

# Army Guide monthly



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## Contracts

### IMI wins \$30 million contract to supply small arms ammunition to the US

Ramat Hasharon, Israel -- Israel Military Industries Ltd. (IMI) announced today that it has received an order totaling \$30 million, to supply Alliant Tech Systems small arms ammunition during the coming year.

IMI was selected by ATK due to the high quality and performance of its ammunition and its proven ability to deliver solutions on time.

IMI's Small Caliber Ammunition (SCA) Division, located in Nazareth, employs 300 highly qualified employees and is recognized as a world leader in small caliber ammunition. SCA designs and manufactures a complete range of ammunition, from 5.56mm to 0.5", including various Armor-Piercing (AP), sniping and training cartridges and is the exclusive supplier to the Israel Defense Forces (IDF). Other customers include the U.S. Army, armed forces of major NATO members, law enforcement and special units and customers in commercial markets worldwide.



## Contracts

### ManTech to Continue Sustainment of US Military's MRAP FoV

ManTech International Corporation has been awarded the MRAP Contractor Logistics Sustainment and Support (CLSS) Services contract by the U.S. Army's TACOM Contracting Center to continue providing logistics sustainment and support for the U.S. Military's MRAP FoV. The award has a total value of \$2.85 billion and a period of performance of five years if all options are exercised.

"As one of the very first contractors on the battlefield, we have built a strong working relationship with the U.S. Army over many years. This relationship is an essential part of who we are at ManTech, and winning this contract is a statement about the quality and professionalism of our people," said ManTech Chairman and CEO George J. Pedersen. "We are fully committed to the critical mission of the Army's TACOM Life Cycle Management Command and our other Army customers, even as we expand into new business areas such as healthcare IT and cyber security. This win, coupled with our recent awards to support the FBI's Criminal Justice Information Services and the NIH's Health IT Acquisition and Assessment Center, affirms our strategic investments to grow in traditional and emerging markets."

Under this contract ManTech will continue to provide services to rapidly assess and repair battle-damaged MRAP FoV systems and mechanical failures, insert technology, integrate systems, and perform upgrades and modifications to enhance and sustain fleet operational readiness. ManTech will also continue to manage supply and transportation support for route-clearance vehicle

fleet, including demand analysis, warehouse operations, logistics data reporting, and material management to ensure optimum distribution of parts at all repair locations. Work is being performed in Afghanistan, Kuwait and at locations throughout the U.S. and the world.

The U.S. Army TACOM Life Cycle Management Command, in partnership with the Army's Program Executive Offices, is one of the Army's largest research, development and sustainment organizations for weapon systems. Its mission is to develop, acquire, field and sustain soldier and ground systems for the warfighter by integrating effective and timely acquisition, logistics and cutting-edge technology.

"MRAP vehicles provide significant protection for our servicemen and women, so it is imperative we maintain them at a high operational readiness level," said Louis M. Addeo, president and chief operating officer of ManTech's Technical Services Group. "ManTech has built a reputation for efficient, reliable logistics sustainment and we are honored to be selected to continue this important support."

"We are proud to continue our support to the MRAP program," added Kevin C. Cody, president of ManTech's Systems Sustainment and Integrated Logistics business unit. "We value the significance the MRAP and RCV FoV programs have had to the safety of our nation's warfighters since 2003."



## Defence Industry

### SISU 8x8 Launcher Vehicle on duty at Andøya



Norwegian Kongsberg Defence & Aerospace AS (KONGSBERG) together with the Royal Norwegian Air Force, and US based Raytheon Company performed a Live Firing Event at Andøya island, Northern Norway, on 23-24 May 2012.

In the Event, the SISU 8x8 hook-lift Launcher Vehicle was used by KONGSBERG for transportation and emplacement of the NASAMS canister launcher. The NASAMS canister launcher was transported to its combat position and for the first time the canister launcher was on SISU's purpose-built hook lift flat rack when fired. The event was witnessed by Armed Forces representatives from more than 10 nations worldwide.

SISU 8x8 is an armoured off-road truck used in various military applications. In addition to its excellent off-road capabilities, the versatile truck runs rapidly on highways, too. The distance from Sisu factory at Karjaa,

Finland, to Andfjella in Northern Norway is in fact a good example of the potential operational radius of the truck.

Both tests were successful: SISU 8x8 truck delivered the canister launcher, and the missile hit the target drone.



## Robots

### iRobot Receives \$12.7 M Order for SUGV



iRobot Corp., a leader in delivering robotic technology-based solutions, has received a \$12.7 million order from the U.S. Army Contracting Command in Warren, Michigan for 68 of the company's model 310 SUGV robots and spares kits. All deliveries will be completed by August 31, 2012.

This is the second order under a requirements contract that allows the Army to purchase iRobot 310 SUGV robots and spares kits through September 2015. To date, 138 robots and spares kits have been delivered under the contract, bringing its total current value to approximately \$24 million.

The iRobot 310 SUGV is a man-portable robot with dexterous manipulator and wearable controller. A smaller and lighter version of the combat-proven iRobot PackBot, it enters areas that are inaccessible or too dangerous for people, providing state-of-the-art technology for infantry troops, combat engineers, mobile EOD technicians and other personnel.

"While primarily geared towards dismounted EOD operations, 310 SUGV is adaptable and expandable," said Tim Trainer, interim general manager of iRobot's Defense & Security business unit. "The robot can be outfitted with a wide range of payloads and sensors, allowing warfighters and public safety professionals to stay out of harm's way while gathering situational awareness in a variety of missions."

iRobot has delivered more than 4,500 unmanned ground vehicles to military and civil defense forces worldwide.



## Contracts

### ATK Receives \$36 M Order for Production of 120mm Training Ammunition

ATK has received a \$36 million order from the U.S. Army to produce 120mm training ammunition for tanks. The award is for a first base-year with four, one-year evaluated option years.

The 120mm training ammunition, used by the

M1A1/A2 Abrams main battle tank, includes the M865 kinetic energy and the M1002 multi-purpose anti-tank training rounds. These training rounds closely replicate tactical ammunition in appearance and ballistic performance to provide the warfighter with an affordable, yet realistic training experience.

"High-quality training ammunition is essential to helping our warfighters prepare for mission success," said Bruce DeWitt, Vice President and General Manager for ATK's Armament Systems division. "We leverage our production expertise in tactical 120mm tank ammunition to deliver training rounds that meet performance, reliability, and safety requirements for use on U.S. and European ranges."

Since 1980, ATK has delivered more than four million rounds of 120mm tactical and training tank ammunition to the U.S. Army, U.S. Marine Corps, and allied militaries. Through its proven, system-level contracting approach that reduces the risk to the customer, ATK has delivered a constant supply of 120mm ammunition that is consistently reliable and affordable.

Production of the training ammunition will occur at the Allegany Ballistics Laboratory (ABL) facility in Rocket Center, W.Va. ABL is a U.S. Navy-owned, ATK-operated facility specializing in advanced manufacturing technologies for a variety of programs supporting current and future U.S. industrial base needs in conventional munitions assemblies, advanced electronic fuzing and integration, solid rocket motor propulsion, and advanced material structures. Program management and systems engineering support will occur at ATK's Plymouth, Minn. facility, which is the headquarters for the company's advanced weapons and armament systems.



## Future Technologies

### Navistar Defense Awarded \$59 Million For MRAP RPG Nets



LISLE, Ill. -- Navistar Defense, LLC today received a contract for \$59 million to deliver 1,357 rocket propelled grenade (RPG) net kits for International® MaxxPro® Mine Resistant Ambush Protected (MRAP) units in Afghanistan. The order from the U.S. Army TACOM Life Cycle Management Command is considered an urgent buy.

RPG nets provide additional protection against the anti-tank weapon of the same name. Navistar previously fielded 970 RPG net kits for the MaxxPro family of

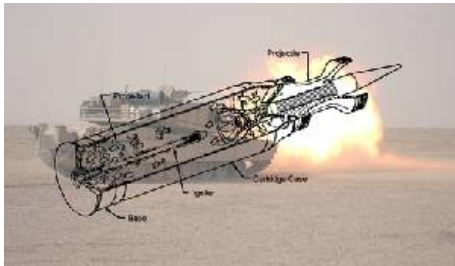
vehicles to support Afghan operations. The new kits will be fitted onto MaxxPro units operating in theater. Delivery is scheduled to begin in August 2012 and be completed by the December 2012.

"Five years ago, almost to the day, we received our first MaxxPro contract to support the urgent operational need in Iraq," said Archie Massicotte, president, Navistar Defense. "We always strive to anticipate the needs of our warfighters and deliver on all contracts with the same urgency asked of us in 2007. We are proud to provide integrated solutions, such as the RPG nets, to our Armed Forces and we will continue to develop new solutions to meet the changing needs of the warfighter."

Navistar has fielded nine major MRAP variants during the last five years including the MaxxPro Dash Ambulance and the MaxxPro Recovery Vehicle. Earlier this year, the company retrofitted existing vehicles with a rolling chassis to upgrade and ready the fleet for future missions. Navistar is also currently competing for the Joint Light Tactical Vehicle (JLTV), Ground Mobility Vehicle (GMV) 1.1 and Standard Military Pattern (SMP) programs with new vehicle solutions. These new platforms were developed by leveraging and combining current assets of Navistar and our partners to create cost effective, robust and mature solutions that are available today.

## Contracts

### General Dynamics Awarded Contracts for 120mm Tank and Artillery Ammunition Valued at \$97 Million



ST. PETERSBURG, Fla. -- The U.S. Army Contracting Commands, Picatinny Arsenal, N.J., and Rock Island, Ill., have awarded General Dynamics Ordnance and Tactical Systems, a business unit of General Dynamics, three contracts with a total value of \$97 million for the manufacture and delivery of 120mm M865 and M1002 tank training ammunition, 105mm M1130 high-explosive (HE) pre-formed fragmentation (PFF) cartridges and 155mm M795 HE projectile metal parts.

The M865 Target Practice, Cone Stabilized, Discarding Sabot-Tracer (TPCSDS-T) ammunition is used in the 120mm smooth-bore M256 cannon of Army and U.S. Marine Corps Abrams main battle tanks. The M865 is designed to simulate the characteristics of live ammunition at reduced maximum ranges, to allow practice firings on short-range training areas.

The M1002 Target Practice Multi-Purpose Tracer (TPMP-T) training cartridge provides matched exterior ballistics and time-of-flight parameters to the M830A1

High Explosive Anti-Tank Multi-Purpose Tracer (HEAT-MP-T) tactical cartridge when fired from the Abrams tank.

The 105mm M1130 HE PFF ammunition is fired from the M119 towed howitzer and is the newest member of the Army's 105mm ammunition family. This modern munition recently achieved full material release (signifying that the Army has rigorously tested and evaluated the item and determined that it is safe, operationally suitable and logistically supportable for use) and has entered service in Afghanistan.

The 155mm M795 is a high-explosive/high-fragmentation artillery projectile that is used in conjunction with the M777 and M198 towed howitzers and the M109A6 Paladin self-propelled howitzer. The round has been widely used in combat operations in both Iraq and Afghanistan. To date, General Dynamics has produced more than 1.3 million 155mm M795 projectiles in support of the Army and Marine Corps.

"Our tank and artillery ammunition continue to play key roles in both the training of U.S. forces as well as providing them overmatch capability in combat," said Steve Torma, vice president and general manager of Large Caliber Ammunition for General Dynamics Ordnance and Tactical Systems. "General Dynamics' heritage in producing tank and artillery ammunition is second to none and we are honored to provide continuing support to U.S. armed forces with this high-performance ammunition."

Work is expected to be complete in February 2013 for the 155mm artillery ammunition, April 2014 for the 105mm artillery ammunition and September 2016 for the 120 tank ammunition.

## Contracts

### ManTech Awarded Contract to Continue Sustainment of U.S. MRAP Vehicles



FAIRFAX, Va. -- ManTech International Corporation has been awarded the MRAP Contractor Logistics Sustainment and Support (CLSS) Services contract by the U.S. Army's TACOM Contracting Center to continue providing logistics sustainment and support for the U.S. Military's Mine Resistant Ambush Protected (MRAP) Family of Vehicles (FoV). The award has a total value of \$2.85 billion and a period of performance of five years if all options are exercised.

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Army over many years. This relationship is an essential part of who we are at ManTech, and winning this contract is a statement about the quality and professionalism of our people,” said ManTech Chairman and CEO George J. Pedersen. “We are fully committed to the critical mission of the Army’s TACOM Life Cycle Management Command and our other Army customers, even as we expand into new business areas such as healthcare IT and cyber security. This win, coupled with our recent awards to support the FBI’s Criminal Justice Information Services and the NIH’s Health IT Acquisition and Assessment Center, affirms our strategic investments to grow in traditional and emerging markets.”

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### Defence Industry

## Morozov KMDB has handed over the second batch of BTR-4 armored vehicles to Iraqi inspection

Kharkiv, Ukraine -- The Iraqi side has taken over the second batch consisting of 62 8Г-8 BTR-4 armored vehicles made by Kharkov Morozov Machine Building Design Bureau, Malyshev plant and other Ukrainian enterprises that are a part of

Concern Ulroboronprom.



Head of the inspection team of the Iraqi Republic Ministry of Defense has said that the ministry of Defense of the Iraqi Republic has been fully satisfied with the quality of the armored vehicles made in Ukraine. He thanked the employees of KMDB, as well as representatives of SE Ukrspecexport, SE Ukroboronprom and other participants of trials for endurance, having marked the high level of the works done and services rendered.

The second batch includes 62 vehicles, that comprise BTR-4 combat vehicles, armed with Parus remote controlled weapon station, specialized vehicles – commander’s, command-staff, ambulance and recovery vehicles, as well as training simulators and maintenance vehicles.

Kharkov Morozov Machine Building Design Bureau has been the designer and main contractor under the contract. The vehicles have been manufactured at the KMDB and Malyshev plant facilities, a large number of Ukrainian enterprises participated in supply of components.

“Acceptance by the Iraqi inspection of the second batch of BTR-4 armored vehicles is very important for KMDB, since it proves the worthy technical level of our equipment, as well as readiness to meet the most demanding needs of our customers. We are thankful to representatives of the Ministry of Defense of Iraq for complete professionalism and insistence on high standards displayed during joint activities”, said A.I. Veretennikov, General Designer of KMDB.

He also added: “BTR-4 armored vehicle is presently attracting much interest from the potential customers world over and successful delivery of the next batch is a good signal for them. We are ready for cooperation with all customers, ready to take into consideration their specific interests in our products.”

### Contracts

## German Armed Forces to Receive 110 Mercedes-Benz Zetros GTF Armoured Transport Vehicles

Wftrth/Koblenz -- Mercedes-Benz Special Trucks is to supply the German armed forces with 110 Zetros GTF armoured logistics vehicles. The Federal Office of Defence Technology and Procurement and Daimler AG signed a corresponding agreement on 14 May 2012. Under the terms of the agreement, the German armed forces are to receive 25 Zetros 4x4 GTFs in the course of this year.

"With the Zetros GTF from Mercedes-Benz, the German armed forces will be taking delivery of a new class of armoured logistics vehicle tailored specifically to the given requirements," noted Michael Dietz, Head of Sales and Marketing at Mercedes-Benz Special Trucks. "At the same time, we are able to deliver the vehicles with a very short lead time because the concept largely employs components from the established large-scale production series," he added.



Hans Thijm, Project Group Director U4 at the Office of Defence Technology and Procurement, focused on the aspect of protection for crews: "We attach high priority to protecting crews. With the new Zetros, soldiers will be able to perform their logistics tasks safely even when under threat. It is important for us that the vehicles can be supplied and ready for deployment in the short term."

#### **MILITARY REQUIREMENTS**

The in-service support manager for armoured wheeled vehicles at the Federal Armed Forces Logistics Office, lieutenant-colonel Manfred Klaffus, described the military requirements as follows:

"The criteria previously applied with regard to the procurement of vehicles for soldiers of the German federal armed forces have had to be adapted in the face of the asymmetric security situation which has prevailed in Afghanistan since the middle of the last decade at least, involving an extremely complex spectrum of dangers. On the basis of the two system capability specifications "Capability of armoured tactical mobility in land-based operations" and "Road transport on deployment", a Final functional specification for armoured vehicles was established in order to provide soldiers on deployment with effective protection against the high level of danger in particular from IEDs.

While the procurement of armoured leading and functional vehicles is well underway, with a broad range of different categories of vehicle already in use now for some years and lives having been saved in numerous instances as a result, to date the area of armoured transport vehicles has still been covered primarily by temporary solutions (e.g. older vehicles with modular armour)."

In the five-ton payload class, only the Zetros 4x4 GTF from Mercedes-Benz – the sole cab-behind-engine vehicle in contention – was found to meet the armed forces' requirements. A trial vehicle underwent in-depth testing at the defence technology offices from 2008, displaying convincing performance on all fronts. The offer submitted by Mercedes-Benz at the end of 2011 provides the basis for the agreement which has now been

concluded on the delivery of 110 Zetros GTFs.

The first 4 of the 25 vehicles to be delivered in 2012 are set to pass through the integrated verification process to confirm due delivery in accordance with the terms of the agreement and to determine their suitability for deployment. At the end of this process, the approval for use will be issued. The remaining 85 armoured logistics vehicles will be delivered up to July 2014. With the Zetros GTF, Mercedes-Benz will be supplying the German armed forces with the first armoured transport vehicles designed specifically for this capability profile.

#### **MOBILITY AND PROTECTION FROM THE SERIES-PRODUCTION PROGRAMME**

The Zetros 1833A 4x4 GTF cab-behind-engine vehicle has been designed specifically for operation in difficult territory. Powertrain and chassis originate from Mercedes-Benz's large-scale production programme, with assemblies which have been tried and tested on numerous deployments. This ensures reliable operation even in adverse conditions and a dependable supply of replacement parts through Mercedes-Benz's worldwide service organisation. The use of series-production components and assemblies additionally enables a short response time between receipt of order and delivery of the entire order volume.

#### **CONVINCING CAB-BEHIND-ENGINE DESIGN**

The cab-behind-engine design means that the engine/transmission unit is located under a bonnet over the front axle. For maintenance and repair work, the bonnet can be tilted forward independently of the cab, affording access to the assemblies.

This arrangement for the drive and cab results in a low overall height for the vehicle, which not only improves its tactical mobility but also facilitates transport by rail or air through compliance with corresponding transport profiles. Last but not least, the cab-behind-engine concept results in a more even axle load distribution, which alters substantially in truck operations on account of varying payloads.

#### **PROTECTION FOR THE CREW**

The armoured cab, which is located behind the front axle, offers the crew two full-size seats and stowage space for their personal equipment and communications facilities. The cab is produced in armour steel with additional protection elements, ensuring the necessary protection against the prevailing threats in operation. The cab is equipped as standard with an effective ventilation system to afford protection from ABC weapons and with air conditioning.

#### **POWERFUL DRIVE AND UNINTERRUPTED TRACTIVE POWER**

The vehicle is powered by an OM 926 LA 6-cylinder in-line diesel engine complying with the Euro 3 standard. This engine is able to generate an output of 240 kW and maximum torque of 1300 Nm over a broad rev range even when running on poor-quality fuel, such as is commonly encountered in the field. A fully automatic Allison 3000 SP transmission with six forward gears transfers the tractive power without interruption to the

two permanently driven axles. This means that the ideal tractive power is available at all times, particularly in difficult terrain, enabling the driver to concentrate fully on the special features of the terrain.

Assessment of the planned deployment of the Zetros GTF by the in-service support manager for armoured wheeled vehicles at the Federal Armed Forces Logistics Office, lieutenant-colonel Manfred Klaffus:

"The Mercedes-Benz Zetros GTF in the five-ton payload class is the first such high-tech vehicle to be introduced in the traditional area of armoured transport vehicles. With a robust chassis and a high level of protection for the cab, the Zetros GTF offers soldiers protection on a par with that provided by the armoured leading and functional vehicles which have been introduced to date. The extensive communication facilities and the self-defence capabilities resulting from integration of the FLW 100 weapons system will set a whole new benchmark in operational efficiency for this class of transport vehicle. Soldiers on deployment will have an armoured transport vehicle for a diverse range of tasks at their disposal which will improve their personal safety substantially, thus giving them the necessary assurance that they will be able to perform their tasks safely and reliably, even when high levels of potential threat prevail. The main area of use for the Zetros GTF will focus on supply operations between camps and outposts and escorting patrols."



## Eurosatory 2012: ReconRobotics Introduces The Throwbot XT Reconnaissance Robot



EDINA, Minn. -- ReconRobotics, Inc., the world leader in tactical micro-robot systems, announced today that it will introduce an advanced military and police robot with state-of-the-art reconnaissance capabilities at the Eurosatory defense and security exhibition to be held June 11-14 in Paris.

The Throwbot® XT is a throwable, mobile micro-robot that provides both audio and video reconnaissance of dangerous environments. Military fire teams and SWAT personnel will use the new micro-robot to quickly gain situational awareness during high-risk

operations and surveillance missions.

The Throwbot XT is inherently water and dust resistant, weighs just 1.2lbs (540g), and can be thrown up to 120 feet (36m). It is also exceptionally quiet and is equipped with an infrared optical system that activates automatically when the ambient light is low, enabling the operator to see in complete darkness. Once deployed, the micro-robot can be directed by the operator to quietly move through a structure and transmit video and audio to the handheld Operator Control Unit II (OCU II). These stealth capabilities can be utilized to locate armed subjects, confirm the presence of hostages or innocent civilians, listen in on conversations, and reveal the layout of rooms – information that can save lives and increase the success of high-risk operations. The robot may be specified in any of three predetermined transmitting frequencies, enabling operators to use up to three robots in the same environment at the same time.

"Our objective with this product evolution was to dramatically increase the capabilities of our micro-robot without increasing its weight, and we accomplished that," said Jean-Luc Panetta, Vice President of Product Management and Engineering. "We are very mindful of the soldier's burden, and we believe that the new Throwbot XT is, pound-for-pound, the most versatile, robust, stealthy and easy-to-deploy robot system in the world."

In 2007, ReconRobotics introduced the Recon Scout® robot and created an entirely new class of robots called tactical micro-robots. Unlike other military and law enforcement robots, which weighed 40 to 80lbs and were transported in a vehicle, Recon Scout robots were sublimely small and simple. Today, soldiers and SWAT personnel carry their Recon Scout robots in small packs or pockets and deploy them in under five seconds to gain lifesaving situational awareness and greater standoff distance. More than 3,700 of the company's micro-robot systems are deployed by the U.S. military and allied friendly forces, and by nearly 500 police tactical teams and bomb squads, worldwide. Nearly 2,000 of these robots are currently deployed with U.S. Army and Marine Corps fire teams in Afghanistan for use in urban warfare and compound clearing operations.



## Robots

## Exhibitions

### Patria participating in HI Design 2012 exhibition in Helsinki



Patria is participating in the HI Design 2012 exhibition. The exhibition involves an

unprecedented display of the design work of Finnish companies in Helsinki. It will be open throughout the summer, from 8 June until 2 September 2012. Patria will showcase Patria AMV vehicles, Patria Nemo mortars and composite structured aircraft spoilers.

HI Design 2012 highlights the significant role played by design in the success of Finnish companies. It also reveals some surprising contexts in which design has an impact. Products are being showcased that merge high-end design with technology. The exhibition provides new perspectives on machines and equipment produced by the heavy technology industry.

The exhibition provides a clear picture of the importance of design – it reveals how well-managed design can be used to create durable, functional and attractive products, based on an efficient manufacturing process, no matter the industry. In addition to Patria, several other trailblazing Finnish companies are presenting their products, including Nokia, KONE, Konecranes, Rocla, Planmeca, Planmed, ABB and Link Design.

“Design also plays a significant role in the defence, security and aviation sector, where Patria is a forerunner in various niches. We seek a competitive edge by making use of design to bring safety, ease of use, ergonomics and energy efficiency to our products,” says Jukka Holkeri, Patria’s Chief Marketing Officer.

#### **Patria AMV – Patria’s flagship**

Patria is a provider of defence, security and aviation life-cycle support services and technology solutions. From its versatile product and service range, Patria will showcase three different products at the HI Design 2012 exhibition.

One of the largest items on show will be the Patria AMV 8x8, the market leader in modern armoured wheeled vehicles in its class and already an unprecedented success story. The company currently holds contracts for over 1,400 vehicles. A deal concluded in 2010 with the Swedish Defence Materiel Administration promises continued success.

Another Patria item on show will be the Patria Nemo, a 120mm mortar system, which has made Patria a global market leader in turreted mortar systems. Among other features, it has excellent stealth characteristics, ballistic protection and firepower. In addition, it is compact in size and light (approx. 1,700 kg). The mortar is capable not only of conventional indirect, but also of direct fire, which is unique for mortars. It is adaptable to various wheeled and tracked vehicle types, and vessels.

In the aviation business, Patria’s key operations include life cycle support services for aircraft and helicopters, as well as pilot training. At the exhibition, Patria will showcase one of its areas of special expertise: composite aircraft structures, represented by a spoiler for the Airbus A380.

Patria also makes complex system and equipment deliveries to defence forces and national security authorities. Areas of special expertise are reconnaissance, surveillance, command and control systems, as well as their integration, software and life-cycle support.

## **Exhibition is open to the public throughout the summer**

The phenomenal HI Design 2012 exhibition will be open to the public throughout the summer, from 8 June until 2 September 2012. Entry is free of charge, and the exhibition will be open to the public from Thursdays to Sundays during the exhibition weeks. The exhibition is organised jointly by World Design Capital Helsinki 2012 and the Federation of Finnish Technology Industries and its member companies.



## **Defence Industry**

### **KONGSBERG’s PROTECTOR Dual RWS selected as part of the Canadian TAPV program**



The Canadian Treasury Board announced that they have chosen Textron Systems to deliver the next generation of Tactical Armoured Patrol Vehicles (TAPV).

Textron Systems, the vehicle provider, is in a close partnership with KONGSBERG, for the delivery of an advanced Dual Remote Weapon Station (DRWS) tailor-made to address the specific TAPV requirements.

“We are very pleased to be chosen as the supplier of one of the top priority protection assets to the Canadian Armed Forces”, says Egil Haugsdal, President of Kongsberg Protech Systems. This confirms the strong position of KONGSBERG’s RWS’ and strengthens our relationship with Textron Systems, the Canadian Government, as well as the Canadian Army which has utilized our PROTECTOR systems on international operations for many years.

The PROTECTOR TAPV DRWS is based on the existing PROTECTOR family of remote weapon stations from KONGSBERG. This innovative weapon station features, amongst other things, a coaxial weapon, dual user functionality and a surveillance mode. These enhancements will provide additional capabilities for the soldiers operating the vehicle. The PROTECTOR DRWS is a likely candidate as the future RWS platforms for the Canadian Army.

The PROTECTOR DRWS will be produced in KONGSBERG’s production facilities in London, Ontario, Canada, and initial deliveries for verification and testing are expected to start first half of 2013.





**Defence Industry**

**Supacat SPV400 Production Standard Vehicle Achieves 96% Reliability**



Dunkeswell, Devon, UK -- At Eurosatory 2012 Supacat is exhibiting the latest production standard Supacat Protected Vehicle 400 (SPV400), which offers improved reliability and handling after having completed over 21,000km of trials, during which its reliability level has increased to 96%.

These improvements were demonstrated in March at Millbrook Proving Ground where the SPV400 (Vehicle 7) performed robustly in pre-feasibility trials for the UK Ministry of Defence's Multi Role Vehicle -Protected (MRV-P) requirement.

Supacat has focussed on maturing the design since 2010 when it was assessed for the UK MoD's requirement for a Light Protected Patrol Vehicle (LPPV).

The SPV400 is one of only two vehicles in the 7.5 ton protected light patrol vehicle class to have met the UK MoD's stringent requirements.

"The SPV400 is proving itself as a robust light protected patrol vehicle and is attracting interest in the international market", said Nick Ames, Managing Director, Supacat Ltd.

A light patrol vehicle in the 7.5 ton class, the SPV400 carries a crew of six (2 +4) and combines an integrated blast and ballistic protection system, including a protected all composite crew pod and V-shaped hull. Using the latest composite and ceramic armour systems, the crew pod is constructed as a separate module, sealed off from potential secondary projectiles, such as kit and electronic devices, which are housed in a rear compartment. All seats are mine blast protected.

The SPV400 has exceptional all terrain, high mobility performance and is capable of speeds up to 80mph on the desert plain.

A modular and future-proofed design allows the SPV400 to be upgraded to meet evolving threats and requirements. The V shaped hull protects the crew in an under-belly mine strike scenario, while the modular approach enables the SPV400 to be repaired in theatre following mine blast incidents by replacing the damaged module(s).

Air suspension provides troops with a smooth ride, reducing crew fatigue and conventional steering reduces complexity.

Supacat is also exhibiting the Wildcat light strike vehicle and the HMT Series (Jackal) at Eurosatory. In

April this year the Australian Defence Material Organisation (DMO) selected Supacat as Preferred Bidder for the Special Operations Vehicle element of the Project Definition and Evaluation phase (PD&E) of JP2097 Ph 1B (REDFIN). Supacat's bid offers the latest version of its Special Forces HMT Extenda vehicle.



**Exhibitions**

**Panhard vehicles at Eurosatory 2012**



Panhard General Defence, leader in the area of light armoured vehicles - under 15 tons, will display the whole range of products, combat vehicles, liaison vehicles and support vehicles, as well as its range of remote-controlled weapon systems.

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A couple of new items in the area of combat - the Sphinx and the CRAB - will renew the selections of land forces, as much in the area of employment doctrine as in the area of technology.

Le CRAB, an applicant to the Scorpion VBAE (Commitment support armoured vehicle) program, includes a couple of technologies mastered by Panhard: the survival cell and the integration of a remote-controlled weapon system; it enables to achieve a low-profile and light-weight CRAB, while providing an outstanding protection level for this weight category. It will be possible to airlift a troop of three vehicles in combat configuration in an A400M; and this vehicle has a significant firepower provided by its weapon system.

The SPHINX, an applicant to the Scorpion EBRC (Combat Reconnaissance Armoured Buggy) program, links a concept of highly-mobile armoured platform - thanks to a weight/power ratio higher than 30 hp/t - to a turret fitted with a Lockheed Martin CTA 40 gun. It will dramatically reduce costs thanks to a very attractive LCC (Life Cycle Cost).

The HORNET remote-controlled cupola, developed with Sagem according to an industrial scheme that had been used to develop the WASP, can be fit either with a 12.7-mm machine-gun or a 40-mm grenade-launcher. Its design enables to have a reduced overall height, and it is

possible to set numerous optional assets onto a frame which is independent from the mount. The choice of Sagem optronics, and VA (Value Analysis) carried out on the main mechanisms have enabled to decrease the price that is much lower than current prices on the market.

Moreover, Panhard will also display the families of vehicles - coming from the VBL and PVP - that are already well established in the French Army, and also widely disseminated at export.

The two thousand and three hundred VBLs manufactured to date, used in operations under all latitudes have been offered in twenty-five different versions, for a wide array of missions: combat, security, recce, surveillance, and intervention missions, for national defence and homeland security. Panhard keeps selling the VBL in the new Mk2 version, re-engined with a 140-hp power train. The VBL Mk2 has already been manufactured for Kuwait.

The PVP, the PVP HD or Gavial Plus, and the PVP XL cover the five-to-twelve-ton vehicles to offer an appropriate price and targeted achievements. With its (Stanag 4569) protection level 2 and a one-ton payload weighs 5.5 tons only. The PVP HD and its seven tons, competes with nine-ton armoured vehicles. The PVP XL (STANAG-level 4 for mine and ballistic protection, and a three-ton payload) competes with fourteen-ton vehicles whereas it only weighs twelve tons.

1400 pcs. Patria AMV is the best combination of superior mobility, outstanding protection, excellent firepower and interoperability. Patria AMV vehicle family has been fielded e.g. in ISAF-operation since 2007 with excellent user feed-back.

Kongsberg PROTECTOR Super Lite is a fully stabilized and a very light weight RWS (only 30 kg without weapon & ammunition) and it can be equipped with a machine gun (e.g. M240, M249) thus increasing close fire support and situational awareness for the crew, while performing fire missions with Patria Nemo 120 mm mortar system.

To increase the situational awareness even further the Nemo Plus -concept vehicle Patria AMV is equipped with SAS camera system from SAAB.

## Exhibitions

### Otokar participates in Eurosatory with five armoured vehicles



Otokar, the leading land system manufacturer of the Turkish Defence Industry, is to exhibit its 4x4 and 6x6 armoured vehicles at Eurosatory.

## Exhibitions

### Patria to introduce a brand new Nemo Plus - concept at the Eurosatory

At the forthcoming Eurosatory 2012 exhibition in Paris June 11-15, Patria showcases in its world premiere the Nemo Plus - concept. This groundbreaking concept is based on Patria Nemo 120 mm mortar system with Kongsberg PROTECTOR Super Lite RWS integrated on Patria AMV.

Nemo Plus -concept opens up even further possibilities to use turreted weapon systems in combat. Nemo Plus features the global market leader of turreted mortar systems - Patria Nemo 120 mm mortar system with superior firepower, protection, mobility and agility. It also features an additional remote weapon system (RWS) PROTECTOR Super Lite from Kongsberg which has been integrated on Patria Nemo. This unique combination deserves nothing but the best armoured wheeled vehicle platform - the undisputed market leader of modern 8x8's - Patria AMV.

Patria Nemo, due to its compact size and low weight (only 1700kg), can be integrated on a vast number of armoured vehicles, both wheeled and tracked, as well as to various naval vessels (Patrol boats etc). It can fire both traditional indirect fire up to 10 km as well as direct fire up to 1km - rate of fire 10 rds/min and it takes less than 30 s to open fire after receiving the fire mission.

Patria AMV vehicle family has currently 7 customer countries - total number of contracted vehicles exceeds

Otokar, as a company of Koc Group, Turkey's biggest conglomerate, presents its below mentioned armoured tactical wheeled vehicles at the Eurosatory 2012 held in Paris:

- ARMA 6x6 with closed turret weapon station,
- ARMA 6x6 Amphibious Armoured Personnel Carrier,
- KAYA Mine Resistant Troop Carrier,
- COBRA Armoured Personnel Carrier with Remote Control Weapon Station,
- COBRA Reconnaissance and Surveillance vehicle.

Defining Otokar's recent status as an internationally competitive organisation, Serdar Gorguc, the General Manager, said: "Our vehicles are chosen by more users every year. In this respect, we're constantly renewing and expanding our product range."

Highlighting the success of Otokar in international markets and considering assembly and manufacturing of Otokar vehicles in other markets rather than Turkey Gorguc continued: "Recently, we signed an MoU with Kazakh State Company, Kazakhstan Engineering for manufacturing COBRA in Kazakhstan. Additionally, we are also studying thoroughly different markets in different parts of the world for local production of our vehicles. In addition to these activities, COBRA is being awarded with contracts for the usage of different countries and United Nations Peace keeping missions. Today I can easily say that COBRA is one of the most

desired and well-known armoured tactical vehicles of its range throughout the world. In line with this success our other vehicles are also being demanded and contracted by different forces. ARMA is a good example of this achievement by being awarded with two different contracts within a year.

Besides our Internal Security Vehicle which is not exhibited in this Eurosatory is another success story in terms of gained contracts.

### **ALTAY Project is in full flow**

Informing about the ALTAY main battle tank project, one of the most important projects of Turkish defence industry, Gorguc stated: "ALTAY, Turkey's first national main battle tank, has been developed since 2009 with the leadership of Otokar, assigned by the Undersecretary of Defence Industries. The first phase of the project, 'Conceptual Design Process', has been completed in 2010. And we presented the full-scale model, which reflects the concept design of ALTAY, at IDEF Exhibition, last year. In scope of the 'Detailed Design Process' which is the second and the most critical phase of the project, 'Preliminary Design Phase', has been successfully completed by the last quarter of 2011. During this phase, manufacturing of prototypes took start in line with this process. Following the completion of the Second Phase, we're planning to start the 'Prototype Development and Qualification Phase' which is the third and the last phase. In scope of the project plan we continue investing in the first prototype of the ALTAY tank which will be ready for testing by the last quarter of this year. In addition to our existing facilities within Otokar plant, we have recently established a new Tank Test Center with an investment of USD 10 million. Our Test Center is among the world's most modern and advanced test centers."

In addition to its tactical wheeled armoured vehicles, Otokar also presents a small scale model of ALTAY main battle tank at Eurosatory.

### **ARMA 6x6 at Eurosatory with two different versions**

Otokar exhibits two versions of ARMA 6x6 armoured combat vehicle which is a member of ARMA family consisting of 8x8 and 6x6 armoured vehicles.

### **ARMA 6x6 Personnel Carrier with Closed Turret Weapon Station**

ARMA 6x6 Personnel Carrier with Closed Turret Weapon Station combines the firing capability of its armament with the superior mobility and high protection level of ARMA vehicle. Thanks to its turret allowing the integration of automated machine guns in different types and calibres, it enables firing from inside the armoured vehicle both in day and night without being exposed to external threats.

### **ARMA Amphibious Personnel Carrier**

ARMA 6x6 amphibious armoured personnel carrier provides the crew with a high level of protection against ballistic and mine threats by means of high hardness monocoque steel hull. The personnel is seated on individual mine protected seats. The collective NBC

protection system provides the crew with a safe environment and uninterrupted operation in contaminated areas. The amphibious capability ensures superior tactical capabilities in all terrain conditions.

Arma 6x6 versions rides on hydro-pneumatic independent suspension and locked transfer case which ensures superior off-road mobility and comfort. With its independent hydro-pneumatic suspension and locked transfer case, ARMA 6x6 presents superior off-road mobility and comfort. The ARMA 6x6 versions is equipped with a 8.9 litre, 6 cylinders, 450 HP turbo diesel engine and 6 forward 1 reverse automatic gearbox providing the users with a superior agility and manoeuvrability in all terrain conditions. The engine is located at the right front of the vehicle, allowing a comparably high internal volume to be efficiently and ergonomically used.

Central Tire Inflation System, Run Flat tires and Airconditioning system are the standard equipments in all ARMA 6x6 and 8x8 versions.

### **Two variants of COBRA is presented**

Two different variants of COBRA vehicle are exhibited in Eurosatory.

### **COBRA Armoured Reconnaissance Vehicle**

Besides its superior mobility, and protection against ballistic and mine threats, COBRA Armoured Reconnaissance Vehicle presents solutions towards the needs of users with high capacity reconnaissance equipments. With its electro-optic reconnaissance systems, the vehicle can detect, recognize and identify remote targets under day/night and all weather conditions. Besides, images of the detected target can be transmitted as picture and video together with the location and identification info via the integrated software, hardware and digital communication systems infrastructure with other vehicles within the operation and the command center.

### **COBRA Remote Controlled Weapon Station**

Thanks to its remote controlled turret, and thermal and daytime vision systems the vehicle has surveillance, reconnaissance and rapid intervention ability under day/night and all weather conditions.

## **Exhibitions**

### **Thales launches RAPIDFire, its new mobile air defence gun system**



Eurosatory -- At Eurosatory, Thales is unveiling RAPIDFire, a new multiweapon air defence system. RAPIDFire forms part of the recently launched new package of Advanced Air Defence solutions from Thales that incorporates everything from complete

airspace security solutions, command and control, weapon coordination, air surveillance radars down to the mobile integrated weapon systems.

RAPIDFire combines the CONTROLMaster 60 surveillance radar with the CONTROLView command and control module. These are integrated with the multi-sensor stabilised optronic sighting system and the CT40 gun from CTAI, an international subsidiary of Nexter and BAe Systems. This mobile, multi-role weapon system is designed to respond to the new threats being encountered by armed forces today and in particular the low cost targets which can attack in swarms and can saturate conventional missile defences. With its powerful anti-aircraft gun, high performance 3D radar and versatile C2 module, RAPIDFire is optimized to defeat all types of air threats including Fighter Ground Attack (FGA), helicopters or Unmanned Air Vehicles (UAV) and cruise missiles or precision guided munitions.

The RAPIDFire system has also been designed to enable firing of the STARStreak missile system, a Very Short Range Air Defence missile system with a speed in excess of Mach 3 and a range of around 7km. The combination of six STARStreak missiles and the latest generation 40mm cased telescope ammunition ensure both precision attack and high firepower. Optronic sensors have been integrated directly into the turret thereby ensuring that the RAPIDFire can operate autonomously if required. Using various types of ammunitions, RAPIDFire can also be used against ground targets, including armoured platforms, to ensure the self protection of the system

Speaking from Eurosatory in Paris Alex Cresswell, SVP Land Defence Division said, "I am very excited to be introducing this new product at Eurosatory. RAPIDFire's combination of mobility with fast into action time and precision attack provides the perfect response for protecting troops on the move. RAPIDFire will be a key element in our extensive package of Advanced Air Defence solutions for many years to come."

With this new system, Thales has further demonstrated its ingenuity as aSystems Integrator and has reinforced its position as the leader in mobile integrated weapon systems. To date, over 450 RAPID family mobile integrated weapon systems have been delivered to customers worldwide.

Thales remains the only company in Europe to be able to offer a comprehensive air defence solution spanning the entire chain of operations, from sensors to effectors.

## Exhibitions

### Rheinmetall's Amarak M Light Multi-Purpose Vehicle (LMPV) at Eurosatory 2012

Outstanding mobility both on and off road, flexibility and reliability – these are the chief features of the lightweight all-terrain vehicles in service with armed forces around the globe.

Rheinmetall MAN Military Vehicles (RMMV) has now expanded its product portfolio to include a commercial off-the-shelf vehicle in the below 3.5 t class. RMMV is displaying its new Amarak M Light Multi-Purpose Vehicle (LMPV) for the first time at this year's Eurosatory.



The Amarak M is a light multi-purpose vehicle that can be readily configured to meet individual customer requirements. Different equipment kits enable it to perform a wide range of missions. During the development process, RMMV placed great emphasis on meeting the twin military requirements of maximum modularity and ergonomic design.

- The vehicle interior is spacious enough to seat up to four fully equipped soldiers.
- Rifle racks, a radio system with handsets and room for stowing additional equipment assure excellent ergonomics.
- At a total vehicle weight of three tonnes, the Amarak M can carry a payload of up to 1.37 tonnes (with the basic cab).

All-wheel drive, an off-road anti-blocking system, an advanced, high-performance diesel or petrol-fuelled engine (90 to 132 kW, Euro 5), and a choice of eight-gear automatic or six-gear standard transmission combine to assure high mobility whether on hard surfaces or off road. An engine output of up to 180 HP (depending on the configuration) delivers a maximum speed of 180 km/h as well as 1.26-tonne payload (with a double cab), or 1.37-tonnes with a basic cab.

As an alternative to a loading area with a capacity of 2.5 m<sup>2</sup> (double cab) or 3.57 m<sup>2</sup> (basic cab), the chassis can be modified in accordance with customer requirements for a variety of different missions.

Moreover, as a systems integrator, RMMV can draw on numerous subsystems and components from Rheinmetall's extensive portfolio of products as well as other customer-specific equipment kits, enabling it to transform the Amarak M into a communications and/or command vehicle, a military police patrol vehicle, etc.

Designed with special operations in mind, the Amarak M on display at Eurosatory 2012 is equipped with an electrically powered ring-mount for a medium or heavy machine gun or automatic grenade launcher.

## Defence Industry

### ST Kinetics and Paramount Group Announce Collaboration on Armoured Wheeled Vehicles

ST Kinetics and Paramount Group today announced a strategic collaboration to market a family of high mobility armoured wheeled vehicles. Under the agreement, the two companies will pool their expertise to jointly market, manufacture and support a family of protected wheeled vehicles.

ST Kinetics and Paramount Group recognise that modern conflicts demand highly protected wheeled vehicles with superb mobility that can increase the survivability of the crew and ensure mission success. The collaboration, which brings together the strengths of these two companies, will address the market needs for such highly protected and vastly manoeuvrable vehicles. It will allow their respective customers to enjoy highly cost effective solutions through global best sourcing and localised through-life support.

Resulting from this collaboration is a comprehensive range of wheeled vehicles for military and homeland security applications. These include ST Kinetics' highly manoeuvrable and network-enabled TERREX 8x8 Armoured Personnel Carrier, and Paramount Group's mine-protected and highly mobile MBOMBE 6x6 Armoured Fighting Vehicle, MAVERICK 4x4 Internal Security Vehicle, MARAUDER 4x4 Wheeled Troop Carrier and MATADOR 4x4 Multi-role Mine Protected Vehicle.

"ST Kinetics and Paramount Group each has a proven track record in the design and development of land systems vehicles. This partnership allows us to bring together the reputable products of Paramount Group with our capabilities in systems integration and manufacturing to offer cost effective protected mobility solutions to our customers." - SEW Chee Jhuen, President, ST Kinetics.

"Our collaboration with ST Kinetics represents an invaluable springboard into the Asia-Pacific region for Paramount Group. We are both ambitious, innovative businesses which understand our customers' needs and the changing demands of modern defence and peace-keeping. Our in-region partnership means that we can be very quick to market and very quick to respond to customers' changing needs." - Ivor ICHIKOWITZ, Executive Chairman, Paramount Group.

## Contracts

### BAE Systems Secures €12.5 Million Vehicle Follow on Contract from Finland



PARIS -- BAE Systems secured a contract for more than €12.5 million (\$15.7 million USD) to supply 25 RG32M mine-hardened armoured patrol vehicles to the Finnish Defence Forces. This contract follows Finland's previous orders for 26 vehicles in 2010

and 23 vehicles in 2011.

"The RG32M, as part of the battle proven RG range of vehicles, provides a great balance between protection and mobility. Finland's follow-on order demonstrates their confidence in BAE Systems' solutions to help protect the men and women in uniform," explained Johan Steyn, managing director, Land Systems South Africa.

The RG32M is an all-purpose, mine-hardened vehicle with integrated ballistic protection for convoy support, infantry patrol and reconnaissance missions. The vehicle provides a cost effective solution with flexibility to meet a number of requirements and demands through reconfigurable mission-specific communication and weapon systems. Crew and vehicle survivability is enhanced through applied systems engineering techniques and by utilising BAE Systems' unrivalled experience from vehicle operations in Africa and the Middle East, in addition to rigorous and systematic field-testing in South Africa, Sweden, the UK and the Middle East.

There are currently 200 RG32M vehicles in service with the Swedish Armed Forces, as well as 27 light tactical versions in service with the Irish Defence Forces.

Deliveries will start in April 2013 and are expected to be completed in July 2013.

## Defence Industry

### General Dynamics Land Systems Submits Proposal for U.S. Special Operations Ground Mobility Vehicle 1.1 Program



STERLING HEIGHTS, Mich. -- General Dynamics Land Systems has submitted its proposal for the U.S. Special Operations Command (USSOCOM) Ground Mobility Vehicle (GMV 1.1) program. The proposal was delivered to Special Operations Command headquarters in Tampa, Fla. A sample vehicle in support of the bid was delivered on May 30.

The vehicle was designed and developed primarily at the General Dynamics Land Systems-Force Protection facility in Ladson, S.C. General Dynamics Land Systems is a business unit of General Dynamics (NYSE: GD).

The General Dynamics Land Systems GMV 1.1 vehicle is optimized to increase operator and occupant protection and survivability. It meets the diverse and challenging missions that special operations demand, including transportability, mobility, modularity and

technology.

The General Dynamics Land Systems GMV 1.1 is designed for internal fixed- and rotary-wing transport with a center-mounted engine that provides optimal weight distribution on the ground and inside an aircraft. It is a mission-ready, high performance vehicle that can be driven off an aircraft ready for use. The vehicle's modular technology is rapidly configurable for a variety of special operations missions and operating environments.

General Dynamics Land Systems performed extensive testing over a two-year period to validate the vehicle's design and performance. The vehicle passed user trials at the U.S. Army's Yuma Proving Ground in Arizona and the Nevada Automotive Test Center, and demonstrated its systems reliability during summer trials in the United Arab Emirates.

The GMV 1.1 program includes plans to acquire up to 1,300 vehicles for special operations missions with requirements for air transportability, weapons capabilities and high mobility. Contract award is expected by January 2013 with production expected to begin in 2013 and ending mid-2020.



## Defence Industry

### Textron Receives Order for 71 More MSFVs for the Afghanistan National Army



NEW ORLEANS -- Textron Marine & Land Systems, an operating unit of Textron Systems, a Textron Inc. company, announced Jun. 13 that it received a third option award from the U.S. Army Contracting Command, Warren, Mich., for 71 Mobile Strike Force Vehicles (MSFV) for the Afghanistan National Army (ANA).

These vehicles were added to the current contract and have a not-to-exceed value of \$79,182,680.

Work will be performed at Textron Marine & Land Systems' facilities in the New Orleans area, with vehicle deliveries scheduled through October 2013. Three variants are being produced: MSFV with enclosed turret; MSFV with objective gunner protection kit; and an MSFV ambulance.

Textron Marine & Land Systems (TM&LS), in May 2011, received an award for full-rate production of 240 MSFVs along with associated support equipment, spare parts, field service representatives, training and training aids. With this new option award, TM&LS is processing orders for 200 vehicles – from three option awards – in addition to the 240 vehicles in the initial full-rate

production order. The company also manufactured 18 test MSFVs and 41 low-rate initial production vehicles in 2011, for a total of 499 vehicles ordered to-date.

Mobile Strike Force Vehicles began arriving into Afghanistan in February. Soon after, comprehensive operator new equipment training of a first ANA battalion, called a Kandak, commenced. The first Kandak has completed this phase of training and has begun mounted and dismounted tactics training with NATO forces. With the training and sign over of vehicles to the ANA, the program has achieved Initial Operational Capability (IOC) on schedule.

“In less than two years our dedicated employees, together with the U.S. Army's Product Manager Armored Security Vehicles, have developed, tested, built and started fielding an essential capability for the Afghanistan National Army's security mission,” explained Tom Walmsley, TM&LS senior vice president and general manager. “This level of cooperation has enabled our team to quickly and efficiently produce more than 200 MSFVs to date, field the first ANA Kandak, and prepare the next Kandak to train on its fleet of vehicles.”

Derived from the combat-proven M1117 Armored Security Vehicle (ASV), all MSFVs are configured with Enhanced Survivability (ES) capability, which improves blast protection to mine-resistant, ambush-protected (MRAP) levels. The ES-equipped vehicles continue to possess the ASV's original, all-important V-shaped hull design, in addition to innovative protection design features that enable them to meet MRAP blast protection standards.

Textron Marine & Land Systems has delivered nearly 3,900 M1117 ASVs and related configurations to the U.S. Army and other military forces including Afghanistan, Iraq, Colombia and Bulgaria. These vehicles have consistently achieved exceptional operational readiness and combat availability rates greater than 90 percent over the life of the U.S. Army program. Textron Marine & Land Systems also has maintained on-time ASV deliveries to the U.S. Army since the ramp up to rate production in 2005.



## Defence Industry

### Bulgaria will supply 500 APCs to Iraq



Bulgarian Telegraph Agency informed that Boyko Borisov, prime-minister of Bulgaria signed a deal to supply 500 light armoured MTLB APCs to Iraq.

Decision to sign the contract was made on May, 31, 2012 in the presence of Sadoun al-Dulaimi, Iraqi acting Minister of Defence at Hemus 2012 International Defense and Security exhibition.

After the exhibition opening Borisov informed that the cost of the vehicles to be supplied to Iraq shall amount to around 300,000 levs per unit and total cost of the contract shall amount to 150 mln levs (appr. USD 77 mln). He also mentioned that MTLB APCs were produced at Terem plant in Tyrgovishte town and one MTLB will be sent to Iraq to undergo trials.

Borisov also said that 36 mln euro deal for supply of special-purpose Kintex equipment from Bulgaria to Algeria will be completed soon.

In addition he offered Liu Sheng, deputy Director of People's Liberation Army General Armaments Department to purchase ball ammunition. Borisov joked that one bullet for each Chinese soldier would be enough.

Bulgarian prime-minister called on all countries present at the exhibition to purchase Bulgarian weapon systems, he underlined that they have never received any quality reclamation.

Prime contractor for MTLB to Iraq will be Terem-Khan Krum tank repair plant, Tyrgovishte, Bulgaria. The plant is a part of Terem EAD association which is subordinated to Ministry of Defence of Bulgaria.

The supplied vehicles will be discarded from service in Bulgarian army. Prior to delivery the vehicles will be overhauled and upgraded. The full scope of the upgrade was not unveiled but it is known that rubberized tracks will be installed as well as system designed by Bulgarian Politehnika firm which includes air-conditioner with auxiliary power unit that ensures comfort conditions for the crew in hot climate over a long period of time without giving additional load for the vehicle's main engine.



## Contracts

### General Dynamics Finalizes Contract for Additional 100 Foxhound Vehicles for UK MoD



STERLING HEIGHTS, Mich. -- General Dynamics Land Systems - Force Protection Europe has finalized a contract for an additional 100 Foxhound light tactical blast-protected vehicles for delivery to the UK Ministry of Defence (MoD).

The order expands the number of vehicles under

contract from 200 to 300. General Dynamics Land Systems, parent company of General Dynamics Land Systems - Force Protection Europe, is a business unit of General Dynamics.

Production of the first 200 Foxhounds commenced in 2011, and the first vehicles have been deployed to Afghanistan. Production now will be extended to include the additional vehicles, helping to preserve the jobs created across the UK in fabrication, manufacture and support.

Foxhound vehicles provide enhanced mobility and blast survivability to troops operating in urban environments.

"This award allows us to continue to provide the life-saving blast protection provided by the Foxhound vehicle to UK troops on deployment, following in the long line of proven protection provided by our Mastiff, Ridgback and Wolfhound vehicles," said David Hind, General Dynamics Land Systems - Force Protection Europe's managing director. "Foxhound is the product of a successful partnership between General Dynamics and key suppliers such as Ricardo, Formaplex, QinetiQ and the Defence Support Group, which has delivered this life-saving technology in less than 24 months since contract award."

"We look forward to continuing the excellent relationship we have with the UK MoD to deliver high-quality capabilities and services to meet their needs and the needs of soldiers," he said.

The Foxhound is a new design for a light tactical (4x4) highly mine- and blast-protected vehicle, integrating V-hull blast-protection technology with a modular demountable protected crew pod. The vehicle's low weight and tight turning circle enable it to operate effectively in urban environments where the infrastructure cannot support heavier, larger vehicles. The V-hull runs the length of the vehicle, providing mine and blast protection for the engine and driveline components packaged within its protective envelope. The crew pod rests on the V-hull and is designed to be able to tilt, enabling routine repair and maintenance, or to be removed and replaced quickly by an alternative mission module. This modularity allows multiple configurations and capabilities although the UK MoD is currently only procuring a patrol variant of Foxhound.



## Defence Industry

### Ricardo unveils new concept in life extension for Pinzgauer all-terrain vehicle fleets

Ricardo will use DVD2012 to launch a re-engineered version of the popular Pinzgauer platform, delivering cost-effective military capability and life extension.

Two levels of refurbishment are offered; the first based on improvements aimed at extending operational fleet life by between 10 and 15 years, while a more comprehensive recapitalization service goes further in

providing increased performance and payload in what is effectively a new vehicle.



“The Pinzgauer has been an extremely effective vehicle with UK forces and many other military users around the world,” said Peter Moore, Ricardo global market sector director for defence. “However, existing operational fleets are approaching the end of their expected life and are considered uncompetitive with new platforms in terms of performance and crew protection. Using our in-depth engineering knowledge and resource we believe that the Pinzgauer can be effectively life-extended to provide a valuable and cost-effective military capability.”

The Ricardo Pinzgauer refresh service provides a menu of engineering enhancements that can be incorporated depending on individual requirements. These include increased engine performance by 5-10 percent, an upgraded alternator, improved driver ergonomics improvements with increased cab size, new seats, repositioned steering column and repositioned pedal box, increased load bed capacity, and mechanical overhaul of the suspension, chassis, engine, gearbox, driveline and electric systems. The more extensive Ricardo Pinzgauer recapitalization menu options include replacement of the powertrain with a current volume production unit, increased on-board electrical power using an APU from 120 to 270A and/or an integrated starter generator from 300-400A, chassis and driveline upgrades to increase payload capacity by 200 percent to 1500kg, and improved blast and ballistic protection.

An example of the Ricardo Pinzgauer is to be shown for the first time at the Ricardo booth space (OR-01) at the DVD2012 exhibition at Millbrook, June 20-21.



## Contracts

### DRS Technologies Awarded EMD Contract for Joint Assault Bridge Program

PARSIPPANY, NJ -- DRS Technologies, Inc. a Finmeccanica Company announced its Sustainment Systems division has been awarded an engineering and manufacturing design (EMD) contract for the U.S. Army's Joint Assault Bridge Program (JAB).

This EMD contract from the Army's Program Manager Force Projection, at the TACOM Lifecycle Management Command, stems from DRS' successful design and development of relevant bridge launching

technology and hardware.

DRS Technologies in partnership with Israel Military Industries (IMI), invested in the development of bridge launching technology and hardware to provide the U.S. Army with a low-risk alternative.

“DRS and IMI recognized the need to invest to develop and support the technology needs of this program,” says Joseph Matteoni, vice president and general manager of DRS Sustainment Systems, Inc. “Our proven system demonstrates our commitment to our Army customer, and we are proud to bring world-class solutions to improve soldier mobility in the field.”



## Defence Industry

### BAE Systems Awarded BJ500 Million Norwegian Armoured Vehicle Contract



Г-RNSKГ-LDSVIK, Sweden -- BAE Systems will upgrade and build CV90 armoured combat vehicles for the Norwegian Army under a contract worth approximately BJ500 million (\$750 million) awarded by the Norwegian Government.

The company will upgrade Norway's existing 103-vehicle CV9030 fleet, delivered from the mid-1990s, and build new vehicle chassis to deliver 144 CV90s in different configurations, including a variant equipped with a sensor suite for improved surveillance capability.

“We have had a long and excellent experience with CV90, and have built up considerable expertise about the system, which we have chosen to further develop together with our supplier in Sweden,” said Petter Jansen, managing director at the Norwegian Defence Logistics Organisation. “This is one of the largest Army investments and an important part of the Norwegian Army modernization plan.”

The project will deliver 74 infantry fighting, 21 reconnaissance, 15 command, 16 engineering, 16 multi-role and two driver training vehicles. The multi-role vehicles can fulfill different functions, including mortar carrier and logistics roles.

“Today's order illustrates the trust there is in Norway for the CV90 family of vehicles,” said Tommy Gustafsson-Rask, president of BAE Systems Hagglunds. “We continue to invest in the CV90 system and develop the vehicle to keep it at the forefront of technology and in particular, to incorporate improvements in protection and digitization so that it remains the world's most advanced vehicle of its kind.”

Incorporating lessons learned from Norwegian operations in Afghanistan, the new vehicle fleet will have significantly enhanced protection, survivability,



situational awareness, intelligence and interoperability.

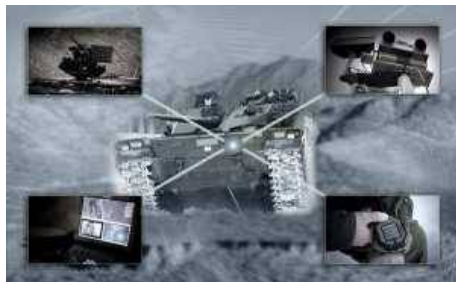
Norwegian industry will play a major role. Kongsberg Defence & Aerospace leads a team of Thales Norway and Vinghæg. The Kongsberg team is responsible for the integrated data and information system, including integration of weapon systems, sensors, communication and security systems. The Kongsberg Protector remote weapon station will be fitted to all variants of the vehicle.

The Swedish CV90 has been selected by the Nordic nations (Norway, Sweden, Denmark and Finland), Switzerland and The Netherlands. The first CV90 was delivered to Sweden in 1993, and this programme will increase the number of vehicles ordered to more than 1,200.



### Defence Industry

## KONGSBERG is contracted by BAE Systems for supplies to the Norwegian Army worth 388 MNOK



KONGSBERG has signed a contract with BAE Systems to supply combat systems for military vehicles. BAE Systems, Sweden, is the main supplier to the Norwegian Army's upgrade program of the CV90 infantry fighting vehicle. KONGSBERG leads a Norwegian team of KONGSBERG, Thales Norway and Vinghæg.

KONGSBERG will deliver Integrated Combat Solution to CV90. Integrated Combat Solution is a system based on open standards for connectivity and integration of sensors, weapons, communication networks and security systems. The system increases crew situational awareness and ability to operate swiftly and efficiently.

"We are very proud to be selected as systems integrator and partner of a new, modern and future-oriented network-based solution for vehicles," said Eirik Lie, Executive Vice President of Kongsberg Defence Systems. "Integrated Combat Solution from KONGSBERG fits very well into the digitization of the Army and further development of the Army's combat systems," he continues.

The Norwegian Army's upgrade program of the CV90 also includes installations of new capabilities like Remote Weapon Stations (RWS). These are to be delivered through the PROTECTOR "Nordic" contract, disclosed 21 December 2011.



### Defence Industry

## HF Transceiver CODAN Envoy



CODAN Envoy HF SSB Transceiver SDRAT Electronic and Communication Ltd is pleased to announce the launch of the Codan Envoy™, a software-defined HF radio platform.

The Envoy provides the advantages of software-defined radio which are the ability to add new capabilities to the radio through software upgrades—in an affordable commercial platform.

The Codan Envoy is now the most advanced commercial HF radio in the world, and sets a new standard for HF radio. The Envoy provides customers the peace of mind of future upgradeability as a software-defined radio, combined with legendary Codan performance, reliability and support.

The Envoy provides users with advanced internal features such as automatic link establishment, encryption, high-speed data, GPS and IP interface. A true digital radio, the Envoy offers scalable solutions for mobile, deployed and base station requirements.

The Envoy, with an icon-based user interface inspired by today's smartphones, incorporates an intuitive and simple to use, high resolution, colour, graphical user handset for radio operation and control.

The state-of-the-art user interface of the Envoy advances ease of use for an HF radio, while the IP capability enables customers to seamlessly integrate the radio into their communications networks, making HF more accessible.

The Envoy continues the decades old tradition of high quality HF radios which have been synonymous with Codan brand and AT Electronic and Communication Ltd.

For further information on the Envoy – please visit this link

[http://hf-ssb-transceiver.at-communication.com/en/codan/hf\\_ssb\\_transceiver\\_codan\\_envoy\\_sdr\\_software-define-d-radio.html](http://hf-ssb-transceiver.at-communication.com/en/codan/hf_ssb_transceiver_codan_envoy_sdr_software-define-d-radio.html)

or feel free to contact us directly.



### Contracts

## Saab Receives Order for Sight and Fire Control Systems from BAE

Defence and security company Saab has received an order from BAE Systems in Örnsköldsvik, Sweden, for sight and fire control system UTAAS (Universal Tank and Anti-Aircraft Sight).

The order amount is SEK 110 million.



The contract covers new sight systems, including virtual image displays, and upgrade and modification of the existing systems on combat vehicle CV9030N, for the Norwegian Army.

"The order proves that we are a leading provider of sight and fire-control system for tanks and combat vehicles. We are proud of our cooperation and good relations with BAE Systems and are looking forward to further develop our combined offer," says Gunilla Fransson, Head of business area Security and Defence Solutions.

The development and production will take place in Sweden. Deliveries are scheduled for two years starting from August 2012.

UTAAS is a versatile sight and fire-control system for tanks and combat vehicles. It provides high hit probability against all ground targets, as well as against helicopters and high-speed aircraft.

The modular design of UTAAS offers the user a variety of performance options and upgrading possibilities. The beam paths for all channels go through the same aperture, offering good system stability and no need for realignment.

The Virtual Image Display (VID) is a compact and rugged multi-purpose display suitable for i.e. combat vehicles and helicopters. VID consists of a microdisplay and magnifying optics to create a virtual image.



### Contracts

#### Textron Marine & Land Systems Awarded Afghanistan Training and Logistics Support Contract

Orleans, LA -- Textron Marine & Land Systems (TM&LS), an operating unit of Textron Systems, a Textron Inc. company, announced Jun. 27 that the U.S. Army Contracting Command, Warren, Mich., has awarded the company a cost-plus-fixed-fee contract modification to continue providing training and logistics support in Afghanistan.

The contract authorizes initial funding of \$14.95 million, and has a potential value of \$30.51 million.

The support contract was awarded in May 2011, and is associated with the Afghanistan National Army (ANA)

Mobile Strike Force Vehicle (MSFV) armored vehicle program. This option includes funding for vehicle deprocessing field service representatives, instructors, interpreters and in-theatre management, and other direct costs for an additional one-year period.

"This work is an example of the full-spectrum of support we offer our vehicle customers," explained TM&LS Senior Vice President and General Manager Tom Walmsley. "On a daily basis we're demonstrating capabilities as an end-to-end provider - from designing, testing and manufacturing MSFVs in the United States, to providing Afghanistan-based vehicle deprocessing, fielding, training, maintenance and logistics support to stand up a new force structure."

In less than 20 months the MSFV program has gone from vehicle concept to the point at which the first ANA battalion - called a Kandak - is fully equipped with its MSFVs and its mechanics and operators thoroughly trained.

"Afghan soldiers are now able to actively participate in operations using these highly mobile and protected vehicles - a significant step toward Afghanistan's goal of taking the reins of its own security and defense," said Walmsley.

TM&LS began full-rate production of 240 MSFVs last year, with the first vehicles arriving in Afghanistan in February. Options for 200 additional vehicles have since been awarded.

Mobile Strike Force Vehicles are derived from the combat-proven M1117 Armored Security Vehicle (ASV), and are configured with Enhanced Survivability capability, which improves blast protection to mine-resistant, ambush-protected (MRAP) levels. These highly mobile and survivable vehicles continue to possess the ASV's original, all-important V-shaped hull design, in addition to innovative protection design features that enable it to meet MRAP blast protection standards.



### Contracts

#### ReconRobotics Awarded \$13.9 Million Contract by the U.S. Army



EDINA, Minn. -- ReconRobotics, Inc., the world leader in tactical micro-robot systems, announced today that it has been awarded a \$13.9 million contract by the U.S. Army's Rapid Equipping Force for up to 1,000 miniature, throwable, mobile robots.

The Indefinite Delivery, Indefinite Quantity (IDIQ) contract will streamline the purchasing process for deploying Army and Marine Corps units and speed delivery on the company's pre-priced micro-robot systems and accessories. The U.S. Military is acquiring the micro-robots to provide four- and five-man fire teams with immediate tactical reconnaissance during urban warfare operations, surveillance missions and counter-IED efforts. ReconRobotics has already received and begun delivering the first order under this contract for 84 robots.

ReconRobotics created an entirely new class of military robots in 2007 when it introduced the throwable 1.2-lb (540g) Recon Scout micro-robot. Prior to that time, military robots weighed 30 to 80lbs (13 to 36kg), were transported in vehicles, and were deployed as company- or battalion-level assets. Today, a warfighter can carry his Throwbot XT in a pocket or small pack, and can deploy it in less than five seconds to gain lifesaving video and audio reconnaissance before he enters a compound or other structure. This capability can reveal the number of enemy combatants, the presence of civilians and the locations of improvised explosive devices (IEDs). More than 2,000 of the company's robots are currently deployed in Afghanistan.

"For several years, our micro-robot systems have played a key role in protecting the lives of our soldiers and Marines as they conduct operations in active combat theatres," said Ernest Langdon, Director of Military Programs for ReconRobotics. "We are honored that the Rapid Equipping Force has once again selected ReconRobotics to deliver this unique capability to those warfighters at the tip of the spear."

More than 4,600 Recon Scout micro-robots are deployed or under contract, worldwide. Extremely small and easy to deploy, they can be thrown up to 120 feet (36m) or lowered into crawl spaces or caves to search for weapons caches and other hidden threats. On June 8, ReconRobotics introduced the Throwbot XT, a new generation micro-robot that provides both audio eavesdropping capabilities and video reconnaissance to U.S. troops. The Throwbot XT also has an automatic, infrared optical system that gives the warfighter clear, crisp video even in total darkness.

Nearly 500 police and security agencies, including the FBI, the Bureau of Alcohol, Tobacco and Firearms and the U.S. Marshals, also use Recon Scout robots for tactical reconnaissance in high-risk operations, as do many allied military and police forces, worldwide.

award at the NDIA Supply Chains Conference & Exhibition Featuring DLA Land and Maritime this month in Columbus, Ohio.

DLA is responsible for providing the U.S. Army, Navy, Air Force, Marine Corps, other federal agencies, and combined and allied forces with the full spectrum of logistics, acquisition and technical services. Among large businesses, Oshkosh Defense has provided the highest gross savings for DLA Land and Maritime for the first two quarters of fiscal year 2012. In that time, Oshkosh has delivered nearly \$13 million in cost reductions.

"Oshkosh has a long-held commitment to lean strategies that have allowed us to provide convenient and cost-effective parts to DLA Land and Maritime," said Jeff Koga, associate vice president of Integrated Product Support for Oshkosh Defense. "We deliver the parts that the U.S. Armed Forces need, when they require them and at affordable rates by continuously collaborating with DLA and methodically reducing costs while improving quality. Our Strategic Supplier Alliance with the agency allows us to further improve our support."

Strategic Supplier Alliance agreements are developed between the DLA and key vendors to provide mutually advantageous pricing, reduced customer wait time, more accurate forecasting and decreased administrative costs. Oshkosh also uses advanced demand planning to support the DLA with quick contract pricing and parts delivery, while Oshkosh's global support centers and mobile service capabilities allow the company to position materials closer to the customer, improving military readiness and reducing customer wait time and costs.

Oshkosh's Integrated Product Support solutions cover the complete spectrum of vehicle life-cycle support, including training services, instruction manuals, maintenance and repairs, parts supply and fleet restoration services. Oshkosh Field Service Representatives (FSR) travel globally to ensure vehicles and personnel are at peak operational readiness. The company's robust operator and maintenance training services provide systems-level expertise on the platforms and technologies they support, and Oshkosh's parts-supply network is available 24/7 to provide instant access to spare and repair parts for all vehicle makes and models.

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## Defence Industry

### DLA Recognizes Oshkosh Defense for Cost-Savings Achievements

OSHKOSH, Wis. -- The Defense Logistics Agency (DLA) Land and Maritime has recognized Oshkosh Defense, a division of Oshkosh Corporation, with the Material Cost Reduction Award for the company's commitment to reducing costs and supporting Warfighters. Oshkosh received the