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ELBIT SYSTEMS LTD.

Helicopter Solutions

Brightnite™

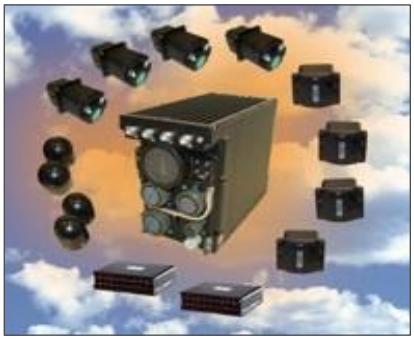
To convert any dark night into the "military pilots' best friend", Elbit Systems presents



Brightnite, an affordable non-gimbaled uncooled FLIR sensor, that supports operational flights any night, all night by fusing a real-time video from a multi-spectral sensor, enhanced by 3D flight and mission conformal symbology. The system displays high resolution panoramic imagery to multiple pilots and crew members simultaneously on their Helmet Display and Tracking System (HDTS) regardless of visibility conditions, allowing them to successfully perform missions in more than 90% of the nights.

EW SIGINT (Signal Intelligence) Solutions

All-in-Small™ Complete Airborne Self-Protection Suite



All-in-Small is a cutting-edge, integrated EW suite in a single LRU, with comprehensive, advanced EW capabilities. It is comprised of an EWC– EW Controller, RWR – digital Radar Warning Receiver, PAWS – IR Missile Warning System, LWS - advanced Laser Warning System, and CFD - Chaff/Flare Dispensing system.
The system is extremely small and lightweight and has a modular and open architecture with multiple interface abilities. The suite can be effectively integrated with direct infra- red countermeasure (DIRCM) systems, due to its high range detection and DF accuracy, by operating both in the same wavelength, thus enabling extremely fast hand-over from IR PAWS to DIRCM and enhancing deception probability. All-in-Small can be provided together with IR-CentricTM, a multi-spectral emitter, as well as geo-location and net-centric capabilities.

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PAWS™

The PAWS family of IR-based (Infrared) Passive Warning Systems provides a comprehensive, turn-key solution for airborne platforms. The sophisticated IR Missile Warning Systems (MWS) enhance airborne platform survivability by providing advance warning of the presence of threatening missiles - and by automatic management of all types of applicable countermeasures available onboard.



The PAWS family of systems operates either as stand-alone, self-contained systems, or as part of a complete EW Defense Aid Suite (DAS). The systems provide threat information to other EW and/or avionic systems for centralized /Human Machine Interface (HMI) management

Air Keeper EW & SIGINT Solution for Aircraft

A highly advanced solution that provides two significantly critical capabilities in one:

Intelligence gathering and EW defensive capacities onboard the same platform. The solution enables the aircraft to perform missions for any existing plane as cargo, tanker, transport etc.

Ground Surveillance Radars

FPR-10 - Foliage Penetration Radar



FPR -10 is a Ground Surveillance Radar (GSR) providing long-range, accurate, high- resolution detection of vehicles and personnel that are located in or behind foliage. The FPR-10 is designed to withstand harsh environmental conditions as well as foliage interferences and disturbances.

FPR-10 covers a wide range in azimuth and elevation, together with long-range detection, even in areas of dense foliage. High reliability of FPR is achieved by the radar's sophisticated design, which has no moving parts. Large areas - including international borders, air and seaports - can be secured through the use of multiple units that together provide end-to-end, overlapping coverage

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Foxtrack™ - Portable Ground Surveillance Radar System

The new Foxtrack lightweight and compact man-portable radar is carried by two operators – soldiers, special operations forces or security personnel. It functions in a tripod-mounted configuration or can be installed on board a vehicle.



Foxtrack was designed to provide surveillance at medium to long ranges (8 km for soldiers and 15 km for small vehicles). Intended to identify both people and vehicles, the system differentiates individuals and/or vehicles from their surroundings, while identifying vehicle types by their characteristics (tanks, trucks, small vehicles, etc.). The new rugged Foxtrack is deployed for the protection of sensitive installations, airports or along borders and is designed to cope with challenging terrains, including coastal environments.

Capable of operating independently, in 2 - 3 system configurations, or as a comprehensive system of interconnected, interoperable, multi-sensor units, the new system operates in concert with a variety of intelligence and command and control systems. This new radar boasts unique technology, enabling Low Probability of Intercept (LPI) and the ability to cope with hostile jamming attempts

Unmanned Aircraft Systems

Hermes™ 900

Multi-Mission, Multi-Payload Long-Range Medium Altitude Long Endurance (MALE) Unmanned Aircraft System (UAS).



Recently selected by the Israel Defense Forces, the Hermes 900 UAS offers long endurance, a flight altitude of more than 30,000 ft., unique internal/external payload capacity and flight capabilities in adverse weather conditions. The latest generation Hermes 900 provides a unique, expeditionary, long-endurance and cost-effective solution for a variety of air force, navy, army and paramilitary applications.

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Hermes™ 450 Tactical Expeditionary UAS

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Hermes 450 is a multi-role UAS. It is equipped with Elbit Systems' CoMPASS™ EO/IR/LD gimbaled electro-optical payload and can adapt to a wide range of payloads, including SAR/GMTI radar, ELINT, COMMINT and various dual payload configurations. Highly portable and easily deployed by maneuvering forces, Hermes 450 is controlled by the Hermes Universal Ground Control Station (UGCS), and can autonomously execute diverse and concurrent missions. Its Internal Auto Takeoff and Landing (IATOL) system enables auto-landing even on alternate semi-prepared strips. Hermes 450 is recognized as the leading expeditionary tactical UAS in its class, having flown operationally in numerous countries, including the US and UK civil airspaces. Hermes 450 was the first UAS certified to fly in Israeli civil airspace. To date, Hermes 450 has accumulated more than 300,000 operational flight hours, attesting to its popularity and enthusiastic adoption worldwide.



Hermes™ 90

will be on display by graphics and multimedia

Elbit Systems' Hermes 90 provides an optimized combination of high-end tactical UAS characteristics, with high mobility, rapid deployment, point-launch and recovery in harsh field conditions, at a significantly lower cost than comparable tactical UAS. The Hermes 90 is highly autonomous with mission-effective flight modes, a variety of quality mission payloads and flexible deployment schemes. It is ideal for a variety of military, HLS, and commercial applications.



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Skylark™ I-LEX

A new generation of the legacy Skylark I-LE mini-UAS, this man-portable electric propelled UAS is best suited for organic "beyond the next hill" reconnaissance, counter insurgency and force protection missions, as well as civil applications including perimeter security, border and coastal surveillance, anti-terror and a variety of law enforcement missions. The Skylark I-LEX is already operational as the standard battalion level UAS of the Israeli Land Forces and has accumulated thousands of operational sorties of low enforcement missions. The Skylark I-LEX is already operational as the standard battalion level UAS of the Israeli Land Forces and has accumulated thousands of operational sorties.



PAYLOADS

DCoMPASS™

The Digital Compact Multi-Purpose Advanced Stabilized System (DComPASS) is a highly- stabilized electro-optical payload system, delivering superb day and night intelligence, surveillance, target acquisition and reconnaissance (ISTAR) capabilities in the harshest weather conditions. The multi-sensor system is designed for long-range surveillance and targeting functions for UAS, helicopters, fixed-wing aircraft, maritime and ground platforms. Its small dimensions, low weight, high stabilization level and coverage angles make it an optimal choice for a wide range of applications.



AMPS - Strategic ISR for Manned and Unmanned Aircraft

AMPS is the largest member of Elbit Systems' battle-proven family of stabilized airborne EO payloads, providing outstanding top end, highly stabilized real-time imagery. Optimized for airborne applications, AMPS delivers market leading day and night ISTAR capabilities in all weather conditions. AMPS is being upgraded for longer ranges.



By providing long observation ranges, the AMPS enhances the quality and increases the output of target intelligence production, while improving crew survivability.

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J-MUSIC™



Is a high-performance Direct Infrared Counter Measure (DIRCM) system for protection of aircraft against shoulder-fired-missiles (MANPADS). J-MUSIC is designed for distributed installation on a wide variety of medium to large platforms, with single or multi-turret configuration. It can also be integrated with various missile warning systems (MWS).

Mini - MUSIC™



Mini-MUSIC is the newest member in Elbit Systems Electro-optics Elop's MUSIC family of proven DIRCM systems. Lightweight and compact, mini-MUSIC diverts MANPADS threats, using the same proven fiber laser technology employed by all the MUSIC systems. Providing superior protection, mini-MUSIC is easily installed on small and medium rotary and fixed-wing platforms

EMERALD – AES 212



Modular airborne ESM/ELINT systems for comprehensive radar detection. The EMERALD is an operational electronic surveillance measures/electronic intelligence (ESM/ELINT) system for all types of manned and unmanned aircraft platforms. Designed for the densest and most complex electromagnetic environments, it meets the rapidly evolving needs of today's modern battlefields. The system delivers sophisticated intelligence gathering capabilities for the detection and analysis of all types of radars - ground-based, airborne and shipboard.

COMINT/DF Systems for UAS



Elbit Systems' operational and battle-proven communication intelligence/direction finding (COMMINT/DF) systems are designed as modular building blocks, capable of tackling various types of communication systems and able to fit any UAS. These systems utilize wideband multi-purpose receivers and meet the requirements of any electronic warfare/signal intelligence (EW/SIGINT) payload, offering tactical intelligence reception in real time over wide rural and urban areas with precise DF, and enabling digital audio-recording.

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Training and Simulation

Mission Training Center Concept for the Modern Fighter Until recently, an air force would have had to operate at least 15-20 jet fighters, not to mention utilizing flight ranges, ground forces and more, in order to train its forces. With the latest training and simulation technologies - such as high-end visualization capabilities, smart entities, sensors and weapons modeling, networking and data link, interfaces to command and control systems, among others - Elbit Systems can provide highly complex, multi participant, joint forces training in one Mission Training Center. Elbit Systems' Mission Training Centers are available for naval, land and air forces and are also interconnected, thus allowing joint training. Connectivity can be accomplished between Army units and a UAS training center or between an Air Force fighter's mission training center and a live fighter aircraft for complete live, virtual, constructive (LVC) training.

SkyBreaker™ - Unlimited Access to the Sky

will be on display by graphics and multimedia.
Elbit Systems' Mission Training Center (MTC) is a networked multi-cockpit, mission oriented training center supporting many aircraft types. The MTC provides realistic simulated battlefield training using all aircraft systems and mission scenarios to enhance all levels of pilot training. A world leader in field-proven training and simulation solutions, Elbit Systems developed SkyBreaker to save actual flight hours by presenting aircrews with high-fidelity, simulator-based training.



The SkyBreaker facility houses a complex networked system designed to provide an entire squadron with the tools to practice modern air combat using SkyScen™, a sophisticated Computer Generated Forces (CGF) solution, in a fully integrated military setting.

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Elbit Systems CockpitNG™

Based on a smart central large area display (LAD) which includes all avionic components in one suite, CockpitNG's display is fully integrated with the Helmet Mounted and Head-Up Displays.

All of the systems' components were developed in a "Multi-touch- Screen" technology in order to allow the pilot to operate the aircraft in a smooth and customizable manner. This new modular solution enhances mission excellence and reduced aircrew workload and can be tailored to multiple platforms offering full multi- mission support for attack, emergency services, training and air support missions.

Large Area Display (LAD)



A unique large area display (available in custom made sizes), dual redundant, touch-screen enabled and featuring a wide dimming range for night vision goggle compatibility at low luminance levels. All products in this line are smart integrated modular avionics (IMA) displays that can host software applications from either Elbit Systems, customer legacy software or third-party software.

Digital-JHMCS

The Digital Joint Helmet Mounted Cueing System (DJHMCS) is a daily companion for thousands of F-15 and F-16 fighter pilots worldwide.



DJHMCS is an upgraded, plug-and-play, HMD system based on new technology developed for commercial aviation incorporating the operationally-proven JHMCS, which was launched in 2000 and is in service with over 20 air forces around the world.

No aircraft installation or modification is required, only a simple upgrade of the HMD. This allows the pilot to benefit from advanced video and color capabilities in both day and night missions, using a modern, lightweight, well-balanced digital HMD system.

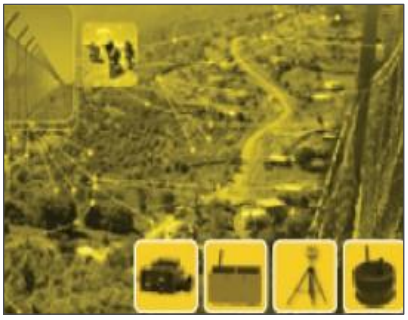
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EVA™ - Embedded Virtual Avionics

EVA is an on-board embedded training system for fixed and rotary-wing aircraft. It is capable of producing a virtual environment populated with smart friendly and foe entities: for airborne, ground or maritime applications. EVA simulates advanced weapon and avionics systems, such as radar, targeting pods or self-protection suites. Installed on a trainer platform, EVA enables early mastering of advanced avionics and combat tactics during actual flight. Installed on a combat platform, EVA contributes to a higher combat readiness level along with substantial cost savings, due to range- less training with virtual entities. EVA also provides ACMI/HCMI features.

Terrain Dominance

Tactical Reconnaissance and Surveillance Enhanced System (TREASURES™)



will be on display by multimedia.

Elbit Systems' Unattended Ground Sensors (UGS) detect, track and identify human and vehicular enemy targets – enabling total control and terrain dominance. With a high probability-of-detection (PD) and low false alarm rates (FAR), the UGS easily integrate with existing sensors and are compatible to any C4I system.

Radio and Communications at a dedicated area

GRX-8000



ECCM, high capacity and frequency-hopping radio relay system for interference-free communications.

Tadiran GRX-8000 is the latest generation NATO Band IV with Dual Mode – High Capacity (HC) and Frequency Hopping (FH) – line-of-sight broadband radio relay system. Designed to meet present and future tactical communications requirements, the battle-proven Tadiran GRX-8000 supports the latest IP and legacy communications protocols. With jamming resistant ECCM, the software-defined radio relay system enables interference-free communications across the battlefield.

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Tadiran MCTR-7200



Family of tactical software-defined radios offering superior operational versatility for the dismounted soldier.
The MCTR-7200 are multi-waveform tactical IP radios that feature a uniquely designed software communications architecture, an intuitive user interface and multiple configuration options. The multi-use, single platform contains powerful programmable hardware that offers reliable triple play services - voice, video and data – simultaneously over a single narrowband tactical 25Hz channel and high speed data over wideband channels.

Tadiran PNR-1000



Lightweight personal network radio (PNR) with automatic voice and data relay The advanced PNR offers 64-member ad-hoc networking including full-duplex voice conferencing, data and video. As the newest generation of PNR at the full NATO RF spectrum 225-512 MHz, the PNR-1000 is the lightest of its kind in the market.

ELSAT MSR 2000E



Tactical satellite solution for on-the-move BLOS communication An advanced satellite on-the-move (SOTM) solution, the MSR2000E is ideal for mobile and maneuvering military forces and fully integrated with the InterSKY 4M tactical broadband satellite communication platform.

The system comprises a rugged broadband router, low-profile antenna (Elsat 2000 or Elsat 2100) and radio frequency terminal (RFT) that work together to seamlessly deliver reliable communications on and off the battlefield.

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Overhead Remote Controlled Weapon Stations (ORCWS)



Adaptable, effective and field-proven range of ORCWS – leveraging over 30 years of experience and in-house development with dual-axis stabilization, the weapon stations provide a high first-round hit probability under full armor protection. Offering excellent performance in battlefield conditions day and night and under poor visibility, the ORCWS product range includes weapons of different types and calibers including 5.56mm (0.22”), 7.62mm (0.3”) and 12.7mm (0.5”) in addition to 40mm automatic grenade launchers.

Unmanned Turret UT30

Will be on display by multimedia.



Combat-proven firepower for armored personnel carriers; fully overhead without compromising troop safety, encompassing a broad range of weapon systems, countermeasures and advanced electro-optics, the system can be configured with all types of cannons (25 or, 30 and supper 40mm), coaxial machine guns (7.62mm/0.3”) and guided anti-tank missiles.

Featuring a high first-round hit probability, the dual-axis stabilized UT30 is designed for firing on-the-move and at moving targets.

Fully overhead with full under armor loading, reloading and all immediate action capability.