alenia Space's leading role in atmospheric reentry, since it combines the capabilities of orbital free-flying satellite platforms with reusability.”



About Thales Alenia Space

Drawing on more than 40 years of experience and an unrivaled combination of skills, expertise and cultures, Thales Alenia Space designs and delivers innovative solutions for space-based communications, navigation, Earth observation, environmental management, exploration, science and orbital infrastructures. Governments and private industry alike count on Thales Alenia Space to design, build and deliver satellite systems that cover the full spectrum of applications: locate and connect people and objects around the world; observe our planet, make optimum use of the Earth's resources and explore the Solar System... and more. Thales Alenia Space firmly believes that space expands people's horizons to build a better and more sustainable life on Earth. Thales Alenia Space is a joint company between Thales (67%) and Leonardo (33 %), and along with Telespazio forms the Space Alliance, enabling it to provide a complete range of products and services. Thales Alenia Space recorded sales of about 2.4 billion euros in 2016 and has 7,980 employees in nine countries.

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