

# FALCON

## An Information Infrastructure

FALCON is an information infrastructure providing a tactical formation-level secure communications capability for the UK. Such a capability will meet all operational contingencies, including the Allied Rapid Reaction Corps role (ARRC). FALCON will also replace current in-service systems; principally Ptarmigan, Euromux, RTTS and DLAN.

BAE Systems was awarded the prime contract for FALCON Increment A in March 2006. The solution is flexible and future proofed to address the current requirement and to cater for upgrades in capability, scaling and capacity.

FALCON will operate in conjunction with Bowman, Cormorant and Skynet 5 providing a high capacity backbone that binds together these programmes in a theatre of operations. Our open systems architecture readily supports this objective and provides interoperability for Joint and Coalition operations.



### Programme

FALCON will be procured in a number of Increments:

#### Increment A (2009)

Will equip the headquarters and supporting units of the Allied Rapid Reaction Corps (ARRC) to conduct a HRF(L) commitment.

#### Increment B (2012)

Provision of connectivity to Division and below.

#### Increment C (2011)

An information infrastructure for deployed RAF bases.

#### Increment D (Not yet funded)

An information infrastructure for remote and mobile users and to maritime platforms.

### Installations - Increment A

#### Prime Mover Supacat -

##### (alternatives being investigated)

The same vehicle for all FALCON variants. Multi-role vehicle for battlefield flexibility.

#### The Command Post Support (CPS) Vehicle -

Variants provide connections for local area system subscribers (voice, data and video) to all Command Posts (CP) and connection to the Wide Area System (WAS).

#### The Wide Area Service Provision (WASP)

- Provides the wide area system that links together all Command Posts and remote users.

#### FALCON Management Installation (FMI)

- Planning, configuration, monitoring and control of the networks.

Other installation variants covering support, maintenance and repair tasks.

### Main System Elements - Increment A

Extensive use is made of COTS equipment with environmental packaging to meet the MIL SPECS

COTS equipment (such as Routers) will be installed in packing cases which are mounted in the Shelter on the Supacat vehicle.

Subscriber Group Access Unit (SGAU).

A central component for subscriber access. Contains Sentinel telephony software for the IP Gatekeeper/Telephony Server function.

The Ultra Band I/III and Thales Band IV radios give the line of sight connectivity (fitted in WASP/CSP).

Ruggedised IP telephone.

Two levels of encryption provided by the Thales DC2K Crypto's - Packet (for IP) and Bulk (Link protection).



### Benefits of our solution:

**Reduced manpower:** Less manpower required for managing, operating and support through the use of a single more capable technology.

**Increased data:** More than a thousand-fold increase in data handling capacity compared to the current system.

**Interoperability:** Through the use of open standards and the provision of a full range of gateways and IP technology commonality.

**Multiple levels of security:** Allows intra and inter-domain communication.

**Lower through life costs/future proofed:** Taking advantage of commercial investment in IP allowing readily available incremental enhancements.

**Lower training resources:** Through the use of Computer Assisted Instruction (CAI) and Computer Based Training (CBT).

**Ease of Use:** Simple management system, self-configuring and the systems 'plug and play' capability.

**Faster set-up times:** Modular design and reduced cabling. Sharing of voice & data infrastructure. Maximum automation of set-up and management.

**Increased Mobility:** Air transportable or as an under-slung load. The Supacat vehicle is a high mobility solution.

**Resilient:** Designed to counter hostile electronic and physical attack.

**Less bulk, weight and power:** Using the latest technology.

### Features of our solution:

- Taking advantage of the breadth of capability now available from both the commercial and defence industry sectors as Commercial-of-the-Shelf (COTS) and Military-off-the Shelf (MOTS) technologies and equipment.
- Maximum use of COTS technology - gaining the benefits of commercial R&D (\$5bn/annum), upgrading and functionality.
- Enhanceable equipment in a modular architecture.
- Flexible architectures for the network, security and management allowing capability for many deployment types.
- Designed to meet all types of operation.
- Maximum de-risking conducted using our in-house synthetic environment and CIS modelling capabilities.
- Use of a single (All-IP) technology.



### The Team

The Team: In conjunction with MoD (DEC CCI) and DPA (TFCS IPT) the BAE Systems FALCON Team comprises companies that are leaders in their field with best of breed equipment, capabilities, technologies and services

	PSI, system architecture and communication management system
	IP Technology
	Transmission sub-system, including radios and security (cryptos)
	Vehicles, installation design and fitting including field power generation
	Training and Training Needs Analysis (TNA)
	Sentinel telephony server, Subscriber Group Access Unit, Desk Access Unit, Ruggedised IP Phone.
	Gateway server
Project Manager (TFCS IPT) MoD Desk Officer Project Director	Steve Glass Major Ronnie Westerman Ian Maxwell

### FOR MORE INFORMATION CONTACT:

BAE Systems Integrated System Technologies Limited  
Victory Point  
Lyon Way, Frimley, Camberley  
Surrey, GU16 7EX, United Kingdom  
Telephone +44 (0) 1276 603000  
Fax +44 (0) 1276 603001  
email [insyte@baesystems.com](mailto:insyte@baesystems.com)  
[www.baesystems.com/insyte](http://www.baesystems.com/insyte)

Copyright © BAE Systems 2006. All rights reserved.

This publication is issued to provide outline information only which (unless agreed by BAE Systems in writing) may not be used, applied or reproduced for any purpose, or form part of any order or contract or be regarded as a representation relating to the products or services concerned. BAE Systems reserves the right to alter without notice the specification, design, price or conditions of supply of any product or service.

10.06.Insyte.BC085906