

# APLAUD

An Active and Passive, Land and Air Unified Defense Solution

ELBIT SYSTEMS EW AND SIGINT - ELISRA | Airborne EW

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A Multi-Function, Multi-Mission Response to Existing and Emerging Threats across the Entire Electromagnetic Spectrum

## Overview

The modern battlefield presents a host of complex and evolving challenges that are thoroughly addressed by Elbit Systems EW and SIGINT-Elisra, through its pioneering, integrative approach to SIGINT and Electronic Warfare. This approach enables the seamless integration of a wide range of critical, interoperable, operational elements – ESM/ELINT, COMINT, ECM, COMJAM, and Command and Control – operated and controlled by a single entity. Combining all elements into one comprehensive, integratable, customizable solution, a new level of capability is achieved. Enabling passive and active intelligence, including collection, processing and exploitation, EW countermeasures and Command and Control, the solution provides decision-makers with a complete, real-time, SIGINT and EW picture of the arena. Accessible to all echelons – including national, theater and division levels – the solution powerfully responds to existing and emerging threats from airborne, naval and ground platforms. Managing multi-frequency sub-bands, the elements detect and intercept multiple threats through rapid spectrum scanning – enabling real-time

situational awareness and simultaneous operation of elements for Electronic Support (ES) and Electronic Attack (EA). Both SIGINT and EW elements, running 24/7, can be operated independently as standalones – or together, as one entity. Operating in emergency, combat, or routine mode according to evolving needs, forces can implement the entire solution or select active, passive, EW or SIGINT elements and can switch between EW and SIGINT functions as required.

## The Major Elements

### ESM/ELINT

Providing full spectrum 0.5-40 GHz coverage, ESM/ELINT capabilities are integrated into the EW subsystems to automatically detect, measure, identify, monitor and intercept all ground-based, shipborne and airborne radar signals. Elisra's ELINT systems provide continuous/uninterrupted platform protection, surveillance, early warning, information gathering and storage, geo-location and data analysis.

### COMINT/DF

An array of Communications, Intelligence and Direction Finding (COMINT/DF) systems – providing advanced demodulation, classification and agile signal detection capabilities – operate over HF – 6 GHz frequency bands. They deliver a real-time display of the arena activity, furnishing ultra-fast, accurate DF range measurement in dense environments – and providing a full modular solution for cellular SIGINT and EW. Integration with COMJAM capabilities enables reliable land, sea and air coverage – serving both strategic and tactical objectives.

### ECM

The ECM system simultaneously detects, locates and selectively jams enemy targets – both automatically and manually – delivering the significant operational advantage of pinpoint neutralization of enemy systems while handling multiple threats in parallel. The system brings advanced Electromagnetic Counter Measures (ECM) capabilities to all echelons – strategic, divisional and tactical levels. Combining advanced tactical and strategic capabilities, complete real-time access to the system and full local decision-making and operational autonomy to forces in the field are enabled. The system includes cutting-edge selective jamming capabilities – and prevents the jamming of the entire battlefield and secondary disturbances by friendly forces. Withstanding harsh environments, it adapts to all platforms and can be positioned close to frontline forces.

### COMJAM

Combining extremely advanced algorithms and components, the most sophisticated Communications Jamming systems cope with conventional as well as today's most advanced methods, including frequency-hopping. A “look-through” mechanism for reception and activity detection enables precisely-timed selective jamming of targeted signals as well as prioritization of targets. Able to withstand the harshest combat environments, Elisra's COMJAM systems are adaptable to all airborne and ground platforms, including AFVs – and can escort frontline forces.

### Command and Control

The Command, Control, Communication, Computer and Intelligence Systems form the advanced, user-friendly interface that facilitates efficient, accurate and timely operation. Connecting the human factor with the system's SIGINT and EW elements, the fully integrated system processes and exploits the intelligence gathered by the COMINT/DF and ESM/ELINT stations and manages the missions accordingly.

### Optional Capabilities

The system also enables the optional integration with self-protection solutions for airborne platforms, including IR Self-Protection, MWS (Missile Warning System), RWR (Radar Warning Receiver), Jamming Systems, CMDS (Counter Measures Dispensing System) and Voice and Data Communications.