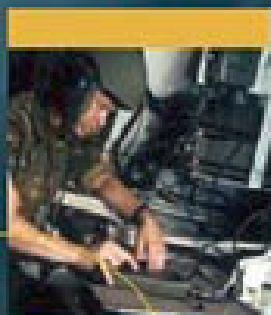


SOTAS *M2*



**The Multimedia Intercom
For the Digital Battlespace**



SOTAS_{M2} The Multimedia Intercom

The Multimedia Challenge

The Digital Battlespace imposes new requirements on vehicle communications systems. To support commanders in their decision-making process, vehicles are equipped with a multitude of information and communication assets. The challenge for the vehicle network designer lies in the integration of all these assets. To provide a seamless system, carrying voice, information systems data, sensor data and video traffic. Both in-vehicle and between vehicles.

The Force Multiplier

The SOTAS_{M2} Multimedia System meets the challenge. Providing the maximum possible integration level of in-vehicle systems, SOTAS_{M2} helps a crew to boost their performance by allowing them to take full advantage of the vehicle's C4ISR suite. Voice, Data, Video, available where and when they need it.



Total Configuration Flexibility

The flexibility of SOTAS_{M2} is endless. With a range of interface modules and crew box types, SOTAS_{M2} suits all types of vehicles.

At any point in time new interfaces and crew boxes can be added to the system. When all available option slots in the Central Switch are occupied, the system is extended simply by adding a new box.

New configuration files or indeed new software versions can be downloaded to a SOTAS_{M2} system, without disturbing the installation.

SOTAS_{M2}: The Intercom System of the Future

- *Multimedia Intercom: Voice, Data, Video*
- *Open System*
- *ATM Networking*
- *Crystal Clear Voice Communications*
- *Emulated Ethernet LAN*
- *IP Networking*

SOTAS_{M2} System Elements

Crew Station

The SOTAS_{M2} Crew Stations provide access to the intercom facilities and the radios. The LEDs display the radio traffic status and the system status.

The two audio interfaces and the serial data interface support the connection of audio ancillaries, data terminals and/or even Combat Net Radios.

Commander Station

The SOTAS_{M2} Commander Station is identical to the Crew Stations but with additional facilities to allow a vehicle commander to control the system mode of operation. These commander facilities are programmable and include: Radio Silence, Intercom Accent, Access Rights for dismounted Users, Signalling on external lines, etc.

Advanced User Station

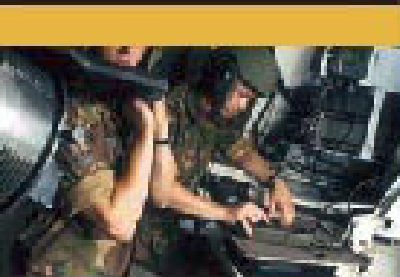
The Advanced User Station (AUS) provides a menu driven Man Machine Interface, especially for Commanders and other high profile users. The frequently used system services are accessed by a single key action. Drill-down menus give access to the advanced features, such as telephone emulation.

Central Switch

As the heart of a SOTAS_{M2} system the Central Switch provides connectivity for peripherals and all types of Crew Stations. The Crew Stations are connected with standard coaxial cables. The peripherals are connected to exchangeable interface modules, fitted inside the modular Central Switch.



SOTAS_{M2} Services



In-Vehicle communications

At first sight SOTAS_{M2} presents itself as an intercom system, easy to operate, providing crystal clear communications between crew members. And it is.

But there is more than meets the eye.

SOTAS_{M2} is packed with services:

Vehicle Intercom, Command Post Intercom, Emergency Broadcast, Radio Communications, Traffic Status Indication on crew stations, Tank Telephone, Field Telephone, Alarm Distribution, Local Call (dial-up) facility, External Calls into the Wide Area (POTS, ISDN, EUROCOM).

Serial Data communications, Ethernet LAN Emulation, Video Services, Software Download facility, Built-in Test, Network Management System, etc, etc.

Inter-Vehicle communications

SOTAS_{M2} services are not limited to individual vehicles. Using Fibre Optic cables, vehicles can be connected in any order and in any topology. On connection, SOTAS_{M2} automatically adapts to the new topology: no management action is required. As soon as vehicles are connected, users have instant access to the multimedia inter-vehicle services: Voice, Data, Video communications, sharing of radios, sensors and computer resources, etc.

The two optical ATM interfaces of the SOTAS_{M2} Central Switch support the inter-vehicle networking capability. These open standard interfaces offer a massive 25.6 Mbps bandwidth.

Asynchronous Transfer Mode

SOTAS_{M2} delivers the power of ATM to the Digital Battlespace. The total federation of Voice, Image, Video and Data, provides seamless integration of networks with Quality of Service as required. Meanwhile maintaining the "Classical IP" or "IP over ATM" functionality.

Open Standards

SOTAS_{M2} really is an open system. With ATM Forum compliant interfaces (UNI 3.1 and PNNI 1.0) SOTAS_{M2} systems can be connected to external networks, such as third party ATM switches.

Furthermore, SOTAS_{M2} offers a growing range of open standard interfaces for the connection of external equipment, such as:

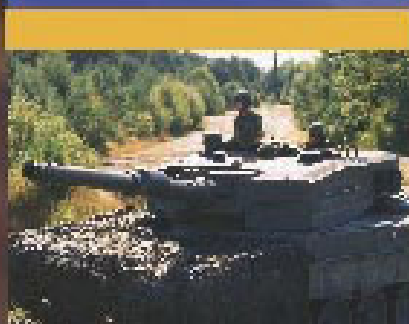
- Serial data (RS232, RS422)
- Ethernet (IEEE 802.3)
- IP/SNMP/FTP
- Telephony (ISDN/POTS)
- G703/704

SOTAS_{M2} provides interfaces for all common audio ancillaries and Combat Net Radios.

Management Information System

The SOTAS_{M2} system connects to any Management Station, using an SNMP interface. This capability is especially useful for Command Post configurations.

The powerful yet user-friendly SOTAS_{M2} management application runs on a standard PC over Windows NT. The tool provides all the facilities needed to effectively configure and monitor SOTAS_{M2} Command Post Networks.

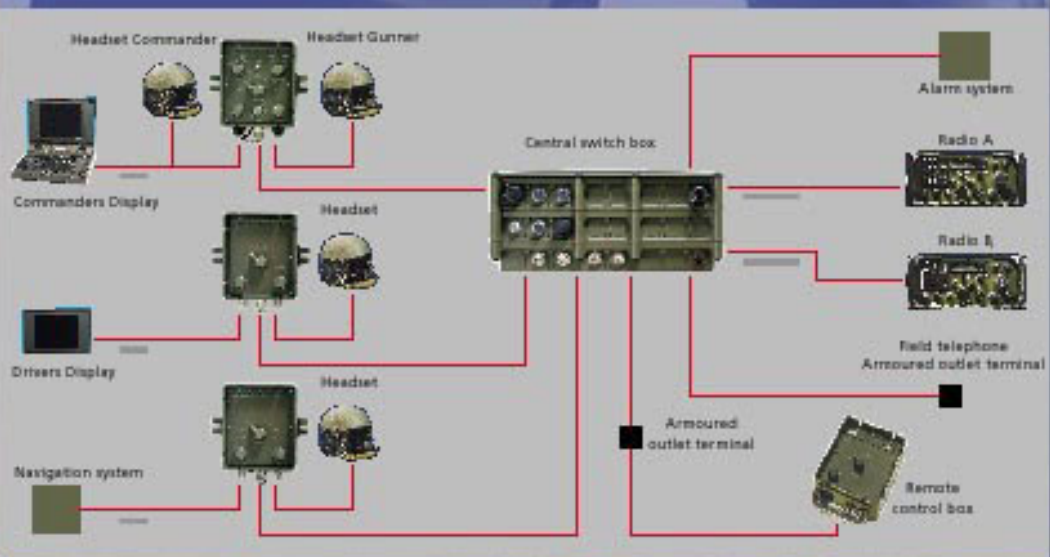


SOTAS_{M2} Architecture

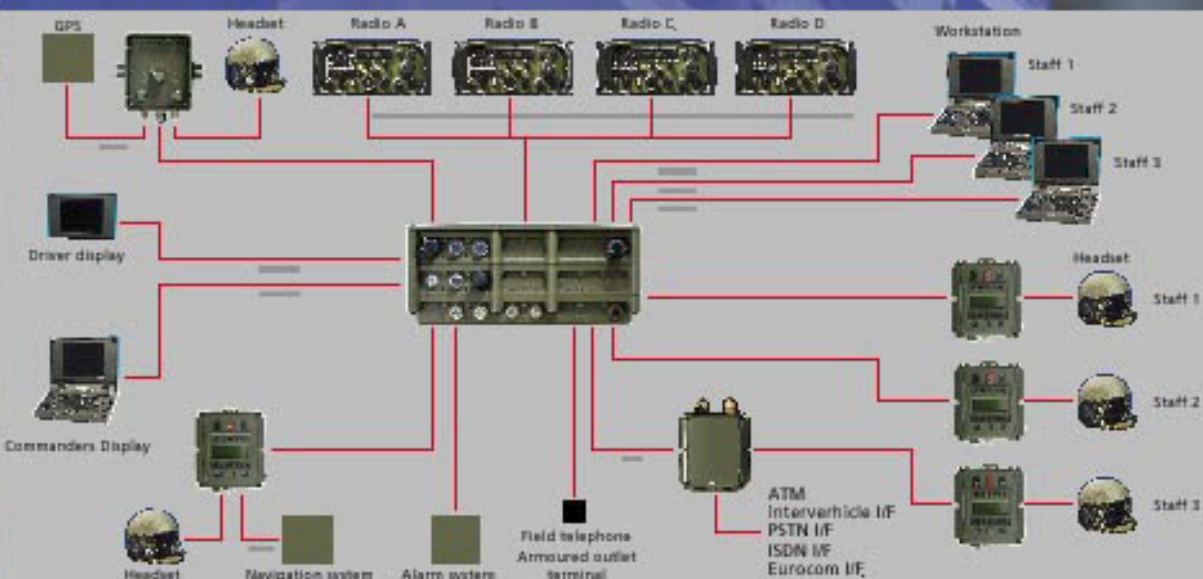
With SOTAS_{M2} communications systems ranging from basic voice dominated intercoms to high bandwidth Multimedia Local Area Systems (LAS) are all built from the same system components. Landrovers, Command Vehicles, Main Battle Tanks, IFVs, etc, all can be equipped with a different configuration of the SOTAS_{M2} system.

The advantages are clear: Smooth Interworking, reduced training effort, and minimal Life Cycle Costs. And as new requirements emerge, SOTAS_{M2} systems can be brought to higher service levels, simply by adding equipment.

The basic SOTAS_{M2} configuration for a harness is a straightforward star-configuration, with crew boxes connected to a central switch. External equipment such as radios, computers and sensors are connected to the central switch and to the crew boxes.



Complex requirements are met by adding equipment. Additional Central Switches or even SmartNet Tactical Access Units can be connected to the system's optical ATM interfaces. Any topology can be made to exactly meet user requirements.





Off the shelf Communications Systems for the Digital Battlespace

Consistent Network Solutions from Landrover to Command Post





Worldwide Installed Base

Thales Communications provides a range of vehicle communications systems and networks.

All products offer

- Built-in reliability
- Installation dimensions are based on replacement of all kinds of current intercom systems
- Shock and vibration conditions for tracked vehicles
- Built-in-Test Equipment
- Maintenance Packages

Thales Communications obtained the international quality certificate ISO9001/AQAP-110 for all its processes. The AQAP-150/Tick-it certification has been achieved for Software Design and Development. SEI CMM level 3 has been achieved in 2000.



THALES COMMUNICATIONS

P.O. Box 88 - 1270 AB Huizen, THE NETHERLANDS

Phone: +31 (0)35 524 83 18 Fax: +31 (0)35 524 81 63 E-mail: info@nl.thalesgroup.com www.thales-communications.nl

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