

COMBAT MANAGEMENT SYSTEM

High performance CMS with integrated ESSM & international tactical data links



Modern naval warfare continues to place increasing demands on people and systems to meet evolving threats. Improved sensors and weapons must be closely integrated to maximise performance and the modern warship's Command team needs to be able to compile, collate and disseminate large volumes of data in complex tactical environments.

Combat Management Systems (CMS) provide this seamless integration and presentation of the tactical picture and equip the command team with the decision-making tools to allow rapid threat evaluation and weapon assignment.

CMS performance is critical in reducing threat response times and allows the modern warship to survive in a high threat environment. The CMS must also have the right architecture and capacity to support evolution of sensors, weapons and software to meet future threats.

Saab is a world-leading supplier of Naval Combat Management Systems. In Australia, Saab Systems supplies the fully integrated combat system for the ANZAC Class frigates, now in service with the Royal Australian and New Zealand navies. The ultra modern Swedish VISBY stealth corvette depends on the Saab CMS and there are other derivatives of the system in more than 20 ship classes around the world. In the global market, Saab is positioned as the most relied upon independent combat system integrator.

Operational Capability

Saab's CMS is optimised to meet the demanding anti-ship missile defence scenario in which timing, flexibility and kill rate are of utmost importance.



The system's numerous command features and flexible tools support varying situations and tactics.

A threat to the platform is met with four levels of tactical functions:

- » real-time handling of immediate threats;
- » force coordination via multiple data link interfaces;
- » support for surface and submarine warfare planning;
- » long-term planning using encyclopaedic data source.

The advanced communication, sensor and weapon systems are managed to form a coordinated and optimal operational tool, tailor made to fit the missions and tasks of the ship. The air-, surface- and subsurface defence of the ship and nearby units are supported by sophisticated automatic and semi automatic functions optimised for rapid reaction and maximum performance of



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engagements. Data link information is distributed in the CMS and made available to the operator in context, as part of the tactical picture.

The CMS enables flexible control of integrated communication, sensor and weapon systems from any of the CeCots multi function consoles. The Operator Role concept allows flexible re-allocation of functionality for planning, automation, rapid response, and analysis consistent with specific operator tasks.

Architecture

The Saab CMS software supports a fully distributed system architecture, with multiple processors running many small independent Ada software application programs providing a flexible, fully distributed, integrated system which ensures very high reliability and easy support throughout the life of the ship.

Use of Microsoft Windows operating system permits incorporation of the latest commercial software developments and the integration of other military software. Changing requirements to operational doctrine can be rapidly introduced into Service. The familiar Windows interface reduces training requirements.

The proven performance of developed system functions allows adaptation to projects of differing scales including patrol craft, corvettes, frigates and submarines of navies worldwide.

Expandability

The system's open design has enabled the integration of additional capabilities such as the Evolved Sea Sparrow Missile, and the Advanced Harpoon Weapon Control System; both of which are currently being introduced to the ANZAC Class.

The extensive use of COTS processing, standard interfaces and display equipment enables progressive, evolutionary upgrades without unique

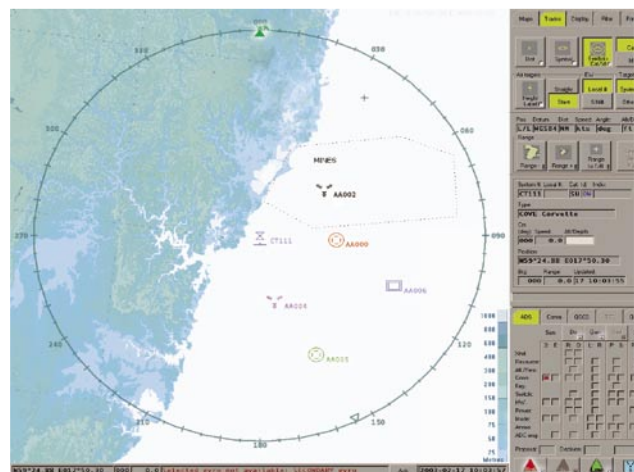
hardware. In addition the system is ready to add additional consoles, interface nodes and processing servers without any need for architectural changes.

Saab's unique Air Defence Coordination function maximizes the performance of all of the ship's weapons and effectors and has been optimised to use new weapons, surveillance and missile illumination systems. An advanced sensor management function of the Saab CMS ensures the full benefit of new generation Phased Array Radar capabilities are realised.

Support

Technology transfer ensures that the customer navy has the capability to modify, adapt and maintain the Saab CMS to meet the future needs and changing tactics and upgraded equipment. Through an In-Service Support contract, Saab can provide the navy with a self-reliant capability, to maintain the operational effectiveness and availability of the system.

Saab Systems staff include tactical experts and naval combat system engineers with extensive training and international experience. Up to date knowledge of tactical and engineering requirements is included into Saab CMS as a result of the many retired naval officers who have joined forces with Saab.



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