



WHAT SITUATIONAL AWARENESS  
THROUGH **MESSAGING & DECISION SUPPORT**  
BY COMMON TACTICAL PICTURE

## COMMAND & SUPPORT **ON THE GROUND**

The ability to obtain, analyse and distribute information around the battlespace is critical to the success of military operations in the 21<sup>st</sup> century. Efficient management of information is a force multiplier that enables military commanders to more effectively employ the assets under their command. It allows the Army Commander to get inside the opponents decision loop, providing a tactical advantage over conventional command mechanisms.

The Battlefield Command Support System is a PC based, fully field deployable, scalable system developed for the Australian Army. Empowering the Army commander by creating the common tactical picture in a Microsoft Windows environment.

### **System Capabilities**

Deployed from Division Headquarters to Company level, the Battlefield Command Support System is used routinely by Australian forces during exercises and overseas deployments. BCSS has been engineered to provide tactical messaging through legacy, restricted bandwidth Combat Net Radio networks while also being able to take full advantage of higher bandwidth Local Area Networks, Wireless Data Networks, Wide Area Networks and satellite links. BCSS provides a highly mobile tactical and operational command support system in an integrated information management, transmission and dissemination environment.

### **Architecture**

BCSS is hosted on the Saab Information Framework (SIF) which provides a robust, multi-layered data structure that publishes, shares and routes information. It is an open and flexible architecture which supports the

integration of additional applications and adaptors, including COTS and third party systems. The SIF is hosted on the industry standard Microsoft Windows™ XP operating system, providing security, a high degree of user familiarity and supports common programming languages to enable rapid, evolutionary development to specific user requirements.

BCSS provides a flexible information flow with integrated functionality throughout all stages of an operation. Near real time CTP overlays combined with operational status updates feeding the mission and logistics planning cycle gives commanders an unprecedented level of battlefield awareness.

BCSS uses worldwide standards and formats to facilitate interoperability and enable the rapid integration of new requirements or legacy systems. These standards include MIL-STD-2525B and NATO APP6A symbology and SQL compliance



#### KEY SYSTEM FEATURES

- PC Windows based C2 & CSS system
- Communications bearer independence
- Collaborative mission planning
- Operationally proven

#### Features of BCSS

- Enhanced Situational Awareness through common GIS interface.
- Automatic Blue Force tracking through GPS based positioning.
- Vector and raster moving map display supporting multiple formats and projections.
- Track and overlay display and creation.
- Route and formation tools.
- Military symbology and drawing tools
- Georeferenced Data display on the tactical picture
- 2D and 3D Terrain Analysis functions including Going Analysis, line of sight tool for intervisibility calculations and radio path profiling and propagation planning.
- Military Messaging including USMTF, ASMTF and VMF Message formats over a variety of in service high and low capacity links.
- Automatic parsing and display of tactical information in military messages
- ORBAT management tools
- Operational Planning tools for the generation of plans, orders and briefing materials, customisable to the end user's doctrine,
- Logistic Support and Capability Status tools to calculate logistics requirements and record and highlight the status of all units under command.
- Engineering tools to support calculation of mobility, offensive and defensive works.
- Intelligence databases and tools for analysis, recording and reporting.
- Interoperability with other Combat Management Systems such as the ANZAC CMS.

#### Future systems

At Saab, we have our minds set on supporting our customers in the development of network centric capabilities. Based on open modular technology, many of Saab's solutions are already prepared for the modern network environment.

By bringing the pieces together we can provide the advantage of being one step ahead when every second counts.

The modern battlefield includes a large array of computerised systems working to assist land force commanders with fast and efficient situation awareness, decision support and weapons and sensor guidance.

Numerous systems interface with the battlefield systems to provide intelligence, situation awareness, command information, logistics and coordinating data. These involve terrestrial radios, unmanned aerial and ground based vehicles and satellite based communications facilities.

The complexity of these growing systems and the need for precision, clarity and timeliness is vital for unambiguous command of operations. Saab has long been the system integrator of choice for the Australian Army and as a result, has the skills and experience necessary for meeting these high demands.

Bringing network technology to the battleground provides forces with a powerful tool to improve operational effectiveness by connecting all resources closer together and making them available for every one within the network. Nodes in the network now include formations, vehicles and individual soldiers, each with varying data and presentational demands.

The ability to survive in real battle requires being prepared with live, high quality training with the possibility to combine other live, virtual and constructive domains.