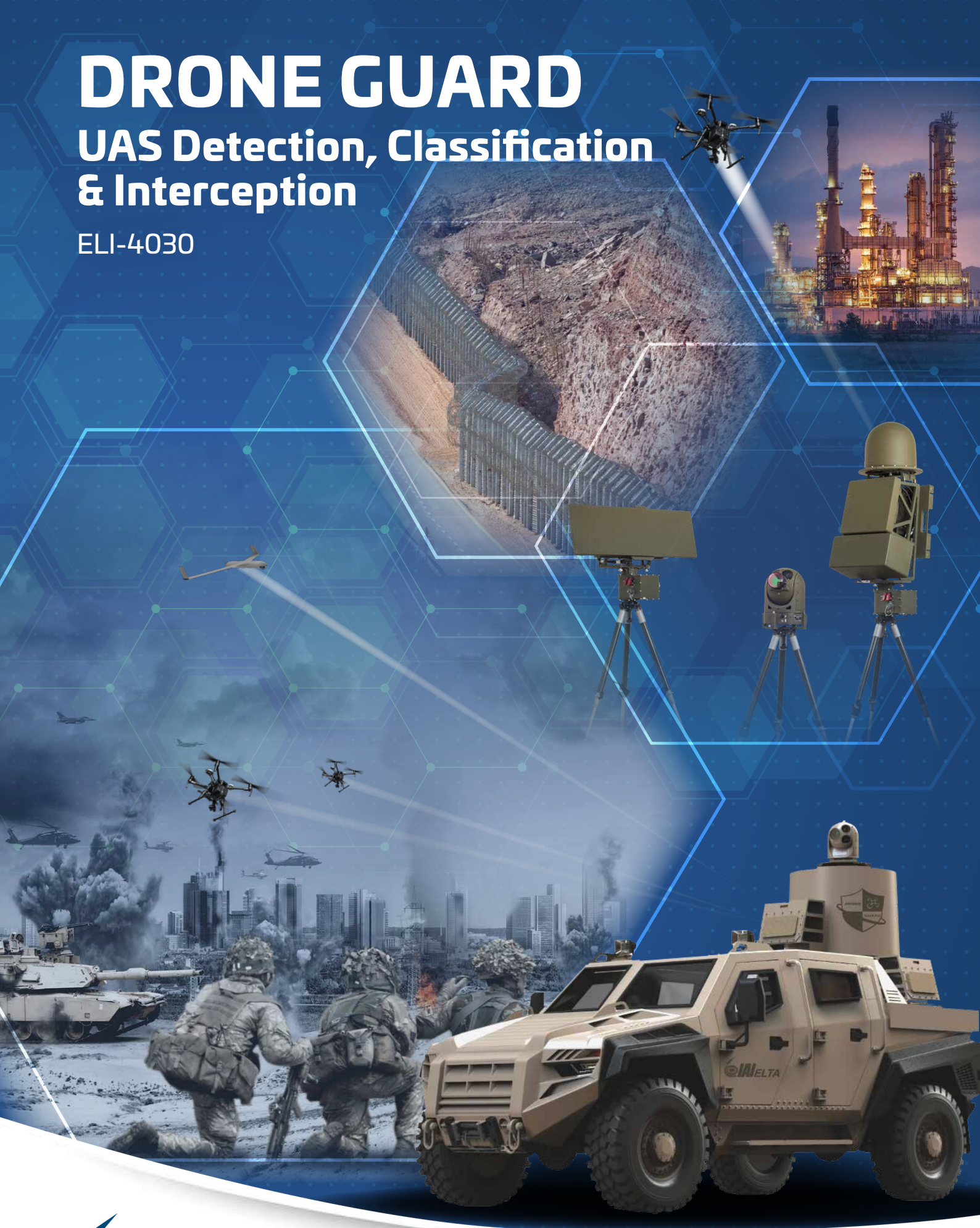


DRONE GUARD

UAS Detection, Classification & Interception

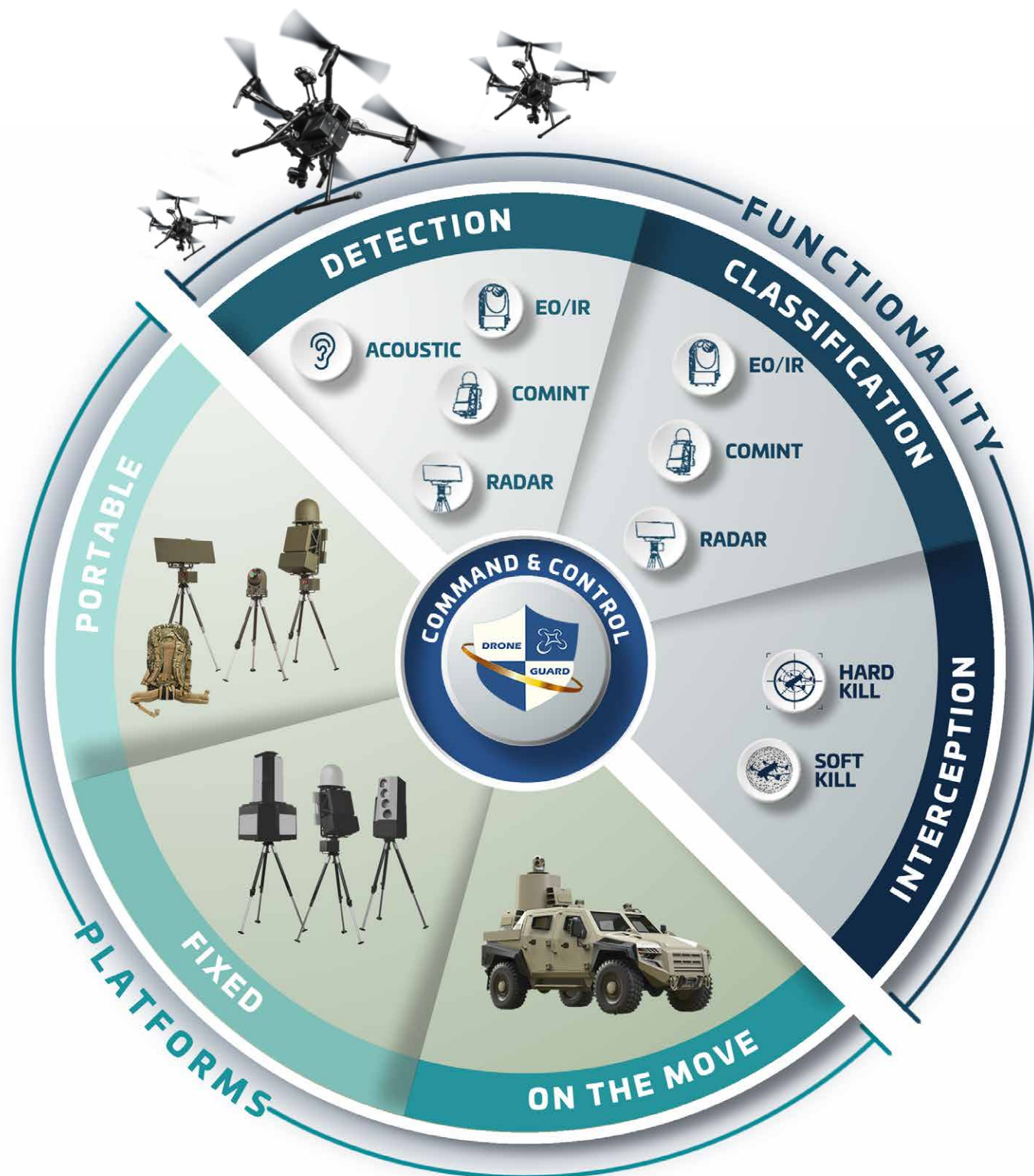
ELI-4030



Where Courage Meets Technology™

Drone Guard Multi-Sensor Multi-Layered Concept

In service worldwide with leading military and security forces, Drone Guard (ELI-4030) is a field-proven, rugged, multi-sensor, multi-layered C-UAS solution developed for the military, homeland security and commercial markets. The key advantage of a layered configuration is that it provides added protection, high reliability and enhanced classification capabilities while eliminating false alerts.



Platforms

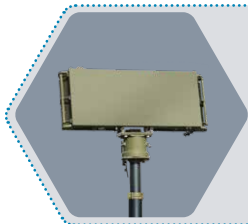
The modular sensors can be configured to create portable, fixed site or On-the-Move (OTM) up to 60 mph (i.e. vehicles or ships) configurations.

Drone Guard Sensors & Systems

ELTA designed the Drone Guard to be modular, so that customers can choose the best combination of sensors and systems to meet their operational and budgetary requirements. Each sensor can function independently with the Drone Guard C2 system, while optimal performance is achieved when all are operating together as part of the fully integrated solution. In addition, Drone Guard is Open Architecture compliant, enabling 3rd party sensors to be seamlessly integrated into the solution.

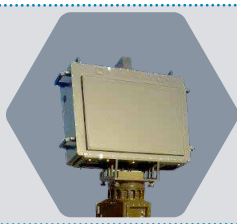
The following is the list of leading sensors and counter measure systems included that can be integrated into the Drone Guard System:

Radar X-Band (Ranges up to 14KM measured according to NATO UAS Classification 1)



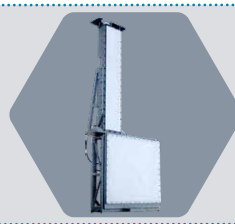
ELM-2026B/D

AESA 3D Radar



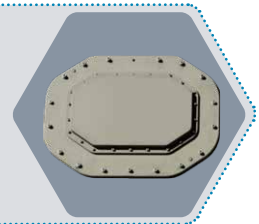
ELM-2026BF

AESA 3D Radar



ELM-2112

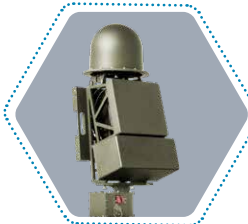
FMCW 3D Radar Series



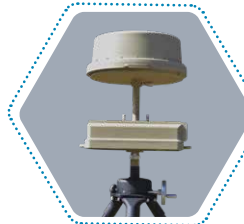
ELM-2135

Storm Guard
Multi-mission Radar
Designed for armored
vehicles OTM

RF Detection (Passive Layer) with Soft-Kill Interceptors



Multiple Frequency Coverage:
400 to 6000 Mhz
360° Long Range Detection
(up to 10 km)



Multiple Frequency Coverage:
433 to 6000 Mhz
360° Long Range Detection
(up to 10 km)

EO/IR (360° Coverage, Identification up to 8KM & Detection up to 15KM measured according to NATO UAS Classification 1)



MiniPOP

Compact tactical day/
night camera



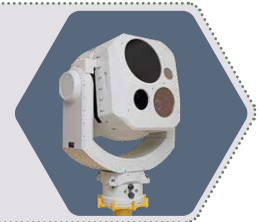
MOSP

Long range day/
night camera



Tactical POPSTAR

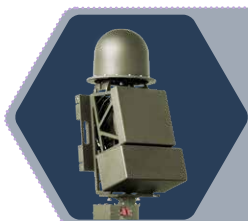
60x10° panoramic
coverage in ultra-high
resolution



MEGAPOP

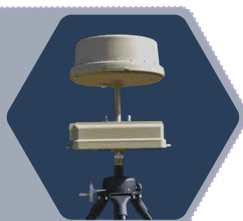
Ultra-long range Multi
Spectral electro optic
system

Soft/Hard Kill Interceptors



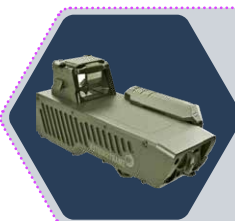
ELK-7009

Communication &
GNSS wideband
jammer



ELK-7009A

Takes over & safely
lands drones by seizing
the RC (remote control)
radio communications



SMARTSIGHT

Kinetic elimination



Drone Kill Drone

Kinetic impact



ROCKNET

Autonomous
electrical rocket for
drone interception

General

Drone Guard is a multi-layer solution for the detection and interception of small, low and slow flying objects (drones). It consists of high-performance sensors integrated into an intuitive and user friendly system. Its flexible configuration makes the system ideally suited to a range of operational scenarios. The combat-proven system is in operation worldwide with a broad range of customers, successfully protecting military missions, borders, critical infrastructure, airports, large events and other important facilities.

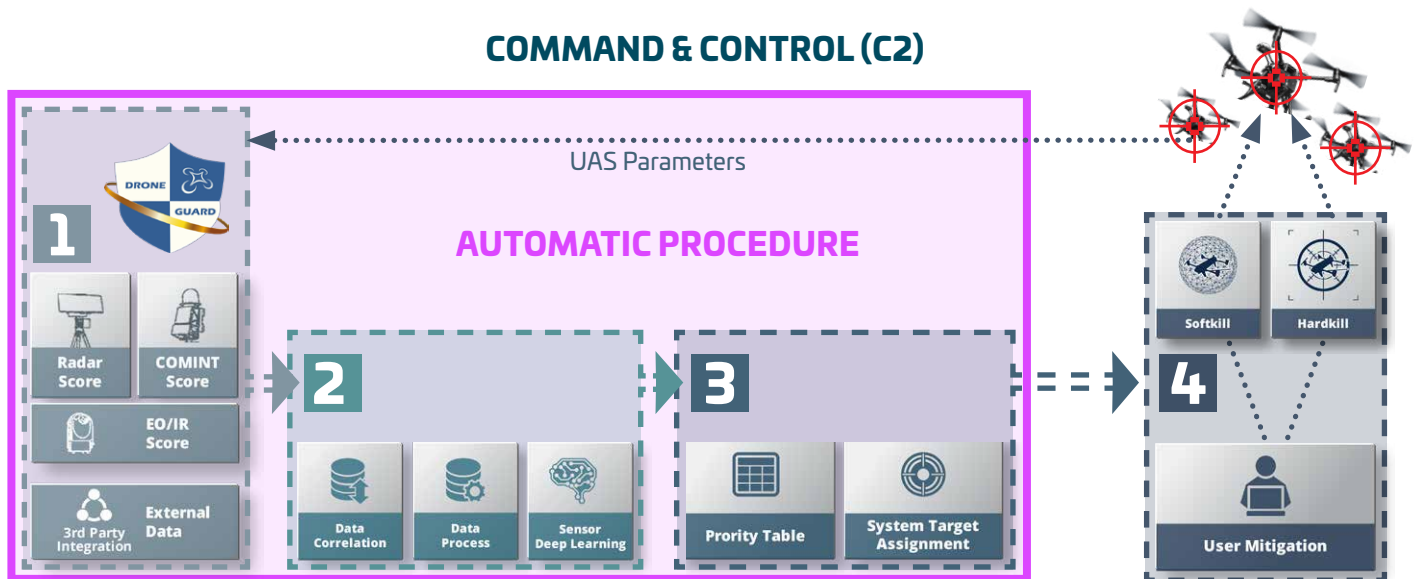
Drone Guard employs a multi-layered approach where the sensors perform designated functionalities. The detection and classification layers include: a state-of-the-art AESA, multi-mission 3D X-band radar; COMINT to exploit UAS data link communication; and a high-performance day/night EO/IR sensor to support enhanced classification and target acquisition.

The interception layers include soft-kill measures such as jamming or take-over to land the hostile drone in a safe zone and hard-kill measures such as a rifle installed smart sight connected to the system by a tactical data-link, targeted rocket or a drone-kill-drone (DKD) solution.

Drone Guard's user-friendly Command & Control (C2) is the crux of the solution and holistically manages all the sensors and systems. The C2 collects data from the system's sensors, automatically correlates the information, defines priorities and creates a unified situation awareness picture that enables the timely deployment of countermeasures against the threats. Drone Guard is consistently learning and adapting to new threat types through Machine Learning (ML) and is equipped with built-in, advanced decision-making and Artificial Intelligence (AI) algorithms for threat analysis and treatment.

The Drone Guard C2 allows the operator to use the system in three modes:

- **Manual**
- **Semi-autonomous**
- **Fully autonomous mode** (without human-in-the-loop)



Key Advantages

- 360° long range coverage
- Fully redundant – each layer supporting each other
- Unified Command and Control (C2)
- User friendly and low learning curve
- Autonomous operation with AI and Machine Learning capabilities
- Drone swarm support
- Agile and adaptive system that can be modified to developing and new threats
- Special configurations for airport and maritime environments
- Modular to demands; flexible to environment
- Mature and combat-proven solution with hundreds of deployments worldwide