

EXOMARS 2020

Thales Alenia Space signs contract with ESA to complete activities for the 2020 mission to search for life on the Red Planet

Rome, December 16, 2016 – Thales Alenia Space, the joint venture between Thales (67%) and Leonardo-Finmeccanica (33%), announced today that it has signed the contract with the European Space Agency (ESA) to complete activities concerning the ExoMars 2020 mission.

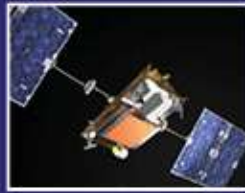
The signing ceremony took place in Ottogona hall at the Roman Museum of the Baths of Diocletian during the opening of an exhibition on Mars organized by the Italian space agency ASI in collaboration with the Ministry of Cultural and Artistic Heritage. Attending the ceremony were David Parker, ESA's Director of Human Spaceflight and Robotic Exploration, Roberto Battiston, President of ASI, Mauro Moretti, CEO and General Manager of Leonardo-Finmeccanica SpA, and Donato Amoroso, CEO of Thales Alenia Space Italy and Deputy CEO of Thales Alenia Space.

Following recent decision by the ESA Ministerial Council to approve additional funding needed to pursue ExoMars programme, this last tranche of the industrial contract awarded to Thales Alenia Space, prime contractor, marks a key step forward to carry out final work for the ExoMars 2020 mission. ExoMars is a joint program between ESA, the Russian space agency Roscosmos and ASI, with NASA also playing a major role.

As in 2016, the second ExoMars mission will also be led by ESA and Roscosmos, who will be taking a more extensive role than on the previous mission. The ExoMars 2020 spacecraft comprises a Carrier Module (CM), a Descent Module (DM) and a 300-kg rover, carried by a Landing Platform (LP) and capable of exploring the planet's surface for 218 Martian days, or about 230 Earth days.

Thales Alenia Space Italy is responsible for the entire design phase of both ExoMars missions and is leading an European industrial consortium. For the 2016 mission, it produced the EDM Schiaparelli entry and descent module, plus the Trace Gas Orbiter, now in orbit around Mars and already taking scientific readings of the Martian atmosphere. On the 2020 mission, the company will take charge of the design of the entire system, final inspection, the development of the CM navigation and guidance system and the DM entry, descent and landing system, the rover, including the creation of the Analytical Laboratory Drawer (ALD) as well as supplying basic parts of the DM, including the radar altimeter. Thales Alenia Space will be strongly supported in particular by OHB in charge to develop the CM as well as several instruments of the rover, itself provided by Airbus Defense and Space UK.

“ExoMars is a cornerstone of ESA's exploration programme. Using its miniaturised life search laboratory and advanced robotic technology, the ExoMars 2020 mission will explore the red planet in search of new evidence to answer questions that have long fascinated humanity. Following the renewed support demonstrated by ESA member states in the ESA council at Ministerial Level on 1 and 2 December, this new contract allows us to complete the flight models of the European elements and keeps us on track for a July 2020 launch,” says David Parker, ESA's Director of Human Spaceflight and Robotic Exploration.



“The steadfastness and tenacity of both the European and Italian space agencies has reassured all program partners, and enabled us to continue our production work so we can go ahead with this new and very complex mission,” said Donato Amoroso, Deputy CEO of Thales Alenia Space.

The 2020 mission is now at an advanced development stage, leading up to the system Critical Design Review (CDR) by the end of 2017. Parts of the DM will be delivered in early 2018, followed by the CM and the Rover, so that the spacecraft can be integrated for a launch currently scheduled for the window between July 25 and August 13, 2020.

For the 2020 mission, ALTEC – Aerospace Logistics Technology Engineering, a Thales Alenia Space Italy (63.75%) and ASI (36.25%) company – will also be responsible for the design, development and maintenance of the ROCC (Rover Operation Control Center) and for controlling the rover on the Martian surface.

The chronology of the 2020 mission can be summarized as follows: entry into the Martian atmosphere and the subsequent descent and landing of the Descent Module and its Rover, weighing approximately 2 metric tons, drawing on the experience gained with the EDM during the 2016 mission; the arrival of a landing platform and egress of the rover; exploration by the rover of a vast area of Mars, with geological/scientific sampling of both the planet’s surface and subsoil, by taking and analyzing soil samples to a depth of 2 meters; search for present or past forms of life in the soil samples that will be processed on the spacecraft; geochemical and atmospheric studies of the surface and underground environments.

About Thales Alenia Space

Thales Alenia Space brings over 40 years of experience to the design, integration, testing and operation of innovative space systems for telecommunications, navigation, Earth observation, environmental management, exploration, science and orbital infrastructures. A joint venture between Thales (67%) and Leonardo-Finmeccanica (33%), Thales Alenia Space also teams up with Telespazio to form the parent companies’ “Space Alliance”, which offers a complete range of services and solutions. Thales Alenia Space has built up unrivaled expertise in dual (civil-military) missions, constellations, flexible high-throughput payloads, altimetry, meteorology, and high-resolution radar and optical observation, as well as space exploration. The company capitalizes on its strong legacy, while also making innovation a key to its strategy. By offering a continuous stream of new products and expanding its global footprint, Thales Alenia Space has established its leadership in today’s fast-evolving space sector. Thales Alenia Space posted consolidated revenues exceeding 2.1 billion euros in 2015 and has 7,500 employees in nine countries. www.thalesaleniaspace.com

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