Army Guide monthly

2 (29) February 2007

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Defence Industry

GD Awarded Test Vehicle Contract for Four Mine Resistant Ambush Protected Vehicles

U.S. Marine Corps Systems Command (MCSC) has awarded General Dynamics Land Systems-Canada an Indefinite Delivery, Indefinite Quantity (IDIQ) contract and an initial delivery order for the testing, production and support of four Mine Resistant Ambush Protected (MRAP) vehicles.

The MRAP vehicles will provide improved protection for troops from mines, improvised explosive devices and other threats. A possible follow-on production contract could call for the delivery of up to 4100 vehicles.

Under this contract, General Dynamics Land Systems-Canada will provide the program management and logistic support while BAE Systems Ground Systems Division, in conjunction with BAE Systems Land Systems OMC, will manufacture the vehicles in York, Pennsylvania. General Dynamics Land Systems-Canada is providing vehicles for both Category I and Category II requirements of the MRAP program under this contract.

The General Dynamics Land Systems-Canada MRAP vehicle is based on the RG-31 Mk5, the latest version of the highly successful RG-31 vehicle family. The Mk5 delivers a significant increase in power and payload while offering enhanced mine blast resistance, as well as protection against both improvised explosive devices and ballistic threats. In service with forces around the world, the RG-31 is a highly effective multi-role armored vehicle capable of a variety of military applications. U.S. forces have ordered or received 424 RG-31 vehicles, including 265 Mk5s for the U.S. Army and SOCOM.

Contracts

US Marine Corps Announces Mine Resistant Ambush Protected Vehicle Contracts

Continuing to expeditiously provide the best available solution to save warfighters' lives, Marine Corps Systems Command (MCSC) awarded nine Indefinite Delivery, Indefinite Quantity (IDIQ) contracts Jan. 26 and a first delivery order for the testing, production and sustainability of the initial 36 Mine Resistant Ambush Protected (MRAP) vehicles for testing with possible delivery orders for up to a total of 4,100.

With its proven record, the MRAP vehicles will save lives by augmenting the current level of mine and Improvised Explosive Devices (IED) protection with a V-shaped hull and raised chassis. The increased survivability performance requirements and production rates are a direct result of theater operational needs. The objective is to produce these vehicles by Dec. 31, 2007.

"MRAP vehicles have saved lives," said Capt. Taylor Biggs, Marine Forces Pacific and MRAP vehicle survivor. "The Marines who work in these vehicles have the greatest confidence in its abilities to defeat the bad guys. IEDs are our greatest threat. They frustrate Marines who want to engage targets, not be targets themselves."

MCSC is committed to delivering these MRAP vehicles to operating forces. "MCSC's acquisition strategy is outcome-oriented. We want the maximum number of survivable vehicles, with performance in proven by tests, in the shortest time to deliver," said Paul Mann, MCSC's program manager for MRAP. "In response to our request for proposals, industry responded with quality products and production capacity. We look forward to their success when we validate performance at Aberdeen Proving Grounds; we hope everyone's product is as good as they state so we can expedite production orders. Theater Commanders have an urgent and compelling need for these vehicles. It is up to all of us to act fast."

With the active evaluation participation by the Army, the Marine Corps serves as the lead agency for procurement of the current requirement of MRAP vehicles under designated Rapid Deployment Capability authority. The Marine Corps, in concert with the Army and Navy's program managers, will work through acquisition, fielding and sustainment. MRAP vehicle requirements include the increased survivability and mobility of Marines, Sailors and Soldiers responding to a variety of missions including operating in a hazardous fire area against known threats such as small arms fire and IEDs.

"These mine-resistant vehicles gave us a capability to safely approach, confirm and in some instances neutralize IEDs," said Biggs; having served in Iraq from Aug. 2005 to April 2006.

"We have an urgent and compelling need for these vehicles," said COL Dion King, Army's project manager for MRAP. "We considered lessons learned from many other rapid acquisition programs to ensure that we can deliver safe, effective, reliable and supportable MRAP vehicles to our operating forces as soon as possible."

Supporting such mission profiles, test vehicles from each of the two categories of MRAP vehicles are currently under contract. Category I is the Mine Resistant Utility Vehicle (MRUV) for urban combat operations. Category II is the larger Joint Explosive Ordnance Disposal Rapid Response Vehicle (JERRV) for multi-mission operations such as convoy lead, troop transport, ambulance, explosive ordnance disposal and combat engineering.

"Success is in the hands of industry," said Barry Dillon, MCSC's executive director. "The vehicles need to have adequate survivability, need to be produced at a

high rate and need to be fielded as soon as possible."

Under the IDIQ contracts, each awardee will produce two vehicles of each category for test and evaluation. Contracts have been awarded to the following manufacturers:

- Armor Holdings Aerospace and Defense Group (Sealy, Texas)
- BAE Systems (Santa Clara, Calif.)
- Force Protection Industries, Inc. (Ladson, S.C.)
- General Dynamics Land Systems - Canada (Ontario, Canada; manufactured in York, Pa.)
- General Purpose Vehicles (New Haven, Mich.)
- International Military and Government LLC (Warrenville, Ill.)
- Oshkosh Truck Corporation (Oshkosh, Wis.)
- Protected Vehicles, Inc. (North Charleston, S.C.)
- Textron Marine and Land Systems (New Orleans, La.)

"This is a tremendous opportunity for industry and should provide good healthy competition," said Dillon. "We are depending on industry to fulfill their contracts on time, to do what they said they would do in their proposals. We will encourage them to produce vehicles faster while they continue providing quality, safe vehicles."

"Several of the awarded contract vendors indicate they could initially deliver start-up production rates between 30, 60 and 90 days after receipt of production orders," said Mann. "In parallel, we are working to shorten the timeline from vehicle delivery to integration and transportation to theater. The detailed planning for this effort is in progress. Timely delivery of vehicles in the hands of the warfighter is the critical metric."

The current MRAP procurement is focused on the Global War on Terror. Combatant Commanders will determine the allocation of these vehicles in theater based on mission requirements. It is MCSC's duty to provide the equipment to allow them flexibility in this area. The family of MRAPs is added to the portfolio of other protected vehicles in theater to include the M1114s, HMMWVs w/MAK, M1151s and M1152s based on an urgent and compelling need.

MCSC continues to work closely with theater commanders, joint requirements organizations, industry and the joint Science & Technology community to forecast threats and accelerate promising technologies.

Army

The United States Gives Weapons to Afghanistan's Army

The United States has given thousands of weapons and hundreds of armoured vehicles to Afghanistan's army as it braces for renewed fighting with Taleban insurgents in the spring.

At the handover ceremony, Afghan President Hamid Karzai thanked U.S. officials for the donation, saying it will help the army to defend the country. Afghanistan is working to build its army into a 70,000-strong force by the end of 2008.

Meanwhile, Britain announced the deployment of an additional 800 troops to southern Afghanistan, where the Taleban are most active. This will bring the number of British troops in the war-torn country to 5,800. Britain's Defense Secretary Des Browne said the country's overall deployment in Afghanistan will only increase by 300 soldiers since the military will reduce its manpower in Kabul by 500. Browne also said the British forces will keep Viking armoured vehicles, Apache attack helicopters and Harrier jets in southern Afghanistan until at least April 2009. The British announcement follows arguments within NATO over which countries will supply troops to meet a shortfall on the ground in southern provinces.

Meanwhile, the Bush administration has asked Congress for an additional $10.6 billion to help strengthen Afghan security forces. Taleban forces have historically renewed attacks when temperatures warm and Afghanistan's mountain snows melt.

Term of the day

Armoured Personnel Carrier

Armoured personnel carriers (APCs) are armoured fighting vehicles developed to transport infantry on the battlefield. They usually have only a machine gun although variants carry recoilless rifles, anti-tank guided missiles (ATGMs), or mortars. They are not really designed to take part in a direct-fire battle, but to carry the troops to the battlefield safe from shrapnel and ambush. They may have wheels or tracks. Examples include the American M113 (tracked), the British FV 432 (tracked), the French VAB (wheeled), the German Boxer MRAV (wheeled) and the Soviet BTR (wheeled). More heavily armed and armoured are Infantry fighting vehicles, which are designed for direct combat.

During World War I, when the tank was developed, the British Mark V tank was designed with a small passenger compartment to carry troops. By some definitions this can be considered the first armoured personnel carrier. The first specialised APC was the Mark IX of 1918.

During World War II, half-tracks such as the American M3 and the German SdKfz 251 played a role similar to the armoured personnel carriers that were developed later on. Another forerunner to the APC during this time was the British Universal Carrier. Often, APCs were simply armoured cars with the capacity for carrying troops, but they evolved into purpose-built vehicles to suit the demands of motorised warfare from

World War II.

In 1944, the commander of 2nd Canadian Corps, General Guy Simonds, ordered the conversion of 72 US-produced M7 Priest self-propelled howitzers to personnel carriers. They were, at the time, being replaced by the British Ordnance QF 25 pounder, and no future plans had been drawn up for them. The howitzer was removed, and the resulting hole was plugged with whatever steel was available. The vehicle was called Kangaroo, after the workshop which did the conversion, which was codenamed Kangaroo. Later in the war Canadian-built Ram tanks were used as a basis for the majority of conversions, as they were then obsolete and the original Kangaroos were worn out.

After the war different specialised APCs were developed. The United States developed a series of tracked vehicles, culminating in the M113 'box on tracks', of which 80,000 were made. The Soviet Union developed the wartime BTR-40 into a series of 8-wheeled APC.

At the end of the 1980s, Israel converted captured T-55 tanks to APCs, reminiscent of WWII conversions. The result is one of the best protected APCs in the world, called IDF Achzarit.

The infantry fighting vehicle is a development of the armoured personnel carrier concept.

Most armoured personnel carriers use a diesel engine comparable to that used in a large truck or in a typical city bus (APCs are often known to troops as 'Battle Taxis' or 'Battle Buses'). The M113 for instance used the same engine as the standard General Motors urban bus. A single M113 moving at top speed generates as much noise as a General Motors urban bus moving at top speed. However, the typical armoured personnel carrier can carry only six to ten soldiers while a typical urban bus can carry thirty to fifty seated passengers and many more standing passengers, in the aisle.

Most APCs are amphibious. Usually tracked APCs are powered by their tracks in the water, and wheeled APCs have propellors or water jets. Preparations for amphibious operations usually comprises checking the integrity of the hull and folding down a trim vane in front. Swimming required fairly still waters, and good entry and exit points. Speed in water is typically 3-6 km/h.

Armour on APCs are usually composed of simple steel or aluminium, sufficient for protection against small arms fire and most shell fragments. Just about any type of anti-tank weapon can defeat the armour of an APC.

The usual armament for an APC is a 12.7 (.50") or 14.5 mm heavy machine gun. This is mounted on top of the vehicle, either on a simple pintle mount, sometimes with a gun shield, or a small turret. Sometimes an automatic grenade launcher is used instead.

Defence Industry

Northrop Grumman to Test Fire Kinetic Energy Interceptor Booster

The Kinetic Energy Interceptor program, under development by prime contractor Northrop Grumman Corporation, is on schedule to meet the Missile Defense Agency's (MDA) objective of a 2008 booster flight, the company said today.

The program successfully achieved all key proof-of-concept milestones in 2006 and is readying the system for a first flight test of this fast, new booster in 2008.

As conceived by the MDA, KEI will be a mobile missile-defense system with the unique capability to destroy a hostile missile during its boost, ascent or midcourse phase of flight. With mobility and flexibility not previously available, KEI will provide our nation with a robust regional, theater, and homeland defense system, capable of destroying medium and long-range ballistic missiles in their most vulnerable early battlespace.

The robust KEI testing program continues on a strong path forward, proceeding on schedule and on cost. Company's relentless focus on mission assurance is paying dividends. They've met every development milestone to date and have repeatedly demonstrated that the KEI concept and designs are not only viable, but also work. The entire KEI program team looks forward to demonstrating this extremely fast, mobile and flexible system during the initial booster flight in 2008.

In the past two years, the program has met a number of critical proof-of-concept milestones to mitigate risk for both the hardware and software. These include:

1. Successful completion of the Stage 1 and Stage 2 static-motor firings in 2006

2. Four successful demonstrations - ahead of schedule – of the system's fire control capability in 2006 and 2005, proving that KEI can meet the short timelines necessary to hit a missile in the early minutes after launch 3. Several successful high-speed wind tunnel tests

In 2007, the Northrop Grumman KEI team is scheduled to complete several Stage 1 and Stage 2 motor firings and stage separation tests.

Contracts

PVI Wins MRAP Test Contract Award

Protected Vehicles, Inc. announces receipt of an IDIQ contract award for the United States Marine Corps solicitation for Mine Resistant Ambush Protected (MRAP) vehicles.

The PVI MRAP integrates the best attributes of protection, mobility and lethality needed today and tomorrow.

Key relationships including Rafael Armament Development Authority of Haifa, Israel and Battelle Memorial Institute of Ohio have allowed PVI to assemble a team with deep experience, large volume production capability, and a solid reputation for high quality performance. Combined production rates will allow complete delivery of 4,100 vehicles faster than the Marine Corps' requested 20 month delivery schedule.

According to PVI, the vehicles have superior capabilities and the company proud to be part of the industrial base that gives US Marines and Soldiers a new level of survivability and lethality in this era of asymmetric warfare. MRAP vehicles incorporate an extended range of defensive capabilities, unmatched situational awareness and lethality. The successful integration of these attributes result in a next generation mine resistant, ambush protected vehicle.

The first delivery order slates MRAP vehicles, Category I & II, to be tested at Aberdeen Proving Grounds in March. The Israeli version of the MRAP is also in the midst of testing by the Israeli Defense Force.

Established in late 2005, PVI retains more than 120 employees with plans to add another 400 over the next several months. Over the past year Protected Vehicles, Inc. has made significant investments and improvements to their 350,000 square foot facility on the Old Naval Shipyard in Charleston and has secured options for more square footage in nearby facilities as demand grows.

Training And Simulators

Last Laser-Based Firing Simulator Handed Over for the Light Armoured Vehicle RadSpz 93

More efficient and realistic troop training involving less noise, substantially lower costs and decidedly less impact on the environment: these are but a few of the advantages of the new laser-based firing simulators for the RadSpz 93 / Piranha 8x8, a light armoured vehicle (LAV) used by the Swiss Armed Forces. In a small ceremony, RUAG handed over the last of a total of 288 simulators to its contract partner armasuisse, the defence procurement agency of the Federal Department of Defence.

The contract covered the manufacture and delivery of Laser-Based Firing Simulators (LASSIM) for the RadSpz 93. The deliveries were augmented by additional training equipment such as analysis computers and field observer controller devices. Following preparations for series production, the first simulators rolled off the line at the beginning of the second quarter of 2005. The deliveries have now been completed on schedule in a total of ten batches.

The LASSIM RadSpz 93 simulates the 12.7mm heavy machine gun. It is employed in firing training (basic training) and in combat training. It is used in combination with other simulators and at the combat training centres of the Swiss Armed Forces.

When 'in combat' with another simulator, the simulation system responds in accordance with a vehicle-specific vulnerability model. In the process, the effects of hits are transferred into the crew compartment. The instrumented mounted soldiers also sustain the same 'wounds' if the fire was effective as they would in an actual engagement.

This procurement of laser-based firing simulators can substantially increase the efficiency of machine gun training without a real shot even being fired. This saves the Armed Forces substantial outlays each year. Moreover, training with laser simulators does obviously not have the adverse impact on the environment that real gun fire does.

This contract was the largest ever in the history of RUAG Electronics. It was executed together with RUAG COEL, a company that also became part of the RUAG Group a year ago. The two companies have had an instrumental part in the simulation and training programmes of the Swiss Armed Forces since 1996, and in increasing the efficiency of training in this institution. The Swiss Armed Forces are one of the foremost leaders in simulation-based training among the world's defence forces.

Defence Industry

BAE SYSTEMS Receives Follow-on Contract for New Swedish Artillery System

BAE Systems received a SEK 100 million contract from the Swedish Defence Materiel Administration for the next phase of the Archer program. The contract includes the next step in the development of the gun system and the product definition phase on ammunition supply vehicle and modular charges.

Archer is a self-propelled 155 mm artillery gun system based on a commercial off-the-shelf chassis - originally made for construction equipment - that is both easy and economical to maintain.

The three-man crew - normally six to ten - operates all activities through computers in the splinter-proof cabin. Each gun carries shells required to perform its mission. An Archer gun provides the same lethality as four to six traditional guns.

BAE Systems previously delivered two demonstrator guns that are now undergoing extensive troop trials and tests by the Swedish Armed Forces. The company will

complete final development and begin production of two battalions (24 guns) with initial deliveries starting in 2009 and continuing for two years.

About BAE Systems:

BAE Systems is a global defense and aerospace company, delivering a full range of products and services for air, land, and naval forces, as well as advanced electronics, information technology solutions, and customer support services. BAE Systems, with 88,000 employees worldwide, had 2005 sales that exceeded $22 billion, excluding the group's former interest in Airbus.

Defence Industry

LM Receives $18.6M U.S. Army BCS3 Follow-On Contract

The U.S. Army awarded Lockheed Martin a follow-on three-year $18.6 million contract, with a fourth-year option, for the Battle Command Sustainment Support System (BCS3). BCS3 is the Army's maneuver sustainment command and control system used to fuse in-transit, logistical support and force data to aid commanders in making critical decisions.

Lockheed Martin Logistics Services (LMLS) will continue to provide BCS3 equipment and software training, classroom curriculum and computer-based training development, and oversight of software and support equipment distribution to soldiers in the field, support entities, and other Department of Defense BCS3 users. The contracting office is located at Ft. Hood, Texas, and new equipment training and fielding of the system will be performed at various domestic and international U.S. military installations.

BCS3 is modular, tailorable and scaleable to meet the full spectrum of operations and interoperates with the Army Battle Command System and other Army and joint force systems. BCS3 provides a near real-time, continuous graphical representation of an area of engagement to include all friendly locations, identification and unit status. The system's current logistical data is augmented with analytical and decision support tools that enables the commander to effectively make well-informed decisions.

BCS3 supports the warfighting command & control and battle management process by rapidly processing large volumes of logistical, personnel and medical information for Department of Defense users. BCS3 facilitates quicker, more accurate decision making by providing a more effective means for commanders to determine the sustainability and supportability of current and planned operations.

Term of the day

Half-track

A half-track is a military vehicle with regular wheels on the front for steering, and caterpillar tracks on the back to propel the vehicle and carry most of the load. The purpose of this combination is to produce a vehicle with the cross-country capabilities of a tank and the handling of a wheeled vehicle.

In 1911 the French engineer Adolphe Kйgresse converted a number of cars from the personal car park of the Tsar of Russia as half-tracks. His system was named after him: the Kйgresse track. From 1916 onward there was a Russian project by the Putilov plant to produce military half-tracks along the same lines using trucks and French track parts.

The primary advantage of a half-track over a full caterpillar-type (or 'crawler') vehicle is the idea of being able to carry its own payload where wheeled vehicles could not go, and where full crawler machines could not traverse with trailers needed to carry a load. Often ballast or 'dead weight' was added to full crawlers for improved traction, where a halftrack simply increases its payload. However the concept originated with the hauling of logs in the Northeastern USA with the Lombard Steam Log Hauler built by Alvin Lombard of Waterville, Maine, from 1899 through 1917, resembling a railroad steam locomotive except with sled steerage or wheels on the front and crawlers turned by drive chains instead of the pitman arm and driver wheels of the railroad locomotive. By 1907, a dog and pony show operator named H.H. Linn abandoned his gas and steam powered four and six wheel drive creations and had Lombard build a motor home/traction engine run by a underslung large four cylinder gasoline engine to travel over the unimproved roads of the day, wheels in front, tracks in rear, the first payload carrying halftrack. By 1909 this was replaced by a smaller machine with two wheels in front and a single track in rear because rural wooden bridges of the day caused problems. Stability issues, coupled with a dispute between Linn and Lombard, resulted in Linn building and putting his own improved civilian halftrack style machines on the market, Lombard attempted to follow but for the most part remained a pulling machine. Linn would later copyright 'HAFTRAK' and 'CATRUK' as trademarks, the latter for a halftrack meant to convert hydraulically from truck to crawler configuration.

In the early days of bulldozer design, Holt tractors had tricycle steering, owing to engineering difficulties with the caterpillars. The Holt tractors went on to become the basis for the Mark I tanks, the Schneider tank, and the

German A7V Wotan tank. Also the Holt would be renamed the Caterpillar 60 and launch an industry.

Also not to be discounted are the contributions of 'snowmobile' attachments for automobiles built by White, Snowbird and others, for converting the Fords to halftrack configuration with skis on front and carried the doctor and mail throughout rural America in the winter, as these pioneered the light and flexible traction systems military applications would require, where civilian applications were typically for slow heavy duty use.

There were many experimentations of civilian half-tracks in the 1920s and 1930s. During that period the Citroлn company sponsored several scientific expeditions crossing great deserts in North Africa and Central Asia, using their autochenilles.

With the challenging snow and ice landscape of Canada in mind Joseph-Armand Bombardier developed 7 and 12 passenger half-track autoneiges in the 1930s, starting what would become eventually the Bombardier industrial conglomerate. The Bombardier half-tracks had tracks for propulsion in the back and skis for steering in the front. The skis could be replaced by wheels in the summer, but this was not very common.

Half-tracks were used extensively in World War II by all sides, especially the Germans and Americans, but fell out of favor soon after, replaced with fully-tracked or fully-wheeled vehicles. Half-tracks were used primarily as armoured personnel carriers, but also saw duty as mortar carriers, self-propelled anti-aircraft guns, self-propelled anti-tank guns, artillery haulers, armoured fighting vehicles and many other tasks.

Half-tracks were still in use by the Israeli Army until recently, where they were deemed to outperform fully-tracked and fully-wheeled vehicles for non-combat payload tasks such as carrying telecommunication equipment.

One of their main advantages is that they could be driven by anyone able to drive a conventional car or truck, with additional steering automatically being provided by track braking applied from the steering wheel.

Defence Industry

FCS Successfully Completes Experiment and Soldier-testing of Key Technologies

The Boeing Company and Science Applications International Corporation (SAIC), functioning as the Lead Systems Integrator for the U.S. Army's Future Combat Systems (FCS) program, have successfully completed an eight-month experiment that is a cornerstone of soldier evaluation activities and an important step toward the early infusion of key FCS capabilities to the current force.

Experiment 1.1, spanning July 2006 through February 2007, is a three-phase effort that combines laboratory, field and demonstration activities with soldier testing of early FCS prototypes. The experiment will help reduce program risk; provide early feedback into the System of Systems development, integration and verification process; and identify and prioritize any needed refinements early in the development process.

"Experimentation is critical to FCS program success and most importantly will help enable the early spin out of key capabilities to the current force in 2008," said Dennis Muilenburg, vice president and general manager of Boeing Combat Systems and FCS program manager. "The successful completion of Experiment 1.1 further validates the progress and maturity of selected FCS technologies and demonstrated interoperability between FCS and current force systems."

Phase 1 engineering laboratory events, conducted July 2006 through September 2006 at the FCS System of Systems Integration Laboratory in Huntington Beach, Calif., and the Army's Systems Engineering and Experimentation Lab at Fort Monmouth, N.J., tested hardware and software integration, as well as networking and systems interoperability.

Phase 2 field events, conducted September 2006 through December 2006 at the White Sands Missile Range, N.M., and Ft. Bliss, Texas, testing complex, focused on gathering data and assessing FCS systems performance while operating in a realistic environment. The FCS team, which included more than a dozen U.S. Army soldiers as observers, demonstrated Non-Line-of-Sight Launch System networking, Distributed Fusion Management capabilities, Unattended Ground Sensors capabilities, Joint Tactical Radio System Ground Mobile Radio performance, and interoperability with current Army and Marine Corps systems.

During Phase 2, the FCS team also demonstrated interoperability between FCS and an AH-64D Apache multi-role helicopter. This included the exchange of real-time situational awareness and the ability to display video imagery from the FCS Class I Unmanned Aerial Vehicle in the helicopter's cockpit. The interoperability demonstration is an example of how FCS network-centric technology can be used to send the right information to the right place at the right time in the battlespace.

The final demonstration phase of Experiment 1.1, which was conducted January 2007 to February 2007 at the White Sands Missile Range and Ft. Bliss test complex, included 36 soldier participants who provided "hands-on" feedback of early FCS prototypes, while exercising initial doctrinal concepts for employing these new capabilities. Phase 3 represented the first time soldiers collectively employed FCS systems in a live training environment and used an FCS computer-based training support package.

Future Technologies

Textron Marine & Land Contracted to Build Test Vehicles for Mine Resistant Ambush Protected (MRAP) Program

Textron Marine & Land, an operating unit of Textron Systems, a Textron Inc. company, has been awarded a $2.8 million contract with the U.S. Marine Corps Systems Command to build four Mine Resistant Ambush Protected (MRAP) vehicles.

The initial vehicles will be delivered within 60 days for comprehensive testing. The Government may order up to 4,100 MRAP production vehicles for the Marines and other services. Several other companies were also awarded contracts to build their test vehicles.

It's an indefinite delivery, indefinite quantity contract. Textron will build two test vehicles for each of the two different categories of vehicles—a six-person and a ten-person vehicle. Solution for these combat vehicles is based on highly successful Armored Security Vehicle (ASV) now being produced for the U.S. Army.

The M1117 ASV is used by the U.S. Army for its military police and convoy protection, and for Combat Observing and Lasing Teams. Its record of performance, reliability and survivability in the field is impeccable. More than 650 ASVs have been deployed in the Global War on Terrorism in support of convoy protection and other combat missions. Textron Marine & Land is currently on contract for more than 1360 vehicles.

The company has responded to urgent U.S. Army requirements over the past three years by increasing production from one ASV every three weeks to the present 48 vehicles per month. The manufacturing facilities have expanded to five buildings and personnel have more than doubled.

The ASV is the latest in Textron Marine & Lands' long history of manufacturing armored vehicles to protect U. S. servicemen and women, with more than 5,000 armored vehicles produced to date. The company's capabilities in armor, specialty metal welding and vehicle integration make it well postured to execute on such a program.

About the ASV

The ASV is a 4X4 wheeled armored vehicle that offers exceptional crew protection through the employment of multiple layers of armor that provides defense against small arms fire, artillery projectile fragments, and land mines. This advanced armor is exceedingly lightweight and allows the vehicle to be able to "roll-on/roll-off" C-130 military transport aircraft. The ASV possesses superior mobility, agility, handling, and ride quality through the utilization of a four-wheel independent suspension system. Textron Marine & Land has equipped the U.S. Army Military Police version with a specially designed dual-weapon station that, unlike many other vehicles, enables the crew to load, reload and clear gun jams under full armor protection. With minor modifications and appropriate outfitting, ASV variants can perform a wide variety of missions including scout, infantry personnel carrier, reconnaissance, command and recovery.

About Textron Systems

Textron Systems Corporation ("Textron Systems") provides innovative technology solutions to meet the needs of the defense, homeland security and aerospace communities. The company is known for its precision smart weapons, surveillance systems, complex intelligence and communications systems, aircraft control components, piston engines, specialty marine craft and armored vehicles. Textron Systems is a wholly-owned subsidiary of Avco Corporation. Avco Corporation is wholly-owned subsidiary of Textron Inc.

About Textron Inc.

Textron Inc. is an $11 billion multi-industry company operating in 32 countries with approximately 40,000 employees. The company leverages its global network of aircraft, industrial and finance businesses to provide customers with innovative solutions and services. Textron is known around the world for its powerful brands such as Bell Helicopter, Cessna Aircraft, Jacobsen, Kautex, Lycoming, E-Z-GO, Greenlee, Fluid & Power, Textron Systems and Textron Financial Corporation.

Robots

Cost Effective Integration Of The Fido Explosives Detection System

According to Nomadics Inc., manufacturer of the Fido explosives detection system, Fido screens packages, shipping containers, vehicles, facilities and people for traces of explosives, unlike current alternatives, the exquisite sensitivity of the Fido supports both particle and vapor detection, enabling previously unheard of applications for explosive detection technology.

The Negotiator robot is able to utilize Fido's extensive capabilities without any modification to the original system, making it easy for customer's who have already

purchased a Fido sensor to use it in conjunction with the Negotiator robot. Robotic FX, Inc. has and will continue build a high quality, cost effective solution to virtually every problem law enforcement and military personnel face. Most robot manufactures would like their customers to believe it isn't possible to integrate a system as advanced as Fido without extensive, costly modifications to both the robot and the sensor itself.

In the case of the Negotiator robot, this is entirely untrue. No modifications were made to the Fido sensor. The integration package simply allows the robot to communicate with the sensor and then transmit the information to the Operator Control Unit. As a result, the cost of adding Fido to the Negotiator robot, be it a robot we sold two years ago or a brand new one, is dramatically reduced.

The Fido Explosives detection system integration package will be available for purchase spring of 2007. Official pricing has yet to be released.

The Negotiator Tactical Surveillance Robot is currently used by local, state and federal law enforcement agencies and has had proven success with search & rescue operations, SWAT teams, HAZMAT teams and Homeland Defense.

Defence Industry

Additional Heavy Tank Transporters for Australian Army

Australian Defence Materiel Organisation (DMO) has placed an order for four more Heavy Tank Transporters. These vehicles are in addition to the 14 Heavy Tank Transporters already being delivered by the LAND 907 Tank Program.

To date the DMO has delivered nine of the original 14 vehicles ahead of schedule and on budget. Five of these vehicles were used to move the first Abrams tanks when they arrived at Port Melbourne from the United States in September 2006.

The additional Heavy Tank Transporters will provide increased heavy transport capability for Defence elements in Puckapunyal and Townsville. The transporters will allow Army to move a range of heavy equipment including tanks, earth moving equipment and large forklifts. Delivery of the additional vehicles is expected by the end of 2007.

Australian industry continues to provide a significant part of the capability. The prime contractor for the project is MAN Military Vehicle Systems Australia. An Australian owned and operated company, Drake Trailers, will supply a total of 18 swing-wing trailers prior to Brisbane-based MAN Automotive Imports making final modifications, conducting compliance testing and managing the ongoing repair and maintenance support.

Contrary to some media reports, the Heavy Tank Transporters are capable of moving tanks on Australian roads.

Contracts

Oshkosh Truck Signs Contract To Provide Medium Tactical Trucks To Egyptian Ministry of Defense

Oshkosh Truck Corporation announced that the company has been awarded a contract by the Egyptian Ministry of Defense to provide specially designed military trucks for its logistics and transport requirements.

The contract is valued at $4.9 million and is the first major international order for this model.

The contract covers 30 Medium Tactical Trucks (MTT), which were specifically designed by Oshkosh Truck for international military applications. The MTT uses components and technology found throughout the company's current military and commercial vehicle models. As a result, the vehicle is extremely capable, reliable and easy to maintain, yet value priced. In addition, the vehicle has been designed to be partially assembled in kits in the United States and shipped anywhere in the world for final assembly.

The MTT joins other Oshkosh Truck vehicles already in service with the Egyptian Army. The U.S. Army's M1070 HET tractor with 635 NL trailer and M977 HEMTT 8X8 logistics vehicle are both in service with the military in Egypt. The first Oshkosh(R) military vehicles went into service in Egypt in 1990 and have been fully supported by Oshkosh since that time.

Current plans call for the initial delivery of four vehicles to come fully assembled directly from Oshkosh. Follow-on trucks will be assembled at the Egyptian Tank Plant in Cairo. Oshkosh Truck will be providing the 4X4 and 6X6 MTT cargo body variants to Egypt. Other available variants include the MTT tractor, MTT Load Handling System and MTT Tanker models.

Term of the day

Howitzer

A howitzer is a type of artillery piece that is characterized by a relatively short barrel and the use of a comparatively small propelling charges to propel relatively large projectiles at medium velocities over a curved trajectory.

In the taxonomies of artillery pieces used by European (and European-style) armies in the eighteenth, nineteenth and twentieth centuries, the howitzer stood between the 'gun' (which were characterized by a longer barrel, larger propelling charges, smaller shells, higher velocities and flatter trajectories) and a 'mortar' (which has the ability to fire projectiles at even higher angles of ascent and descent.)

There are several types of howitzers, viz.: self-propelled howitzer, pack howitzer, mountain howitzer, siege howitzer, and field howitzer.

A self-propelled howitzer is mounted on a tracked or wheeled motor vehicle. In many cases, it is protected by some sort of armor.

A pack howitzer is a relatively light howitzer that is designed to be easily broken down into several pieces, each of which is small enough to be carried by a mule or a packhorse.

A mountain howitzer is a relatively light howitzer designed for use in mountainous terrain. Most, but not all, mountain howitzers are also pack howitzers.

A siege howitzer is a howitzer that is designed to be fired from a fixed platform of some sort.

A field howitzer is a howitzer that is mobile enough to accompany a field army on campaign. It is invariably provided with a wheeled carriage of some sort.

Contracts

DRS Technologies Receives $124 M Contract to Produce Infrared Sighting Systems for U.S. Army Combat Vehicles

DRS Technologies, Inc. announced that it was awarded a $124 million contract to provide Horizontal Technology Integration Second Generation Forward Looking Infrared (HTI SGF) sighting systems to the U.S. Army.

These systems provide critical common night vision technology to the U.S. Army's M1A2 Abrams Main Battle Tank System Enhancement Package (SEP) and M2A3 Bradley Fighting Vehicles, which continue to be an integral part of the military's operations in Iraq.

The contract was awarded to DRS by the Network Centric Systems business of Raytheon Company in McKinney, Texas. For this award, DRS will provide the Abrams Thermal Receiver Units (TRU) with the Block 1 B-Kit, as well as Block 1 B-Kits for Improved Bradley Acquisition Systems (IBAS) and Circuit Card Assembly (CCA) sets for the Abrams Commander's Independent Thermal Viewer (CITV) and Long Range Advanced Scout Surveillance System (LRAS3) supporting the Army's HTI initiatives. Work for this award will be accomplished by the company's DRS Sensors & Targeting Systems - Optronics Division in Palm Bay and Melbourne, Florida. Product deliveries will continue through December 2007.

Providing an advanced, high-resolution sighting technology for the success of ground combat operations, HTI SGF allows ground vehicles to detect, identify and engage tactical targets during the day or night. Dramatically superior to the First Generation, the HTI SGF Block 1 B-Kit doubles the distance at which soldiers can identify a target, greatly increasing crew survivability and reducing fratricide. HTI SGF systems also contribute to information dominance by providing digital battlefield imagery to soldiers, promoting interoperability among military platforms.

This order will provide improved performance and increased sensor commonality for US military forces and reaffirms DRS's position as a leading supplier of Second Generation infrared ground vehicle sighting systems. The use of these systems across several ground platforms has provided the Army with the opportunity to leverage resulting economies, while exploiting the capabilities of the latest technology in night vision systems. Central to the Army's modernization strategy for the digitization of the 21st century battlefield, the HTI initiative contributes significantly to the power projection capabilities of our ground forces.

Contracts

Force Dynamics Announces $67 M U.S. Marine Corps Contract

Force Dynamics, LLC-a joint venture between Force Protection, Inc. and General Dynamics Land Systems, a business unit of General Dynamics Corporation -today announced it has received a $67.4 million contract award from the U.S. Marine Corps to produce 125 vehicles for its Mine Resistant Ambush Protected (MRAP) vehicle program.

Under this latest delivery order, Force Dynamics will produce 65 Category I and 60 Category II MRAP vehicles that will be used by all branches of the armed forces. Force Dynamics also announced it will deliver the vehicles within the next 120 days. The MRAP competitive action for the first year's estimated requirement for 4,100 vehicles has an approximate value of $2 billion.

This is a huge development for Force Dynamics. This joint venture was formed precisely for this purpose: to mobilize quickly on any action item announced by the Marines as the MRAP program moves forward. With advanced proprietary vehicle designs and significant manufacturing capacity, Force Dynamics has the capability to make an immediate and strategically important impact on the war on terror while establishing itself as a leader in the U.S. defense industry.

Force Protection's Cougar and Buffalo vehicles have been deployed with U.S. and Allied forces in Iraq and Afghanistan since 2003. The vehicles have withstood more than 2,000 IED and mine attacks, and are credited by soldiers with saving lives.

These vehicles are a highly effective, proven solution to counter IEDs and other explosive threats. No other vehicle has matched those of Force Protection for troop safety in the field.

Contracts

Tetra Tech Joint Venture Wins $62 M Technical Services Contract with U.S. Army Chemical Materials Agency

Tetra Tech, Inc. announced that the U.S. Army Research and Development Command Acquisition Center has awarded a $62 million Program Management, Integration Support contract for the U.S. Army Chemical Materials Agency (CMA) to STEM-Tech, a joint venture of Tetra Tech and STEM International, Inc.

his five-year indefinite delivery/indefinite quantity contract includes technical services support to CMA at its headquarters at Aberdeen Proving Ground, MD, and at eight other chemical weapons sites nationwide. Tetra Tech has previously provided environmental and technical support to the Army at various depots under CMA command including Aberdeen Providing Ground, MD; Pueblo Chemical Depot, CO; Newport Chemical Depot, IN; Umatilla Chemical Depot, OR; Deseret Chemical Depot, UT; and Pine Bluff Arsenal, AR.

The scope of services includes engineering design, environmental monitoring, risk assessment, technical analysis, training and environmental testing, among other technical support services. This contract supports the CMA in its efforts to safely store and destroy the nation's aging chemical weapons, effectively recover the nation's chemical warfare materiel, and enhance national security.

Defence Industry

DFNS Announces a First Order from a Leading US Supplier of Armored Buses

Defense Industries International, Inc., a leading manufacturer and global provider of personal military and civilian protective equipment and supplies, today that its fully owned subsidiary: Mayotex Ltd., has signed a frame agreement to serve as a non-exclusive manufacturer and marketing representative of a leading US provider of armored buses, based on truck chassis.

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As part of this agreement, Mayotex will be fully responsible for the entire production of the armored buses according to the current design made by the leading US supplier mentioned above.

As part of the frame agreement, the company has already received a first order in the amount of $280,000 for producing armored busses. The order is scheduled to be delivered by April 2007. In addition, Mayotex is currently negotiating the manufacturing and supply of additional buses for a total sum of app. $1 million scheduled to be delivered by June 2007.

These highly tested vehicles are used by forces internationally including American forces in Iraq. They have been tested over and over again in the field, through explosive charge and bullets, and have been confirmed as state-of the-art, field-proven solutions.

Exhibitions

Ukraine Unveils its Dozor-B 4x4 Armoured Personnel Carrier at IDEX'2007

In the the mobility demonstration at IDEX'2007,

Ukraine demonstrated for the first time its Dozor-B light 4x4 armoured personnel carrier (APC), which has been developed by the Kharkiv Morozov Machine Building Design Bureau for the home and export market and, where possible, proven parts have been used in their design.

The Dozor-B is being marketed as a light APC and typically has a crew of three (commander, driver and gunner) and can carry eight fully equipped troops. Armament consists of a roof-mounted 12.7mm machine gun, although other turrets and armaments can be installed.

Many of the Dozor-B subsystems are of western design and manufacture and it is offered with two different diesel power packs. These are an IVECO diesel developing 122hp coupled to an IVECO manual transmission and a Deutz diesel developing 190hp coupled to an Allison automatic transmission.

As it is being marketed on a worldwide basis, the Dozor-B is fitted with an air-conditioning system, heater and central tyre pressure regulation system. Development of the Dozor-B is said to be complete and production can commence when firm orders are placed.

There is also an unarmoured pick-up version called the Dozor-A, which can carry five people, with an additional six people or two tonnes of cargo, being accommodated in the rear.

Contracts

BAE Systems Receives Additional $16 M Contract for Bradley Remanufacture

BAE Systems has received a $16 million contract from the U.S. Army TACOM Life Cycle Management Command for the remanufacture and upgrade of eight Bradley Combat Systems vehicles to the most advanced Bradley configuration.

BAE Systems, working through its Public Private Partnership with Red River Army Depot (RRAD), will remanufacture and upgrade the vehicles to the A3 standard. Initial disassembly and subsystem rebuild will be performed at RRAD, final disassembly and structural modifications will be completed by BAE Systems in Fayette County, Pennsylvania, and final assembly, integration and test will be conducted at the company's facility in York, Pennsylvania. The vehicles will be delivered by May 31, 2009.

Upgrading these Bradley Vehicles with the latest technologies will further enable soldiers to fulfill their mission roles, and provide them with enhanced lethality and survivability.

Bradley Combat Systems continue to provide outstanding survivability, mobility and lethality to U.S. soldiers in all types of close-combat urban scenarios and in open-combat, open-terrain scenarios over three completed rotations. The Bradley fulfills five critical mission roles - infantry fighting vehicle, cavalry fighting vehicle, fire support vehicle, battle command vehicle and engineer squad vehicle - for the Army's Heavy Brigade Combat Teams (HBCTs).

The Bradley A3 incorporates the latest enhancements to improve the vehicle's lethality and survivability, including a full fire control solution featuring a hunter / killer configuration with second generation sights. Additionally, the A3 features integrated information technologies with enhanced command and control features, such as color maps and displays, high-density computer memory, increased micro-processing speed and networked communications. The command and control functions are supported by a more accurate navigation and position locating system. All of these features are implemented with a digital architecture and software, which allows modularity and flexibility to support all of the Bradley mission roles in the HBCTs.

Including a $1.16 billion contract for the remanufacture and upgrade of 610 Bradley Combat Systems from the U.S. Army awarded in November 2006, and an additional set of contracts in January worth $412 million, the total value of contracts awarded to BAE Systems for Bradley work is approximately $3.5 billion for Fiscal Years 2005 - 2007. About 620 Bradley A3 vehicles have been delivered against the Army's requirement for more than 2,000 total Bradley A3s planned for the fleet.

Term of the day

Tank Destroyer

A tank destroyer, or a self-propelled anti-tank gun, is a type of armoured fighting vehicle. Tank destroyers are used primarily to provide antitank support in combat operations but do not fit all the criteria of a tank. They may mount a high-velocity anti-tank gun but have an open turret, no turret at all or run on wheels instead of tracks. Vehicles which carry a antitank guided missile launcher are referred to as ATGM carriers.

Tank destroyers cannot fulfil the many roles of tanks;

they are much less flexible, and usually lack a strong anti-infantry capability. A common feature of a tank destroyer is the absence of a turret, and compared to tanks, an even stronger disposition for heavy frontal armor (compared to side and rear armor). However, as a result of having no turret and fewer parts, tank destroyers are much less expensive to manufacture.

Gun-armed tank destroyers have been largely supplanted by the more general-purpose tanks since World War II, but lightly-armoured ATGM carriers are used for supplementary long-range antitank capabilities.

Defence Industry

BAE Systems Offers Emergency Escape Windows for Up-armored Vehicles

BAE Systems is offering its Vehicle Emergency Escape (VEE) Window to help increase the survivability of soldiers and Marines in Iraq and Afghanistan.

The U.S. military is exploring ways to help soldiers and Marines in combat zones rapidly escape from up-armored vehicles in the event of a vehicle emergency, such as a rollover, fire or accident. The VEE Window is a simple technology developed by BAE Systems engineers that allows crews of the High Mobility Multipurpose Wheeled Vehicle (HMMWV) and other up-armored combat vehicles to quickly remove vehicle windows and transparent armor components in order to exit the vehicle during an emergency.

VEE Window is an affordable, practical tool that can increase survivability by providing soldiers or Marines another way to exit the vehicle.

VEE Window kits can be fielded to units in Iraq and Afghanistan within 90 days after a contract is issued. Kit installation can be performed in the field by Army and Marine maintenance personnel in approximately one hour.

The VEE Window is easy to use and install and is adaptable to virtually any tactical up-armored combat vehicle, such as the Army's Family of Medium Tactical Vehicles or the Marine's Medium Tactical Vehicle Replacement. The kit for the M1114 HMMWV consists of modified transparent armor assemblies, or bullet-proof windshields, with integral, fail-safe latch mechanisms. The kit provides the same level of ballistic protection as the current vehicle configuration but with the added latch feature allowing the soldier to rapidly escape during an emergency. The rotary latch mechanism has integral safety interlocks, is easy to operate and the process for releasing the window takes less than five seconds. In the event of a vehicle emergency, a crew member simply turns the two latches and pushes the window out allowing the crew to quickly climb out of the vehicle.

Training And Simulators

Cubic to Provide Urban Training Instrumentation for Australia

The defense segment of Cubic Corporation has received a contract to supply indoor and outdoor combat training instrumentation for Australia's new Urban Operations Training Facility (UOTF) planned for the Shoalwater Bay Training Area.

The flexible, expandable instrumentation is a key component of the larger training initiative, the Joint Combined Training Capability, which will bring together Australia and U.S. forces for live, virtual and constructive training exercises.

The capabilities Cubic will be providing for the urban facility will include player tracking, video recording, audio and visual effects, centralized exercise control, virtual weapon effects and the capability to conduct multimedia after-action reviews. The system will be interoperable with the U.S. Initial Homestation Training System (I-HITS) and Australia's LAND-134 Combat Training Capability for infantry and armor forces, allowing soldiers participating in training exercises to move seamlessly from an open terrain training range through an urban environment.

The urban environment of the UOTF includes a number of city precincts (commercial, retail, residential, shanty, rubble) constructed from both standard buildings and container based structures. Australian contractor Royal Wolf is providing the UOTF container-based structures.

Cubic's indoor/outdoor instrumentation is the ideal training tool for training tasks ranging from routine collective training to joint training, mission rehearsal and special operations.

Plans are for new urban training instrumentation to be installed in the first quarter of 2007, in time for the Talisman Sabre 07 Australia-U.S. binational training exercise. Soldiers will wear either LAND 134 or U.S. I-HITS radio/GPS player instrumentation as they navigate the UOTF buildings, structures and tunnels. Relay radio stations will provide real time communications to those soldiers throughout the village. IR (Infra-Red) Trackers will "mark" individual players with unique location ID codes as they move through doors, halls and tunnels. In addition, the IR Tracker passes collateral threat from direct fire and/or IED simulators to the occupants of a building.

Cubic's GPS, IR Trackers and video cameras will capture the soldiers' movements in both the outdoor and urban/indoor terrain.

Weapon engagements, including shooting through walls, provide the engagement data to Cubic's exercise control (EXCON) subsystem for a comprehensive display of all training actions, indoors and outdoors.

Each analyst workstation will be equipped with a

Cubic PC-based Range Instrumentation System (PC-RIS) display, allowing 2D and 3D views of player locations within their surroundings. The soldier in the field will see and hear smoke, artillery fire, shouting and other visual and sound effects controlled by an analyst operator.

The first major milestone in the UOTF project will take place the first quarter of 2007, after Royal Wolf installs and Cubic instruments the containers in the Shoalwater Bay Training Area for the Talisman Sabre 07 exercise.

The UOTF is a critical element of the JCTC capabilities being demonstrated during the TS'07 exercise. The UOTF, integrated with LAND-134 CTC, I-HITS and ultimately the Air Combat Manoeuvring Instrumentation (ACMI) system, which provides for air-ground weapons scoring capabilities, demonstrates Cubic's unique position in the area of live Joint Combined Training.

New Contract Is Part of U.S.-Australia Joint Combined Training Capability Effort

Defence Industry

PVI wins MRAP production awards

North Charleston, SC - Protected Vehicles, Inc. announces receipt of a production order for 60 MRAP Category II vehicles for the US Marine Corps. Additionally, PVI will serve as a subcontractor to Oshkosh Truck Corporation for 100 MRAP Category I vehicles.

The two selected MRAP vehicles are the PVI-ALPHA and GOLAN, created and refined by Garth Barrett and PVI over the past 14 months.

"We have been able to provide to the Marines two levels of crew survivability, mobility, and lethality that are timely to meet current and emerging threats. Our vehicles are new designs which reduce casualties and increase survivability for Marines and Soldiers subjected to mine explosions, Improvised Explosive Device (IED) detonations, Rocket Propelled Grenades (RPGs) and Small Arms Fire (SAF). The PVI-ALPHA design supports Urban Combat Operations, Mounted Combat Patrols and transport missions. The GOLAN supports multiple missions, to include convoy operations, troop transport missions, ambulance missions, Combat Engineer and Explosive Ordnance Disposal (EOD) missions for maneuver units, as well as close-in Urban Combat Operations," said Michael Sandusky, Executive Director for Program Management.

PVI's GOLAN vehicle sets a whole new TWV standard for protection, mobility, and lethality. Through intensive testing in Israel over the past few months, PVI, with its partner, Rafael Armament Development Authority, has refined the vehicle's protection and automotive capabilities to superior performance levels.

The PVI-ALPHA is a lighter-weight vehicle designed to be an economical path to superior blast and ballistic protection for the US Military. When coupled with PVI's ShieldAll TM armoring solution the vehicle exceeds highly desired protection levels with minimal impact to payload and performance capabilities. Standalone, ShieldAllTM has multi-hit protection capability against 7.62AP threats at one-third the weight of armored steel.

Protected Vehicles, Inc. and Oshkosh Truck Corporation (NYSE: OSK) began collaborating in the summer of 2006 to explore new vehicle protection applications. Pertinent to the MRAP production requirements of 4,100 fielded vehicles by December 2007, Oshkosh and PVI forged plans to respond to the increasing demand of quality protected vehicles. The relationship keys on PVI and Oshkosh core competencies of protected vehicle design, armored capsule production, high volume automotive integration, and contract logistics support.

Established in late 2005, PVI retains more than 170 employees with plans to add another 300 over the next few months. PVI has established a welding school utilizing former Navy Nuclear Weld facilities in preparation for the hiring boom. Over the past year Protected Vehicles, Inc. has made significant investments and improvements to their 400,000 plus square foot campus on the Old Naval Shipyard in Charleston. PVI has secured options for more square footage in nearby facilities as demand continues to grow.

Defence Industry

LM Delivers Lightweight Prime Mover Vehicles to the U.S. Marine Corps

Lockheed Martin's Tactical Wheeled Vehicle (TWV) program has delivered four Lightweight Prime Mover (LWPM) vehicles to the United States Marine Corps. The LWPM will tow the new M777 lightweight 155-mm artillery howitzer.

The Lightweight Prime Mover combines a proven design with innovative systems solutions to dramatically increase mobility, towing capability and payload. These

versatile vehicles will help the U.S. Marine Corps meet the challenges of the modern battlefield.

Lockheed Martin military vehicles address the evolving operational needs of the U.S. military while also meeting requirements for quality, functionality and cost. Lockheed Martin's LM4x4 truck was built on the proven High Mobility Transport design and provides a superior weight-to-payload ratio, enabling the less than 10,000-pound vehicle to easily tow the 10,000-pound M777 howitzer. The LM4x4 is air-transportable inside the C-130 Hercules tactical transport aircraft. The vehicle also can be externally carried by the CH-53E helicopter and the MV-22 tilt-rotor aircraft.

The LWPM rides on a height-adjustable chassis, which allows for unmatched all-terrain capability. Future production vehicles will accept applique armor, significantly improving troop safety and survivability. The vehicle features improved rollover protection, fording and braking capabilities, and a central tire inflation system that automatically adjusts air pressure to terrain and payload needs.

After undergoing a production qualification test at the Nevada Automotive Test Center, the LWPM will undergo an operational field user's evaluation. Under the current contract, the Marine Corps has the option for full-rate production of 120 LWPM vehicles.

Contracts

Elbit Systems' U.S. Subsidiary, Kollsman, Awarded Two Follow-On Orders for Laser Target Designators by the U.S. Marine Corps

Elbit Systems Ltd., announced that its U.S. subsidiary, Kollsman, Inc., an Elbit Systems of America company, received two follow-on orders from the U.S. Marine Corps (USMC) for its high-performance Laser Target Designator (LTD) systems that have proven successful in field test evaluations.

The additional orders, under an indefinite delivery/indefinite quantity (IDIQ) contract, consisting of approximately $16.9 million and $34 million respectively, represent an increase over the initial order of July 2006. Part of the work will be performed by Elbit Systems Electro-Optics Elop Ltd

.Elbit Systems' U.S. Subsidiary, Kollsman, Awarded Two Follow-On Orders for Laser Target Designators by the U.S. Marine Corps

Follow-on orders valued at approximately $51 million

Carried and operated by Forward Air Controllers and Reconnaissance Marines, the system provides a "bull's eye" for other units to target enemy troops and equipment with munitions specifically designed for laser guidance and high accuracy. During rigorous testing by the USMC, the LTD met the performance requirements for having the required marking range, operational suitability and life cycle support.

One of the characteristics of 21st century conflicts is a heightened sensitivity for avoiding unnecessary damage and loss of life. Tools like the LTD provide the extra measure of precision that ensures accurate targeting and safety for surrounding objects and personnel.

Defence Industry

U.S. Army to Field Thales' AN/PRC-148 Joint Tactical Radio System Handheld Radio

Thales Communications, Inc., announced that the U.S. Army has ordered more than 5,000 units of its AN/PRC-148 Joint Tactical Radio System (JTRS) Enhanced Multiband Inter/Intra Team Radios (MBITR), or JEM.

The AN/PRC-148 JEMs will be acquired through a contract with the U.S. Army Research, Development, and Engineering Command, Aberdeen Proving Ground, Md. This procurement will allow the Army to complete fielding against Modular Force requirements. Fielding is being managed by PEOSoldier (PM-Soldier Warrior) in accordance with guidance provided by Headquarters - Department of the Army.

The AN/PRC-148 is a rugged, lightweight, multiband handheld radio weighing less than two pounds. It operates in the 30-512 MHz frequency range and provides inter/intra team communications ground-to-ground, ground-to-air, and over satellite. The JEM configuration, which is an evolution of the battle-proven MBITR, affords improved security, is capable of hosting future waveforms, and offers access to higher data throughput and networking capabilities.

With the AN/PRC-148 JEM, Army warfighters will receive the same level of reliable performance they have trusted for years with Thales' AN/PRC-148 MBITR. The JEM's user interface and operation are consistent with the MBITR; thus, additional training is minimized, and the equipment can be fielded immediately. The JEM also

enables the Army to be consistent with the National Security Agency's crypto modernization program, getting away from hardwarebased equipment and moving forward with a true software-defined radio.

The AN/PRC-148 JEM was the first JTRS-compatible radio certified for compliance with Software Communications Architecture1 and successfully completed an unprecedented level of U.S. Government testing and qualification. The radio leverages a proven platform and provides a JTRS solution that bridges the gap between legacy equipment and future JTRS technologies.