



## Eurosatory 2010: UAVs to the fore

The 2010 edition reiterated Eurosatory's position as the world leader for land defence systems and services, and as a major player for security assets. Run by GICAT, the French land defence manufacturers association, the exhibition gathered for over 5 days (from 14-18 June at Paris Nord Villepinte,) field players ranging from politicians and military decision-makers to manufacturers and media, all focussed to review ongoing developments within armed forces, to 'discover' future systems and equipment and to understand changes in the defence industrial landscape.

Despite the difficult economic context, Eurosatory confirmed its economic standing by increasing total exhibitors

up to 1329 this year (+ 10%, same percentage of net space increase), of which 70% were international. Visitors attendance increased as well (+ 2.5%) with more than 53,500 visitors from 130 countries. There was an abundance of new products exhibited this year (almost 300 were listed). The focus on UAVs was a big success, with the UVS Forum held by the UVS International organisation as an integral part of the Exhibition for the first time, as also with tactical UAVs flying during outdoor live demonstrations.

The Operational Medicine cluster, dedicated to medical support on the field, specifically attracted a large number of visitors.

### IAI ELTA to supply UAV payloads

ELTA Systems Ltd., a group and subsidiary of Israel Aerospace Industries Ltd. (IAI/ELTA), announced contracts worth \$35 million by two "unidentified" foreign customers to equip their unmanned aerial vehicles (UAVs) with IAI/ELTA's intelligence surveillance and reconnaissance (ISR) and communication payloads. Nissim Hadas, IAI Corporate VP & ELTA President said: "ELTA has an international reputation in advanced airborne IMINT systems based on radar sensors and advanced technologies. These systems operate successfully from any airborne platform, including UAVs."



# Highlights at Eurosatory

## Elbit Systems Advanced Electronic Systems

Elbit Systems Ltd. have announced that it had been awarded a contract to supply a “Latin American Army” with Command, Control, Computer & Communications (C4I) systems and Electronic Warfare (EW) systems, valued at approximately \$130 million. The project, to be completed over the next three years, is a part of the Army’s extensive modernisation programme and is designated for all echelons, from the maneuvering forces up to the command headquarters. The new, unified communications network will facilitate a real-time common operational picture



of the battlefield providing the land forces with enhanced operational performance and situational awareness, as well as improved force protection and prevention of “friendly fire”.

## Airborne Systems parachutes for French forces

Airborne Systems has successfully completed the first three project milestones in the programme to deliver a new troop parachute system for the French airborne forces.

The ‘Ensemble de Parachutage du Combattant’ (EPC) is replacing the parachute system that has been in service for more than 20 years. Airborne Systems won the multi-million Euro contract from the Direction Générale de l’Armement (DGA)

procurement executive of the French Ministry of Defence earlier this year, the first Airborne Systems contract in France to deliver more than 15,000 parachute systems as part of a multi-year programme. Chris Rowe, Managing Director for Airborne Systems Europe commented: “Timescale was the clear challenge from the start - to manufacture a new system along with all the support items within four months from contract award and to support the DGA project timescales was always going to be a tough task. We achieved this by creating a dedicated Airborne Systems project team, supported by a very competent and established supply chain.”

## ST Kinetics awarded 40mm HEDP-SD contract

ST Kinetics, the land systems arm of ST Engineering, was awarded a contract by the Finnish Army for the supply of 40mm High Velocity, High-Explosive Dual Purpose - Self Destruct (HV HEDP-SD) ammunition. This is a repeat order from the Finnish Army, a customer ST Kinetics has been supplying to since 2000. The 40mm HV HEDP-SD round is designed to NATO STANAG 4403 for use with 40mm automatic grenade launchers. The ST Kinetics-patented mechanical self-destruct fuse is highly reliable and conforms to the MIL-STD-331 standard for fuse safety, reliability and performance, and can significantly reduce incidence of duds, especially in snow, swamp and sandy terrains.



## New BAE CV90 variant displayed

**B**AE Systems unveiled a new build standard of its CV90 tracked armoured vehicle - the Armadillo. The CV90 Armadillo family of vehicles combines extremely high levels of protection with excellent mobility. The CV90 Armadillo has horizontal ballistic protection well above the NATO STANAG 4569 Level 5 standard and can withstand a mine blast of significantly above 10kg. It also features the Saab LEDS-150 hard kill device and an external fire suppression system. All variants have space for a crew of three, the commander, driver and gunner. The armoured personnel carrier variant also carries eight troops. Other variants include command and control, medevac, mortar carrier and engineer vehicles.



## NGC's Army airship with 'Unblinking Eye'

**A** new hybrid airship weapons system, just larger than the length of a football field, will take to the skies in just 18 months and provide an 'unblinking,' persistent eye for more than three weeks at a time to aid US Army troops in Afghanistan, according to Northrop Grumman Corporation officials. The company announced it has been awarded a \$517 million agreement to develop up to three Long Endurance Multi-Intelligence Vehicle (LEMV) systems for the US Army. LEMV will sustain altitudes of 20,000 feet for a three-week period, and it will operate within national or international airspace. It will be forward-located to support extended geostationary operations from austere operating locations using beyond-line-of-sight command and control.



## Thales Raytheon Systems to modernise US Sentinel Radars

**T**hales Raytheon Systems has been awarded a \$21.8 million contract by the US Army to upgrade multiple AN/MPQ-64 Sentinel air defence radar systems. This award is an option to the existing upgrade contract originally awarded in June 2007. The Sentinel radar is the premier air surveillance and target acquisition and tracking sensor for the US Army's Cruise Missile Defence Systems programme. The radar's primary mission is to protect manoeuvre forces and critical assets from cruise missile, unmanned aerial vehicles, and rotary and fixed wing threats. The Sentinel accurately acquires targets far enough forward of friendly troops to provide sufficient reaction time for air defence weapons to engage at optimum ranges. More than 200 Sentinel radars are currently deployed by military forces worldwide.

## Raytheon to develop airborne TOW launcher

**R**aytheon will develop an airborne launcher designed to employ radio frequency-guided TOW (tube-launched, optically-tracked, wireless-guided) missiles. The new TOW airborne launcher will be compatible with past, present and future versions of the TOW missile. The TOW weapon system features a family of multimission missiles fired from a variety of ground and helicopter platforms. The missiles provide soldiers with a heavy-assault, precision capability at long ranges. Future versions under consideration include missiles with improved insensitive munitions compliance, reduced time to target and increased range.

## Maiden launch of MBDA's SCALP Naval missile

The first test firing of the SCALP Naval missile has been successfully carried out by the French DGA (*Direction Generale de l'Armement*) at its Biscarosse test range. SCALP Naval is a development for the French Navy's naval cruise missile MdCN (Missile de Croisiere Naval) programme and this firing was announced at Eurosatory 2010.

The firing was carried out from a FREMM frigate configuration with a production series Sylver A70 launcher. As a result of this successful test, the maturity of the weapon system's definition as well as the technology options selected by MBDA have been validated. The SCALP Naval munition is a development covering two configurations responding to the French Navy's mission needs, comprising a vertical launch variant destined for surface vessels such as the FREMM frigate and a sub-surface/air transition version to arm the nuclear-powered *Barracuda-class* attack submarine.



## MPCV proves capability against saturating air attack

On 7 June 2010, just before the Eurosatory show, a successful test firing proved the capability of MBDA's MPCV system (Multi Purpose Combat Vehicle) to carry out salvo firing to counter a saturating air attack, the most demanding of air attack scenarios. To put MPCV through its paces, a test firing scenario was configured to evaluate the capabilities of the system to engage and intercept two different targets approaching simultaneously from different directions, simulating a 'saturating attack' carried out by enemy aircraft. Two Mistral 2 missiles were launched against two Banshee targets flying at low altitude. During the firing the targets were successfully detected and tracked by the MPCV's infrared fire control. They were then destroyed by the Mistral 2 missiles.

The first intercept took place at a range of 4,100 metres, the second at 2,500 metres. Following the test firing, MBDA's test team was able to confirm that the MPCV system operated nominally and that both Mistral 2 missile engagement sequences



were successfully carried out. With this proof of the system's salvo firing capability, final MPCV validation in its air defence version "is now complete."

## Rockwell Collins to provide Link 16 ground system

Rockwell Collins has been selected by the Finnish Air Force to provide a Link 16 ground system that will allow the establishment, control and operation of Link 16 networks. The system will support timely exchange of command and control information and situational data between the Air Defence Command and Control system, aircraft and other Link 16-equipped assets. It will also provide intelligent control of multiple Link 16 networks across the country. A key component in the Link 16 ground system is the Rockwell Collins Rosetta technology, which simplifies sensor and data link management, providing enhanced situational awareness for successful tactical operations. Integral to the team's solution is BAE Systems AeI's world leading Link 16 network management capability.

## IAI presents Strikes 122 mm precision rocket



Israel Aerospace Industries (IAI) unveiled a series of effective and affordable weapon systems at Eurosatory 2010. These systems share the common vision of affordability and precision, transforming "statistical" artillery into precision weapons. IAI's vision of future weapon systems stresses the ability to create highly precise systems that enable the support fire elements to do their jobs "faster, more accurately and with much less collateral damage." The company presented *Strikes*, a 122 mm precision rocket which can hit targets with very high precision. *Strikes* is composed of a 122 mm rocket and a guidance kit which is installed between the head of the rocket and the motor. Once the rocket has been fired, the motor is disconnected and the rocket head with the guidance kit continues towards the target, utilising a GPS which operates the four steering fins.

## Honeywell T-Hawk in 10,000th flight



Honeywell announced that its T-Hawk Micro Air Vehicle, the only fielded unmanned aerial vehicle (UAV) with hover and stare surveillance capability, had recorded its 10,000th flight since introduction. The 10,000th flight was part of an Explosive Ordnance Disposal evaluation exercise in Iraq. T-Hawk micro air vehicle is a 17-pound vehicle that can hover and "stare" and offers an option of electro optical or infrared camera sensors for real-time surveillance without exposing soldiers to enemy fire. At just 14 inches in diameter, the T-Hawk vehicle is small enough for a backpack and can be deployed within five minutes. It features vertical take-off and landing and can fly up to 10,000 feet at 46 miles per hour, in winds up to 20 knots.

