

OPTSAT-3000

OPTSAT-3000 is a space programme for Earth observation by the Italian Ministry of Defence. The system is made up of a high resolution optical satellite and a ground segment for in-orbit control, mission planning and acquisition and processing of images.

OPTSAT-3000 will allow Defense users, Italian government agencies and international partners, who have signed cooperation agreements with the Italian Defense, to have high-resolution images of every point on Earth.

The OPTSAT-3000 system is supplied by Telespazio, a joint venture between Leonardo (67%) and Thales (33%), as prime contractor. The company, in particular, is responsible for the supply of the entire system: from the satellite to the ground segment, launch and early operation services, the preparation and execution of operations and logistics, through to in-orbit tests and commissioning. The satellite was built by Israel Aerospace Industries (IAI), chosen by the Italian Ministry of Defence based on inter-governmental Italian-Israeli agreements. OHB Italia is responsible for the launch services and related engineering support.

The OPTSAT-3000 system will be able to inter-operate with the Second-Generation Italian radar satellites COSMO-SkyMed, allowing the Italian Defence Ministry to have access to the most advanced technology capable of guaranteeing the best operativity thanks to the integration of the optical and radar data generated by the two systems.

The satellite is launched by Arianespace from the European space centre in Kourou, French Guiana, with a VEGA carrier.



The OPTSAT-3000 satellite is a high-autonomy system stabilised on three axes, designed to have reduced weight, low consumption, and high reliability.

Among the notable features of the satellite we find:

- High resolution
- High geolocation precision (localisation of images on a land reference system)
- High quality images
- Low weight (400 kg), which allows for a wide range of launch options
- High agility, thanks to the reduced weight and the compact size of the satellite, producing low inertia, which, in turn, allows for the acquisition of a considerable number of images over a wide area, with just one pass of the satellite overhead
- Designed for a mission life of over seven years

The ground segment for the in-orbit control of the satellite, the mission planning and the acquisition and processing of images, is located over the three operative centres: the Fucino Space Centre of Telespazio; the Joint Satellite Remote Survey Centre (CITS) in Pratica di Mare (Rome) and the Joint Management and Control Centre (CIGC) in Vigna di Valle (Rome) of the Italian Defence.





The Joint Satellite Remote Survey Centre (CITS) in Pratica di Mare (Rome)







