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Defence Industry

Textron Marine & Land Systems Awarded Contract to Provide Innovative Approaches for Protecting HMMWV Vehicles

New Orleans, LA -- Textron Marine & Land Systems (TM&LS), an operating unit of Textron Systems, a Textron Inc. company, announced today that it has been awarded a $3.29 million firm-fixed price contract from the U.S. Army Tank-Automotive and Armaments Command for work on the Modernized Expanded Capacity Vehicle Survivability (MECV-S) system. TM&LS is teaming with Granite Tactical Vehicles to deliver innovative crew protection and vehicle survivability enhancements for the Army's HMMWV vehicles. The program's follow-on potential is for work on up to 5,750 vehicles.

The Army is seeking technical solutions to address current and future threats to its HMMWV tactical vehicle fleet through the use of scalable armor technologies. The TM&LS/Granite team will install its MECV-S protection system, a production-ready Technology Readiness Level 8 system, on two government-furnished HMMWVs and deliver them this summer to Aberdeen Proving Ground, Md. for Improvised Explosive Device testing. Computer Aided Design models also will be submitted for analysis.

"Our TM&LS/Granite MECV-S solution would replace the current HMMWV crew compartment in a one-for-one exchange. It offers vehicle occupants an armored monocoque V-hull protective capsule and restores the vehicle's tactical mobility with proven components," explains TM&LS Senior Vice President and General Manager Tom Walmsley.

The lightweight, highly-survivable TM&LS/Granite vehicle protection system possesses a lower center of gravity than an up-armored HMMWV and is resistant to small arms fire, blasts and the secondary effects of blasts such as fire, crushing, rollover and collision. It is compatible with all versions of HMMWVs currently in service and provides MRAP-style protection by incorporating angles and a V-shaped blast deflection under-body plate.

A system that is easily supported and maintained, the Textron/Granite solution also retains all of the original HMMWV cab's characteristics by utilizing existing controls, linkages and drive system.

Defence Industry

TenCate Advanced Armour supplies materials for vehicles Commando Corps

TenCate Advanced Armour supplies antiballistic materials for 50 new vehicles for the Dutch Commando Corps, the so-called Air Transportable Tactical Vehicles. Wednesday, July 3 the Defence Materiel Organization signed a contract with the Dutch company Defenture.

Apart from better road capability, the new Air Transportable Tactical Vehicles (ATTV) have more payload than the current vehicles. This is essential in view of the mandate of the Special Operations Forces. Explorations and attacks on enemy targets may need to be performed deep in enemy territory. At times there are severe geographical and climatic conditions, without logistical support from outside.

Because the Commando Corps can also be dropped by helicopters, the special forces vehicles can be transported in and under Chinook transport helicopters. ATTV vehicles can be equipped with several armor solutions of TenCate Advanced Armour.

Contracts

iRobot Awarded $30 M Army Contract

As previously announced by the Army, iRobot Corp., a leader in delivering robotic technology-based solutions, has been awarded a $30 million indefinite delivery/indefinite quantity (IDIQ) contract by the U.S. Army's Robotic Systems Joint Program Office (RSJPO).

The four-year contract, which replaces an expiring IDIQ, allows for the delivery of iRobot PackBot FasTac robotic systems and associated spares.

An initial $3 million order under the contract for spares has also been placed. Deliveries under this order will be completed by the end of Q4 2013.

"iRobot is proud to provide robotic capabilities that help our warfighters accomplish their mission," said Frank Wilson, senior vice president and general manager of iRobot's Defense & Security business unit. "The Army recognizes the value of the PackBot FasTac robotic system on the battlefield, and we look forward to continuing our work with RSJPO to ensure the Army is well equipped to maintain its fleet of PackBot FasTac robots in the years ahead."

The iRobot PackBot allows military and public safety personnel to investigate dangerous objects and environments from a safe distance. The robot is used in a wide variety of operations, including neutralizing roadside bombs and other improvised explosive devices, screening vehicles, and searching buildings, bunkers, caves and tunnels.

Contracts

KONGSBERG Awarded Contract from GDLS Supporting US Army Stryker ECP Program

Kongsberg Integrated Tactical Systems (KITS) has been awarded a contract from General Dynamics Land Systems (GDLS) for the supply of the Commander's and Driver's smart displays for the US Army Stryker Engineering Change Proposal (ECP) Program.

GDLS, headquartered in Sterling Heights, Michigan, selected KITS as the supplier of the Driver's Situational Awareness Display (DSAD) and the Commander's Situational Awareness Display (CSAD) on May 28, 2013. The contract includes design, development, fabrication, test and performance of the DSAD and CSAD for the Stryker ECP Program. Serial production of the displays will be conducted at the Kongsberg facility in Johnstown, Pennsylvania.

Stryker is a family of eight-wheel-drive combat vehicles, built for the US Army by GDLS. The Stryker ECP Program is managed by the Army's Project Manager, Stryker Brigade Combat Team which is under the leadership of the Program Executive Office for Ground Combat Systems (PEO GCS.) PEO GCS is based at the US Army Tank Automotive Command (TACOM) LCMC, in Warren, Michigan.

"This highly competitive bid for the CSAD and DSAD was a perfect fit for KITS, whose CORTEX Displays meet or exceed the most demanding maritime and combat vehicle requirements. Extremely rugged and waterproof, the high resolution CORTEX displays also feature a high contrast ratio, which not only reduces viewer fatigue but makes them the most sunlight readable displays on the market today," Says Mr. Esmund Groven, President of KITS.

The CORTEX smart displays that will be used for the CSAD and DSAD feature an on-board processor and additional I/O ports for both data and video.

Term of the day

Jian

The jian is a double-edged straight sword used during the last 2,500 years in China.

The first Chinese sources that mention the jian date to the 7th century BC during the Spring and Autumn Period. Historical one-handed versions have blades varying from 45 to 80 centimeters (17.7 to 31.5 inches) in length. The weight of an average sword of 70-centimeter (28-inch) blade-length would be in a range of approximately 700 to 900 grams (1.5 to 2 pounds).

There are also larger two-handed versions used for training by many styles of Chinese martial arts.

In Chinese folklore, it is known as "The Gentleman of Weapons" and is considered one of the four major weapons, along with the Gun (staff), Qiang (spear), and the Dao (sabre).

Robots

DARPA`s ATLAS Robot Unveiled

On Monday, July 8, 2013, the seven teams that progressed from DARPA's Virtual Robotics Challenge (VRC) arrived at the headquarters of Boston Dynamics in Waltham, Mass. to meet and learn about their new teammate, the ATLAS robot. Like coaches starting with a novice player, the teams now have until late December 2013 to teach ATLAS the moves it will need to succeed in the DARPA Robotics Challenge (DRC) Trials where each robot will have to perform a series of tasks similar to what might be required in a disaster response scenario.

These seven teams are not starting from scratch. Thanks to the physical modeling of the DRC Simulator,

the software algorithms that were successfully employed by teams in the VRC should transfer with minor tuning to the ATLAS hardware. ATLAS is one of the most advanced humanoid robots ever built, but is essentially a physical shell for the software brains and nerves that the teams will continue to develop and refine. That software, and the actions of a human operator through a control unit, will guide the suite of sensors, actuators, joints and limbs that make up the robot. The six-foot-two, 330-pound ATLAS is capable of a range of natural movements and is equipped with:

- On-board real-time control computer
- Hydraulic pump and thermal management
- Two arms, two legs, a torso and a head
- 28 hydraulically actuated joints
- Carnegie Robotics sensor head with LIDAR and stereo sensors
- Two sets of hands, one provided by iRobot and one by Sandia National Labs

In addition to the robot, the winning teams from the VRC will receive funding from DARPA and ongoing technical support from Boston Dynamics, the developer of ATLAS.

"The Virtual Robotics Challenge was a proving ground for teams' ability to create software to control a robot in a hypothetical scenario. The DRC Simulator tasks were fairly accurate representations of real world causes and effects, but the experience wasn't quite the same as handling an actual, physical robot," said Gill Pratt, program manager for the DARPA Robotics Challenge. "Now these seven teams will see if their simulation-honed algorithms can run a real machine in real environments. And we expect all teams will be further refining their algorithms, using both simulation and experimentation."

In June, the DRC program management staff also visited the seven Track A teams, those funded to build both hardware and software, to evaluate their platform design-and-build progress. The teams presented the details of their designs, hardware components, operator control strategies and, in some cases, completed robots. Based on the results of that Critical Design Review, DARPA selected the following six teams to advance to the DRC Trials with continued DARPA funding (in alphabetical order by team lead):

- Carnegie Mellon University, National Robotics Engineering Center - CHIMP
- Drexel University - Hubo
- NASA Jet Propulsion Laboratory - RoboSimian
- NASA Johnson Space Center - Valkyrie
- SCHAFT Inc.
- Virginia Tech – T.H.O.R.

"We have dramatically raised the expectations for robotic capabilities with this Challenge, and brought together a diverse group of teams to compete," said Pratt. "The progress the Track A teams have made so far is incredible given the short timeline DARPA put in place. From here out, it's going to be a race to the DRC Trials in December, and success there just means the qualifying teams will have to keep on sprinting to the finish at the DRC Finals in 2014."

The six Track A teams, seven VRC winning teams and an unknown number of unfunded, Track D teams and their robots will compete for the first time in December 2013 at the Homestead-Miami Speedway in Homestead, Fla., site of the DRC Trials. The competition will be a unique spectator event open to the public.

Defence Industry

Raytheon UK launches next generation Stand-Off IED Detection and Confirmation Technology

Raytheon UK has launched a new Stand-Off Improvised Explosive Device (IED) Detection and Confirmation Technology, known as Soteria, as a vehicle mounted system. The underlying technology has been developed in the UK alongside Laser Optical Engineering Ltd, a spin out company of Loughborough University.

Bob Delorge, chief executive of Raytheon UK, commented: "Soteria is a world leading technology that demonstrates the power of innovation that can be harnessed in the UK. The system can be applied to a wide range of scenarios including minefield clearance, which remains a significant menace in various world regions, as well as in other operations such as disaster relief."

Soteria utilizes innovative optical processing technology that gives the user an extremely high definition IED detection, confirmation and diagnosing capability, while exhibiting an extremely low false alarm rate. Soteria, from a significant stand-off distance, determines the shape, size, orientation and exact location of hidden IEDs and associated components. In the manned vehicle configuration, Soteria can confirm and diagnose threats from a safe distance to ensure maximum protection of troops and vehicles.

Raytheon UK's Soteria technology has been developed to counter the most sophisticated IEDs, and during comprehensive theatre simulated field trials was able to detect and classify the full array of explosive devices including those with low and zero metal content, which pose the biggest problems for current technologies such as ground penetrating radar. Being completely agnostic to target makeup, Soteria gives the flexibility to be used against new threats in future theatres of war.

Defence Industry

General Dynamics to Consolidate Two Combat Systems Businesses

General Dynamics announced that, following a comprehensive review of the structure of its Combat Systems business group, General Dynamics Armament and Technical Products will be consolidated into General Dynamics Ordnance and Tactical Systems.

Mark C. Roualet, executive vice president of the Combat Systems group for General Dynamics, said, "In the face of changing demand in some of our markets and increasing competition across the board, we have determined that consolidation is the best way to maintain the competitiveness and profitability of these lines of business. This move will enable us to achieve greater efficiencies in operations and create more opportunities for growth.

"We remain committed to meeting the needs of our customers in each of the markets served by General Dynamics, and we believe this restructuring will improve the value of the products we deliver and the agility with which we respond to customers' changing requirements."

Michael S. Wilson, president of General Dynamics Ordnance and Tactical Systems, will lead the combined organization. The company's headquarters will be in St. Petersburg, Fla. The consolidation will result in the closing of the Charlotte, N.C., headquarters of General Dynamics Armament and Technical Products by the end of 2013.

Defence Industry

SUPACAT And NAVISTAR DEFENCE Sign MoU Providing Future Joint Support To The U.K. MoD Protected Mobility Fleet

Millbrook, England -- Supacat and Navistar Defence announced today, during the U.K. Ministry of Defence DVD vehicle show, that the two companies have signed a Memorandum of Understanding (MoU) to form a team to deliver collaborative future support to the U.K. Ministry of Defence's protected mobility fleet.

Partnering together enables the two support service suppliers to integrate their existing Urgent Operational Requirement (UOR) based support structures to enhance combined capabilities on offers as vehicles are brought back from Afghanistan into the Army 2020 core fleet. This alliance allows the two OEMs to start preparing for a "Strategic Support Supplier," (SSS) type support arrangement to enable the U.K. MoD to adopt industry-led solutions for managing fleet support and achieving efficiencies.

"We see this proactive step as a means to deliver cross platform efficiencies required by the MoD, while providing flexibility by putting the vehicle OEMs in the driver's seat," said Nick Ames, managing director, Supacat. "In addition, the alliance offers the U.K. MoD an early opportunity to further inform the Strategic Support Supplier concept."

Supacat and Navistar will take advantage of the geographical spread of their combined facilities to evolve the integrated joint support solution— delivering efficiencies to the U.K. MoD across both companies' vehicle platforms.

"We feel this MOU will lead to strong foundations for a relationship enabling us to offer strong, flexible and comprehensive service to the MoD," said Robert Ward, regional manager, Navistar. "We look forward to working with the MoD and preparing for SSS arrangements to meet their needs."

The U.K. MoD recently confirmed Supacat's Jackal and Coyote platforms and Navistar's MXT™ "Husky" will be brought into the core fleet to form part of the British Armed Force's equipment plan for the next 10-15 years. Under the MoU, Supacat and Navistar would have the capability to cover nearly 1,000 total vehicles in service delivered under numerous UORs to the U.K. MoD through the U.K. Defence Equipment and Support's (DE&S) Protected Mobility Team (PMT).

The UK MoD has purchased over 600 Jackal and Coyote vehicles based upon Supacat's HMT vehicle, and 300 Husky vehicles based on Navistar's MXT platform. The Coyote and Husky variants were procured as part of the Tactical Support Vehicle (TSV) programme with Coyote fulfilling the light role (TSV(L)) and Husky, the medium (TSV(M)).

Supacat currently supports over 800 vehicles, more than 100 of which are internationally operated. It has a full Integrated Logistics Support (ILS) capability including design, integration, technical publications and trials conducted at an in-house test track. The company also has a strong engineering team of more than 30 members, as well as workshops and staff equipped for repair and overhaul.

Navistar Defense operates in the U.K., U.S. and Afghanistan to support the MoD's Husky fleet. As a subsidiary of one of the world's largest truck manufacturers, Navistar's U.K. team is supported by extensive engineering, ILS and commercial resources. Navistar U.K. is based at Millbrook Proving Ground in Bedfordshire, where it has full access to the resources and facilities available including the 280 hectares of test tracks.

Term of the day

Tanto

The tanto is a dagger that was worn and used by the samurai class of feudal Japan.

The blade is single or double edged with a length between 15 and 30 cm (6-12 inches). The tanto was designed primarily as a stabbing weapon, but the edge can be used for slashing as well. Tanto are generally forged without ridgeline (their sides have no ridge line and are nearly flat). Some tanto have particularly thick cross-sections for armor-piercing duty, and are called yoroi toshi.
Tanto were used in traditional martial arts.

Tanto were mostly carried by samurai, as commoners did not generally wear them. Women sometimes carried a small tanto intended primarily for self-defence.

Exhibitions

Navistar Defense Debuts MXT Recovery Variant At DVD

Millbrook, England -- Navistar Defense, LLC debuted the fifth variant of the International® MXT™ vehicle line, the MXT Recovery Vehicle (MXT-RV), during the U.K. Ministry of Defence DVD vehicle show.

The U.K. Forces currently deploy more than 300 Husky Tactical Support Vehicles (TSVs), a variant of the MXT vehicle family, to Afghanistan.

"We are proud to work with the Ministry of Defence to field vehicles that help save the lives of British service men and women as well as allied forces," said Bob Walsh, vice president and general manager, Navistar Defense. "The MXT family of vehicles offers solutions for all needs—whether heavy weapon, command, utility, cargo or recovery, on a proven platform."

In addition to the MXT-RV, Navistar Defense is hosting off-road demonstrations of its MXT-APC and MXT-Cargo at the Millbrook Proving Grounds. As well, one of three MXT's used during filming of the recently released Fast and Furious 6 movie will be on display.

"All of our MXT vehicles share commonality, which allows us to respond rapidly to changing mission needs with vehicle enhancements and fleet support," Walsh said. "We look forward to continuing to work the Ministry of Defence as they consider our Husky for their core program."

Defence Industry

155 mm VULCANO SAL Guided Ammunition scores direct hit at 33 km range

On July 12, 2013, at Alkanptan firing range in South Africa, a week of extensive test firings was completed demonstrating the precision and terminal accuracy of the VULCANO Guided Ammunition with a direct hit against a target at a range of 33 km. The ammunition was fired by a Self-Propelled Howitzer PzH 2000.

The VULCANO Guided Ammunition family consists of 127 mm and 155 mm ammunition with dual mode capability of GPS/IR or GPS/SAL (Semi-Active Laser) Terminal Homing.

The demonstration firings were performed under the German-Italian Program Agreement on 155 mm Guided Ammunition. The Italian MoD is main sponsor of the VULCANO program. The German MoDrs program contribution includes the SAL Terminal Homing System, fire command and ammunition programming issues as well as test and firing equipment such as the PzH2000.

Diehl Defence, together with Oto Melara, participates in the VULCANO program development under a Cooperation Agreement on Conventional and Guided Ammunition.

For the demonstration firings, a 2x2 m target was located at a range of about 33 km.

Ammo fired with only GPS terminal guidance hit the ground well below 20 m distance from the target.

Ammo with GPS and SAL terminal guidance directly hit the 2x2 m plate demonstrating the absolute accuracy of the SAL and guidance systems.

The chief of the Italian MoD delegation declared: "The amount of recorded data as well as the accuracy demonstrated by the ammunition with GPS guidance and SAL sensor for the terminal homing phase contributed to a very successful campaign." This assessment was confirmed by German and Dutch government representatives present at the trials.

The VULCANO development and industrialization program is continuing with the objective of being prepared for production within 2014.

Contracts

SAAB Receives Order For Artillery Ammunition

Defence and security company Saab has received an order for the delivery of explosive training artillery ammunition. The order amounts to approximately MSEK 100 and production and delivery will take place during 2013 and 2014.

The order will be carried out by Saab's Swiss subsidiary Saab Bofors Dynamics Switzerland (SBDS) and includes the manufacture and delivery of explosive training artillery grenades. The scope of work consists of the conversion of live rounds into training rounds with SBDS performing the technical alteration, the filling of the target marking and explosive components as well as the final assembling.

"This order is an endorsement both of Saab and the world-class facility SBDS is developing inSwitzerland, which provides products and services for Armed Forces around the world," says Gцrgen Johansson, Head of Saab's business area Dynamics.

"The order is in line with our strategy to strengthen and extend our range of services. We have a well-proven track record of fulfilling a wide range of service contracts within the field of munitions, the respective components and explosives," adds Stephan Kocher, Head of Saab Bofors Dynamics Switzerland.

The industry's nature is such that depending on circumstances concerning the product and customer, information regarding the customer will not be announced.

Saab serves the global market with world-leading products, services and solutions ranging from military defence to civil security. Saab has operations and employees on all continents and constantly develops, adopts and improves new technology to meet customers' changing needs.