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Defence Industry

UK MoD Signs On for 200 Force Protection Ocelot Vehicles

Force Protection Europe, a Force Protection, Inc. group company, today announced that it has signed a contract with the UK Ministry of Defence (MoD) to supply an order of 200 Ocelots and an initial spares package for the Light Protected Patrol Vehicles (LPPV) program.

The contract is valued at approximately pound180 million (approximately US $280 million) with delivery of the vehicles scheduled to begin in the second half of 2011 and be completed by spring 2012.

The announcement means that Force Protection Europe's unique new light protected patrol vehicle can now lay claim to two important industry firsts. The Ocelot will be the first ever British designed and built protected patrol vehicle to include a fully composite pod to protect the occupants. This innovative module has been developed by drawing on technology from the motorsports industry.

Ocelot will also be the first British military vehicle to accommodate the MoD's new Generic Vehicle Architecture (GVA) requirements. The objective of the GVA project is to create a single, standard digital electronic and electrical architecture for UK vehicles that will enable crew to manage power and handle data efficiently on the vehicle, and for the vehicle to be easily adapted when the need arises.

Designed, developed and built in the UK by survivability specialist Force Protection Europe and automotive specialist Ricardo plc, together with Team Ocelot partners Thales, QinetiQ, Formaplex, DSG and Sula, the Ocelot is the most highly protected and agile vehicle of its size and weight that is available today. A clean sheet design, the Ocelot has undergone more than 12 months of rigorous blast and mobility testing before being chosen by the MoD.

David Hind, Managing Director, Force Protection Europe, said, "We are absolutely delighted to be awarded this important contract. Ocelot is a step change in protected mobility for this weight and class of vehicle and I am confident that it will be used to great effect in Afghanistan and any future operations. My number one priority now is to ensure that these vehicles are delivered to the MoD within the agreed timeframe. We are fully geared up to achieve this."

Michael Moody, Chairman and Chief Executive Officer of Force Protection, Inc., said, "We are pleased to have completed the contract negotiations to supply our Ocelot vehicle for the UK forces. We believe that our success in the LPPV program gives the Ocelot significant credibility and will be a catalyst for opportunities in the U.S. and other markets around the world, including in Australia where we are pursuing a contract to manufacture up to 1,300 next-generation protected mobility vehicles under the 'Land 121 Phase 4' program."

Army

US Army issues RFP for Ground Combat Vehicle

Washington -- Force protection against a classified list of threats, a nine-Soldier capacity, full-spectrum-operations capability and on-time delivery within seven years are among the "big four" imperatives the Army has spelled out for those hoping to be selected to build the ground combat vehicle.

The Army took the next step toward providing a ground combat vehicle for infantry Soldiers, Nov. 30, when it issued a request for proposal for the project. Industry has until Jan. 21 to submit proposals.

The four imperatives, said Col. Andrew DiMarco, program manager for Ground Combat Vehicle, are "non-negotiable."

"The vehicle has to be capable of carrying the nine-Soldier squad," he said. "And then on full spectrum, we have a series of growth requirements and we have some open architecture requirements that are non-negotiable."

While the GCV program is expected to eventually produce multiple vehicles with varying capabilities, the focus for the first block of GCV development is an infantry combat vehicle.

Also in the RFP are affordability targets for the GCV. Among those are a per-unit cost for the vehicle between $9 and $10.5 million. Also a cost target is an operation and sustainment cost of $200 per operational mile. Both sets of numbers are in fiscal year 2010 dollars.

Not in the RFP: requirements spelling out how the GCV moves along the ground.

"I have no requirement that says track or wheel," said Michael N. Smith, director of the Army Maneuver Center of Excellence, who added that a "track vs. wheel is a specious discussion." Smith did say there are requirements in the RFP to fit the GCV on a C-17, but not onto a C-130.

It's expected that by April 2011, the Army will reach milestone decision A on the GCV and will award technology-development contracts to three contractors. The TD phase of development lasts 24 months. The early prototype vehicle is expected by the middle of fiscal year 2014, and the first full-up prototype is expected by the beginning of fiscal year 2016.

DiMarco said the Army has initially planned for 1,874 GCVs. The first production GCV should roll off the assembly line in early April 2018 -- seven years from the award of the TD-phase contracts. The first unit should be

equipped with GCVs in 2019, he said.

After the Manned Ground Vehicle component was cut from the Army's Future Combat Systems program in June 2009, the Army moved quickly to develop a new vehicle - the Ground Combat Vehicle. The program previously released an RFP in February 2010, but that RFP was ultimately cancelled in August. The RFP released Nov. 30 is the replacement.

Defence Industry

BAE Systems awarded $250 million contract for Bradley conversion kits

YORK, Pennsylvania –- BAE Systems was awarded a contract for $250 million to purchase long-lead items for 247 Bradley Operation Desert Storm Situational Awareness (ODS SA) vehicle conversion kits under a contract from the U.S. Army TACOM Life Cycle Management Command.

Under this contract, BAE Systems will procure long-lead items for the conversion of 202 Bradley ODS vehicles to the Bradley ODS SA configuration and an additional 45 kits for future vehicle conversion requirements. The company will use the acquired items to upgrade the vehicles to have improved situational awareness ability, which is one example of BAE Systems' robust Readiness and Sustainment capabilities in supporting the customers' requirements.

"The procurement of these items will help us to provide critical ongoing upgrade and remanufacturing work, while creating and integrating advanced technological enhancements that make Bradley one of the most survivable vehicles in theater," said Joe McCarthy, vice president and general manager of the Heavy Brigade Combat Team for BAE Systems.

The Bradley ODS SA vehicle features the latest digitized electronics for optimum situational awareness, network connectivity and communication within the Heavy Brigade Combat Team. Bradley ODS SA's proven durability and commonality of design reduces the logistics burden, while enhancing battlefield performance to meet a variety of mission requirements.

The contract for long-lead items has been awarded in advance of the ODS-SA vehicle conversions and conversion kits production effort anticipated in April 2011.

The work will be performed at the BAE Systems operations in York, Pennsylvania and is anticipated to be completed in September 2012.

Bradley Combat Systems continue to provide outstanding survivability, mobility and lethality to U.S. soldiers in various urban combat situations. The Bradley fulfills five critical mission roles – infantry fighting vehicle, cavalry fighting vehicle, fire support vehicle, command vehicles and engineer squad vehicle – for the U.S. Army's Heavy Brigade Combat Teams.

BAE Systems designs, manufactures and supports Bradley Combat Systems through its U.S. Combat Systems business. U.S. Combat Systems is a modern, efficient, full-spectrum developer, integrator and supplier of survivable, lethal ground and naval combat platforms. U.S. Combat Systems is also a main supplier to the U.S. Army's Heavy Brigade Combat Team, an integral developer of mine protected and future combat vehicles and top producer of naval guns and missile launchers.

Defence Industry

The Administrative Court of Stockholm approved FMV's Patria AMV contract

According to the Administrative Court of Stockholm decision the Swedish Defence Materiel Administration, FMV, has conducted the armoured wheeled vehicle tender in accordance with the act on public procurement.

The Administrative Court of Stockholm dismissed the application for appeal made by the Swiss Mowag, which is owned by the US General Dynamics.

FMV announced its decision to award a contract to Patria for AMV vehicle systems in August 2010.

Defence Industry

Estonian Defence Forces Present New XA-188 Armored Cars

The Estonian Defence Forces presented the Sisu XA-188 new armored cars in Мдпniku practice field.

Estonia is buying 81 new armored cars from the Netherlands and they should gradually reach the members of the Defence Forces of Estonia by the year 2015.

The first 13 armored cars are handed over to the members of the Defence Forces of Estonia in Afghanistan in the near future.

The double armor protects from fire of heavy machine guns and from improvised explosives a lot better than armored cars used so far.

Defence Industry

Oshkosh to Refurbish Heavy Vehicles in Theater for the U.S. Army

OSHKOSH, Wis. -- Oshkosh Defense, a division of Oshkosh Corporation (NYSE:OSK), will refurbish an additional 140 vehicles and trailers in theater for the U.S. Army under a new order from the Army TACOM Life Cycle Management Command (LCMC).

Through the Theater-Provided Equipment Refurbishment (TPER) program, Oshkosh works with the Army to return battle-damaged vehicles to full mission-capable operability at the company's Kuwait facility.

"Our in-theater refurbishment service reduces the maintenance cycle time by weeks and gets these vehicles back where they're needed most, in the field with the Warfighters," said Mike Ivy, vice president and general manager of Army Programs for Oshkosh Defense. "To date, we have refurbished nearly 1,500 heavy vehicles and trailers for the Army at our Kuwait facility."

The TPER program was born out of an urgent requirement to repair tactical vehicles worn from extreme conditions and return them to the field. Oshkosh works with the military to ensure vehicles are restored to meet the military's strict equipment-readiness standards before they return to operations in theater. Oshkosh also communicates and collaborates extensively with TACOM and the Defense Logistics Agency to maintain a multifaceted supply-chain management approach.

Oshkosh will refurbish its Heavy Expanded Mobility Tactical Trucks(HEMTT) and Heavy Equipment Transporters (HET A1) under the order. The vehicles are a part of the Army's Family of Heavy Tactical Vehicles (FHTV), which also includes the Oshkosh-produced Palletized Load System (PLS). Oshkosh also will refurbish M1000 HET Trailers, which were not originally produced by the company.

The vehicles and trailers being refurbished were operating in support of Operation Iraqi Freedom. The order extends Oshkosh's TPER work until May 2011 and is valued at more than $11 million.

Defence Industry

Lockheed Martin UK Starts Scout Turret Development

LONDON -- Lockheed Martin UK has been awarded the contract from General Dynamics UK to deliver the turret for the Scout reconnaissance vehicle.

Lockheed Martin has already been working on the project, thanks to advance funding provided by the MoD through General Dynamics UK as prime contractor, ahead of full contract agreement, to ensure the Demonstration Phase schedule remained fully on track. As part of this contract, Lockheed Martin UK - Ampthill will provide General Dynamics UK with three Scout turrets which will form part of the Integration and Test programme on the Demonstration Phase of the Scout project.

Alan McCormick, vice president and managing director of Lockheed Martin UK - Ampthill, said: "We are proud to be delivering the turret to General Dynamics UK and the British Army for the Scout reconnaissance vehicle, a key variant in the Specialist Vehicle fleet. The LM team will continue its excellent work on the development of the turret and ensure flawless execution of this vital programme."

Lockheed Martin UK is working to get its key suppliers under contract. These suppliers include: Defence Support Group for turret assembly integration and test; Rheinmetall Land Systems for the turret structure, cannon mounting structure and CT40 Cased Telescoped Cannon System integration; Ultra Electronics for power management; Curtiss Wright for turret drives and stabilisation control; Meggitt for the ammunition handling system and Moog for the slip ring. Lockheed Martin UK - Ampthill is responsible for fire control and training and as the turret systems integrator. Over 75 percent of this work will be done in the UK.

As specified by General Dynamics UK, the Scout turret has been designed to maximise space and protection for the crew inside. Recognising Scout is a reconnaissance vehicle and its ASCOD SV platform has a large turret-ring diameter of 1.7m, the design increases space and gives soldiers considerably more room for modern display screens, comfort for long periods inside the turret and ease of movement, even when wearing full body armour and future wearable systems.

With the need for military electronics ever-expanding on operations, the turret allows significant room for new systems to be fitted without compromising the design of the vehicle. The turret is designed around the CT40, which was successfully integrated and fired last year on a Warrior infantry fighting vehicle.

Lockheed Martin UK, a unit of Lockheed Martin Corporation, is a leader in systems integration, working on major programmes spanning the aerospace, defence and civil sectors. The organisation works with more than 100 business partners and employs over 1600 people at sites across the UK.

Headquartered in Bethesda, Md., Lockheed Martin is a global security company that employs about 133,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The Corporation's 2009 sales from continuing operations were $44.0 billion.

Defence Industry

General Dynamics Awarded $19 Million for Saudi Tank Work

STERLING HEIGHTS -- General Dynamics Land Systems, a business unit of General Dynamics, was awarded an additional $19 million to convert 15 of the Kingdom of Saudi Arabia's M1A1 tanks into the M1A2S model.

The contract was awarded by the U.S. Army TACOM Lifecycle Management Command on behalf of the Royal Saudi Land Forces.

The M1A2S vehicles will possess defined capabilities that increase lethality while limiting obsolescence. The work will be performed by current employees at the Joint Systems Manufacturing Centerin Lima, Ohio, with an estimated completion date of March 31, 2012.

This contract is an addition to a $58 million contract awarded in 2008, and modified in 2009, for General Dynamics to design, develop, convert, implement and test a hybrid configuration of the M1A1, M1A2 and M1A2 System Enhancement Package (SEP) tank variants for the Kingdom of Saudi Arabia. The

2009 award of $17.6 million was for the purchase of long lead materials for the 15-tank conversion.

Defence Industry

U.S. Military Orders First M-ATV Ambulances From Oshkosh Defense

OSHKOSH, Wis. -- Oshkosh Defense, a division of Oshkosh Corporation (NYSE:OSK), will provide the U.S. Armed Forces with the first MRAP All-Terrain Vehicle tactical ambulances, giving military medics new capabilities for reaching injured military personnel in otherwise inaccessible battlefield environments.

Oshkosh received an order for 250 of the armored, highly mobile ambulances from the U.S. Army TACOM Life Cycle Management Command (LCMC).

"The addition of this vehicle to the U.S. services' fleets will allow the military to provide urgent medical care in landscapes that are too rugged for other tactical ambulances," said Ken Juergens, vice president and general manager of Joint Programs for Oshkosh Defense. "We invested in the development of the M-ATV ambulance in response to the military's need for additional patient recovery and ground transport capabilities. This vehicle expands the military's M-ATV family of vehicles currently protecting troops and supporting operations in Afghanistan."

Oshkosh product-design teams worked closely with the U.S. Army Medical Department (AMEDD) on the M-ATV tactical ambulance's design and interior layout. The vehicle can transport two litter patients in a side-by-side layout, and can be configured to carry up to four ambulatory patients. It will be equipped with military-grade ambulance equipment needed to care for patients, including oxygen concentrators, on-board power for medical equipment and IV stabilization equipment.

"The designs allows two patients to be simultaneously loaded very quickly into the M-ATV tactical ambulance, thus significantly reducing the time the medics and patients are exposed to enemy fire and other threats in combat situations," Juergens said.

Based on the M-ATV platform, the new tactical ambulance variant delivers the same proven mobility and MRAP-level protection for reaching military members in the field and transporting them safely back to medical facilities. Deliveries under this order are scheduled to begin in spring 2011. The contract award is for approximately $161 million.

The Oshkosh M-ATV was designed to provide superior off-road mobility for harsh mountainous terrain and unimproved road networks in places like Afghanistan. Oshkosh has received awards to date for nearly 8,400 M-ATVs, as well as spare parts kits, upgrade kits and aftermarket support. The tactical ambulance joins the M-ATV base and Special Forces Vehicle (SFV) family of vehicles used by the military.

Oshkosh is continuing to explore new potential mission solutions for the M-ATV. Oshkosh has designed the M-ATV utility vehicle to support resupply operations and the M-ATV Multi-Mission Vehicle (MMV) to support reconnaissance, missile-carrier and command-and-control operations in unforgiving landscapes.

Defence Industry

BAE Systems Receives $38 Million to Provide Thermal Imaging Sights for Army Weapon Stations

LEXINGTON, Massachusetts -- BAE Systems has received multiple contracts totaling $38 million to provide thermal imagers for the U.S. Army's Common Remotely Operated Weapon Station (CROWS) II and Stryker programs.

The TIM1500™ thermal imagers used on remote weapon stations allow soldiers to detect and identify enemy targets while remaining protected inside their vehicles through remotely controlled, vehicle-mounted platforms for light- and medium-caliber weapons. The TIM1500 provides extended viewing range capability to detect vehicle targets at a significant range for target acquisition, long-rang surveillance, and situational awareness.

"The TIM1500 provides high performance imaging while offering a smaller, lighter, lower power and lower life-cycle cost compared with other competitive options," said Michael Mawn, product line manager for TIM1500. "Our world-class technology demonstrates how we understand the warfighter, and their needs for successful missions," Mawn added.

Under the contract, BAE Systems from its Lexington, Massachusetts operations will provide the TIM1500 to Kongsberg Defence and Aerospace AS. The company recently shipped its 10,000th TIM1500 imager, and increased its production rate in support of Army requirements, including deployment of the units on MRAP combat vehicles.

Contracts

Force Protection Receives $17.4 Million in Additional Field Service Awards

Ladson, SC -- Force Protection Industries, Inc., a Force Protection Inc. group company, today announced that it has received a firm fixed price modification to existing contract M67854-07-C-5031 from U.S. Marine Corps Systems Command with a total value of approximately $17.4 million extending 54 field service representatives to provide the full spectrum of support, modernization, and upgrade work on the Cougar Mine Resistant Ambush Protected (MRAP) vehicle fleet.

All work under this modification is to be performed in Kuwait and expected to be completed by December 31, 2011.

Randy Hutcherson, Chief Operating Officer for Force Protection Industries, Inc., said, “This award provides for the continued modernization and upgrade work for the installed Cougar fleet in the Middle East. These upgrades and modernization activities improve the combat proven Cougar’s performance to meet ongoing mission requirements in Afghanistan.”

Defence Industry

Javelin Joint Venture Fires Javelin From Stryker Remote Weapon Station

TUCSON, Ariz. -- The Raytheon - Lockheed Martin Javelin Joint Venture reached a major milestone with the first Javelin missile firings from a Common Remote Operations Weapon Station II.

The station was mounted on a Stryker Infantry Fighting Vehicle (IFV) in a near-tactical configuration.

Three missiles impacted their targets at 500 and 1,000 meters (1,640 and 3,280 feet) downrange, confirming the successful integration of the Javelin into the CROWS II. The Javelin vehicle launch box, fire control unit and remote weapon system communicated effectively, resulting in an optimal firing of the missiles.

"The integration of the Javelin Weapon System with the Stryker IFV will give a precision fire capability that is organic and immediately available to the warfighter," said Duane Gooden, program director of Raytheon's Javelin program and president of the Javelin Joint Venture. "This enables soldiers to stay protected inside the Stryker while still employing Javelin against a broad array of targets."

The Stryker IFV armored personal carrier has been used by the U.S. Army in Iraq and Afghanistan since 2003.

"We are very pleased with the successful integration of Javelin with CROWS II and the excellent results of the Javelin firings from Stryker," said Barry James, vice president of the Javelin Joint Venture. "This represents a major event in the evolution of the Javelin system."

Army

Tankies in Helmand start work in the Warthog vehicle

Soldiers or `Tankies` from the 2nd Royal Tank

Regiment (2 RTR) currently delivering security in Afghanistan have traded in their old Viking vehicles and upgraded to the mighty Warthog.

2 RTR, who are now known as the 'Warthog Group', will use the armoured vehicles' outstanding manoeuvrability to bring firepower and armoured support wherever it's needed.

Warthog is a relatively light but robust tracked vehicle. It consists of two cabs, with the front cab housing the driver and commander and armed with a heavy weapons turret, and the rear cab used for carrying infantry.

The new vehicle has greater armour protection and more power than its predecessor, but still retains the superb cross-country performance for which the Viking was known.

Corporal Tristan 'Tiny' Cordery, aged 35, from Fowey in Cornwall, is a veteran of two tours of Iraq and one of Kosovo, and has also served in Afghanistan before. He has now returned to Afghanistan as a Warthog commander with 2 RTR.

Corporal Cordery said:

"I'm excited about using the new Warthog vehicle. We can use Warthog to get where other vehicles cannot go. We can move around the battlefield and provide protection to the infantry and engineers while they work."

Trooper Nick Dinsdale, 29, from Basildon, Essex, will be driving a Warthog in Helmand. He said:

"I joined the Royal Tank Regiment to drive big vehicles and Warthog really is a big boy's toy. It's great cross-country.

"I like the versatility of tracked vehicles - where you can go and what you can do is so much greater than with wheels. It does take some getting used to though. We've tested Warthog to the limit - I'm really impressed with it."

Warthog isn't just about mobility though; it's also about packing a punch and defeating the insurgents.

Corporal Cordery explained:

"We can choose between the heavy, grenade or general purpose machine guns. This gives me as the Warthog commander the flexibility to tailor my armament to the mission - and that's a vital capability in order to succeed in the complicated environment of Afghanistan.

"With this firepower comes good armour. The Warthog can take rocket-propelled grenade hits, machine gun fire and has better protection from IEDs.

"This combination of firepower and protection is what us Tankies are looking for in a vehicle. We're ready to go out with a RTR mentality and apply armoured tactics."

Lieutenant Andrew Maggs, 25, from Guildford, commands a troop of 2 RTR vehicles in the Warthog Group. His first missions are to protect development projects which are Afghan Government priorities. Under the watchful eye of the Warthog Group, roadworks connecting Sangin and Lashkar Gah will be able to proceed quicker and more safely.

Lieutenant Maggs said:

"I'm really keen to crack on with work. Warthog is a great bit of kit. As specialists at fighting on vehicles, we're looking forward to using it and showing what it can do."

This week Prime Minister David Cameron met soldiers from 2 RTR in Helmand and inspected the new vehicles while announcing a package of measures to boost the Afghan campaign - see Related News.

Defence Industry

Serial Start for New PUMA Infantry Fighting Vehicle

Rheinmetall and Krauss-Maffei Wegmann (KMW) handed over on December 6th in time the first two PUMA infantry fighting vehicles to the Federal Office of Defense Technology and Procurement (BWB) in Kassel for verification tests. This marks the start for the contractual delivery of 405 ordered vehicles to the German Armed Forces.

The contract with a volume of roughly EUR 3.1 bn was signed in July 2009. The delivery of the PUMA is a significant milestone for the most important procurement program of the German Army.

"This is a crucial day on the way of introducing the PUMA to the German Armed Forces. We have

undergone a challenging period of research and development, pushing the limits of this technology" stated Klaus Eberhardt, CEO of Rheinmetall, and Frank Haun, CEO of KMW.

Technology of extremes: lessons learned from current operations

The development of the new infantry fighting vehicle is marked by technological extremes. It will not only be the new transport platform for the German Army but also a cutting-edge technology system. With its unique balance of tactical and strategic mobility, survivability and fighting power, the PUMA gives the German Armed Forces a state-of-the-art infantry fighting vehicle systematically tailored to the current and future operational requirements of the German military both at home and abroad. The development achievement was guided by the demand to induce latest mission experience from current operations and to consequently deliver effective mission performance. To that extent this has not been realized in any other infantry fighting vehicle.

The PUMA is scheduled to undergo an intense round of testing and verification. This includes extreme summer and winter trials abroad. The complex preparations are deemed to ensure the smooth introduction of the system to the German Army.

PUMA sets the new standard - maximum protection for the crew

No comparable vehicle provides its crew with such a high level of protection from typical conflict zone threats such as landmines, rocket propelled grenades and improvised explosive devices. Well-protected yet light enough to airlift, the PUMA's modularity and expandability make it the perfect tool for international conflict management. The PUMA, whose main armament and ammunition had to be modified to match the altered threat spectrum, represents the ultimate in fighting power and survivability.

Today, more than thirty years after Germany first fielded the MARDER, the PUMA is poised to significantly expand the Bundeswehr's capabilities spectrum, providing it with an entirely new category of tactical vehicle. In any international comparison, the PUMA clearly represents the cutting edge in contemporary armoured vehicle technology.

Defence Industry

Otokar Receives $10,6 M Contract for 6x6 ARMA

Turkey -- Turkish leading land systems manufacturer, Otokar received the first contract for its new 6x6 tactical armoured vehicle ARMA from abroad.

The contract is valued in excess of $10.6 million including the vehicles, spare parts and training. Deliveries under this contract award are expected to be completed in 15 months.

"This award demonstrates the trust to Otokar's armoured tactical vehicles" says Otokar's General Manager, Serdar Gorguc. "25 thousand of Otokar's tactical vehicles which are in service of more than 20 armies played an important role for this contract." Reminding that Otokar had firstly displayed ARMA at Eurosatory 2010, Mr. Gorguc continued "ARMA is a new product family within the Otokar's the tactical wheeled armoured vehicle range with modular multi-wheel configuration. ARMA vehicle platform with superior tactical and technical features is an outstanding and cost effective product among competitive products. Thanks to the high level of ballistic and mine protection as well as, the outstanding design allowing the integration of various types of weapon stations and mission equipments, ARMA is an adaptable platform for evolving mission needs in a modern battlefield."

Previous week, Turkish Undersecretariat of Defence Industries annouced Otokar to be Turkey's largest privately owned company of defence industry.

About ARMA

The 6.4 m long, 2.7 m wide and 2.2 m high ARMA 6x6 variant has an 19 tonnes combat weight and carries a driver, commander and eight dismounts in its fully NBC protected hull. The vehicle is C-130 air transportable in standard configuration.

ARMA's front two axles are steerable enabling it to make a turning radius of 7.85 m and the vehicle rides on independent hydropneumatic suspension, offering respectable off-road mobility. Tyre run flat capability and Central inflation system is supplied as standard. It can negotiate a 45-degree approach and departure angles leading onto 60 per cent inclines and 30 per cent side-slopes. It can also cross 1.2 m wide trenches and climb over 60 cm obstacles.

A 450 hp water-cooled turbo diesel capable of running on F-34 or F-54 fuel drives the wheels through an automatic gearbox and single-speed transfer box, giving it a top speed of 105 km/h and a power/weight ratio of 24.3 hp/tonne.

This also powers the onboard 24 V DC electrical system, which incorporates two maintenance-free 125 Ah batteries and a 3.3 kW converter.

The engine is located at the right front of the vehicle, allowing a comparably high internal volume to be efficiently and ergonomically used. With this internal layout, all the personnel especially the commander can keep eye contact continuously among each other.

6x6 ARMA can be driven in 6x6 or 6x4 modes depending upon the terrain conditions. The vehicle is amphibious and driven by 2 hyraulically driven propellors in water allowing a high seagoing

performance with a pivot turn capability. ARMA's ballistic and anti-mine protection is provided by high hardness monocoque steel hull and all personnel is seated on anti- mine seats .

ARMA vehicle's development started in 2007 as a company funded development project for home and export markets. Development studies from concept design till the end of test phases including qualification and validation processes, detailed design, computer aided engineering studies, are performed by Otokar.

ARMA 6x6 is ready for full scale production and the family will be complemented by an 8x8 version late in 2011.

Defence Industry

U.S. Army Awards General Dynamics $112 Million for Stryker Combat-Vehicle Work

STERLING HEIGHTS, Mich. -- General Dynamics Land Systems has been awarded three contracts by the U.S. Army to support performance specification changes to and fielding of the Stryker vehicle.

The contracts are worth a combined $112.2 million. General Dynamics Land Systems is a wholly owned subsidiary of General Dynamics.

“The Stryker is called ‘the backbone’ of the Army’s medium armored brigades and with these contracts, we will continue to strengthen the vehicle so it can protect our troops in theatre,” said Mike Cannon, senior vice president of General Dynamics Land Systems’ Ground Combat Systems. “Stryker delivers strength, speed, lethality and survivability where it counts.”

Stryker brigades have logged an estimated 25 million miles during 13 rotations to war zones. The Stryker is an eight-wheeled combat vehicle that is lighter, smaller and more readily deployable than other Army combat vehicles. Proven effective by the Army and the National Guard for defense and disaster-response missions, the Stryker family of vehicles stresses performance and commonality to reduce the logistics footprint and minimize costs. Strykers are available in ten variants: infantry carrier vehicle; commander’s vehicle; medical evacuation vehicle; fire support vehicle; engineer squad vehicle; anti-tank guided missile; mortar carrier; reconnaissance vehicle; mobile gun system; and nuclear, biological and chemical reconnaissance vehicle.

Under one contract for $92 million from the U.S. Army TACOM Life Cycle Management Command, General Dynamics will provide design and integration engineering services, prototypes, procurement of materials and components and an integrated solution that will deliver improved blast-protection levels to support Stryker brigades.

The second contract, worth $11.7 million, is to acquire the production cut-in for alternators and air conditioning for Stryker Mobile Gun System (MGS) vehicles. The MGS variant is a direct-fire infantry assault platform with a 105mm tank cannon mounted in a low-profile, fully stabilized, “shoot-on-the-move” turret to support dismounted infantry. It destroys vehicles, equipment and hardened positions with its bunker- and wall-breaching capability. It is also equipped to detect nuclear, biological and chemical weapons. Work on the contract is expected to by February 2011.

The third contract awarded is valued at $8.5 million and funds equipment and components in support of total package fielding of Stryker vehicles. Work on the contract is expected be completed by September 2011.

Work on these contracts will be performed in Sterling Heights, Mich. and London, Ontario, Canada by existing General Dynamics employees.

Defence Industry

General Dynamics UK cements Lockheed Martin UK`s position in Scout team

Progressing with the demonstration phase of the Specialist Vehicle (SV) programme on behalf of its customer, the UK Ministry of Defence (MoD), prime contractor General Dynamics UK has awarded the contract for the manufacture of the turret for the Scout reconnaissance vehicle to its turret supplier, Lockheed Martin UK - Ampthill.

Commenting on the award of the contract to Lockheed Martin UK, Dr. Sandy Wilson, president and managing director of General Dynamics UK said, “Hot on the heels of the recently announced SDSR, General Dynamics UK is demonstrating that it is fully committed to working in partnership with the MoD to achieve its goals in a new working environment. The General Dynamics UK-led SV team will not only deliver innovation to the British Army in the shape of Scout and other SV variants, it will innovate to ensure the British taxpayer and Government get the best value for its money.”

The contract will see Lockheed Martin UK deliver three turrets to General Dynamics UK for the Integration and Test programme in the Demonstration Phase for Scout. Thereafter, Lockheed Martin UK is expected to deliver the turret for the production phase of Scout. For the production phase the turret will be assembled and integrated onto the Scout platform at the Defence Support Group (DSG) facility at Donnington in the East Midlands. The manufacture contract for the Scout turret is likely to create approximately 500 jobs for Lockheed Martin and its supply chain partners in the UK.

The Scout reconnaissance vehicle will be a key variant in the British Army’s SV fleet when it goes into service. It will serve alongside other SV variants including Protected Mobility, Repair and Recovery vehicles, all based on the common-base platform developed by General Dynamics.

The General Dynamics UK innovation of a 1.7 meter turret ring meant that the Scout turret could be designed to maximise space for the soldiers inside thereby optimising fightability. The large turret-ring diameter is much wider than older vehicles such as Warrior. This gives soldiers considerable room for modern display

screens, comfort for long periods inside the turret and ease of movement, even wearing full body armour and future wearable systems. With the need for military electronics ever-expanding on operations, the turret allows significant room for new systems to be fitted without compromising the design of the vehicle. The turret will also feature the CT40 Cased Telescoped Cannon System.

British troops using the SV will have the best protection available in this vehicle class, both as it is delivered and as it grows to meet future threats. The vehicle will be immediately capable of delivering load-carrying growth potential of up to 42 tonnes thanks to a modern, proven drivetrain. This means that SV is capable of being equipped to meet future threats likely to appear over its entire 30 year life, without the need to upgrade its engine or transmission during that time. Finally, 80% of SV's full rate production will be based in the UK, and is likely to secure or create over 10,600 jobs for British workers.

This contract is the first of a number of supplier contracts to be announced by General Dynamics UK over the next few weeks as it quickly progresses with work on the demonstration phase of the SV programme.

Contracts

Navistar Defense Receives $123 Million MRAP Order

WARRENVILLE, Ill. -- Navistar Defense, LLC today announced that it received a $123 million delivery order for an additional 175 International® MaxxPro® Dash vehicles with DXM™ independent suspension.

The order from the U.S. Marine Corps Systems Command also includes parts for the company's Mine Resistant Ambush Protected (MRAP) vehicles.

The MaxxPro Dash award comes on the heels of the company's November 22 award for MaxxPro Recovery vehicles. Navistar has continued to grow its product offerings by leveraging its current commercial capabilities and assets, which includes the proven commercial International® WorkStar® platform. This business strategy not only allows the company to respond quickly to vehicle orders, but it simplifies the integration of vehicle enhancements and the development of new truck variants.

"We are honored to provide additional MaxxPro Dash vehicles so soon after receiving last month's award for Recovery vehicles," said Archie Massicotte, president, Navistar Defense. "This award is an element in a strategy that allows us to build our business around a revenue base of $1.5 to $2.0 billion. Another important element is our commitment to keeping warfighters safe."

Since 2007, the company has been contracted to produce more than 8,000 (7,839 + 175) MaxxPro MRAP units. While the MaxxPro family of vehicles has contributed to Navistar's growth into new markets, the company has received orders for more than 30,000 vehicles since 2004. This includes sales of the MaxxPro, International® MXT™, as well as vehicles based on the International® PayStar® and WorkStar platforms.

MaxxPro Dash vehicles are powered by MaxxForce® 9.3D engines. Production of the new units will be completed by Summer 2011.

Navistar International Corporation is a holding company whose subsidiaries and affiliates produce International® brand commercial and military trucks, MaxxForce® brand diesel engines, IC Bus™ brand school and commercial buses, Monaco® RV brands of recreational vehicles, and Workhorse® brand chassis for motor homes and step vans. It also is a private-label designer and manufacturer of diesel engines for the pickup truck, van and SUV markets. The company also provides truck and diesel engine service parts. Another affiliate offers financing services.

Defence Industry

General Dynamics Awarded $317 Million for RG-31 MRAP Survivability and Mobility Upgrades

LONDON, Ontario -- The U.S. Marine Corps Systems Command awarded General Dynamics Land Systems-Canada a USD$317.4 million delivery-order modification for upgrade kits for RG-31 Mk5E vehicles previously delivered under the Mine Resistant Ambush Protected (MRAP) vehicle program.

General Dynamics Land Systems, the Canadian company's parent corporation, is a business unit of General Dynamics.

The upgrade kits will enhance the survivability and mobility of the RG-31 vehicles to the latest production configuration. Upgrades include the addition of spall liners, an independent suspension axle system and an improved power pack. Delivery of the kits is expected to be completed by November 2011.

Along with a $21.2 million delivery-order modification that was announced on November 30, the value of orders awarded to General Dynamics for the RG-31 upgrade kits now totals $338.6 million.

The RG-31 MRAP vehicles have provided outstanding

service for U.S. forces in Afghanistan. They have consistently delivered superior levels of protection from mines, improvised explosive devices and other threats while providing the mobility to negotiate an extremely hostile and difficult terrain.

"We appreciate the confidence that the U.S. military has in the RG-31 vehicle, as they conduct their missions in a dangerous and uncertain environment," said Dr. Sridhar Sridharan, senior vice-president of General Dynamics Land Systems-Canada. "With these improvements, we are able to further strengthen the performance of the RG-31 in theater and continue to protect the lives of U.S. soldiers."

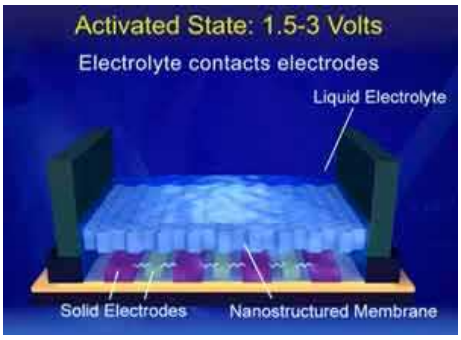
In total, General Dynamics Land Systems-Canada has delivered over 1,600 RG-

31 vehicles under the MRAP program. An additional 566 RG-31s have been delivered to U.S. forces under separate contracts.

The contract was signed through the Canadian Commercial Corporation, a Crown Agency of the Canadian Government.

Future Technologies

mPhase Successfully Completes Multi-Cell Smart NanoBattery Army Project



LITTLE FALLS, NJ -- mPhase Technologies, Inc. said today, that it has successfully completed the technical work under the Phase 2 STTR grant awarded by the US Army for the multi-cell Smart NanoBattery.

The team achieved this milestone by completing the work sponsored by the Army Research Office, which encourages deep technical exploration, by funding small business involved in innovative research projects for miniature energy storage designs, by helping accelerate research and development concepts for long term commercialization efforts. The STTR funding enabled the mPhase technical team to develop functional prototypes and to conduct detailed analysis of the novel multi-cell reserve battery designs. The funding allowed the mPhase team to create a substantial IP portfolio and to achieve a Technical Readiness Level (TRL level) 4/5, which conventionally means that the original Smart Nanobattery design and technology used in its implementation progressed to the extent that they now meet the criteria for prototype testing in both laboratory and simulated deployment environments.

The completed Smart Nanobattery is based on a complex MEMS device consisting of layers of silicon and glass fabricated to the exact specifications of the mPhase team by its commercial foundry partner. The mPhase team finished the assembly by populating each battery with the electrode stacks of lithium and carbon monofluoride materials (Li/CFx), that delivered 3 volts per cell. Because of the unique design of the multi-cell battery, each cell in the battery has very long shelf until it is activated via a technique called electrowetting, which gives the mPhase reserve battery one of its key attributes -- programmable triggering.

mPhase is currently working to secure additional funds to optimize the battery's design and increase the technical level of development towards commercial opportunities for defense and commercial applications.

The development of the Smart NanoBattery has been undertaken with funding support from a Phase II STTR Army award.

The Company's scalable smart reserve cell technology is one of the items in the current Defense Appropriations Bill that has been passed by the United States House of Representatives and is awaiting final action by the United States Senate.

Defence Industry

Patria Hдgglunds to deliver AMOS mortar vehicles to the Finnish Army

Patria Hдgglunds will deliver 18 AMOS mortar vehicles to the Finnish Army. The purchase includes an extensive maintenance and overhaul agreement as well as training equipment.

The contract also includes an option for a further order in the coming years.

AMOS mortar vehicle has been a joint development project of Patria Hдgglunds and the Finnish Defence Forces resulting in a mortar system with unique performance.

The development was started in the end of 1990's and the original contract worth EUR 120 million was signed in 2003. This contract amendment starts the serial production.

AMOS is a modern mortar system offering excellent mobility and ballistic protection. It is able to receive and handle a fire command while moving and to open fire in less than 30 seconds. This new performance ensures the readiness brigades a highly mobile unit capable of

indirect fire in order to support the front squad.

The Finnish Army will field the mortar vehicles in 2013.

Defence Industry

Otokar to Receive $30 Million Contract for Tactical Vehicles

Turkey -- Turkish leading land systems manufacturer, Otokar was awarded a $30 million contract from abroad.

The contract is for the COBRA armoured tactical vehicle, APV armoured tactical vehicle and 4x4 soft skinned tactical vehicles including spare parts and training. Delivery is scheduled to begin in 6 months.

Reminding the ARMA contract that has been signed last week, Otokar General Manager Serdar Gorguc said; “We are delighted of the recent interest in our amoured vehicles. Last week we were awarded a $10,6 million contract for our newest 6x6 ARMA armoured vehicle. And, today, we are happy to announce that Otokar received a new contract from abroad valued $30 million. These are the signs of the trust and confidence shown in Otokar armoured vehicles.”

The order includes different types and configurations of Otokar vehicles. The 4x4 COBRA weapon platform, 4x4 APV Personnel Carrier and Ambulance, and 4x4 tactical vehicles for personnel carrier and workshop are the main types to be delivered.

Contracts

BAE Systems Wins GBP5.5 M Infra Red Shell Contract from UK Mod

KARLSKOGA, Sweden -- BAE Systems has won a contract worth pound 5.5 million for the 105mm infra-red artillery shell Luma IR from the UK's Ministry of Defence (MoD).

Series production starts immediately and the 4000 rounds will be delivered during 2010 and 2011. Final assembly will be at BAE Systems' Weapons business facilities in Karlskoga, Sweden. Orders for further quantities could follow.

Luma IR can be fired from the 105mm Light Gun, currently in service with UK forces in Afghanistan.

The order is separate from the long-term partnering contract for the supply of munitions signed between BAE Systems' UK Munitions business and the MoD in August 2008. However, a 155mm carrier round is being developed under this agreement and the Luma IR payload could form part of that family. The first carrier payloads, which will include white light, smoke, and potentially sensor payloads, will be ready for qualification in early 2012.

BAE Systems already supplies an 81mm mortar infra-red round to the UK MoD.

Future Technologies

Armoured Vehicle Study Turns Sci-fi to Sci-fact

FARNBOROUGH, UK -- A vehicle which can `sweat` to improve stealth was among hundreds of ideas presented to the UK Ministry of Defence from a BAE Systems study designed to show them the future.

The Future Protected Vehicle programme aims to highlight both short and long-term technologies and concepts which can be used to boost the effectiveness of lightweight armoured vehicles.

The numbers give an idea of the scale of the programme: 567 technologies and 244 vehicle concepts were investigated following engagement with 35 organisations.

From this array of concepts, the team subsequently developed seven concept vehicles, each highlighting technologies which could support a particular specialisation. No fewer than 47 of the technologies were highlighted as being suitable for immediate pursuit.

The BAE Systems team made a point of gathering ideas from as wide a spectrum as possible, including academe and industry. A series of "Dragons' Den*" style panels identified ideas for further study, funded out of the J2 million DSTL (Defence Science and Technology Laboratory) contract.

The team even engaged Shanklea Primary School near Newcastle where pupils were invited to participate in design classes to stimulate interest in engineering as a career.

The study was managed for the MoD by DSTL. Its land strategy lead John Hunt commented: "I was very impressed by the work. Not just by the outputs, but also the inclusivity with which the study was carried out and the robust systems engineering methodology underpinning it."

"The 'quick wins' element was particularly pleasing as support to current operations is vital," Hunt added.

Hisham Awad, who works on emerging technologies for BAE System's Vehicles business, commented: "BAE Systems has signalled intent for future armoured vehicles

programmes by bidding and winning the research contracts that enable bright ideas to become new innovative and highly capable vehicles."

The team already has a contract extension to do further work and will bid for the next phase virtual prototyping work.

The seven concept vehicles were:

- Pointer: an agile robot which can take over dirty, dull or dangerous jobs, such as forward observation to support the dismounted soldier;
- Bearer: a modular platform which can carry a range of mission payloads, such as protected mobility, air defence and ambulance;
- Wraith: a low signature scout vehicle;
- Safeguard: an ultra-utility infantry carrier or command and control centre;
- Charger: a highly lethal and survivable reconfigurable attack vehicle;
- Raider: a remotely or autonomously controlled unmanned recce and skirmishing platform; and
- Atlas: a convoy system (retrofittable if necessary) which removes the driver from harm's way.

Ideas identified for exploitation include:

- Sweating vehicle could use water from a diesel or fuel cell propulsion system to reduce a vehicle's thermal signature by "sweating" it out through pores in the vehicle skin. That same water could also be reclaimed to enable soldiers to stay in the field for longer.
- eCamouflage will allow a vehicle to match its camouflage to its surroundings by using electronic ink - rather like a squid.
- Integrated biometrics will ease the workload on soldiers in complex crowd situation such as roadblocks and riots by running video surveillance through facial recognition and behaviour modelling software to spot potential troublemakers.
- Active protection will intercept incoming fire or disrupt targeting mechanisms while actuated spaced armour will allow a vehicle to deploy in "compact" mode before extending its armour to provide increased stand-off distance. A version of this is envisaged as employing electro-magnetic magnets to "float" above a vehicle to provide protection from aerial threats.

Quick wins using available technology include:

- Advanced oil filtration will remove water and tiny particles from engine oil to extend to the life of the engine and eliminate oil changes;
- Handheld target acquisition devices integrated into the vehicle architecture will improve flexibility and capability; and
- Thermo-electric power generation, which uses the temperature difference between the inside and outside of the exhaust pipe, offers better fuel efficiency, more electrical power and improved stealth.

*Dragons' Den is a BBC TV programme in which budding entrepreneurs bid for cash from venture capital "dragons" for their business ideas.

Defence Industry

BAE Systems to Provide Additional Check-6® Visibility Systems for Legacy MRAP Vehicles

AUSTIN, Texas -- BAE Systems will provide an additional 5,286 Check-6® taillight camera systems for U.S. Army legacy MRAP vehicles under a contract worth $60 million.

BAE Systems' Check-6 product gives MRAP occupants day, night, and all-weather visibility, enabling combat crews to "see" outside the vehicle while remaining within its protective armor.

This most recent portion of the contract - worth $32.9 million - is an addition to a previous order for 3,999 systems. With this most recent order, BAE Systems will deliver 9,285 Check-6 systems in total to the Army.

"BAE Systems' motto is, 'We Protect Those Who Protect Us' and that is exactly what this product does," said Lila Hillin, Check-6 program manager. "This amazing product provides our soldiers with the external awareness they need while staying safe within the armored vehicle."

The system, currently fielded on the M1 Abrams, Stryker, and the MRAP all-terrain vehicle, fits into taillight housings common to more than 200,000 military vehicles. Almost 30,000 Check-6 sensors have been ordered and more than 20,000 have already been delivered for installation onto U.S. military vehicles.

The Check-6 product requires no modifications to the vehicle structure and features long-wave infrared sensors molded into the housings of the vehicle's tail lamps.

Defence Industry

U.S. Army Orders More Than 3,700 Oshkosh Defense Trucks and Trailers for the National Guard

OSHKOSH, Wis. -- Oshkosh Defense, a division of Oshkosh Corporation (NYSE:OSK), will supply more than 3,700 Family of Medium Tactical Vehicles (FMTV) trucks and trailers to the U.S. National Guard under a new delivery order from the U.S. Army TACOM Life Cycle Management Command (LCMC).

The National Guard uses the FMTV fleet to transport soldiers, equipment and supplies in support of its broad tactical operations during times of peace and war.

“National Guard units rely on the FMTV to move troops safely and keep supply chains running in missions at home and abroad,” said Mike Ivy, vice president and general manager of Army Programs for Oshkosh Defense. “Once delivered, we support these vehicles and our citizen soldiers with complete life-cycle sustainment and training services.”

This is the latest order under the five-year FMTV contract awarded to Oshkosh Defense for the production of trucks and trailers, as well as support services and training, through calendar year 2014. The delivery order

includes more than 2,050 trucks and more than 1,650 trailers. Deliveries are scheduled to begin in November 2011 and finish in May 2013. The order is valued at more than $513 million.

The FMTV is a series of 17 models ranging from 2.5-ton to 10-ton payloads. Vehicles feature a parts commonality of more than 80 percent, resulting in streamlined maintenance, training, sustainment and overall cost efficiency for the U.S. Army and National Guard.

Defence Industry

Rheinmetall wins euros87 million in new orders from Canada - Modernization of Leopard tanks and new weapon systems

Rheinmetall has just booked two important orders for equipping the Canadian armed forces, worth a total of euros87 million.☐

Rheinmetall Canada Inc. of Saint-Jean-Sur-Richelieu, Quebec, has been selected to supply the Canadian Army with grenade launcher systems and the accompanying ammunition. The order is worth approximately euros70 million.

Under the "Close Area Suppression Weapon" (CASW) project, the company will supply the Canadian Army with a total of 304 automatic grenade launchers by January 2012. They will be deployed under the designation "C16 - Automatic Grenade Launcher System".

In its capacity as general contractor, Rheinmetall Canada is responsible not only for project management, but also for complete assembly and integration of the Vinghшg fire control technology made by the recently acquired Rheinmetall subsidiary Simrad Optronics of Norway. Rheinmetall Canada is also in charge of logistical support and supplying spare parts as well as servicing and maintaining the C16 during military operations.

This order also includes 250,000 rounds of 40mm practice and service ammunition, to be delivered in several lots.

Canada has also contracted with Rheinmetall to modernize and overhaul Leopard main battle tanks taken over by the Canadian Army from the Dutch armed forces; the order is worth around euros17 million. By the start of 2012, a total of 42 Leopard 2A4 main battle tanks are to be refitted to meet Canadian Army standards and enable integration into existing C4I structures.

The two orders underscore Rheinmetall's wide spectrum of competences as a leading supplier of army technology - ranging from heavy armoured platforms to individual weapon systems and the accompanying ammunition.

Contracts

Force Protection Announces Over $1 Billion in New Orders During 2010

LADSON, S.C -- Force Protection Industries, Inc., a Force Protection Inc. group company, today announced that it has reached a significant milestone during 2010 with the receipt to date of more than $1 billion in new orders.

A modification to contract M67854-07-C-5031 on December 15, 2010 for approximately $13.4 million from the U.S. Marine Corps Systems Command to provide additional field service support propelled the total orders received during 2010 beyond the $1 billion mark. Of the orders received, approximately 53% were associated with modernization, spares and sustainment for the Company's installed fleet of over 4,500 vehicles worldwide. New vehicle orders accounted for approximately 47% of the total.

Randy Hutcherson, Chief Operating Officer for Force Protection Industries, Inc., said, "This important milestone is the result of the hard work and attention that we placed on a number of initiatives during 2010. These efforts included continued expansion of our Kuwait operations and leaning forward in Afghanistan to capitalize on opportunities to provide much needed upgrades and modernization on our existing fleet of vehicles and MRAPs supplied by other OEMs, as well as providing spares and sustainment for our vehicles in the ongoing operations that have now transitioned from Iraq to Afghanistan. Just as important was our focus on obtaining additional Buffalo and Cougar vehicle orders, as well as the design, development and successful marketing of the Ocelot for competition in, and ultimate contract award for, the United Kingdom's Light Protected Patrol Vehicle program in which deliveries are scheduled to begin in the second half of 2011. I am extremely proud of the outstanding efforts from all of our employees worldwide who contributed to the success of the company in 2010. We look forward to continuing to grow the business from the strong base that has been established."

Michael Moody, Chairman and Chief Executive Officer of Force Protection Inc., further commented, "Responding to the needs of the customer remains paramount, and today's announcement is a direct

reflection on the significant efforts we have undertaken to further differentiate Force Protection in the marketplace. As we have done with the development of the uniquely-positioned Ocelot, Force Protection will continue to leverage its innovative and nimble operating culture to provide our customers with exceptional survivability solutions and ensure that the troops have the best resources available to promote success on the battlefield.

Defence Industry

Patria to deliver the AMV vehicles to Sweden

According to the decision of the Administrative Court of Stockholm announced in November the Swedish Defence Materiel Administration (FMV) has conducted the armoured wheeled vehicle tender in accordance with the act on public procurement.

Patria has received a confirmation from the FMV that the contract signed in August now has entered into force.

Patria will deliver 113 AMV armoured wheeled vehicles to the Swedish Defence Forces. Additionally the contract includes an option for another 113 vehicles. The total value of the contract is some EUR 250 million.

"The contract being legal now has a significant importance for Patria's future. Patria AMV vehicle is an international state of the art product and Patria's competence and professionalism in the defence industry is being recognised", says Mr Seppo Seppдlд, President of Patria Land & Armament Oy.

Patria AMV was launched to the market in 2004, and until now Patria has some 1400 vehicles contracted to among others Finland, Poland and now also to Sweden.

Defence Industry

Pall`s Regenerable Chemical Warfare Protection System Chosen for Terrier Vehicle

PORT WASHINGTON, N.Y. -- Pall Corporation, a global leader in filtration, separation and purification, has been selected by BAE Systems PLC to supply, in partnership with AMETEK, Inc., its chemical, biological, radiological, and nuclear (CBRN) protection systems for the Terrier military vehicle.

Designed to be in service for decades, the Terrier incorporates the latest technology available. The Pall CBRN system protects vehicle occupants from all known chemical warfare agents.

Integrated within AMETEK's environmental control system, the Pall CBRN protection system removes CBRN material from contaminated air. It is a self-regenerating "fit and forget" system offering full broadband protection against all known threats. By comparison, traditional carbon technology units are ineffective against some modern chemical agents known as 'carbon breakers' and are vulnerable to certain toxic industrial chemicals (TICs.)

The heart of Pall's CBRN system is a regenerable pressure swing adsorption (PSA) unit that is immobilized to withstand the constant shocks and vibrations endured by military vehicles, thereby increasing the longevity of the system. The PSA technology has been successfully tested with live agents, TICs and TIMs (toxic industrial materials) at independent laboratories in the UK and USA.

"Being selected for this important project recognizes the work that Pall has done to develop the PSA technology to meet the specific CBRN requirements of a military vehicle platform," said Jim Western, president, Pall Aeropower.

Defence Industry

Oshkosh Defense to Deliver Additional M-ATV Variants for U.S. Special Operations Forces

OSHKOSH, Wis. -- Oshkosh Defense, a division of Oshkosh Corporation, will deliver more than 40 additional MRAP All-Terrain Vehicle (M-ATV) variants for the U.S. Special Operations Command (SOCOM) as well as more than 130 spare-parts kits for the vehicle following orders from the U.S. Army TACOM Life Cycle Management Command (LCMC) awarded in November and December 2010.

Oshkosh worked closely with SOCOM to design the Special Forces Vehicle (SFV) variant and meet the Special Operation Forces' demanding operational requirements.

"We continue to answer the Warfighters' needs in theater for the armored and highly mobile M-ATV, and we have flexibility at the design, production and sustainment levels to fully support the program," said Ken Juergens, vice president and general manager of Joint Programs for Oshkosh Defense. "The SFV variant is part of the M-ATV family of vehicles, which we designed to support the most challenging tactical operations in rugged and mountainous off-road terrain."

Oshkosh is delivering the spare-parts kits as part of its complete sustainment support of the M-ATV fleet. The company also has received orders to provide more than 330 field service representatives (FSR) to support the vehicles with onsite technical assistance, proper maintenance procedures, correctly identifying parts, and troubleshooting techniques and maintenance training for troops.

The M-ATV SFV features alterations specific to the needs of U.S. Special Forces, including a modified cargo deck, intended to accept specialized equipment based on

each mission's requirements, and larger front windscreens for increased visibility. Vehicle deliveries are scheduled to take place in May 2011, and deliveries of the spare parts are scheduled to begin in March 2011 and be completed in June 2011. The orders have a combined ceiling price of nearly $55 million.

In addition to the SFV, Oshkosh produces the M-ATV base and tactical ambulance variant for the U.S. military. Oshkosh has received awards to date for nearly 8,400 M-ATVs, including more than 460 SFV variants, as well as spare parts kits, upgrade kits and aftermarket support.

Oshkosh is continuing to explore new potential mission solutions for the M-ATV. The company has designed the M-ATV 2.5 Cargo vehicle to support resupply operations and the M-ATV Multi-Oshkosh Defense to Deliver Additional M-ATV Variants for U.S. Special Operations Forces Dec. 20, 2010 Mission Vehicle (MMV) to support reconnaissance, missile-carrier and command-and-control operations in unforgiving landscapes.

Exhibitions

General Dynamics European Land Systems presents the new PIRANHA Class 5 and the DONAR at IDEX 2011

The latest member of the PIRANHA family of armoured wheeled vehicles, the PIRANHA 5, will be displayed in a Desert Piranha configuration with the Kongsberg .50 cal. Remote Control Weapon Station.

This advanced new vehicle will raise the benchmark in the areas of survivability, mobility and firepower, marking unprecedented progress in the development of armoured wheeled vehicles. PIRANHA 5 provides the highest levels of survivability against conventional and asymmetric threats, while having the capacity to fill all battlefield roles such as APC, Electronic Warfare, Ambulance, Reconnaissance, Command, Mortar and even Direct Fire with turrets up to 120 mm calibre. The vehicle on display at IDEX is an example of what can be achieved with PIRANHA 5, an APC with an internal seating capacity for eleven soldiers. The PIRANHA 5 can be supplied in either high or low roof configurations with open architecture, over 15 tons of payload and 120 kW electrical power. The vehicle is equipped with numerous other sub-systems that enhance performance and flexibility such as the digital CAN backbone; fuel efficient drivetrain technology; integrated heating, air-conditioning and NBC protection systems; and the 120 kW Inline Starter/Generator (ISG). As an example of the unrivalled performance that the PIRANHA 5 provides, the ISG generates the power for onboard systems while simultaneously providing up to 100 kW AC exportable power to sustain military or civilian infrastructure. The ISG also has the growth capability to recover brake energy for re-use to boost the vehicle power output to 700 hp and to reduce fuel consumption.

DONAR – A Revolution in the Artillery Doctrine

The DONAR is a new generation, air-deployable, autonomous and remotely operated 155mm artillery system that addresses the growing need for precise indirect-fire capabilities that can augment or even replace close-air-support operations previously conducted by costly fixed- or rotary-wing aircraft. The total systems weight is less than 31 metric tons, allowing the transport with the future European Transport Aircraft A400M or similar aircraft with payload capacities in this class. The complete remotely operated artillery module is equipped with a 155mm (52 cal.) cannon. DONAR's maximum range amounts to more than 56 kilometers (vlap). Despite a marked reduction in weight and size, the gun module is operational without any additional stabilization and provides a 360-degree azimuth range. In addition, the autonomous system character of DONAR allows a consistent step toward networked, centralized command and control (network centric warfare). The system possesses the high mobility of an Infantry Fighting Vehicle, derived from an adapted ASCOD version for artillery applications. Separated from the automatic gun module, a crew of only two soldiers (driver and commander) operates the system from a highly protected driver cabin, increasing survivability. The DONAR is a joint European technology program of General Dynamics European Land Systems and Krauss-Maffei-Wegmann (KMW).

EAGLE - The New Survivability Standard

To meet the increasing demand in protection and payload, General Dynamics European Land Systems offers the new EAGLE vehicle. Due to its high payload capacity, it can either carry more equipment or heavier protection solutions, depending on the customer's requirements. The vehicle will be shown with the FN light Remote Control Weapon Station, armed with a 7.62 mm MAG machine gun. This highly mobile vehicle, with a capacity of 4 - 5 soldiers, offers outstanding protection against ballistic, mine and improvised explosive device (IED) threats. Interchangeable automotive parts and components with DURO armoured or soft-skinned vehicles provide a cost-effective logistics commonality.

Contracts

General Dynamics Awarded Contract for 195 additional EAGLE vehicles for Germany

VIENNA -- General Dynamics European Land

Systems entered a contract with the Bundesamt fьr Wehrtechnik und Beschaffung (BWB) for the delivery of 195 highly protected EAGLE vehicles as evidence of the close cooperation between the two entities and the good performance of the vehicle.

The vehicles will be jointly manufactured at GDELS-Mowag and GDELS-Germany and also with the participation of numerous German subcontractors. The new order is in addition to orders awarded between 2008 and 2010, and increases the German EAGLE fleet to a total of 473 vehicles. The contract value for the 195 EAGLE vehicles signed on Dec. 20, 2010 is €125 million or US$165 million.

Within the framework of the procurement of protected Class 2 Command and Function vehicles, the EAGLE was selected in 2008 following 2 years of intensive evaluation. This vehicle replaces a large number of existing unprotected and light protected vehicles of the Bundeswehr on foreign missions. Due to its high protection level, deployability, agility and tactical mobility, the EAGLE is suitable for the entire mission spectrum in this class of vehicles. The EAGLE can be used for various missions by applying modular add-on kits.

The first contract for the delivery of 198 EAGLE vehicles was signed by the BWB and GDELS in November 2008. By May 2009, the first vehicles were delivered and deployed to Afghanistan, where they have demonstrated their outstanding reliability and high availability. The delivery of the first 198 vehicles to the Bundeswehr was completed in September 2010, three months ahead of the contractual delivery schedule.

The urgent need for highly protected vehicles in the Bundeswehr led to another order of 20 EAGLE BAT Ambulance Vehicles in November 2009 plus an order of an additional 60 EAGLE patrol vehicles for the German Bundeswehr in mid-April 2010. The December 20 order for an additional 195 vehicles will ensure the continuous supply of urgently needed protected Command and Function vehicles over the coming years. Those vehicles are scheduled to be manufactured and delivered within 2011 and 2012.

All vehicles for the Bundeswehr will be jointly manufactured by General Dynamics European Land Systems-Mowag in Kreuzlingen, Switzerland, and General Dynamics European Land Systems-Germany in Kaiserslautern. Numerous other German suppliers will be engaged in the manufacture and supply of many key components.

These orders reflect the strong relationship with the BWB and the Bundeswehr as a key customer for General Dynamics European Land Systems and underline the international success of the highly protected EAGLE.

The EAGLE

The EAGLE sets the standard for protected wheeled vehicles in the weight class of up to 9.5 t. The vehicle has a length of 5.40 m, a height of 2.4 m and a width of 2.16 m. It reaches a top speed of 110 km/h on the road and manages gradients of up to 60%. The 245 hp turbocharged diesel engine, in connection with a 5-speed automatic transmission, the unique DeDion axle system with the patented roll stabilizer, the tire pressure control system and the permanent all-wheel drive give the EAGLE superior on-road and off-road mobility. Thanks to the modular protection system, the EAGLE offers a very high level of protection against ballistic threats, mines, and IEDs. Furthermore, the vehicle is equipped with an NBC overpressure system.

Defence Industry

New MBT122B Evolution with Unprecedented Protection

The Swedish MBT122 has already been recognized as one of the best-protected main battle tanks in the world.

In a recent study program of the tank for the Swedish Defence Material Administration (FMV) in Sweden, IBD Deisenroth Engineering succeeded in the development of a further improved protection dedicated to the tank. The concept is thereby designed to protect against the actual and future threats in theatre, especially in asymmetric and urban warfare.

IBD's focus in this development was the optimization of the protection against the actual threats in theatre: new variants of RPGs, IEDs and EFPs as well as keeping high protection against “conventional threats”. A new light weight and highly efficient SLAT armour was designed as an amendment of the protection concept. The effectiveness of the new solutions has been verified against all threats in a broad test campaign. Thanks to all these efforts the concept provides an outstanding 360 degree protection of the crew.

The completely modular design of the concept allows the use of any mixture of old and new protection modules. This solution is of great advantage in theatre with regard to maintenance and repairs.

Despite the improved overall protection level of the MBT 122B Evolution the weight increase of about 350 kg is only minimal such maintaining the high mobility of the tank. Also the width of the vehicle could be kept to exactly 4.0 m which is also an important factor for the use in urban environment.

The new protection concept is the latest variant of similar high level protection solutions (defined as

Evolution Concepts) from IBD for different platforms that have been developed, where the kits based on the platform Leopard 2 A4 Evolution have already been supplied to customers.

Exhibitions

Paramount Group Showcases World Leading Armoured Vehicles at International Armoured Vehicles 2011

Paramount Group, Africa`s largest privately owned defence business and manufacturer of some of the best armoured vehicles in world will demonstrate why its revolutionary new infantry fighting vehicle is at the vanguard of new design and technology.

Visitors to stand 931 at International Armoured Vehicles, held at the Excel Centre, London, from 7 to 10 February 2011, will discover Mbombe - the real new breed of infantry fighting vehicle.

Branded the 'holy grail' of modern vehicle design, Mbombe (which is named after a famous African warrior) offers better protection against IEDs than most other vehicles currently used by NATO forces in Afghanistan, with a significant reduced target profile.

Ivor Ichikowitz, Executive Chairman of the Paramount Group, said: "Europe is waking up to the fact that African manufacturers, scientists and engineers are producing world class products for the global defence sector. Defence experts and buyers are very excited by Mbombe. Many believe that this is the IFV that forces from across the world have been waiting for, whether engaged in peacekeeping or counter insurgency."

"At Paramount Group we have the latest technology and innovation to deliver groundbreaking design to achieve our goal of being first at developing 'new breed' of armoured vehicles.

"We are attending International Armoured Vehicles 2011 to show the European market that Africa has a long tradition of armoured vehicle design, the skills and expertise to provide the very best in armoured vehicle technology, offering superb protection, reliability and affordability."

Mbombe is six wheeled and has a lower profile than the US Army's Cougar, using a revolutionary mine resistant flat hull. A move that takes vehicle design away from the traditional V-shaped hull, also a South African innovation.

Ichikowitz added: "South Africa's defence industry has an established record at the cutting edge of mine protected vehicle design and development. Now Paramount Group is using its advanced research and development, harnessing the latest technology, to take that innovation to the next level and deliver a new breed of armoured vehicle to the global market."

David McDonald Joyce, Paramount Group's Business Development Director, will reveal more about the Group's development of the next generation of mine protected vehicles on day one of the International Armoured Vehicles 2011's Conference.

In a presentation entitled 'Armoured Fighting Vehicle Capabilities in Combating Insurgencies and Winning the Peace' starting at 17.30, he will discuss how the lessons and experience from modern conflicts around the world are shaping the future of vehicle development.

The Paramount Group has seen its sales increase by 20 percent year on year over the last five years, with its workforce doubling over the past 12 months to meet the demand for its range of mine protected vehicles.

Contracts

General Dynamics Awarded $92 Million for Stryker Combat-Vehicle Work

STERLING HEIGHTS, Mich. -- General Dynamics Land Systems recently has been awarded three contracts by the U.S. Army TACOM Life Cycle Management Command to support the Stryker infantry combat vehicle. The contracts are worth a combined $92.3 million.

General Dynamics Land Systems is a wholly owned subsidiary of General Dynamics.

Under one contract for $72.8 million, General Dynamics will provide battle damage assessment, materials and repair services to support Stryker brigades in Iraq and Afghanistan. Work will be done by existing employees located in Sterling Heights and Shelby, Mich.; Auburn, Wash.; Anniston, Ala.; Germany; Iraq; Kuwait; Qatar; and London, Ontario, Canada. The estimated completion date is December 2011.

The second contract, worth $9.6 million, is to provide 350 Strykers with electronic video display kits. Work on the contract is expected to be completed by July 2011, and will be performed by existing employees in Shelby and London.

The third contract awarded is valued at $9.9 million and funds the procurement and installation of Stryker shields. Existing employees will perform the work in Sterling Heights, Mich.; Auburn, Wash.; Germany; Iraq; Kuwait; Afghanistan; and Canada. Work on the contract is expected be completed by December 2011.

Stryker brigades have logged an estimated 25 million miles during 13 rotations to war zones. The Stryker is an eight-wheeled combat vehicle that is lighter, smaller and more readily deployable than other Army combat vehicles. Proven effective by the Army and the National Guard for defense and disaster-response missions, the Stryker family of vehicles stresses performance and commonality to reduce the logistics footprint and minimize costs.

Strykers are available in 10 variants: infantry carrier vehicle; commander's vehicle; medical evacuation vehicle; fire support vehicle; engineer squad vehicle; anti-tank guided missile; mortar carrier; reconnaissance vehicle; mobile gun system; and nuclear, biological and chemical reconnaissance vehicle.

Contracts

Iveco signs first contract with Italian Army for the MPV / VTMM Ambulance version

Rome -- Iveco Defence Vehicles announces that on December 20th, 2010 the Italian Army placed order for a batch of 12 MPV in the Ambulance version (named VTMM Ambulance by the Italian Army) to be delivered between 2011 and 2012.

The Ambulance version of the MPV-VTMM has been developed on the basis of the MPV 4x4 platform increasing the volumes and ergonomy. The vehicle is equipped with two stretchers and will transport a crew of 4 people: driver, commander, medical officer, nurse. A suitable system for loading stretchers has been developed. The vehicle will be equipped with NBC protection system.

MPV – VTMM 4x4

Since its official presentation at Eurosatory 2010, MPV-VTMM vehicle family has made decisive steps towards serial production. The MPV-VTMM family is based on a military off the shelf truck chassis combined with a protected crew cell which incorporates the driver's cabin and cargo compartment. In the 4x4 version the safety cell offers more than 13m3 volume, whereas in the ambulance version this volume is increased to 16 m3. The maximum combat weight of up to 18 tonnes and a chassis capable of mastering the toughest of terrains therefore give MPV-VTMM 4x4 excellent tactical mobility in all missions.

The MPV family leverages on the know how of two of the major European companies involved in armoured vehicles production, Iveco DV and Krauss- Maffei Wegmann (KMW) of Germany. In June 2008 the two companies had signed a cooperation agreement on the development of a new military vehicle family in the weight class of 18 to 25 tons.

For the VTMM-MPV Ambulance, Iveco is responsible for the final protection level and for the integration of all specific equipment according to the requirements of the Italian Army.

Crew protection against mines and IED was accorded particular priority during the design process. The integrity of the crew cell is maintained through a series of design features. The bonnet is hinged to the chassis rather than the crew cell and the rear cargo compartment is so designed that it will readily blow off, allowing the energy from a mine blast to dissipate. The base steel armour of the crew cell provides a high level of ballistic protection and this can be further enhanced through the use of appliqуй protection developed in co-design with IBD to meet the predicted threat.

The MPV-VTMM family of vehicles is based on military off-the shelf (COTS) high mobility chassis derived from the Trakker range, which not only provide a superior mobility but also allow the customer to exploit the Iveco worldwide logistic system. The MPV-VTMM 4x4 is equipped with the Cursor 8 engines coupled with semiautomatic gearbox and differential-locking system, permanent all-wheel drive with automatic tyre-pressure regulation and run-flat tyres.

The MPV family can effortlessly take on slopes of up to 60% and ride along side slopes up to 30% – at a range of more than 700 km, or 430 miles, without refueling. The modular design allows the crew compartment to be readily configured in a variety of different roles.

The future of VTMM

The MPV-VTMM platform, due to this flexibility, can be declined in several other versions, while maintaining the level of protection of basic configuration. Some of the possibilities already under study and development are:

- Advanced Combat Recce Team (ACRT)
- Explosive Ordnance Devices Disposal (EODD)
- Electronic Warfare (EW-RCIED)
- Command Post (CP)
- Communications
- Logistic

Defence Industry

Oshkosh Defense to Bolster the U.S. Marine Corps` Heavy Fleet

OSHKOSH, Wis. -- Oshkosh Defense, a division of Oshkosh Corporation, will supply the U.S. Marine Corps with more than 100 Logistics Vehicle System Replacement (LVSR) Cargo Variants and 120 enhanced protection kits following an order from the Marine Corps Systems Command (MARCORSYSCOM).

"The LVSR is an advanced tactical vehicle built for today's logistics missions, which often require Marines to travel off-road in harsh environments," said John Bryant, vice president and general manager of Marine Corps Programs for Oshkosh Defense. "When troops need to travel on rough terrain in combat zones, they need improved survivability, mobility and enhanced performance to help them accomplish their objectives – and the LVSR delivers those capabilities."

The LVSR is produced in three variants – cargo, wrecker and tractor – and features an on-road payload capacity of 22.5 tons and an off-road payload capacity of 16.5 tons. It is equipped with the Oshkosh Command Zone™ embedded diagnostics system to provide real-time performance feedback on vital vehicle information and uses the company's patented TAK-4® independent suspension system for off-road mobility in the most challenging environments. LVSRs have been operating in Afghanistan since September 2009.

Production of the vehicles is scheduled to begin in August 2011 and be completed in April 2012. This order has a value of nearly $50 million.

Defence Industry

First Multi A4 FSA from Rheinmetall MAN Military Vehicles transferred to German military

Made by Rheinmetall MAN Military Vehicles GmbH (RMMV), the first Multi A4 FSA protected military transport vehicle has been formally transferred to the Bundeswehr at an official rollout ceremony in Munich.

Featuring a heavily protected driver's cab, the Multi A4 FSA does an excellent job of keeping its occupants safe from typical threats encountered during deployed operations. Capable of carrying a 16 ton-payload, the high-performance Multi A4 FSA system platform is well suited to a wide variety of transport roles. An efficient, well-protected system, this robust RMMV vehicle bridges a significant capabilities gap, enabling the German military to supply and support the growing number of remote outposts in Afghanistan it is currently setting up under a new strategy.

By the end of 2010, the Bundeswehr will have around forty of these vehicles in its inventory, with a further 60 Multi A4 FSAs to follow in short order.

This means that the Bundeswehr will soon have at its disposal 100 out of a total of 157 vehicles ordered thus far under a series production contract that runs until Q1 2012. Since October 2010, MAN Nutzfahrzeuge AG and Rheinmetall MAN Military Vehicles GmbH have been successfully carrying out acceptance testing of the first serially produced vehicles, which are based on RMMV's 8x8 SX45 chassis.

Since training is taking place in tandem with ongoing deliveries of the Multi A4 FSA, the vehicle will be ready to go into action abroad early in 2010, performing a wide array of operational support missions. In particular, the new vehicles will make a major contribution to force protection by enhancing the security of troops engaged in logistical and transport operations.

The "multi" in Multi A4 FSA is a German acronym standing for "Mechanisierte Umschlag-, Lagerung-, Transport-Integration", i.e. "mechanized handling, storage and transport integration", while FSA is short for "Fahrzeugschutzausstattung", underscoring the vehicle's integral forces protection features which, unlike in modular solutions, are built in right from the start rather than retrofitted. The protected all-steel driver's cab, equipped with heated bullet-resistant glass windows, provides the crew with effective protection against ballistic threats, blast mines and roadside bombs.

Besides standardized, interchangeable load carriers from its predecessor vehicle (the A3) and multifunctional containers, the Multi A4 FSA is able to load and transport 20-foot ISO containers without a variable loader platform completely on its own. When mounted with a protected container for transporting personnel (the "MuConPers"), the Multi A4 FSA is able to transport up to 18 people with the highest system-compatible level of protection.