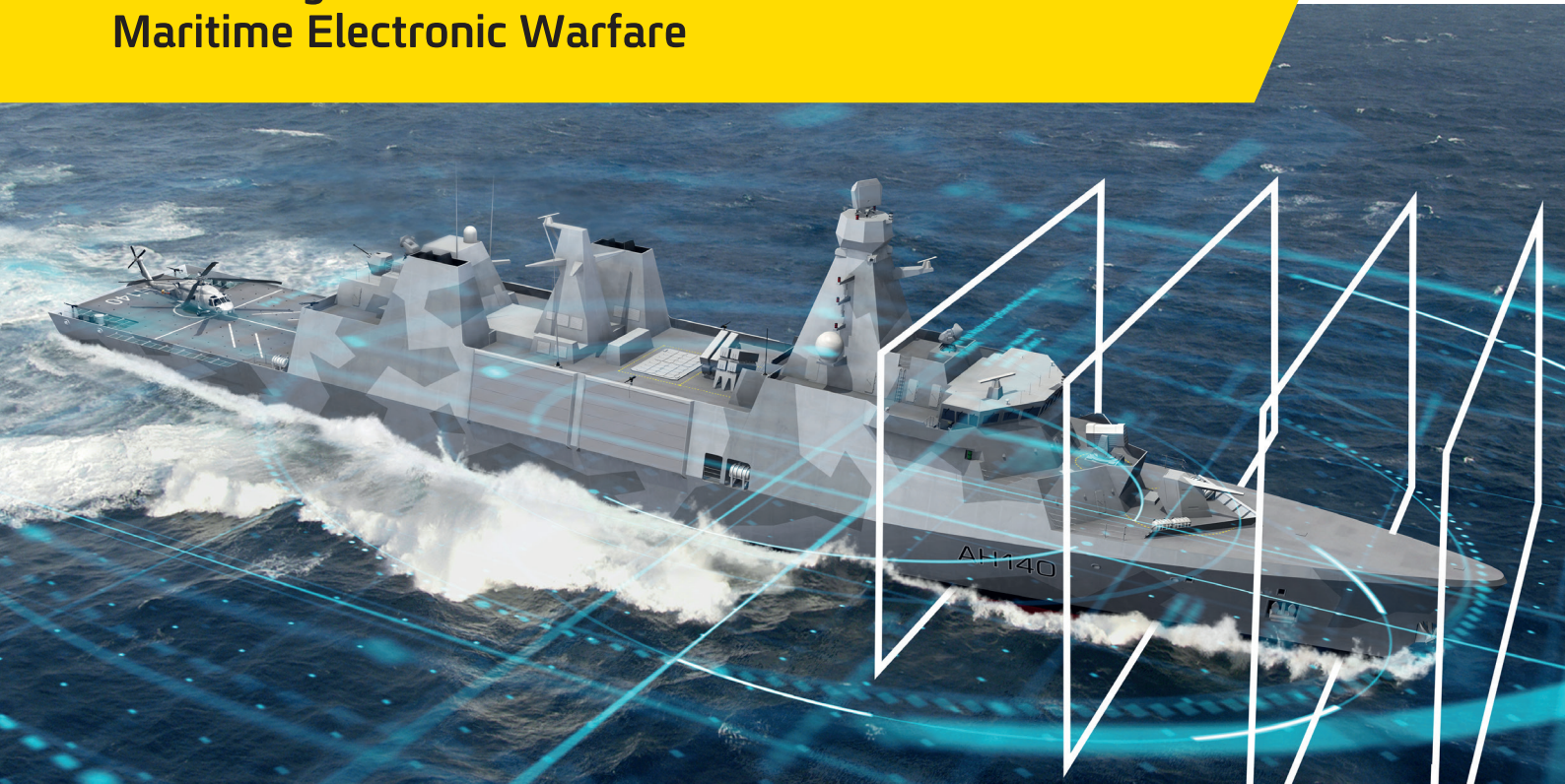


eM-e^{dominate}

The next generation of Maritime Electronic Warfare



Overview

eM-e^{dominate} is a suite of maritime EW systems, based on open systems and modern digital design.

Tailored and sovereign variants of this fully digital EW suite are now operational, manufactured, integrated and continuously developed by Elbit Systems and partners around the world, including Five Eye nations. Developed by using open principles from the start, the suite is adaptive and modular, providing a choice of;

- **eM-e^{control}**: Electronic Warfare Command and Control (EWC²) including Mission Planning
- **eM-e^{sense}**: Electronic Surveillance (ES) / Radar ESM (RESM) with ELINT capabilities
- **eM-e^{defeat}**: EW Counter Measure (EWCM), Electronic Attack and effectors activation countering identified threats

Together, eM-e^{control}, eM-e^{sense} with or without eM-e^{defeat} combine to form eM-e^{dominate}, the next generation of secure and open Maritime Electronic Warfare capabilities.

eM-e control

A 'system of systems' - secure and open systems architecture EW command and control (EWC²) capability

Overview

The eM-e control is a 'System-of-Systems' capability comprised of an innovative and dedicated EWC2 unit integrated with a RESM / ES sensor (eM-e sense). Together, eM-e sense and eM-e control combine to form eM-e dominate, our end-to-end EW solution.

Our eM-e control fuses the advantages and benefits of an operational-proven modern maritime EW solution, with the advantages and benefits of operational-modern C² capabilities already deployed in various tactical disciplines.

This innovative and evergreen 'System-of-Systems' solution provides a modular, easily upgradeable, high-performance EW solution that is inherently flexible in its delivery and deployment concept. It enables, when required, delivery of tailored system capabilities, such as dedicated EWC² applications. Developed from operationally proven tactical C² applications, it includes algorithms to address present threats. As such, eM-e control provides a low risk, robust and operationally proven solution.

System Highlights

Planning	Effective EW data visualisation during planning; Revolutionary EW estimate and planning toolset; Integrated mission rehearsals.
Shared Situational Awareness	Improved battle management; SSA through visualisation; Reducing the user cognitive burden; Exploiting data from multiple shipboard sensors, systems and intelligence assets; Providing the operator with integrated decision support tools.
Anti-Ship Missile Defence (ASMD)	Bringing adaptive algorithms, rules-based Tactics to support ASMD; Automating tactical EW decision making; Managing platform and Task Group EW effectors; True Hard-Kill/Soft-Kill coordination; Automation delivering EW efficiency.
RESM & ELINT	Greater fidelity of RESM data; Stage 1 analysis through visualisation; Improved database management; Development and tuning of EW Mission library data.
Features	System-of-Systems approach; In-service API Framework; Operational applications and algorithms; ECM ready, Built-in system calibration and performance tests; Low-risk, robust and operationally proven solution; Live training and rehearsal capabilities.

The latest generation fully digital Radar ESM system on the market

Overview

Analysis employs adaptive algorithms and deep learning to lower false-alarm rates; Multiple Hypothesis Tracking for EW Tracking; solving EW relationship conflicts; Extensive BIT and diagnostic capabilities

System Highlights

Frequency Coverage	Available on request
Frequency Extension	Available on request
Bearing accuracy	Available on request
Sensitivity	Available on request
Pulse Width (PW) Range	Available on request
Dynamic Range	Available on request
Spatial Coverage	Available on request
Antenna suite	Very high sensitivity Interferometric DF phased array antenna. Very low RCS profile.
Receiver	Full digital utilising direct sampling, multi-bit, channelised wide band panoramic receiver. Advanced signal processing including time overlapping pulse (Co-Pulse) reception, immunity and resilience mechanisms, designed to withstand environmental, offensive and co-site interference. Automated in-line high sense ELINT capabilities. High POI and alarm response in congested and contested EME. ECM Ready design for future RFCM introduction.
Analysis	Employs adaptive algorithms and deep learning to lower false-alarm rates. Multiple Hypothesis Tracking for EW Tracking, solving EW relationship conflicts. Extensive BIT and diagnostic capabilities.
Calibration & On-Board Training	Built-in calibration management, which doesn't affect the operational status. OBT solution, realism mixing of live & simulated emitters.

eM-e^{defeat}

The latest generation of EW Counter Measure (EWCM) capabilities providing protection for your platforms and assets against the latest threats in the most challenging environments



Overview

eM-e^{defeat} is a suite of EW Counter Measure (EWCM) systems that forms part of Elbit Systems' eM-e^{dominate} capabilities.

eM-e^{defeat} provides customers with 'best of breed' onboard or offboard EWCM effector delivery systems (trainable launchers) or effectors including Electronic Attack, that can be either integrated as part of a Elbit Systems' end-to-end capabilities: sense - control - defeat (dominate) for maximum system coherency and/or integrated with a 3rd party's EW system.

The timing of the delivery of threat responses is critical to platform and asset protection, as such Elbit Systems offers the very latest technology, including use of EW payloads on pre-emptively deployed Unmanned Air Systems and/or Unmanned Surface Vessels in high threat areas, this provides persistence and CM optimisation - maximising survivability against modern Anti-Ship threats. The dynamic planning, management and operational use of EWCM is a key function of eM-e^{control}.

System Highlights

Maritime training decoy launcher
(Effector delivery system)

Providing the ability to rapidly and coherently conduct appropriate platform ASMD responses by placing different effectors decoys away from the host platform(s) - aiming to achieve Hard-Kill/Soft-Kill optimisation and thus improving platform survivability.



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