BARAK-8 – Air & Missile Defense System

BARAK-8 is an advanced, all weather, 360°, point and area Air and Missile Defense System against a variety of threats including fighter aircrafts, UAV’s, helicopters, missiles and other munitions.

The system is capable of intercepting multiple targets at long and short ranges, in severe saturation scenarios.

The BARAK-8 system has ship-borne and ground-based versions, based on the same building blocks.

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

The missile has a basic version 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 stand alone two way data link for missiles update and task force coordination.
SPACE – IAI is the leading Israeli operations in space. IAI develops and produces satellites for various purposes such as Low Earth Orbit (LEO) observation satellites: Ofeq, Eros, TECSAR, OPSAT and communication satellites Geostationary (GEO) AMOS series.

## OPSAT 2000

The **OPSAT 2000** is a High Resolution Observation Satellite Series.

Light-weight, very agile, fully redundant platform, Accurate targets acquisition. Affordable solution for constellation and formation flying. The satellite is 100% in-orbit success.

## CAEW – Conformal Airborne Early Warning & Control System (On G-550 model)

**ELW-2085** is third generation of Conformal Airborne Early Warning & Control (CAEW) systems. The system is mounted on a modified long-range, high performance and low operating cost Gulfsteam 550 business jet. IAI’s integrated sensor suite, with a powerful communication system, supports a variety of missions such as:

- Long-Range Air Surveillance
- Airborne C4I for Air & Naval Operations
- Airborne Command & Control Post
- Network Centric Warfare Operations
- Communication Node
A model of ELI-3120 Compact Multi-Mission ISR Aircraft

The ELI-3120 Aircraft is designed to cope with the challenges of present and future operational theatres. Utilizing an airborne multi-sensor system installed onboard, this intelligence, Surveillance and Reconnaissance Aircraft provides tactical and strategic intelligence to a variety of users.

The ELI-3120 Aircraft performs a variety of missions, such as:

- Creation of a Ground Situation Awareness Picture showing Forces Location and Movements
- Maritime Patrol, Search & Rescue and Border Surveillance
- Support to Homeland Security law enforcement units for deterring illegal activities such as Terror, Piracy, Weapon Contraband and Narcotics Traffic
- Creation of Electronic Order of Battle (EOB) by Signal Intelligence (SIGINT)
- Environment Protection by detecting Pollution, Illegal Fishing and spotting Forest Fire

The ELI-3120 system may be installed either on a customer-provided aircraft or supplied already installed on a suitable aircraft preferred by the customer.

A model of HAROP – Loitering Monition System

The HAROP is a loitering munitions missile with a high quality day / night electro-optic seeker. It searches, detects and attacks accurately high value static or mobile targets at long ranges.

HAROP missiles are launched from transportable launchers and navigate towards the targets area.
Unmanned Aerial Systems (UAS)

IAI is a world leader of fully integrated UAS solutions that are verified by more than 950,000 operational hours of intelligence gathering and dissemination and also targeting missions.

IAI will demonstrate at the show some of its MALE and tactical UAS.

HERON I – Medium Altitude Long Endurance MALE UAS System for strategic and tactical missions

HERON I main features and capabilities are:

- Multiple operational configurations
- Adverse weather capability
- Safe, reliable and easy operation
- Multi sensor capability.
  Simultaneously: EO/IR/FLR, SAR/MPR, ELINT, COMINT
- 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
**PANTHER FAMILY** – The **PANTHER** is a family of tilt rotor propeller and fixed wing VTOL systems

**A model of MINI PANTHER**

The **MINI PANTHER** is a uniquely designed Fixed Wing AVTOL UAS with a tilt rotor capability that provides a remarkable solution to a wide variety of tasks when pin-point automatic take off and landing is a requirement.

The system can be utilized in military, civilian and homeland security (HLS) operations providing high level of operational flexibility and a small logistical footprint.

The **MINI PANTHER** main features and capabilities:

- Automatic Vertical Take Off & Landing Capability
- Ship Deck Operation
- Mission Versatility
- Quick & Easy Assembly
- Simple to Operate & Deploy
- Small Logistical Footprint
- Silent Electrical Propulsion
- High Quality EO/IR/LP Imagery
- Fuel Cell Technology
- Low Acoustic Signature
- Unique Tilt Rotor Technology

**ELM-2022A – Airborne Maritime Surveillance Radar**

The new generation of the **ELM-2022A** multi-mode airborne maritime surveillance radar incorporates advanced features based on IAI’s Eltas 30 years of experience as a leader in the filed of military radars, and is improved by operational feedback from real missions.

The **ELM-2022A** radar provides a cost-effective force-multiplier solution for operational missions, such as:

- ASuW / ASW/Littoral Warfare Operations
- Maritime Surveillance and EEZ Patrol
- Anti-Drug Enforcement Operations
- Coast Guard and Fisheries Patrol
- Search and Rescue Location and Support
Modular hardware design, flexible avionics interfaces and in-house antenna design, ensure easy installation on a wide variety of fixed-wing and rotary-wing aircraft, such as UAVs, helicopters, transport aircraft and executive jets. The **ELM-2022A** shares a high degree of commonality with the ELM-2032 Fire-Control Radar, enabling Air-to-Air operation modes.

### ELL-8212/8222 - Self-Protection Jamming Pod

The **ELL-8212/8222** Self-Protection Pod are modern, advanced and sophisticated Jamming Pods designed to enhance survivability of fighters and other military aircraft by suppressing multiple threats in dense radar-guided weapon systems environment.

Including cutting-edge Exciter and Receiver, and housed in a lightweight low-drag pod configuration, IAI’s Pods may be installed and integrated onboard aircraft of any size, and protect them against all types of regular and modern, existing and future threats (Air-to-Air & Surface-to-Air).

The pod may be easily integrated with any aircraft and its avionics, due to its small dimensions and the flexibility of its electrical and mechanical interfaces.

The Jamming Pods are flight line re-programmable. Using PC-based equipment and user-friendly human-machine interface, threats and jamming techniques may be easily updated or added.

### ELM-2060P - SAR/GMTI Reconnaissance System for Combat Aircraft

The **ELM-2060P** is a field-proven high performance reconnaissance system designed for combat aircraft. The system consists of the following subsystems:

* A detachable pod containing the synthetic Aperture Radar (SAR) with
Ground Moving Target Indication (GMTI).
The pod is mounted externally on a combat aircraft.

- A Ground Exploitation Station (GES)
- A bi-directional Data Link

The **ELM-2060P** produces images that approach photo-graphic quality and operates as a true all-weather, day and night sensor capable of penetrating, clouds, rain, smoke fog and smog.

The images produced on-board are transmitted, via the built-in data link, to the advanced GES for interpretation and extraction of valuable image intelligence (IMINT) data.

The data is also recorded on-board for re-transmission or further off-line interpretation on the ground.

**ELM-2112 (V10) Persistent Ground & Coastal Surveillance Radar**

**ELM-2112 (V10)** is a new advanced high resolution radar with unique and outstanding capabilities. Featuring simultaneous multi-beam technology the radar provides persistent surveillance and instantaneous target tracking over a wide area.

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

The radar features one stationary (non-rotating) planner 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 **ELM2112 (V10)** 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 capability is its simultaneous detection and tracking targets, both on ground and on sea surface.

**POP Family**

The **POP** is a small EO payload, Designed to meet the short distance observation requirements. The **POP** was selected for various Aircraft, UAV, Helicopters, Security systems and Gun Sights. The basic **POP** configuration contains a CCD and FLIR cameras with optional video tracking and laser pointing.

**POP 300D Plug-in Optronic Payload - "Designator**

- **POP300D** is a 10.4” compact lightweight payload for observation and laser designation missions that offers the best performance in its class.
- **POP300D** is the ultimate solution for day and night Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) missions.
- **POP300D** is based on the POP superb observation EO&IR sensors with the addition of a powerful Laser Designator and Range Finder (LDRF).
- **POP300D** Laser designator is compatible with US and NATO Laser guided munitions including Helfire missiles.
- **POP300D** has successfully completed live-fire testing and was selected for a leading international program.
- **POP300D** is the newest member of the well known POP family currently in high rate production. More than a thousand POP payloads have been delivered worldwide.
  * UAVs
  * Aircraft and Helicopters
  * Marine Vessels and USVs
  * Land Vehicles and UGVs
  * Masts and Aerostats
POP 300LR "Observer" – Long Range Plug-in Stabilized Optronic Payload

The **POP 300LR** is a new member of the **POP** family, providing an excellent solution for long range observation, pointing and tracking for ground and sea missions.

**POP 300LR** is based on the multiple-sensor gyro stabilized **POP 300** payload, currently in high rate production. More than a thousand **POP** payloads have been delivered worldwide and have been successfully performing in combat.

**POP 300LR** introduces a new sensor slice designed for long range performance.

**POP 300LR** is an optimized cost effective upgrade solution for customers that already have **POP 200/300** and need to enhance its performance, by simple replacement of the sensors slice.

Micro POP – Micro Plug-in Optronic Stabilized Payload

**Micro POP** is new, 4” 1Kg, lightweight day/night optronic stabilized payload for close area observation missions. The payload provides enhanced image capabilities for mini Unmanned Aerial Vehicles (mini-UAVs), Unmanned Ground Vehicles (UGVS) and for special operations.

**Micro POP** is a one Line Replaceable Unit (LRU) open architecture payload, carrying a single sensor, either a "day" continuous zoom color camera or a "night" uncooled thermal imaging camera, that can be switched in minutes.
MOSP (Multi-Mission Optronic Stabilized Payload) Family

MOSP 3000

The **MOSP 3000** is the most advanced version of IAI’s well known **MOSP** family of midsize observation and targeting payloads.

**MOSP 3000** encompasses the latest technologies in gimbal and sensor design:

- Single LRU concept, lower weight, improved stabilization, full digital control, advanced image processing and state-of-the-art digital format sensors.

**MOSP 3000** is optimized for laser designation from airborne, land or maritime platforms featuring internal automatic boresight for all sensors.

The **MOSP 3000** design is based on a single LRU, 4 gimbals, stabilized platform. The Sensor package can be equipped with a variety of TV and IR sensors and laser pointer, laser range finder and laser designator, optimized for customer missions.

**MOSP 3000** has a unique video image enhancement that significantly improves observation ranges.

The Payload’s Line Of Sight can be controlled manually, by auto-track, slaving, or by scanning modes.
GTADS - Ground Target Acquisition & Designation System

Meet "Sensor to Shooter" challenges with a remotely controlled, single package, target acquisition & designation system, with enhanced operator survivability!

GTADS is a portable observation and designation system for ground missions. GTADS abilities include observation, target acquisition, target location, pointing ranging, automatic tracking of moving target, and laser designation.

The GTADS is a self contained, tripod mounted, gyro-stabilized EO/IR/LP/LRF/LD system, based on the Mini POPD and is integrated with tablet tactical computer, an eyepiece/joystick Hand Control and Display Grip, a North Finding Module and a Power Pack.

GTADS enables remote control operation of the observation, tracking and targeting functions where the operator can safely control the system in protected location.

RAM MKIII – Light Armored Multi Mission Vehicle with LAHAT – LAser Homing ATtack Missile

RAM is a high-performance light-weight armored vehicle combining the finest in multi-mission wheeled designs with advanced human engineering.

Utilizes a robust and flexible structure allowing it to be outfitted and configured to perform a variety of military, paramilitary, policing and peacekeeping roles.

Has high terrain capability, a solid 27.6:1 power-to-weight ratio and excellent armored protection.

Excels as a mechaised infantry support vehicle in a variety of missions. Excellent maneuvering and high performance in rough terrain.

Major Features:
Robust design and high mission-ready reliability.
Up to eight fully equipped personnel.
High crew survivability and ballistic protection.
Multi-mission capable
Low life-cycle support cost
Complete training, documentation and integrated logistic support

**LAHAT** is an advanced LAser Homing ATtack laser-guided Missile for precision attack.

The **LAHAT** is a multi-mission missile fired from wide variety of Land Vehicles, Helicopters, and Tanks.

**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 weight 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 well over 8 km. LAHAT can accurately hit moving targets, including enemy helicopters LAHAT’s long range enable helicopters to engage and destroy enemy forces while avoiding the enemy’s air defenses.

In its tank version **LAHAT** is handled by the 105mm or 120mm gunner, as a standard gun round. The missile performs precision homing on a laser-designated target, ensuring first shot, tank-kill at ranges over 6Km.

**LAHAT** can accurately hit moving targets, including helicopters