



Supporting Real Time, Tri-Service, Networked Operations

COMPANY PROFILE

Intaero has operating companies in the UK, Singapore and Malaysia. The company was founded in 1986 and our focus is on Networked Operations. To that end the company incorporates the following expertise:

- Networked Operations
 - Data Links – Development and integration
 - System interoperability and integration of different data sources
 - Common Operating Picture
- Software Development
 - SMART (Situation Management and Awareness in Real Time) C³i system
 - SMART AD - Air Defence System
 - SMART Controller - Fighter Controller System
 - SMART Brigade - Army Battle Management System
 - SMART COM - Naval Combat System
 - Exercise and Training systems
- Military Radios
 - Licensed manufacture of high performance, frequency hopping, digital, secure, HF, UHF and VHF radios and associated equipment.

DATA LINKS

Intaero has developed data links and interfaces to a number of third party, data links for data transfer. We have also produced a variety of interfaces to real-time sensors including radars and other data sources. Intaero has developed a multiple protocol converter, including both hardware and software, which provides an interface between existing data links and SMART. Current data links are either controlled by the US / NATO or developed as closed, proprietary links for specific purposes. Intaero is a strong proponent of a non-proprietary, secure, national data link for the reliable exchange of real time, tactical data over low bandwidth, wireless communications. This data link will work effectively over any communications medium and over any wireless frequency.

INTEROPERABILITY

System interoperability is a key requirement for effective, networked operations. Interoperability is critical to enable the transition from a platform centric force to a network centric force and is enabled through the use of a common operating environment (COE) throughout the software elements of the information grid. This enables the efficient flow of data between tactical units and strategic planners. Intaero has developed a COE within NETS which is mission-application independent and comprises:

- An architecture including guidelines and standards
- A runtime environment
- Core, software applications
- A collection of reusable software

- A set of guidelines and standards including APIs
- Utilities including communications management
- Standard displays, including a Common Operating Picture
- A real time data store and a data link
- Integration of new and existing 3rd party applications

COMMON OPERATING PICTURE

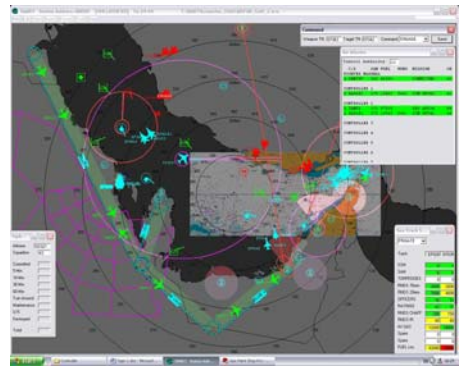
Intaero has considerable experience of integrating data from multiple sources and displaying the output as a Common Operating Picture at all levels including tactical, operational and national. This data can be received through all available networks including fixed and mobile and can come from automated sources such as radar or be inserted manually. The resultant COP is a tri-service, display which display country wide or a specific location and which includes:

- Operational data concerning the positions and dispositions of own and enemy troops
- The status of infrastructure
- The logistical situation
- Other appropriate data such as intelligence and EW data
- Decision support tools
- Information presented on the basis of relevance and priority

SMART OVERVIEW

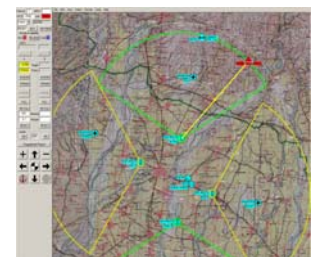
SMART is a real-time, tri-service, tactical and strategic software product, which meets the growing need of services to operate within a networked, joint-forces environment.

- Full, situational awareness through 2D and 3D displays
- Integration of all sensors and other C2 systems
- Integration of different protocols and data links
- Integration of data from other sources such as intelligence and imagery
- Optimised for a low-bandwidth communications.
- Ensures all information is timely and relevant



SMART AIR DEFENCE

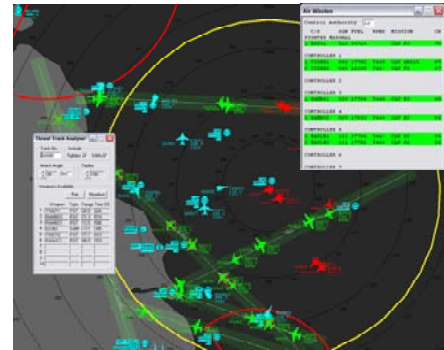
- Built on a Common Operating Environment (COE)
- Ensures interoperability with current and future weapons / sensors
- Ensures system security, operation and interoperability
- Provides for scalability and future growth
- Provides an improved response time, enhanced situational awareness,
- Provides increased lethality
- Offers enhanced survivability
- Enables users to sustain a faster tempo of battle
- Incorporates all air defence sensors and weapons
- Provides unique capabilities for all levels of the command structure
- Operates over any communication link
- Continues to provide a fully operational capability over an HF backup network



- Supports effective battlefield surveillance and coordination with digital commands and decision making tools

SMART CONTROLLER

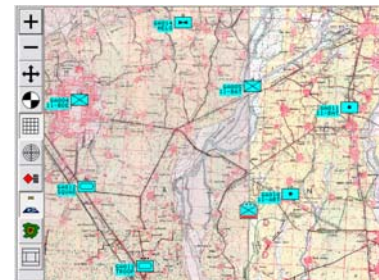
- Integrates radars and other data sources
- Correlates all tracks to provide a Recognised Air Picture
- Receives and integrates data from other C2 systems
- Incorporates digital commands and voice commands
- Offers full functionality for all operational levels:
 - Sector commander
 - Master controller
 - Fighter controller
 - Identification officer
 - Weapon assignment officer
- Supports administrative and comprehensive training functions including full simulation and recording.
- Tested up to 5,000 tracks
- Picks up and reacts to SSR data
- Displays all tracks and data on a plain background or against appropriate maps



SMART BRIGADE

SMART Brigade builds on Intaero technology and experience of developing non-proprietary software to incorporate

- Blue Force tracking and navigation, based on GPS
- Red Force tracking through
- Messaging and digital chat
- Digital commands
- Logistics
- Planning and situational awareness using GIS
- Digital briefing
- Communication management tools for MANET and low bandwidth operations
- Operation on Rugged tablet computers and PDAs



NAVAL COMBAT SYSTEMS

- Offers a fully networked, maritime command and control system
- Provides a unique set of fully integrated, hardware and software
- Can be fitted to new vessels or installed as an upgrade to existing equipment
- Enables a vessel to be modified as an Unmanned Surface Vessel within a few hours
- Can be provided to fit in any hull as an unmanned system.
- Brings the commercial benefits of rugged, COTS equipment
- Hardware includes:
 - Upgraded commercial radar with automatic track extraction
 - High definition camera with remote operating capability
 - Autopilot designed for both manual and unmanned operations, an
 - Intercom system
 - Rugged computer with Integrated GPS driving rugged screens



- Communications include frequency hopping, secure, HF and VHF radios
- Data are exchanged securely over these radios using SMART software

DIGITAL COMBAT RADIOS

Intaero has secured the rights to manufacture under license a range of powerful, digital, operationally proven, combat radios. Options include HF, VHF, UHF and V/UHF systems. In addition we can supply hand held, direct sequence, spread spectrum, data capable, VHF radios, communications gateways, data hubs and microwave link radios..

Radio features include:

- Frequency Hopping (V/UHF at 400hps, HF at 20HPS)
- Secure voice, data and SMS
- Digital Encryption (128bits DES – can be user defined)
- VHF Power: Man-pack – 10W, Vehicle - 50W
- V/UHF Power: Man-pack – 10W, Vehicle - 50W
- HF Power: Man-pack – 20W, Vehicle – 100W
- HF incorporates 3G, ALE, NVIS compatible
- Automatic relay function
- Remote control function up to 2 KM
- Wireless fill-gun (OTAR)
- Built in Test and board level support
- Built in GPS

