ELBIT SYSTEMS ISTAR & EW - ELISRA | IR Integrated Solutions (IRIS)

PAWS Family

Next Generation IR Passive Airborne Warning Systems for All Aircraft Types





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The Challenge

Airborne platforms and crews are increasingly being exposed to new and evolving threats – not only by the traditional MANPADS, but also by extended range Electro Optical guided missiles, Surface-to-Air missiles, Air-to-Air missiles, RPGs, heavy machine guns and small arms (commonly referred to as hostile fire).

To meet the challenge, a new generation of Missile Warning Systems is required

The PAWS Family of systems is a combat-proven comprehensive solution for all airborne platforms – fixed and rotary, military and civilian, including tankers, VIPs and others. The airborne platform's survivability is significantly enhanced by providing early warning regarding the presence of threatening missiles and by automatic management of all types of applicable countermeasures available onboard. PAWS delivers cutting-edge protection against the most challenging modern and future threats faced in battle arenas. Using sophisticated signal processing and algorithms, the systems detect and track incoming missiles, identify threatening ones, alert the aircrew with audio-visual warning signals, initiate timely flare dispensing and precisely cue Directional IR Countermeasures (DIRCM) towards an approaching missile.

The PAWS systems operate either as a stand-alone, self-contained systems or as a part of a complete EW suite. The PAWS processing unit is provisioned to support expanded capabilities such as radar warning and laser warning. PAWS provides threat information to other EW and/or avionic systems for centralized display and management, as well as for enabling further threat handling.



Operating as a comprehensive optronic protection suite the PAWS Family's IR-CENTRIC[™] capabilities extend airborne superiority by maximizing platform safety and survivability and by providing enhanced mission support. PAWS systems are installed in a distributed configuration over the aircraft's skin, in a dedicated pod/bay, or in a pylon.

Main Features

- High probability of detection at threat's lethal range (Including extended range missiles)
- Early detection and fast reaction time
- Maximized time-to-impact
- Very low False Alarm Rate (FAR)
- Robustness, preserving high performance in all weather and visibility conditions
- Enhanced situation awareness via real-time image processing and imaging display
- Stealth operation
- Hostile Fire Indicator (HFI) to protect from light arms
- Automatic on-time flare dispensing
- Automatic, highly accurate and ultra-fast DIRCM cueing
- Raw IR video recording and navigation data capabilities in real time
- IR-CENTRIC[™] capabilities enabling enhanced platform safety and mission support

Operational Record

- Combat-proven systems with more than a decade of operational experience
- Deployed by many customers around the world on a large variety of platforms
- Selected by leading aircraft manufacturers as their baseline protection solution
- Fully qualified for tactical/fighter aircraft
- Fully qualified for rotary and fixed-wing (small/large body) aircraft
- Fully qualified for UAVs
- Certified for commercial aviation

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Technical Specifications

Sample Reference Platforms (Partial List)

• AH-1 Cobra, AH-64D Apache Longbow, AW-101, B-412, CH-47 Chinook, Mi-8/17/24, Super-Puma, UH-60 Black Hawk

• A-1M, F-15, F-16, F-18

• B-737, B-737-700 BBJ, B-747, B-767 Tanker, B-777, C-130B, C-130H, C-130J, CN-235, Il-76

Specifications (Typical)

- Full panoramic (EL>100[°], 360[°] all-around) coverage with a minimum of 3 sensors
- Full spherical coverage with 5-6 sensors
- \cdot Multiple threat detection and tracking
- High angular accuracy
- Power Consumption < 200 Watts (basic configuration)
- Weight < 20 Kg (basic configuration)
- Compatible with Terma's PIDS+ Pylon*
- **IR-CENTRIC™ Add-ons to PAWS Systems**
- Enhanced protection from light arms and RPGs
- Collision alert, enhancing flight safety
- Panoramic view of the battlefield, delivering situation awareness

Battle damage assessment

Interface	S

• MIL-STD-1553B Multiplex Bus

• RS-232

• RS-422

- ARINC-575
- ARINC-429
- RS-170
- Ethernet
- Discrete lines







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