



ELTGROUP

# AIR DOMINANCE.

Empowering Air Force Operations  
in modern complex scenarios.





# WE ARE ELT GROUP

Safeguarding the globe  
with unmatched EMS expertise.

For over seven decades, we have been a beacon of innovation, leading the charge in shaping a secure future. Operating across 11 countries in Europe, the Middle East, Asia, and the USA, our commitment to excellence is evident in our extensive history and unwavering dedication to innovation.

Over the past three years, our significant investments in cutting-edge technologies have propelled us to the forefront of the Electromagnetic Spectrum (EMS) realm.

Collaborating with esteemed research institutions and universities, we've cultivated an Innovation Ecosystem, fostering groundbreaking solutions for defense, cybersecurity, and EMS. Our identity, deeply rooted in a rich history, has evolved into a global force, participating in major defense programs, and contributing to the sixth-generation fighter GCAP.

From cybersecurity to pioneering EMS technologies, our relentless pursuit of innovation goes hand in hand with sustainability, reflecting our forward-looking approach to building a safer and more stable world.

# Our approach to Defense

## Operational Capabilities & integrated smart multi-spectral management.

As a global leader in Electromagnetic Spectrum Operations (EMSO), we are focused in developing Operational Capabilities that can generate different Operational Effect thanks to our state-of-the-art technology portfolio. The combination of these skills allows our customers to develop TTP's in Electromagnetic Attack Defensive (ED), ElectroMagnetic Attack Offensive (EA), Intelligence, Surveillance, Reconnaissance (ISR), Cyber ElectroMagnetic Activities (CEMA), and Asset and Information Protection through a multi-domain approach. It has been generating Operational Capabilities in the last 70 years in the Armed Forces of 30 nations across 5 continents.

Embracing a turn-key solution approach, Global Sustainment complements our offerings, providing a complete EMSO experience through education, training, advanced simulation systems, operational support, and full Life Cycle Management.

Our commitment is to continuously enhance platforms EMSO capabilities through the research of new technologies for an integrated and SMART multi-spectral EMSO Management.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

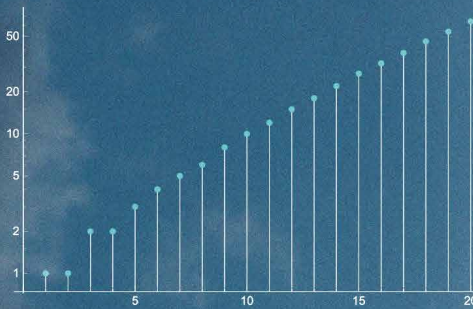
6.950 5.298 4.745  
7.376 8.919 3.802  
5.582 4.351 3.658

6.950 5.298 4.745  
7.376 8.919 3.802  
5.582 4.351 3.658

6.950 5.298 4.745  
7.376 8.919 3.802  
5.582 4.351 3.658

6.950 5.298 4.745  
7.376 8.919 3.802  
5.582 4.351 3.658

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.



/01.

# ELECTRONIC DEFENSE

Sensing the threats and protecting the platform.



# EDGE

↳ Protecting own platforms and those who can't.



Protecting our own platform is an undisputed capability that must be assured by our own sensors but the continuously increasing of the challenges in the Operational Scenarios pose a real threat to state of art on board Self Protection Systems and to previous generation platforms.

EDGE is the new Escort Jamming Pod solution designed by ELT Group, mastering the highest technological challenges. It is an integrated system for detecting, identifying and automatically processing radar signals that constitute a threat to our platform and to those who need to be protected.

It determines the appropriate counter-measures depending on the reaction of the system being jammed, generating the Operational Effects desired. EDGE guarantees mission success by performing a complex and comprehensive cycle of early warning measures, which also increases knowledge of the systems to be countered. EDGE is “digital and networking” native and the product and its technologies are designed for exportability.

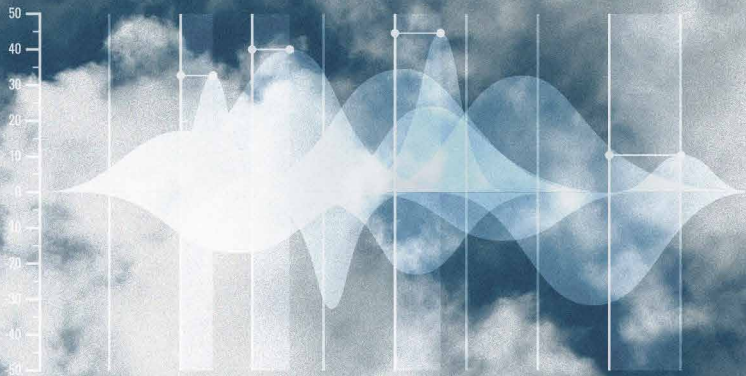
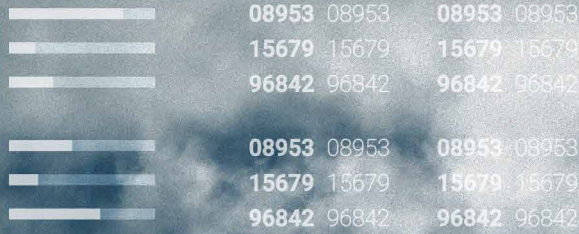
## ↳ [EDGE at a glance]

- EDGE allows the defeating of 2 and 3 digits SAM
- EDGE is the widest band system available on the market
- EDGE is self-contained, self-powered, self-cooled, and therefore it is “platform agnostic”
- EDGE include also a full ELINT capability, thanks to its derivation from VIRGILIUS
- EDGE can operate as a stand-alone equipment, overriding the existing platform's SPS









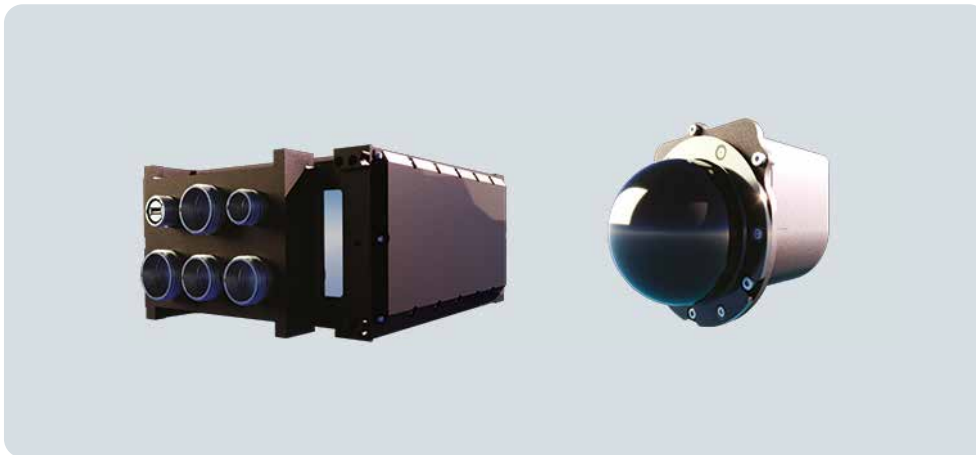
/02.

# SELF PROTECTION

Sensing the Spectrum to ensure platforms' protection and missions' success.

# ELT/162

↳ Know the threat and its vulnerabilities.



ELT/162 is a RWR\ESM that prevents crews from imminent threats long before they could become a “problem”. Thanks to the digital architecture, the system is capable to detect even more parameters for deeper threat analysis and jamming effectiveness. Conceived in a very compact module, the system monitors even the densest electromagnetic scenarios to protect combat aircraft, helicopters, and transport aircraft. It can designate countermeasures systems even in presence of threat signals with unknown emitters identification, thanks to the threat illumination characteristics.

---

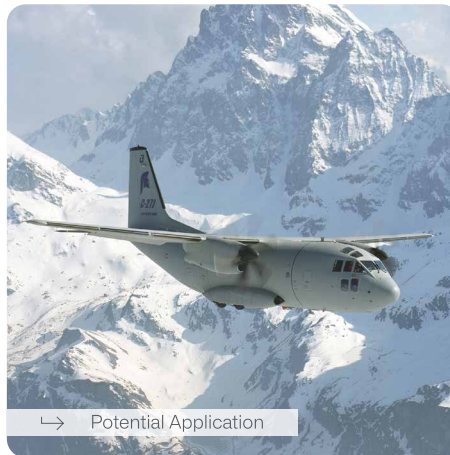
↳ [ELT/162 at a glance]

- |                                                                                                            |                                                                           |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| → Full Digital architecture                                                                                | → Flight line re-programmable                                             |
| → Warning of high priority emitters                                                                        | → ESM functionality                                                       |
| → Capability to operate also with raw data libraries (mission data)                                        | → Strong Multi signal capability                                          |
| → Capability to automatically analyze, classify, display and record also unknown emissions                 | → Emitter synthesis and identification powered by Artificial Intelligence |
| → Capability to operate as an EW Controller that exploits/performs functions for multi-sensor coordination | → Easy customization and installation                                     |
| → Able to designate counter-measure such as chaff and expendable active decoy                              | → Future growth capabilities                                              |



# ELT/590

↳ Shield & Spear - Feed the intelligence cycle.



In modern operational scenario, missiles are likely to be employed and ELT/590 SPARK has been designed as an off-board jamming device able to keep the most modern terminal threats away from the platform. After its deployment, it is powered up and it delivers, by use of advanced DRFM technology and stored jamming techniques, a “fake signal” able to defeat the incoming missile.

SPARK is completed with a full list of services that includes training, operational ground support, life cycle extension management and upgrades, which make it a safe investment.

## ↳ [ELT/590 at a glance]

→ Expendable Active Decoy optimized in different frequency bands

→ Digital Radio Frequency Memory (DRFM) for modern coherent threats

→ Programmable ECM Techniques (coherent, repeater and noise jamming)

→ Compatible with on-board Countermeasure Dispensing Systems

→ Flexible use: pre-programmed, pilot operated, stand alone

→ Complies with NDAS standard architecture

# ELT/819

↳ Understanding the operational scenario through the spectrum.



ELT/819 is designed for advanced Signal Intelligence missions within ISTAR-EW platforms. Its function is to collect electromagnetic emissions to determine their inherent features, including “fingerprinting” of the systems associated with them to feed the intelligence cycle. Flexible deployment also allows tactical use during preparation and support for joint missions, for example on airborne Early Warning platforms. There are no obstacles that intelligent technology cannot overcome.

## ↳ [ELT/819 at a glance]

- |                                                                                          |                                                                                                                                                         |
|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| → Large RF coverage from A to K band                                                     | → Very accurate DOA measurements                                                                                                                        |
| → Dual receiver with extremely high sensitivity and high Probability Of Intercept (POI)  | → Automatic and computer-aided analysis both at Interpulse and Intrapulse level                                                                         |
| → Wide instantaneous IF bandwidth                                                        | → Digital recording of all the acquired data (PDMs and Intrapulse analysis data)                                                                        |
| → Capability to operate in dense, complex and a priori unknown electromagnetic scenarios | → Capability to be tasked and interrogated (through the on-board communication facilities) by a remote command center in a Network-Centric architecture |
| → E.O.B. creation/ updating and presentation on digital maps                             |                                                                                                                                                         |



# ELT/733NG

↳ New Generation family of Radar ESM systems.



ELT/733 is a Radar ESM that has been designed to fulfill data collection and RWR operational requirements in a different Operational Scenarios: it equips helicopters and aircrafts for maritime patrol applications, as well as AEW&C missions with a frequency band coverage in C to J.

## ↳ [ELT/733NG at a glance]

- Full RWR-ESM-ELINT capability in a single processing unit
- Fully automatic
- Massive Data collection capability
- Automatic identification and warning of high priority emitters
- Very high Probability of Intercept (100% nominal)
- Very wide RF coverage, (C to J) band, optionally extendable to mmW
- Very accurate monopulse DF
- Pulse, intra-pulse and fine analysis ELINT functions that include measurement of frequency, jitter, stagger, PRF and PRI
- High quality signal analysis in real-time including Modulation on Pulse (MOP)
- Capability to operate in a very high density scenario without performance degradation
- Capability to operate also with raw data libraries (mission data)

# ELT/577

↳ All-in-one.



IR Missiles pose a worrying threat to the platform as they are used at short range and the need to be alarmed and protected has become an essential capability against them. ELT/577 in the newest ELT DIRCM based on Quantum Cascade Laser is able to fine track the incoming multiple IR missiles and deception jamming them, generating the Operational Effects to steer them away from the platform. Already integrated with MWS and Flares that allow the system to be effective against the last generation IR Seeker. The system, with small size and weight (20 kg), provides reliable and effective protection of small and medium avionics platforms against surface to air missile threats and Air to Air missiles.

---

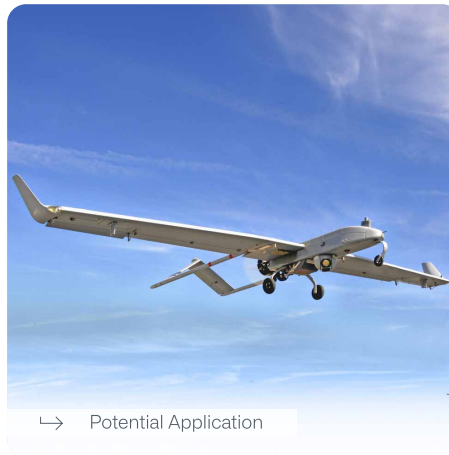
↳ [ELT/577 at a glance]

- 
- Fast, effective and reliable neutralization of present and future IR-guided missiles (adaptable to threat evolution)
  - Prompt and effective reaction to counter multiple, even simultaneous threats (ELT patent)
  - Rugged design for airborne environment
  - Wide spatial coverage (well beyond the hemispherical sector) also with a single turret
  - Complete European Solution
-



# ELT/1000

↳ ESM/RWR system.



ELT/1000 is a family of Radar ESM systems for installation on UV (Unmanned Vehicle) class II platforms. The product is used in support to land and/or naval military operations by offering electromagnetic passive surveillance for intercepting, classifying, and identifying and passively geo-locating radar RF signals over the horizon. It is designed to be employed in light ISR missions performed by small airborne platforms such as Tactical UAVs.

Envisaged application is:

- Border and Coastal Surveillance
- Law Enforcement Operations
- Intelligence

The system is supported by a Ground Station of Mission-oriented Command and Control, jointly working with the platform Control Station.

The product is based on digital signal processing techniques and technologies and covers E-J frequency bands. Its SWAP characteristics are: 20 kg weight, unconditioned air cooling, 300W max power consumption.

↳ [ELT/1000 at a glance]

→ E-J Frequency Band

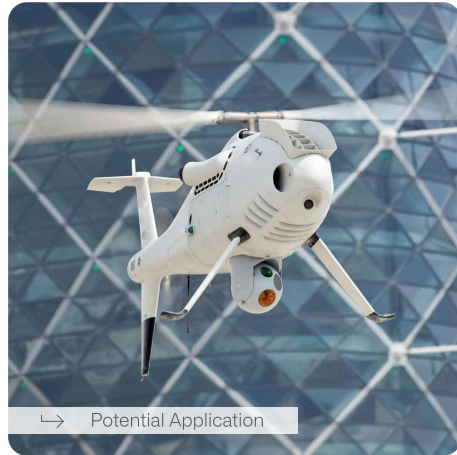
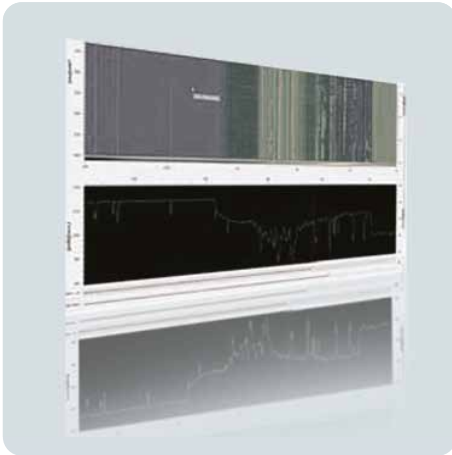
→ Unconditioned Air Cooling

→ 20 KG weight

→ 300 W MAX Power Consumption

# ELT/1001

↳ SWAP solution of a Communication ESM for UAV/UGV.



ELT/1001 is a family of Communication ESM systems for installation on UV (Unmanned Vehicle) class II platforms. The product is used in support to land and/or naval military operations by offering electromagnetic passive surveillance for intercepting, classifying, and identifying Communication RF signals over the horizon. It is designed to be employed in light ISR missions performed by small airborne platforms such as Tactical UAVs.

Envisaged application is:

- Border and Coastal Surveillance
- Law Enforcement Operations
- Intelligence

The system is supported by a Ground Station of Mission-oriented Command and Control, jointly working with the platform Control Station.

The product is based on digital signal processing techniques and technologies and covers UHF-VHF frequency bands. Its SWAP characteristics are: 30 kg weight, unconditioned air cooling, 400W max power consumption.

---

↳ [ELT/1001 at a glance]

---

→ UHF-VHF Frequency Bands

→ Unconditioned Air Cooling

→ 30 KG weight

→ 400 W MAX Power Consumption

# ELT/950

↳ EW-Manager.



ELT/950 is an EW-Manager that implements sophisticated algorithms that allow the system to perform data fusion of all information coming from different sensors (from radar to ESM and Communications, laser warning and missile warning sensors) and automatically react against the incoming threat, identifying the best countermeasure to be applied in any specific operational situation.

The EW-Manager, as an integral part of the EW Suite, provides the coordinated management and control of EW sensors and counter measures.

↳ [ELT/950 at a glance]

→ Control the Configuration and State; monitor the status of connected subsystems and User

→ Load and dispatch mission libraries to the connected subsystems

→ Record relevant information about the scenario evolution for Post Mission debriefing and analysis

→ Picture Compilation: create a synthetic situation of the surrounding scenario

→ Elint Analysis: provide means to perform dedicated technical analysis

→ EWM periodically proposes a possible engagement plan



# Our solutions

ELT Group is a world leader in Electronic Warfare for the aerial domain of military operation, with state-of-the-art technology portfolio that integrates several capabilities into software defined systems. This allows to perform Electronic Defense, ISR, Force Protection and extended combined aerial, terrestrial and naval operations with the same solution: full European technology at the service of Air Force.

Our solutions are designed for all types of platforms, from attack helicopters to transport planes, from special mission aircraft to unmanned aerial systems.

They are entirely conceived, developed and produced in-house, supported by internal R&D.

All our products and systems are designed for exportability.

## We offer the following capabilities in Electronic Warfare:

- Electronic Defense
- Electro Optical Infra Red
- Self Protection
- Intelligence Surveillance\_ Reconnaissance
- Homeland Security & Force Protection
- Global Sustainment



**HEAD OFFICE**

Via Tiburtina Valeria Km 13,700 - 00131, Rome – Italy

EMAIL [info@elt.it](mailto:info@elt.it) - Telephone +39 06 41541

Website [www.eltgroup.net](http://www.eltgroup.net)

