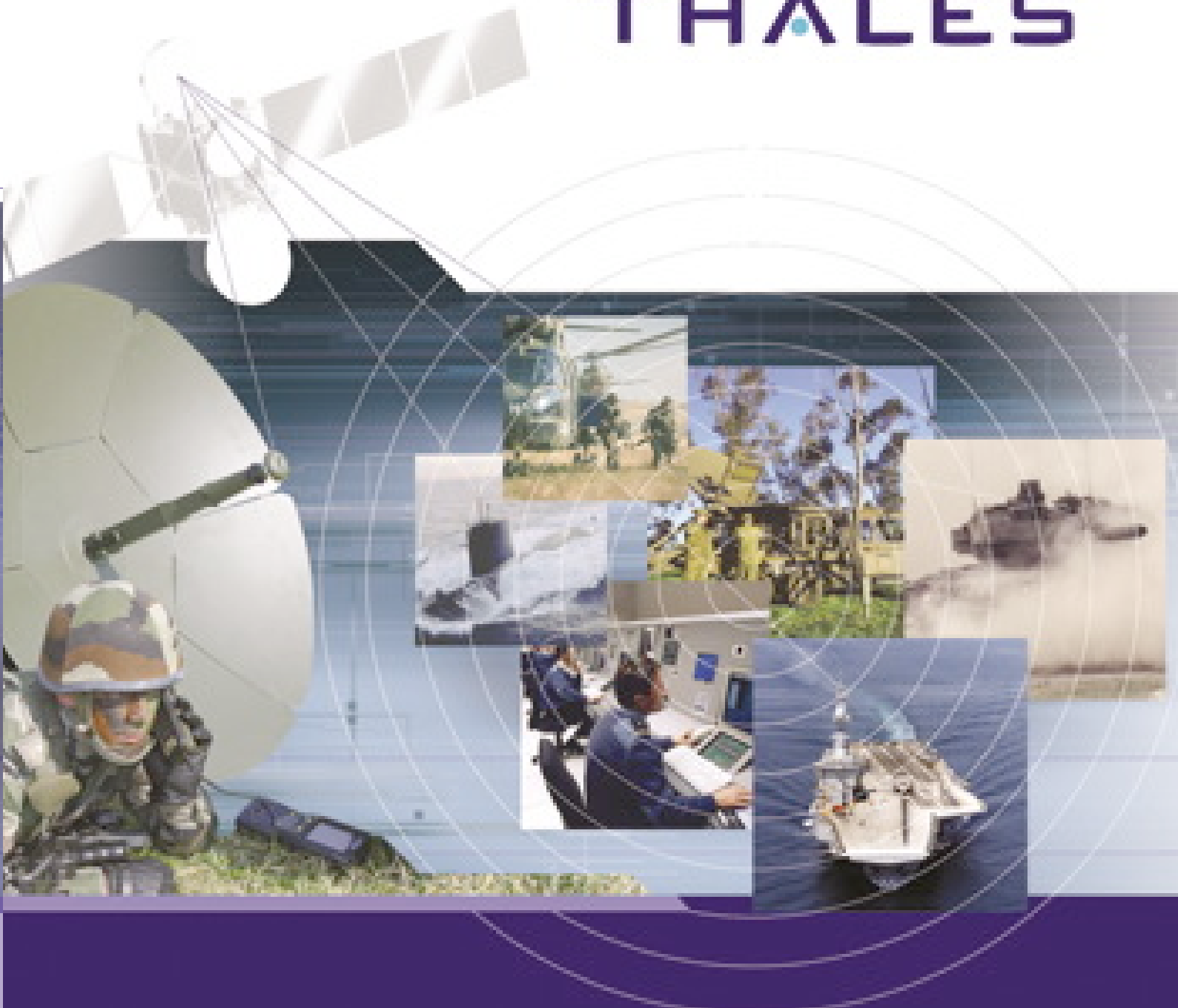


THALES



Syracuse III

Satellite communications
leveraging joint C4ISR
capabilities

Thales is drawing on twenty-five years' experience on the Syracuse I and II programmes to develop the ground segment for Syracuse III, confirming its role as a world-class prime contractor for joint forces communication systems as the armed forces progressively embrace the era of network-centric operations.

Syracuse III : information superiority

Syracuse III will provide autonomous high-speed communication services and connectivity for all types of military telecommunication networks. It will provide French forces with the **interoperability** and **security** they need for out-of-area deployments on joint, multinational operations and will support the **rapid reaction** capabilities that are now critical to mission success.

The third-generation Syracuse system includes:

- A space segment comprising geostationary satellites for permanent coverage, each based on a hardened platform and a high-performance payload
- A ground segment comprising different types of user ground stations for the three armed forces and anchoring stations in mainland France for controlling the satellites.

Integrated Thales/Alcatel Space team

Thales has been appointed as prime contractor for the ground segment. Alcatel is responsible for the space segment and will have a 30% workshare on the ground segment.

The ground segment: a fully fledged battlefield intranet

End-to-end communications



With its 600 satcom terminals, the ground segment will provide **end-to-end communications** between mainland France and remote theatres of operations. Syracuse III will interconnect with existing C4I systems, including Socrate, Rita, Aristote, Rifan, Matilde and SICF, for which Thales is also prime contractor, constituting a key asset in the deployment of the **battlefield intranet**.

Syracuse III is central to the emergence of the network-centric capabilities that will enable forces in the field to exchange intelligence and decision-support information and achieve information superiority in the digitised battlespace.



IP* integration for Aristote

A core component of the Syracuse III ground segment, Aristote will optimise the transmission capacities offered by Syracuse III satellites to provide the links between mainland France and forces deployed in remote theatres of operations. Aristote's ability to provide armed forces with the interoperability they need for out-of-area deployments on joint, multinational operations has been demonstrated during several operational exercises.

*IP: Internet Protocol



A mobile tactical system

The deployment of military satellite communications is shifting from theatre level to tactical level. Illustrating this development, 40% of the 600 terminals supplied by Thales will be **Talisman** manpack terminals. These compact, easy-to-use tactical terminals are used by units at every level and distribute information across an entire regiment.

More bandwidth, new services

Syracuse III will support voice, data and images as well as medium and high-speed multimedia services, including e-mail and videoconferencing, down to tactical level.



High security

Communications will be protected from jamming using the Thales-developed **Modem XXI** – currently the only product capable of protecting high-speed communications. Compliant with NATO STANAG 4606, it guarantees the interoperability needed for multinational operations and paves the way for implementing secure links with the satellite communication systems used by NATO nations.



Integrated services offering

For an asset as critical as Syracuse III, effective through-life support for the entire system, particularly its extensive base of different types of terminals, is of fundamental importance.

Key components of the ground segment

The Syracuse III ground segment comprises different types of terminals for a broad range of deployment scenarios:

Tactical terminals

- Talisman manpack terminals: on-demand communications for isolated units
- Terminals integrated on VAB armoured personnel carriers: communications for front-line forces with no range constraints
- Deployable ground-based terminals: high-speed jam-resistant communications for deployed command posts
- Naval terminals installed on surface combatants and command vessels: high-speed secure communications for naval aviation

Anchor stations in mainland France

- Fixed stations for worldwide communications between military authorities and command centres and forces in the field.

Central management system for optimum efficiency



The Syracuse III centralised management system guarantees consistency in the planning, configuration and supervision of satellite resources, network services and security. As military deployments and threats evolve, the management centre rapidly reconfigures the system to meet changing requirements.

The ground segment contract includes a commitment to provide comprehensive support through to 2020 under a **Service Level Agreement** based on **system availability**.

Integrating satcom capabilities within C4ISR

The increase in data volumes needed for command and control and ISR is driving exponential growth in communication requirements in terms of **capacity, availability, security, mobility and interoperability**. To meet these requirements, Thales draws on its expertise in communication solutions architecture for military and security forces to design and implement comprehensive, secure systems comprising infrastructure networks in the home country, theatre-level networks and **ground segments for civil and military satcom systems**.

The European leader in strategic and infrastructure networks, Thales integrates satcom capabilities with defence networks and C4ISR systems to propose a complete range of extensively field-proven solutions:

- **Long-range infrastructure networks and systems for joint forces**
- **Secure, high-capacity transmission systems**, including SHF active antennas for mobile satcoms, UHF satcom antennas and radios, and anti-jamm Modem XXI ; crypto equipment... for the three armed forces
- **Satcom terminals**, including the Talisman SHF tactical terminal (the most lightweight on the market), Satmove and Quickhalt, solutions for mobile satcoms ; Surfsat (the latest-generation SHF dual-band terminal for surface vessels) and Divesat (highly integrated SHF/EHF terminal for submarines).

International References

France

Syracuse III ground segment, Aristote transit network (a core component of the Syracuse III ground segment), Matilde network for long-range transmissions, Socrate military infrastructure network, N2000 naval terminals, Modem XXI...

United Kingdom

Cheetah X-band (PSC 504), UK PSC 506 X-band.

Belgium

Naval satcom terminals.

Export

Key supplier on numerous export programmes.

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