

Telespazio: a new vision of MILSATCOM

A global player in military
satellite communications

Telespazio, a joint venture between Finmeccanica (67%) and Thales (33%), is one of the world's leading operators in satellite services. The Rome - based company employs around 1,400 staff, and operates a network of four space centres and 22 sites spread all over the world. Notably, these include the Fucino Space Centre, which has more than 90 operational antennas, and is the largest satellite telecommunications centre in the world for civil use. Telespazio is highly involved in areas of paramount importance for the public and private sectors, and provides satellite operations, multiple services in Earth observation, in satellite navigation, in integrated networks for multimedia telecommunications and integrated connectivity as well as numerous value-added services. In all these activities, Telespazio can count on its background of excellence, based on the technological expertise it has acquired in operating infrastructure and its involvement in highly innovative space programmes, such as Galileo, EGNOS, GMES and COSMO-SkyMed.

GALILEO

Telespazio is Finmeccanica's reference company for navigation and localisation services, a role also based on its contribution to the development and deployment of Galileo, the European satellite navigation programme that will be implemented through the launch of a constellation of 30 satellites. Telespazio has the responsibility for one of the Mission and Control Constellation Centres located in Fucino and one of the Signal Performance Evaluation Centres, in Rome, as well as the responsibility for the Italian Galileo Test Range built in Rome to simulate and validate Galileo signal and relevant applications.

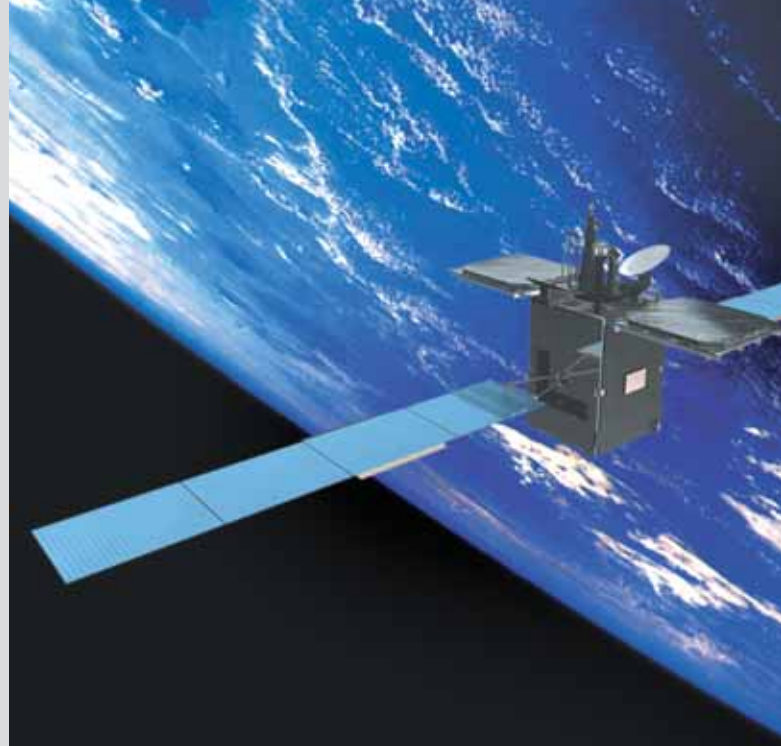
COSMO-SKYMED

Telespazio is a key player in the development of COSMO-SkyMed, one of the most innovative dual use Earth Observation programmes. COSMO-SkyMed is a programme created through an agreement between the Italian Space Agency (ASI) and the Italian Ministry of Defence, developed by Thales Alenia Space, which is prime contractor and responsible for the entire system. Telespazio is responsible for building the civil and military ground segments.





- UHF BAND
- SHF BAND
- SHF BEAMS



SICRAL SYSTEM: THE ITALIAN CHALLENGE IN MILSATCOM

The strategic role of Telespazio in Milsatcom is clearly pointed out by its involvement in the Italian SICRAL constellation. In SICRAL 1 Program, the first Italian military comms satellite, Telespazio managed LEOP and various tasks related to the Ground Segment design, procurement, integration & test. Nowadays, Telespazio is still providing high qualified technical support for operations. SICRAL 1, in operation since 2003, allowed Italy to play a significant role in the Network Infrastructure that is behind operations of the international peace keeping missions of the last years.

This successful experience has encouraged Italian Ministry of Defence to go ahead with new missions co-funded by public and private capitals (Public Private Partnerships - PPP). This is the background for the concept of the new satellite SICRAL 1B - to be launched by the end of 2008 - and for further spacial missions as SICRAL 2 in the next years. **Telespazio is the reference Partner of Italian Ministry of Defence for such strategic enterprises.**

Due to the participation on funding SICRAL 1B mission, Telespazio is entitled to commercialize space capacity in SHF and UHF frequency bands. The availability of space segment assets makes today Telespazio's portfolio solutions extraordinarily complete and "unique" in the international Milsatcom arena.

SICRAL 1B Ground Segment

- Mission Control Centre: the satellite will be managed and controlled in orbit from the Military Teleport of Vigna di Valle. Telespazio's Fucino Teleport will be the back-up Mission Centre.
- Management & Control Centre: control of satellite and of communications network is integrated to unify actions for both the planning of the operative missions and the configuration of the satellite repeaters and user terminals. Military Teleport of Vigna di Valle will guarantee this activity as primary Centre. Telespazio's Fucino Teleport will be the back-up.

SATELLITE FEATURES

Position GEO	▶	at 11.8 East
Stabilisation	▶	3-axis
Satellite control	▶	Earth and Sun sensors
TT&C	▶	S and EHF band
Operative life	▶	13 years
Launch system	▶	Sea Launch
Manufacturer	▶	Thales Alenia Space

Coverages

SHF band coverage is over Europe and the Mediterranean Area. Two mobile spots of 3.2° wide beam guarantee an extended coverage within the sat field of view. UHF band coverage is over the whole visible area above 23° S of latitude.

SOLUTIONS FOR DEFENCE MARKET

Telespazio, is the primary satellite service provider for the Italian Ministry of Defence. The Company supports Italian Armed Forces providing services and applications among homeland and international operational theatres where Italian Forces are deployed.

Telespazio's competences cover the whole value chain of military satellite services.

Satellite Engineering

Telespazio's know-how goes throughout the typical project cycle, from design and feasibility studies, through procurement and project management, to installation, testing and commissioning. The company's expertise includes both space and ground segment technologies. As well, Telespazio is fully capable of supporting the design, manufacture, test, launch, In-Orbit testing and commissioning of a satellite system (including its monitoring and control sys-

tem) and also the design, installation, testing, integration and commissioning of an Earth station.

Satellite Operations

Telespazio is one of the world's leading companies in the field of providing services for space vehicles. The company's expertise covers all aspects of satellite management ranging from the Launch and Early Orbit Phase (LEOP) to the entire life cycle. With nearly forty years of experience, Telespazio is able to meet all operating requirements through its global network of integrated ground stations. The company has been providing satellite services to the main international operators in the space sector, both public and private, since 1968.

Telecommunication services

Telespazio is particularly skilled in design, implement and commission complete communications networks through State-of-the-Art technologies.

Military space capacity available rely on the Italian SICRAL



constellation. About commercial space capacity, Telespazio boasts of strategic partnerships with the major satellite operators as Eutelsat and Intelsat. Moreover, Telespazio designs, builds and manages multimedia telecommunications networks. The services offered range from e-learning to telemedicine.

Terminal services

Telespazio offers for purchase or lease a wide range of mil-standard solutions: triband or dual band, transportable or fixed.

Support services

- Customer care at Fucino Space Centre: multilingual highly specialist and skilled resources dedicated around-the-clock, 365 days per year.
- Frequency coordination and access planning Secure Communications Services.
- Training, both formal and on-the-job.





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