Thales at IDET 2005

Brno, Czech Republic

Hall V – Stand 12
French pavilion

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Thales is a global electronics group employing 61,500 people across the world and serving professional markets in three areas: defence, aerospace and security. Its activities include prime contracting for large-scale programmes complex system architecture and the supply of equipment, systems and services.

With industrial operations in nearly 30 countries, Thales is pursuing a unique multi-domestic strategy, which is of key relevance in defence markets. This policy is designed to provide the Group with the local presence it needs to serve both civil and military customers effectively.

IDET 2005 is an important show for Thales. Within this professional forum, Thales exhibits its equipment, systems and services to all three armed forces in Central Europe. Thales is keen to strengthen its links within central European markets in order to develop and build on existing partnerships.

Land Systems

With more than 30 years experience serving over 100 customers worldwide, Thales offers all the key capabilities required for land operations. In land systems, Thales generates more than 2.3 billion euros in revenues and is N°1 in Europe.
Thales brings together all the key Land competencies & expertise needed to provide Forces with mission capabilities tailored to their operational requirements; capabilities rather than assets covering missions ranging from

- Reconnaissance, Surveillance, Targeting Acquisition (RSTA),
- Direct & Indirect combat systems,
- Command & Control,
- Local Area Control.

Working in close cooperation with its customers, Thales develops solutions that are modular, network-enabled and interoperable. These solutions contribute to the operational superiority required for mission success whatever the type of operation (peace keeping, high-intensity conflict, coalition warfare, etc.).

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Solutions can be integrated onto various platforms, manned or unmanned; vehicles, soldiers, UAVs / UGVs….

Committed to teamwork with its customers & industry partners, Thales can propose a case by case approach, taking into account the legacy, and providing the best trade-off choices between required performance, reliability, services and cost.

Thales' experience & approach ranges from mission package provider & integrator, platform prime to PCMO (Prime Contract Management Office) and LSI (Lead System Integrator) capabilities to monitor the definition & acquisition of a full combat mission capability.

With its multi-domestic network of companies and partnerships, Thales offers the strong local presence enabling it to work in **closer partnership** with its customers. This local presence is part of the Thales value proposition and underpins its ability to support customers throughout the entire life process with rapid response times.

Reconnaissance Surveillance Targeting Acquisition

Gathering data just in time for Common Operational Picture, early warning, decision support and action is key to building the information superiority required for mission success.

Taking into account your legacy, Thales proposes a case by case approach from mission packages to full mission capabilities, from a stand-alone platform, multi-platform RSTA system to full cooperative capabilities taking into account a global ISTAR integration.

In order to contribute to the incremental build of the information superiority required for mission success. Thales offers:

- different kinds of key mission packages integrating sensors such as optronics, radars, electronic warfare, NRBC, acoustic, seismic, identification etc.,
- all the data processing & communication resources required to combine multi-sensor, multi-platform capabilities,
- integration platform capabilities,
- optimisation of the global mission by networking the different required components (sensors, platforms, etc.),
- PCMO (Prime Contract Management Office) and LSI (Lead System Integrator) capabilities to monitor the definition & acquisition of a full RSTA mission capabilities.

Some key RSTA references,

The major references in this field include **LEGAR,** a battlefield surveillance radar system fitted on light Mercedes vehicles with a deployable radar (BOR-A) and integrated radios & comserver. **HORS**, for the Greek Army, a tactical recce system equipped with radar or optronics sets fitted on Hummer vehicles and easily interchangeable. **MORS,** for the UAE Army artillery, an artillery forward observation & battlefield surveillance system, with multi-sensor capabilities (radar & optronics) mounted on a mast and fitted on M 113 vehicles.

Combat systems

Defeating targets earlier, at greater distances, in larges areas, with direct or indirect fire while affording better protection for friendly forces is key to providing rapid & accurate effects adapted to different operational contexts just in time.

Taking into account your legacy, Thales proposes a case by case approach from mission packages to full mission capability, from a stand-alone platform, multi-platform combat system to full cooperative capabilities.

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Thales proposes integrated combat systems covering direct combat, dismounted combat (soldier), and indirect combat systems.

Thales may offer:

- different kinds of key mission packages such as
  - Fire Control Systems (FCS) which include commander & gunner sights, ballistic computers, sensors & BMS (Battlefield Management System),
  - SICS (Soldier Information Control System), a bodynet system, adaptable to customer needs & to legacy systems, which offers a set of services (Situation Awareness, positioning, etc.) for soldiers
  - turrets (manned and unmanned),
  - armaments (towed & mounted mortars, active protection systems, etc)
  - jammers,
  - etc.
- all the data processing & communication resources required to combine platform, multi-platform capabilities,
- integration platform capabilities,
- optimisation of the global mission by networking the different required components (platforms, etc.),
- PCMO (Prime Contract Management Office) and LSI (Lead System Integrator) capabilities to monitor the definition & acquisition of a full combat mission capability.

Key combat systems references:

The major references include: **BGTI**, for the British Army, the Battle Group Thermal Imaging system, which includes gunners & commander's sights, Inertial Navigation System & Driver's Display, fitted on Warrior & Scimiter vehicles. Six hundred systems will be installed. **SWARM-** a remote weapon systems, selected by the British Army MoD and which will enter service in 2006. SWARM can be fitted onto wheeled or tracked vehicles. **EFSS,** for the US Marine Corps, an Expeditionary Fire Support System comprising a prime mover vehicle, 120 mm mortar, ammunition supply vehicle and trailer, fire control support and a complete family of ammunition. Thales will provide the EFSS weapon system, the **120 RT**, already in service with the armed forces of twenty-four countries, and the associated family of ammunition. **Bushmaster,** an infantry transport vehicle which offers high level of protection & mobility; this vehicle produced by Thales through its JV ADI has been selected by the Australian forces.

Local Area Control systems

Protecting people and assets round the clock, anywhere in the world, in open or urban environments is becoming more and more crucial for armed forces. By using local area control systems, we ensure that your forces detect, identify, classify alert & neutralize various threats (personnel, vehicles).

We offer tailored solutions in close partnership with customers and provide the best trade-off choices between various required missions and budgets.

Our modular & adapted solutions range from:

- Fixed intrusion detection systems based on COTS sensors,
- Mobile intrusion detection systems based on MOTS & COTS sensors suite,
- Wide area protection systems including lethal & non lethal effectors

with adaptable communication network and Command & Control means.

Major key references

Our solutions have already been sold to Australia, Germany, Italy, UK, USA. They have been in operation in Kosovo, Djibouti, etc.

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Vehicles

The land business is changing; vehicle electronic packages are becoming more and more important, the networking (NEC) of platforms (vehicles, soldiers) is becoming key to mission optimisation and platforms are becoming more and more complex systems.

Consequently, Thales offers vehicles solutions for all kind of missions – RSTA (Reconnaissance, Surveillance, Targeting Acquisition), Indirect & direct combat, Command & control- from mission packages, vehicle integrator to a full mission capability.

The offering covers all types of vehicles, wheeled or tracked, retrofit or new.

Thales' experience in vehicles ranges from the design, integration, manufacturing through to the delivery of fully equipped platforms. Over 25,000 platforms of 150 different types have been delivered to date by Thales through its industrial integration-on-vehicles capabilities across the world (France, UK, Netherlands, Germany, Spain, Australia, etc.).

The major references in this field include the Bushmaster, infantry transport vehicles in Australia, combat systems (2R2M, BGTI , etc.), RSTA systems (HORS, MORS, LEGAR, SAEC, NRBC, etc. …) and dedicated platforms for Command & Control and its associated communications (RITA Valo, RAP tank, Atlas, Carthage, etc.).

Soldiers

Thales offers long-term soldier system solutions for all types of missions, from peace keeping to high intensity combat, for all environments from open to urban areas and for all weather conditions.
Thales is recognised as the world's leading soldier systems company and is already contributing to major soldier modernisation programmes for NATO countries (United Kingdom, Germany, Netherlands and Norway) and is working on major projects all over the world.
Such an international experience, allows a wide scope of offering ranging from consultative selling (PCMO- Prime Contract Management Office with the customer) to a system solution compatible with legacy equipment.

Key references : UK's **FIST** programme – Thales is prime of the assessment phase. To conduct this phase a PCMO (Prime Contract Management Office) has been set up with an MoD/Thales team. The team is studying and evaluating the different configurations and their impact on operational capabilities, in addition to the associated costs & risks.This is an innovative & attractive partnership with a growing interest among numerous customers. **IdZ**, the system for German forces- Thales is involved in the architecture phase and the communication sub-system; already fielded more than 2200 soldier systems have been ordered end of 2004. **D2S2,** the Dutch Digitised Soldier System for which Thales was awarded a contract to develop and deliver operational prototype systems related to the communication system. These prototypes will be tested mid 2005. **Normans**, for the Norwegian forces- Thales has equipped soldiers for trials with the C4I sub-system.

Towards Cooperative Fighting systems

In mid 2004, French defence minister gave the go-ahead for the French Army's **future cooperative fighting system** (BOA for Bulle Opérationnelle Aéroterrestre) by announcing the development of a **BOA demonstrator**. Thales leads the consortium which includes GIAT industries and Sagem in partnership with MBDA and EADS.
BOA introduces innovative concepts of network-centric war fighting that will be critical to the success of future land force missions. It ties together all the assets in the air-land theatre - including armoured vehicles, radars, UAVs and infantry solders, indirect fire support and helicopters - to speed up the operational tempo, improve protection of units and enable commanders to maintain the initiative in all circumstances.

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The system satisfies a capability requirement for rapid out-of-area deployment of a light force equipped for a broad range of missions particularly in urban areas.
A dedicated technical and operational laboratory or "battlelab" will be set up, which will provide a collaborative workspace where operational users and industry partners can work together to manage the system design.

Key references : BOA simulator , known as **SIM EC3**, to baseline potential architectures for the BOA. It will be delivered to the Fench Defence procurement Agency in early 2005. it will be incorporated into the BOA battlelab.

Land Products

1/ Communications

- At IDET 2005, Thales is showcasing **PR4G F@stnet**, the next generation of software programmable CNR-over-IP radio offering enhanced data rate transmission capabilities to support C4I battlefield management system. Thanks to embedded IP routers, PR4G F@stnet includes features required to implement Tactical Internet services, useable in fully mobile conditions during combat working simultaneously with voice communications. Giving access to highly secure communications, PR4G F@stnet is offered with new terminals for e-mail, tactical messaging, blue force tracking applications to support full range of missions. Over 12,000 new-generation F@stnet radios have already been ordered by 10 countries.

- Also shown is the **TRC3700 HF** system that provides reliable and secure mid- and long-range tactical voice and data communications. The TRC 3700 is an advanced HF tactical manpack radio offering secure high data rate and digital voice transmissions. Embedded protocols allow for automatic link establishment and frequency hopping communications.
  Associated with power amplifiers and wideband frequency hopping antenna tuning units, the TRC 3700 is at the heart of alarge variety of 20W, 125W and 400W vehicular stations.
  Thanks to its associated terminals, the radio provides tactical services like transmission with automatic routing.

- The **TRC 4000** is Thales' tactical high data rate radio. It operates in band IV (5GHz) and band V (15GHz), while being as simple to set-up and use as a legacy band III radio. The TRC 4000 eases the shelter design and minimises the size an the number of vehicles necessary to set-up a node.
  Thales has sold more than 4,500 LOS systems in Europe.

- In the field of deployable tactical internet, Thales has developed an IP-based Tactical network solution named **DIANE** (Deployable IP Area NEtwork).
  DIANE provides fully autonomous high data rate voice, data and video to deployed headquarters.
  Based on modern and open IP technology, Diane affords seamless interoperability from large headquarters down to mobile armoured command posts.
  DIANE has been designed to be extremely mobile. Only one vehicle is required to build a fully featured air transportable communication node.
  This system combines military off-the-shelf communication equipment and commercial off-the-shelf technology to provide military-compliant state-of-the-art communication services and full interoperability with allied and infrastructure networks.

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Key components of DIANE include:

- •Voice and IP data all over the battlefield
- •Switching and routing
- •Physical and functional mobility
- •Interoperability with commercial and NATO systems
- •High data rate radio relay (TRC 4000)
- •Optimised satellite transmission
- •Multilevel security architecture
- •Automatic radio integration
- •User friendly network management

DIANE is part of Thales' Tactical internet offer. It is th e core element of network centric warfare and represents the new generation of Thales RITA/IP networks .
Flexible, DIANE can be adapted to integrate legacy equipment and be the keystone of smooth migration towards tactical internet. It is ideal to interconnect all the existing systems into one global network and to give the commanders the possibility to run collaborative, transverse and simultaneous actions using fully integrated C4ISR systems.

2/ Optronics

- **SOPHIE.** At IDET 2005, Thales is showcasing its Sophie night vision camera. Sophie cameras operate in the thermal infrared portion of the spectrum, making them undetectable and enabling day and night observation of camouflaged targets in all weather conditions. Sophie is perfectly suited to the needs of infantry soldiers and enables tank recognition at ranges of over 3 km. The band used makes Sophie immune to fire, smoke, fog and reflected sunlight. These characteristics make it ideal for battlefield conditions and peacekeeping and security missions.
  Additional new products of the Sophie family also include a multi-function version, which is already available. As it incorporates a GPS, an eye-safe laser rangefinder, direction finder and laser pointer, the multi-function version is a complete system for target acquisition, location and designation for the Armies, Air Forces, Navies, and special forces. To date, Thales has sold over 6,000 Sophie infrared cameras in 45 countries for surveillance, combat and peacekeeping missions.

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