Selex ES
A Finmeccanica Company

Electronic Warfare

SAGE
ADVANCED DIGITAL ESM

In today's complex and ever changing Electronic Warfare (EW) environment, Radio Frequency (RF) Situational Awareness is vital to mission success. The need for rapid decision-making and emitter mapping grows ever stronger as the battle for knowledge accelerates.

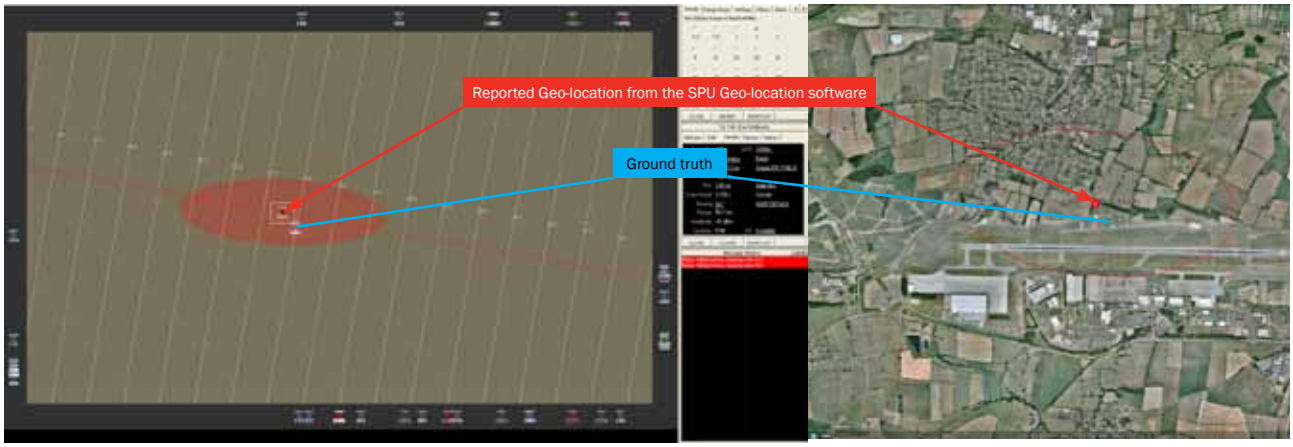
SAGE, advanced digital Electronic Support Measures (ESM), is at the forefront of this knowledge battle and provides an unparalleled geo-location capability from a single platform.

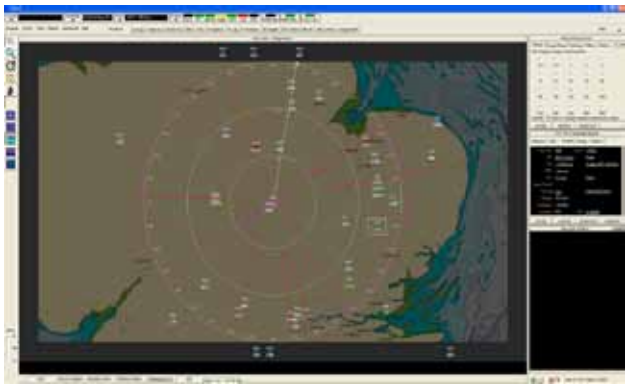
The state-of-the-art system can be fitted to multiple platforms ranging from mid-sized UAVs to large transport aircraft. Available in a variety of configurations with the option to add a Communication ESM Channel, SAGE can be tailored to your platform and your requirements.

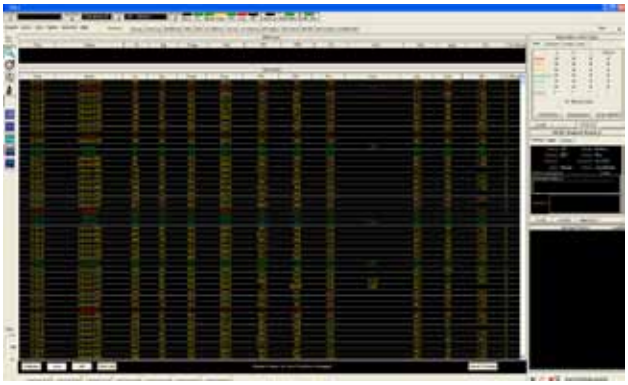
SAGE is a true 'force-multiplier' in that it eliminates the requirement for specialist ESM platforms, reducing cost, increasing commonality and enhancing flexibility. SAGE can passively detect, identify and characterise emitters at less than 1°rms and cue other sensors, such as SAR, or be data-linked off-board to cue other entities.

KEY BENEFITS

- Single platform highly accurate geo-location enabling accurate sensor cueing at tactically significant range
- Rapid decision making by shortening the 'Find Fix' element of the F2T2EA (Find, Fix, Track, Target, Engage, Assess) Timeline
- Identification and categorisation of complex emitters
- Enhanced platform survivability through advanced Radar Warning capability
- Data recording for further analysis and sovereign EW database creation
- Compact, modular and simple to fit
- Light-weight: typically less than 20kg (45lbs)
- Scalable and upgradeable
- Utilises Ethernet for effortless integration
- Easily networked and Data-Link ready.







KEY APPLICATIONS

The flexibility of the SAGE system enables it to be integrated onto UAVs, Helicopters, Fast Jets and Transport Aircraft.

Its main application is Situational Awareness and intelligence gathering, which is optimised through wideband and channelised receivers that generate instantaneous detection and enable ELINT analysis.

The SAGE system effectively performs advanced ESM, platform protection and geo-location in both military and civil applications. It is equally capable of operating in hostile complex environments, or enhancing the capabilities of Maritime Patrol Aircraft and other homeland defence platforms.

The ability of SAGE to identify and categorise complex emitters, whilst recording data for further analysis gives the foundation of a true sovereign ELINT capability. In turn this will enable you to take control of your own EW databases and threat libraries whilst providing the capability to create and tailor Mission Data Files to suit sovereign needs.

Transforming mission data into a mission advantage.

TECHNICAL SPECIFICATIONS

RF Band	0.5 – 40GHz
RF Measurement	1 MHz RMS typical, including RF Agility characteristics
Sensitivity	-60dBmi wideband DRx sensitivity dependent on FFT, better than -80dBmi achievable
High Accuracy DF	Typically 1° rms
PRF types	Fixed, jittered, slide, stagger, random stagger, drift batch, irregular, nlets
Geo-Location	Typically better than 5%
Pulse Width	50ns to CW (Stable and all PW agile types)
Pulse width agility	Fixed, agile, agile discrete
Fine Frequency Measurement	<50KHz RMS for Pulse Widths > 1µs <100 Hz for coherent signals (using external 10MHz ref.)
Intra-Pulse Measurements	Frequency Modulation: FMICW, FMCW, FM Chirp
Phase Modulation	Phase Shift Keying (PSK) Barker Codes
Emitter Library Size	16000 mode lines

For more information please email **infomarketing@selex-es.com**
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