

Telespazio (Finmeccanica/Thales) for Vega

Telespazio, a joint venture between Finmeccanica (67%) and Thales (33%), is taking part in the European Vega programme, confirming its place as an international operator in the field of space services. Specifically, the company will support the Vega launch services from the Kourou Space Centre by providing, radar, telemetry, and telecommunication services. Telespazio will also supply software systems for both the ground segment (the control centre) and on-board the launch vehicle.



Telespazio, a key partner of the French Guiana Space Centre

Telespazio France is the French subsidiary of Telespazio (Finmeccanica/Thales) and is based in Toulouse, Kourou and Paris. Telespazio France operates from the sites of its customers, maintains multiple ground infrastructures and provides a wide range of value added space-based services in the Telecommunications (fixed and mobile), Satellite Systems and Application, Geo-Information and Navigation domains.

Established in French Guiana for over 30 years, Telespazio France is a CNES (French Space Agency), Arianespace and ESA (European Space Agency) historical partner.

The French Guianese Telespazio office relies on a highly specialized team of 130 engineers and technicians, of which 80% are locally employed, with technical competences in electronics, telecommunications and networks, project management and planning activities, configuration and documentation management or purchasing and procurement.



For each launch from the CSG, the Telespazio France teams manage, from the customer's facilities, the acquisition, telemetry processing and localisation sub-systems to ensure precise control and tracking of the trajectory of Ariane, Soyuz or Vega launchers.

Primarily intended to perform the mission monitoring (including the flight safety mission), the telemetry system collects data from two embedded inertial navigation systems. This tracking is carried out by a team of Telespazio France personnel deployed, depending on trajectories, in tracking stations all over the globe. During the first flight phases, the 3 radars are operated by the Telespazio teams to provide information to process the precise position of the launch vehicle.

Moreover, for the entire French Guiana Space Centre, the Telespazio Telecoms team manages the various means for internal and external telecommunications as well as the local networks (Remus, Romulus, SYSTA, RNIC, etc.). Planning team coordinates operational tasks for the launch vehicle and satellite campaigns and performs maintenance of the associated IT tools.

Furthermore, on behalf of Arianespace, the Telespazio France teams perform Configuration and Documentation Management relating to Ariane, Soyuz and Vega launch pads operations.



Telespazio France contribution to VEGA launch

More specifically for the VEGA launch vehicle, the Telespazio team in Kourou supported CNES and Arianespace during the development phase, with a strong contribution to the Technical and Operational Qualification of the new launch pad and to the extensions of the Ground Systems for the French Guiana Space Centre (CSG) Measurement System.

Telecom: Telespazio team has been supporting the customers since July 2010 for the extensions of the telecom networks to the VEGA site, and implementation of new telecommunication networks (operational telephony, telephone, etc.) required for operation of the new VEGA launch pad. With regards to localization, the Telespazio France team performed Qualification of the software adaptations required for VEGA.

Telemetry: for the specific VEGA-LARES mission, a certain number of stations distributed along the trajectory (Launch towards the North) will be involved. Some of them have been installed, qualified and will be operated by the Telespazio teams: Galliot in French Guiana, the ship-borne SNA station in the middle of the Atlantic, the Svalbard station in Norway, the Jeju station in South Korea.

