THALES

A local partner
with worldwide capabilities

Land & Joint Systems Division

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UNITED STATES

EGYPT

JAPAN
KOREA

SINGAPORE
MALAYSIA

SOUTH AFRICA

AUSTRALIA

Key Figures

› € 2.4 bn revenues

› 15,000 employees

› Operations in 20 countries

› 30% of revenues invested in R&D
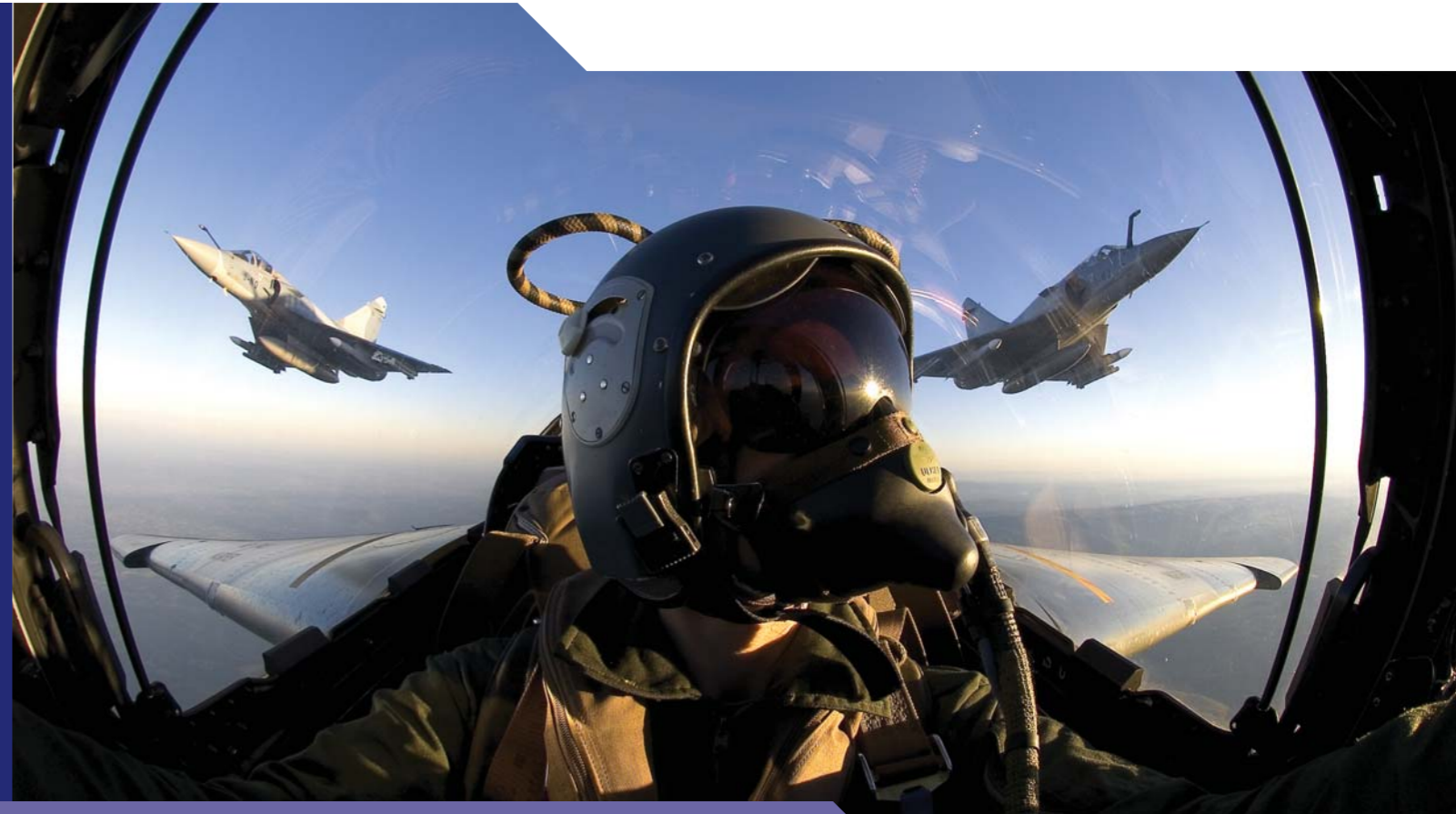
> ## Optronics, communications & information systems for Air Forces

From equipment to C4ISR solutions

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THALES   Securing your future

A world leader in **defence optronics, communications and information systems,** Thales offers a comprehensive joint battlespace capability for all types of platforms – aircraft, helicopters, UAVs – to meet the full range of **air operations** requirements, from equipment to tailored C4ISR solutions.

From equipment to tailored solutions

The broadest product portfolio that provide the means to detect, observe, identify, communicate, navigate, target and enhance survivability:
Optronics, communications, electronic warfare, navigation and identification equipments.

C4ISR solutions contributing to operational superiority in joint theatres of operations through enhanced **ISTAR services, effective air defence and network-enabled capability.**

Partnering for Transformation

The Thales Battlespace Transformation Centre (BTC) is an integrated battlelab environment providing collaborative concept development and testing facilities for technology insertion in line with current changes in deployment tactics and engagement procedures. Building on the BTC, Thales offers an effective response to the growing need for Air Forces to engage cooperatively in joint theatres of operations: integration of the Air Picture into the Common Operational Picture, cooperative air/land warfighting, joint-effects targeting across sensor / command/shooter networks in the digital battlespace.

Delivering cost effective solutions

Serving land, air and naval forces worldwide, Thales draws on its powerful tri-service equipment hub and proven systems integration and design capabilities, leveraging synergies to add value for its customers. Thales solutions combine all the key attributes needed to meet Air Force requirements. They are:

» Interoperable - From strategic level down to tactical level, Thales C4ISR systems provide the interoperability needed for both joint and allied operations (NATO, US, Europe).

» Competitive - Thales solutions harness the benefits of the IT revolution: dual technologies, COTS/MOTS components, open architectures, and international standards and protocols.

» Network-Ready - All Thales products are designed from the outset for integration within a network-centric environment.

» Scalable - Theatre-wide information dominance is achieved through incremental integration of equipment, subsystems and systems in the C4ISR chain.

» Innovative - Thales implements the latest technology, including software radio, signal and image processing, high-tech optics and cryptography, to meet operational requirements.

» Secure - Thales systems solutions deliver end-to-end security in all operational environments.

» Sustainable - Working with its customers, Thales develops modular support solutions and offers attractive technology transfer opportunities as well as local services through a worldwide network of companies.

Through-life support

Thales brings world-class technology to client Air Forces along with guaranteed support from system definition and design to production, integration and through-life support.

An international player: references and achievements

Onboard optronic sensors, communications, navigation, identification, electronic warfare...
Combat Aircraft Rafale, Typhoon-Eurofighter, M2000, Tornado, Gripen, Jaguar, Harrier, Hawk, AMX, F16, F4 - **Helicopters** Puma, Cougar, NH90, Tiger, Apache, Lynx, Chinook, Gazelle, Seaking

Mk7 - **Transport aircraft** A400M, C130 Hercules - **Surveillance aircraft** ATL2, Nimrod, Erieye, Transall Gabriel, AWACS, Meltem

ISTAR
WATCHKEEPER Provision of secure communications and IMINT exploitation capability
RECO NG Strategic Reconaissance System
MINDS Multi-sensor Image iNterpretation and Dissemination System
DNG3D Digital Geographical Data Program

C4I
C3M Mobile Command and Control Centre, France's SCCOA system, the deployable component of France's ACCS system.
ACCS LOC 1 NATO Air Command and Control System (ACCS); ThalesRaytheonSystems prime contractor.

GATR ground/air network providing low-altitude coverage for the entire territory (UAE)
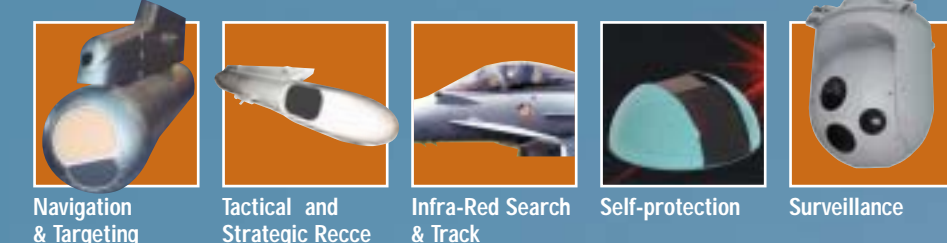**MTBA** French Air Force operational network

Services
Thales provides through-life support on all programmes, including comprehensive service packages and innovative e-services solutions.

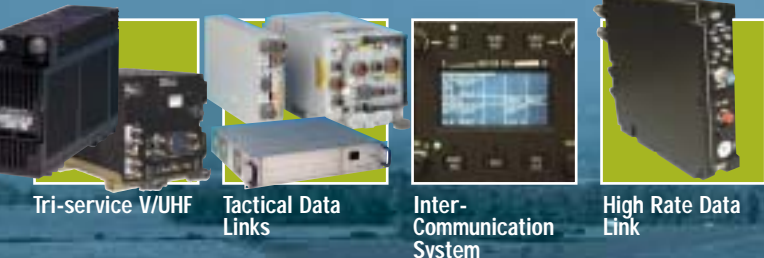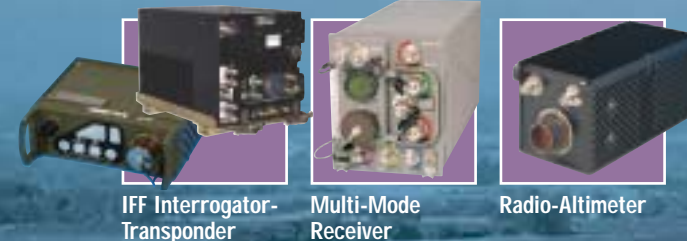# From a comprehensive range of high-performance products...

OPTRONICS

Navigation & Targeting	Tactical and Strategic Recce	Infra-Red Search & Track	Self-protection	Surveillance

ELECTRONIC WARFARE

COMINT Tactical Payload	Jamming Payload	UAV Payload

COMMUNICATIONS

Tri-service V/UHF	Tactical Data Links	Inter-Communication System	High Rate Data Link

IDENTIFICATION & NAVIGATION

IFF Interrogator-Transponder	Multi-Mode Receiver	Radio-Altimeter

...to tailored C4ISR solutions

INFORMATION DOMINANCE

With its in-depth knowledge of networked multi-sensor intelligence systems and air-/land command systems, Thales enhances ISTAR capabilities for higher operational tempo and efficiency across the sensor-to-shooter chain. As prime contractor, systems architect and integrator, Thales offers each customer a tailored, optimised response.

INTELLIGENCE, SURVEILLANCE, RECONNAISSANCE

Thales solutions bring a long range, day and night information gathering capability in real-time with data transmission to ground stations for immediate exploitation. Real time exploitation of imagery is achieved through the use of interoperable data links and Thales Imagery on Demand technology. These solutions deliver a capability for real time targeting, weapon effort assessment and retasking.

MULTI-SENSOR INTERPRETATION & DEPLOYMENT

The key challenges today are to spot vital intelligence early and make relevant information easy to exploit. Leveraging advanced data fusion technologies, Thales offers solutions, which crosscue and analyse raw data from multiple sources (IMINT, MTI, SAR, SIGINT, etc.) to generate and share a Common Operational Picture. Thales also provides photo-interpreters and IMINT analysts with the resources they need for image acquisition, interpretation and multi-sensor

data fusion (EO, IR, MTI). All these solutions are fully projectable, interoperable with national and allied intelligence systems, and flexible with respect to sensor deployment and configuration.

COMMAND & CONTROL

Through ThalesRaytheonSystems, Thales provides dependable command and control systems to ensure efficient planning, tasking and execution of defensive and offensive missions in a national, joint or multinational environment.

NAVIGATION & TARGETING

Through navigation FLIR, EO/IR air-to-surface targeting pods, and air-to-air infra red search and track systems, Thales offers high precision attack capabilities across the entire battlespace day/night and in adverse meteorological conditions. Using an open architecture, our equipment matches all operational requirements in all types of aircraft.

NETWORK-ENABLED CAPABILITY

As a communication and information systems architect, Thales offers the prime contracting capabilities needed for a "system of systems" approach to communications for network-centric warfare. Network-enabled defence systems architectures link sensors, commanders and forces in the field, while ensuring that the man in the loop retains full tactical decision-making responsibility.

FULLY INTEGRATED COMMUNICATION SYSTEM

The airborne FICS offers full integration of all internal and external voice communications with direct secure access to any type of radio equipment (HF, VHF, UHF, MIDS, satcom, etc.). It is part of the onboard CNI subsystem and organised around an IP-based Intercommunication System (ICS).

TACTICAL DATALINK NETWORKS

With its Data Link Interface Processor (DLIP) product line, Thales offers a range of cost-effective multi-TDL (L11, L16, L22, etc.) solutions. Associated with all types of radio, modem and network management modules, these solutions are suitable for any type of airborne platform, including UAVs.

GROUND-TO-AIR NETWORKS

Combining high-performance radio and tactical datalink products with proven systems-level expertise, Thales proposes comprehensive

communications solutions for seamless voice and data services between land-based C2 centres and aircraft in the theatre of operations.

INFRASTRUCTURE NETWORKS

Thales provides interoperable, highly secure fixed network solutions based on broadband IP technologies and incorporating state-of-the-art COTS/MOTS products customised to meet military requirements. These infrastructure networks guarantee secure national communications between all Armed Forces and provide the full range of multimedia services including voice, data, images and video.