

IAI – ISRAEL AEROSPACE INDUSTRIES LTD.

Green Dragon

A new member to IAI's family of LMs is the **Green Dragon**, a tactical, low-cost LM, designed to provide small ground units and special



operations units with significant situational awareness and firepower in a compact envelope. **Green Dragon** is a silent, all electric LM with up to two hours of loitering time, during which its operator can collect visual intelligence of surrounding areas up to a range of 50 km.

This LM can locate, acquire and dive on operator-designated targets with a warhead of nearly 3 kg and extremely high accuracy (better than 1 m CEP). **The Green Dragon** is launched from a sealed canister: as many as 12-16 units can be carried on a small vehicle and launched upon request. The operator has a small tablet-sized control panel and a tactical low-power data link to the LM.

The **Green Dragon's** operator also has a built-in "abort and go around" capability to prevent unnecessary collateral damage or mistaken targeting. In the event that no target is found, the LM can be recovered and reused, significantly lowering mission costs. The unique combination of silent operation, long operational life, long-range communication and pinpoint accuracy, coupled with secured "in canister" logistics, make the **Green Dragon** an ideal weapon for infantry, Special Ops and other similar users.

BARAK 8 – An Advanced Air & Missile Defense System

BARAK-8 is an advanced, all-weather, 360° point and area air and missile defense system. It operates against a variety of threats including fighter aircraft, UAVs, helicopters, missiles and other munitions. The system is capable of intercepting multiple targets at long and short ranges in severe saturation scenarios. Based on the same building blocks. The BARAK-8 system is available in both shipborne and ground-based versions.



The system features an advanced vertically-launched missile, a dual-pulse rocket motor, advanced active radar seeker and a two-way data link for fire-and-update intercepts.

The missile has a basic and an extended range version, using a rocket booster to increase the maximal interception range.

System Capabilities:

- Short to long range air and missile defense system – from sea-skimmers to high altitude targets
- Multiple simultaneous engagements in severe saturation scenarios
- All-weather, vertical-launch active missile
- Robust target kill
- Small deck space

Advanced standalone two-way data link for missile update and task force coordination.

LAHAT - Laser Homing Attack Missile

LAHAT is an advanced laser homing attack laser-guided missile for precision attack.

The **LAHAT** is a multi-mission missile fired from a wide variety of land vehicles, helicopters, tanks and naval platforms.

LAHAT, with a length of just one meter and weight of less than 13 kg, is very well suited for

use on light-weight helicopters. A **LAHAT** launcher fully loaded with four missiles weighs less than 80 kg.

Despite its small size and light weight, **LAHAT** is highly effective against a variety of target types, including tanks, at ranges of up to 8 km. **LAHAT** can accurately hit moving targets, including enemy helicopters.

Its main features are:

- Pinpoint accuracy for day and night operations
- Effective against both static and moving targets
- Low collateral damage
- LOS (Line of sight) and Non LOS firing capability
- Simple to operate, easily integrated
- Can be launched from various platforms:
 - Canister launch: vehicles, helicopters, ships, remote installations for borders or bases protection
- Tanks gun launch (105 mm and 120 mm)
- Cost-effective

LAHAT's long range enables helicopters to engage and destroy enemy forces while avoiding the enemy's air defenses.



M19-HD- Advanced High Definition Observation and Targeting System

The M19-HD is the most advanced member of IAI's well-known family of observation and targeting payloads.

M19-HD encompasses the latest technologies in gimbal and sensor design: High stabilization gimbals, state-of-the-art, long range digital format HD sensors for TV and the IR channels, laser designator with eye-safe rangefinder, full digital control, accurate pointing and targeting using advanced INS on gimbal, advanced image processing and future growth potential for new sensors.



MINIPOP - Miniature Plug-in Optronic payload

The MINIPOP provides the customer with 24/7, all weather observation and surveillance capabilities. The MINIPOP is the ultimate solution for ground applications such as site control, border security and coastal surveillance as well as for naval platforms and aerostats, that demand cost-effective object engagement and can also be used as a weapon sight for land and maritime platforms.

The MINIPOP has been successfully fielded and battle-proven under day, night and adverse weather conditions, demonstrating superior performance compared to several other similar payloads .

The MINIPOP is part of the advanced observation and targeting EO/IR payloads family. Hundreds of MINIPOP payloads are deployed with leading military and security forces worldwide.



KATANA - USV System

The KATANA solution provides unmanned capabilities for the entire range of Homeland Security and Naval applications. KATANA also provides manual and fully autonomous operation along with a modular flexible design, to suit the customer's requirements.



Applications

- Homeland and harbor security in coastal, shallow and territorial waters
- Surveillance and protection for oil, gas and other critical assets
- Firefighting, search and rescue
- Intelligence gathering and surveillance

Command and Control Station

- Mobile, standalone control station
- HR requirement - two operators and a mission commander
- Planning, controlling, debriefing and recording
- Collision and obstacle avoidance

Dual Mode Operation

- KATANA can be operated unmanned or as a five crew combat vessel
 - Rapid transition between configurations as per operational requirements.
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EHUD R73 pod - AACMI training system

EHUD is a unique real time, air combat, training, debriefing and safety system for fighter aircraft.

IAI began marketing the EHUD family of autonomous live training systems in 1993.



EHUD enables live training at the most sophisticated level, including the firing of simulated armaments as well as real time hit / miss assessments.

EHUD is used with AIM -9L, Hellfire and R73 enclosures: in a range of onboard LRU boxes, in racks designed for ships, utility helicopters and air defense platforms. EHUD can be installed in additional enclosures as required.

Recently, IAI delivered the 1000th EHUD AACMI system. It is now used by seventeen air forces, on some the world's more important fighter jets: F-15, F-16, F-18, Eurofighter Typhoon, Su-30, Mig-29 and more.

Capabilities:

- Maximizes cost effectiveness of live training
- Effective debriefing
- High fidelity air-to air and air to ground weapons EW threats simulation
- Real time hit / miss assessments
- Enhanced safety capabilities : air and ground collisions
- Network interoperability training , compatible with numerous nations protocols
- Joint forces training
- Certified for a variety of western and eastern aircraft Unique solution for eastern fighters

EEZ - Exclusive Economic Zone Protection System

The ELI-5500 EZ Guard is a modular surveillance system designed to provide protection of the maritime assets in littoral waters up to 200 nautical miles, otherwise known as Exclusive Economic Zone (EEZ). EEZ includes several layers of sensors and systems that provide a cost-effective solution for persistent surveillance. Targets information gathered by the system sensors are sent to a command & control center, that provides the law enforcement units with a situational awareness picture of the maritime theater under their responsibility.

Operational Capabilities:

- Surveillance missions management
- Target classification – friendly, innocent, illegal
- Real-time situational awareness picture of the EEZ
- Situational awareness picture with existing data of complementary surveillance systems
- Detection and classification of threats and illegal events
- Supports law enforcement missions



TAC4G (ELK 1888) - On The Move, Broadband, Secure, 4g Cellular Tactical Network

On the move, a broadband cellular network (LTE based) that is secure, immune, personal and mobile for fast deployment of military and security forces, has become a must. This solution provides the most advanced answer to the connectivity and communications needs of large army wide deployments, as well as of small independent units. The unique combination of COTS and military technologies ensures low risk and quick deployment, as well as a simple path to future evolution as needs grow.



System Capabilities:

- Broadband
- Secure
- Immune
- On the move communications across the most difficult terrain types
- Communications across command echelons using various backhaul techniques
- User access to multiple applications from a single device:
Multimedia – voice, data, video, pictures, C4I, Combat apps, etc.
- Based on personal authorization
- Capable of running concurrent applications

“Always on” real-time broadband connectivity between people, systems, applications and platforms

CIMS (ELI-3375) - Counter Improvised Explosive Devices (C-IED) & Counter Mine Suite

An integrated protection system for detection of surface and underground IEDs, mines and roadside bombs. Was designed under the guiding principle that no single sensor can provide the adequate detection probability and low false alarm rate required by today's operational C-IED needs.

The integration of the sensor suite through a central processing and management system delivers accurate synergetic real-time mapping of IED threats to the warfighter requiring minimal training and decision making.

The CIMS Suite or subsystems can be adapted to any combat tactical vehicle



Main Features:

- Integrated multi sensor detection suite
- High-performance detection capabilities of surface and underground IEDs and mines
- 270o early warning coverage of the combat platform
- Simple user operation
- Operates at varying vehicle speeds
- Installed on manned or unmanned platforms
- Day and night, all weather operation
- Disguised IED detection capabilities
- Automatic cueing of the investigating sensors
- Clean Route recording capability of obstacles, IEDs and mines

Accommodates countering techniques and hard kill systems tailored to customer requests.

Drone Guard - Lightweight Drone Detection Radar & Tactical Communication Jammer

New systems for drone detection, identification and flight disruption.

The use of small drones has increased dramatically over the years, making them a potential threat to critical infrastructures, other aircraft and homeland security (HLS), due to their small size, low speed and low flight altitude. These drones may be used for a number of reasons including hostile purposes, such as intelligence gathering, smuggling, or as weaponized platforms. In addition, they are difficult to detect or disrupt due to their low visibility and low Radar Cross Section (RCS). IAI offers specially adapted

3-Dimensional (3D) radars and Electro-Optical (EO) sensors for detection and identification, as well as dedicated Electronic Attack (EA) jamming systems for disrupting drone flight.

To detect low signature, low-level and low-speed airborne targets, ELTA of IAI has assigned/dedicated its 3D radars for this specific mission. They include the ELM-2026D, ELM-2026B and ELM-2026BF for short (10km), medium (15km) and long (20 km) ranges, respectively, with special drone detection and tracking algorithms. They are also equipped with EO sensors for visual identification of the target.

In order to disrupt the hostile UAV, ELTA has developed advanced adaptive jamming systems which can be used in concert with its detection and identification sensors, or as a continuously operated stand-alone system. The jamming disrupts the drone's flight and can either cause it to return to its point-of-origin ('Return Home' function) or to shut down and make a crash landing.



ELM-2105 - Ground Surveillance

Radar Family

A family of tactical Ground Surveillance Radars (GSR) that is an extension of the ELM-2127 radar family, designed to provide 360 degrees coverage with just one rotating radar.

Featuring a high update rate of targets, the ELM-2105 delivers high probability of target interception and supports the missions of military forces and para-military law enforcement units.

This is a lightweight, all-weather, movement detection radar designed to detect, alert and monitor intruders' movements in protected and selected zones of interest. The ELM-2105 radar can be locally or remotely controlled either as standalone radar or integrated in a larger ground surveillance network.



ELM-2112 - Persistent Ground & Coastal

Surveillance Radar Family

Operational in all weather conditions, the radar instantly detects, monitors and tracks all ground moving targets and all naval targets (moving and stationary) in the Region Of Interest (ROI), such as a walking person on a moving vehicle on land and various vessels and boats at sea.

The radar features one stationary (non-rotating) planar array antennas, covering a sector of 90°. Full 360° coverage is achieved either by adding more antennas or by placing the radar on a positioner.

The ELM-2112 radar detection range is 10Km for a rubber boat and a moving person and 20Km for a small sailboat and a moving vehicle.

One of this radar's most unique capabilities is its simultaneous targets detection and tracking, both on ground and on sea surface.



ELW-2090 - Airborne Early Warning & Control (AEW&C)

IAI's integrated mission suite, with a powerful command, control & communication system, supports a variety of operational missions such as:

- Long-range air surveillance
- Airborne C4I for air & naval operations
- Airborne command & control post
- Network centric warfare operations
- Communication node



The IL-76 Aircraft is a long-range, large cabin, four -engine turbojet military transport aircraft. It supports a complete and high performance AEW&C suite. The IL-76 provides exceptional cabin space for the operators crew including a large rest area for additional operators. The ELW-2090 IL-76 AEW & C aircraft can be air-refueled for extending mission time.

Sensor data integration – The AEW&C integrates the data of the onboard sensors (Radar, IFF, ESM/ELINT, CSM/COMINT, SPS /RWR) with the theater situational picture via high capacity multiple data links.

IAI has an extensive experience in integrating tailor-made AEW&C and Multi-Mission systems on various platforms adapted to customer requirements.

ELI-3360 - Maritime Patrol Aircraft (MPA)

The ELI-3360 MPA is a multi-role airborne system designed to operate as a fast-deployment independent asset, providing a comprehensive situational awareness and maritime domain superiority.

It comprises a high performance aircraft equipped with a powerful sensor-suite and a mission system to effectively integrate the sensors' data. An onboard Command & Control and Communication (C³) system derives intelligence and situational awareness for maritime arena management and disseminates the information to operational users and to the NCW infrastructure.

The MPA can be based on various aircraft including the Bombardier Global 5000 business jet platform. It is equipped with a multi-mission advanced sensor suite that includes – Mission system, Radar, IFF, AIS, Communication, SATCOM, ESM, CSM, Jammer pod, SAR-DF, SAR Kit, ASM and/or Torpedoes and an ASW suite.

Missions and Roles:

- Maritime surveillance
- Search & Rescue (SAR)
- Air ambulance
- ASW
- ASuW



MARS2 (ELI-3150) – Multi-Mission Airborne Reconnaissance & Surveillance System

MARS2 is a Multi Role Airborne System designed to operate as a fast deployment, all in one task force. It comprises a high performance aircraft equipped with a powerful sensor suit, an internal Command and Control and Communication (C3) station, translated intelligence and situational awareness into battle management and situation handling.



Sensors:

- SAR & GMATI Radars AESA technology
- EO/IR
- ELINT/ESM
- COMINT/CSM/DF

Applications:

- Intelligence readiness
 - Intelligence Preparation of the Battlefield (IPB)
 - Target generation
 - Homeland security and border security
 - Situational awareness
 - Search and Rescue (SAR)
 - Disasters monitoring
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Heron – Multi Role Medium Altitude Long Endurance (MALE) UAV System

The Heron's main features and capabilities are:

- Multiple operational configurations
- Adverse weather capability
- Safe, reliable and easy operation
- SAR & GMATI Radars AESA technology
- Multi sensor capability
- Simultaneous EO/IR/FLR, SAR/MPR, ELINT, COMINT, and Available Satellite communication for extended range (SATCOM)
- Two proven simultaneous Automatic Takeoff and Landing (ATOL) systems for maximal safety
- Fully redundant, state-of-the-art avionics
- Retractable landing gear.



NRUAV - Naval Rotary Unmanned Aerial Vehicle

NRUAV system is a solution for maritime multi-layered ISR missions operated by unmanned helicopters from ship deck.

It is based on an IAI made Helicopter Modification Suite (HeMoS) for existing proven manned naval VTOL platforms

The main features and capabilities of the NRUAV are:

- Automatic Vertical Take-off and Landing (AVTOL) from dynamic (naval) platforms
- Real-time intelligence battle and damage assessment
- Day, night adverse weather Over The Horizon Targeting (OTHT)
- Flexible multi-sensor suite with extended carrying capabilities



Green Rock (ELM-2138M) – a Tactical Counter Rocket, Artillery and Mortar (C-Ram) Radar System

A mobile autonomous tactical counter Rocket, Artillery & Mortar (C-RAM) system, this system was delivered to the Israel Defense Forces and named “Wind Shield” by the IDF.

Green Rock was designed to support a variety of ground based force protection missions, including fire source location, "friendly forces" fire correction, and detection of low-flying airborne targets such as UAVs, gliders and hovering platforms.



The system provides a complete low/high trajectory target, real-time intelligence and a rapid response solution for tactical forces. Green Rock's mission is to locate fire squad positions, distribute selective warning alarms and enable an effective fire response. It can be installed on a variety of mobile or stationary platforms such as armored personnel carriers, high mobility multipurpose wheeled vehicles and all-terrain vehicles.

Green Rock includes a Phased-Array Pulse Doppler Radar, which acquires and tracks the trajectories of ballistic munitions such as rockets, artillery and mortars, calculates the point from which they were launched, and predicts the location of the expected impact. This information is reported via a communications system to friendly forces, to indicate and provide warning of relevant threats. Data can also be sent to precision weapon systems, to allow a rapid and accurate response to threat. Source based on field-proven mature systems, Green Rock is highly reliable and provides high detection range and impact point accuracy. It does not require active cooling and allows for fast deployment and autonomous operation.

SUPER DVORA Mk III – a Multi-mission Fast Patrol Craft

The Super Dvora Class of multi-mission patrol & attack boats is ideally designed for high speed / high endurance diversified missions, such as: off-shore patrol, EEZ control, law enforcement, naval intelligence, command & control, interdiction and boarding of suspect targets, as well as for non-military missions such as search & rescue (SAR), humanitarian assistance and disaster relief.



All Super Dvora class variants are fast and agile and designed to attain and sustain high operating tempos. The hull geometry provides stable sea keeping at all speeds and a dry deck during high-speed runs and pursuit.

The Mini Dvora places an emphasis on high manoeuvrability and operational proficiency from the shallowest inlets and beaches to shallow littorals and beyond, the propulsion and steering systems of this class of craft also accommodate extremely shallow draft and beaching operations.

Suitably sized to provide ample fuel reserves and adaptable mission payload (including sensors, weapons, ammunition, countermeasures, etc.), it is ergonomically designed with comfortable work environment and accommodations for the crew.

Specifically designed from the keel up for the full array of littoral, anti-terror, law enforcement and coastal security missions, and deep sea capable - the latest generation Super Dvora Mk. I, II and III are 'mission agile', providing 'flexibility in command decisions'.