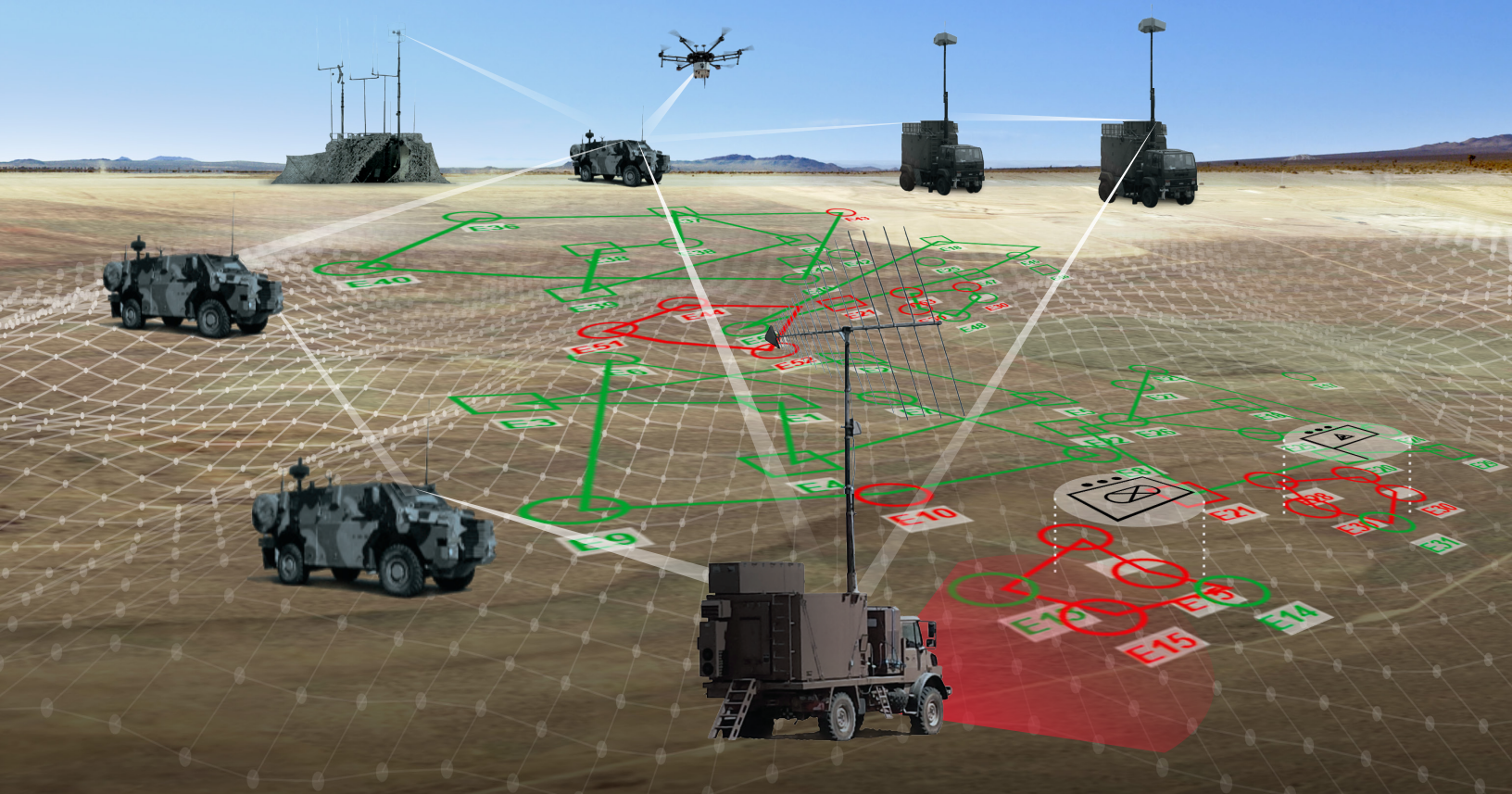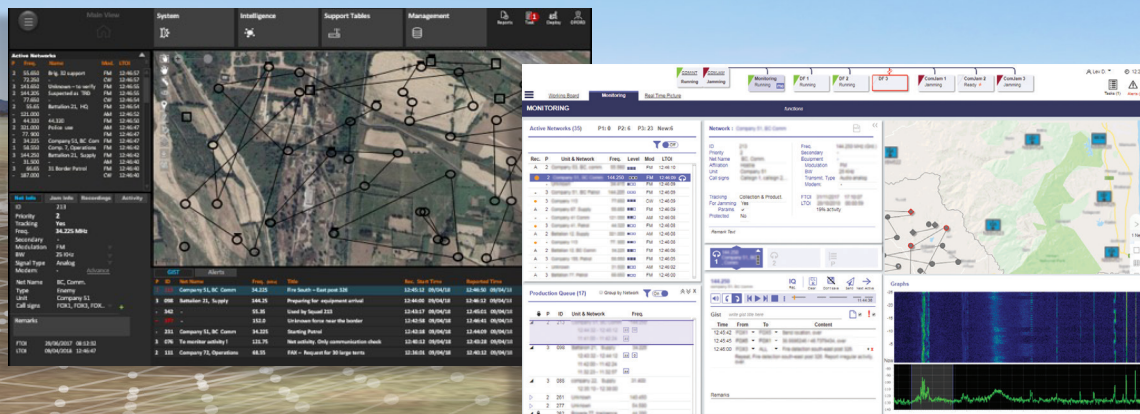# TIMES

Tactical Integrated Mobile EW Solution

Elbit Systems™

EW and SIGINT - *Elisra*

TIMES
Tactical Integrated Mobile EW Solution

TIMES – Integrated SIGINT and EW Solution – Combining Knowledge with Action

Offering a multi-mission, multi-function, end-to-end response for various military and HLS missions, our integrated SIGINT and EW solution thoroughly addresses the complex and evolving challenges of the modern electromagnetic battlefield. It comprises a wide range of critical, interoperable and operational capabilities. These include COMINT, ELINT, COMJAM and Command & Control systems. Enhanced by years of sophisticated responses to customers' needs and worldwide experience covering a broad array of today's theaters, our unified SIGINT and EW solution meets the full range of operational support across the entire electromagnetic spectrum.
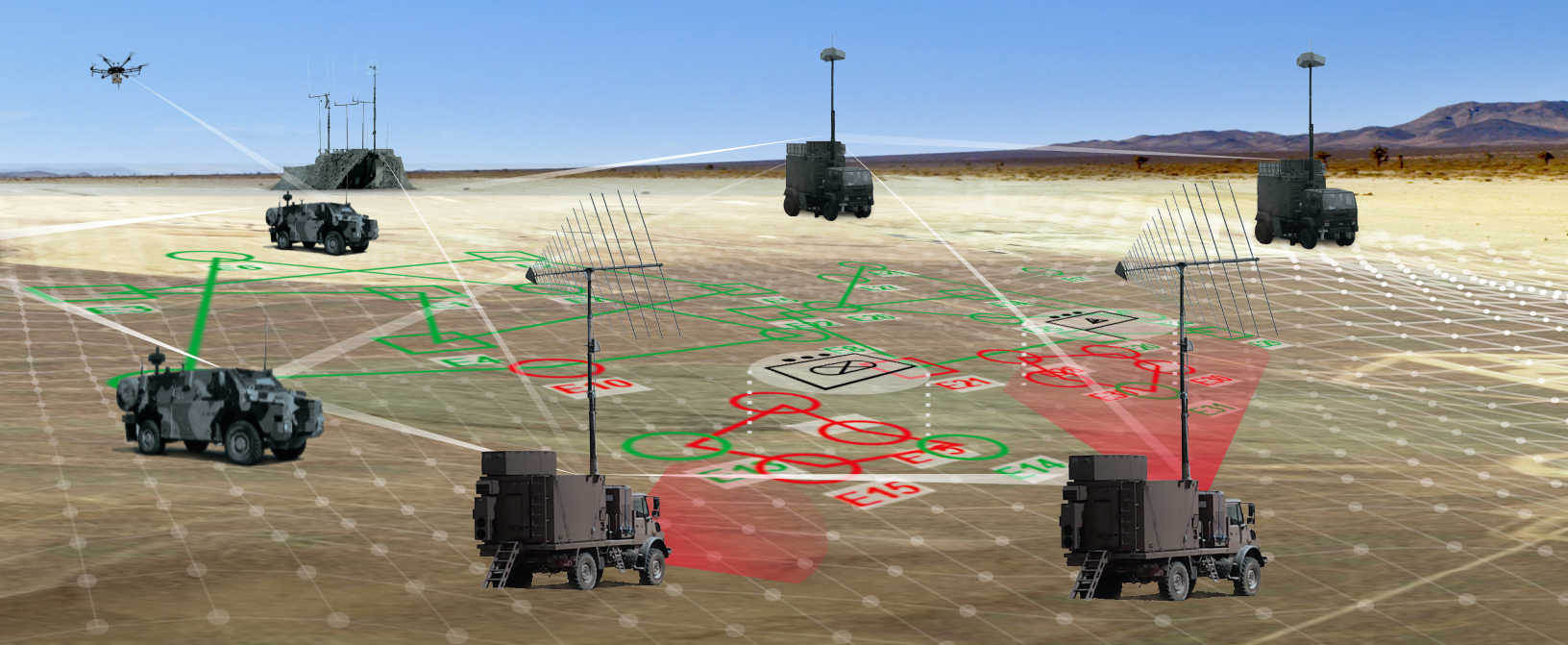
ESM Capabilities

COMINT/DF System
- Frequency band coverage: HF, VHF, UHF
- Activity detection and classification using wide-band SDR receivers
- Handles fast frequency hoppers
- Automatic geographical Electronic Order of Battle (EOB)
- Signal analysis, classification and recognition
- Production and recording of analog and digital signals
- Real-time audio monitoring and spectrum visualization
- Wide-band recording and playback capabilities
- Automatic and manual Intelligence insights: activity alerts, graphs, speech to text and word spotting, communication analysis (i.e. link, traffic, hierarchy)
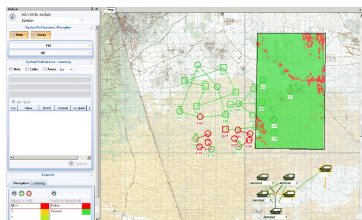
ELINT System
- Frequency coverage: 0.5 to 18GHz
- Automatic detection, analysis, identification and geo-location of radar signals
- Instantaneous high sensitivity and precision DF
- Wide-band multi-channel receiver processor unit
- High instantaneous dynamic range and fast reaction
- 360° coverage in azimuth, 45° in elevation
- Operational in very dense electromagnetic environment
- Handles frequency hoppers, constant/staggered/jittered/batched PRI, circular-scan/TWS, low/mid/high PRF and CW
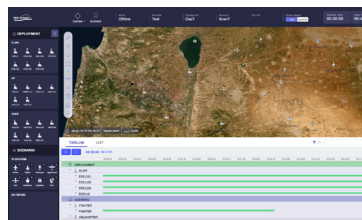- WB recording and ELINT investigating software tool

EA Capabilities

COMJAM System

- Detection and jamming signals in HF, VHF and UHF
- Automatic or manual (man-in-the-loop) jamming
- Advanced jamming techniques: responsive, follower, brute narrow-band and wide-band
- Agile jamming-control using look-through methods
- Effective against fast frequency hoppers and digital signals
- Complex modulation generation capability
- Modulation generation via IQ file import
- Deception capabilities
- Combined FDM and TDM jamming techniques
- High-power solid-state amplifiers
- Agile Software Defined Radio (SDR) synthesizers
- Integrated with full COMINT/DF capabilities

Mission Support

Mission Planning Tool (MPT)
Enables efficient planning of EW operations. Deployment optimization enables communication between all stations with a best location selection for deployment in regard to wave propagation models, enemy emitters' location, topography and system parameters. Efficiency Assessment provides geographical coverage performance of jamming, DF, localization fixing and monitoring.

Post Mission Debriefing (PMD) Tool
Assists in analyzing and improving system performance and effectiveness. It automatically records all operational activities and information, carries out extensive analysis based on the recorded data and handles full operation debriefing including detailed reports, operation playback and performed on the system's HMI.

EW Simulation and Training (EWST)
Using a realistic RF environment simulation and a "Train as You Fight" concept, the EWST employs a Red team/Blue team exercise concept for either individual or group operators and commanders training. EWTS can be integrated into the operational system or as a separated training center.

▶ Mission Planning Tool (MPT)   ▶ EW Simulation and Training (EWST)

TIMES

Tactical Integrated Mobile EW Solution

General Key Features

- Communication and radar Electronic Support Measure (ESM) and Electronic Attack (EA) Measures
- Automatic integrated situational awareness picture generation
- Extensive mission planning, tasking and reporting capabilities
- EW Command & Control
- Frequency coverage: 9KHz – 18GHz
- Big Data approach
- Open data interface to external C4I and other systems
- Intuitive User Interface (UI) and map-centric operation
- Built-in training and testing
- Scalable and flexible software and firmware architecture for future add-on features
- Adaptive modular platform configuration
- Decision Support System (DSS) based on Machine Learning (ML)

Elbit Systems EW and SIGINT - Elisra Ltd.
29 Hamerkava St., Holon 5885118, Israel
E-mail: marketing@elisra.com   www.elbitsystems.com

Follow us on