

# Army Guide monthly



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## Contracts

### BAE Systems submits proposal for Medium Tactical Vehicle Competition



HOUSTON, Texas – BAE Systems submitted its proposal to the U.S. Government to produce the next generation of medium tactical vehicles for the U.S. Army. The contract is expected to be awarded in July for an estimated 12,400 vehicles and 10,900 trailers to be delivered to the U.S. Army from 2010 through 2014.

“We believe our proposal is the best value for our Armed Services and the American taxpayer,” said Chris Chambers, Vice President and General Manager of Global Tactical Systems Programs at Sealy, Texas. “Our proposal incorporates our 17 years of knowledge and experience gained in the manufacture of the Family of Medium Tactical Vehicles (FMTV) in Texas and fulfills all the requirements in the request for proposal.”

BAE Systems won the U.S. Government contract to produce the replacement for the U.S. Army’s aging fleet of M-939 and M-35 cargo trucks in 1991. Since then, more than 53,000 FMTVs and trailers have been produced in 21 variants in the high-quality facility in Sealy, Texas. The FMTV is the medium tactical vehicle platform of choice for the U.S. Army and performs a variety of roles from cargo and troop carrier, to shop and cargo van carrier, to artillery and air defense missile weapons carrier.

The vehicle has proven itself able to meet the ever-evolving needs of Soldiers and Marines. BAE Systems developed the Low Signature Armored Cab in 2003 to provide crews with increased protection from enemy fire. More recently, BAE Systems designed and assembled the Caiman MRAP, providing in record time advanced protection for our deployed forces. The more adaptable Long Term Armor Strategy (LTAS) cab, currently in production, was developed over a three year period in cooperation with the Army. LTAS allows crews to vary their protection level by adding or removing appliqué armor to the cab.

BAE Systems manufactures the FMTV at Sealy, Texas, where it employs more than 2,700 people in facility that has more than 900,000 square feet of manufacturing, storage and office space on approximately 200 acres. The Sealy facility has established itself as a world-class designer, volume manufacturer and through-life supporter of high-quality, best value, military tactical vehicles.

#### About BAE Systems

BAE Systems is the premier global defense, security and aerospace company delivering a full range of products and services for air, land and naval forces, as

well as advanced electronics, security, information technology solutions and customer support services. With approximately 105,000 employees worldwide, BAE Systems' sales exceeded J18.5 billion (US \$34.4 billion) in 2008.

## Defence Industry

### Ukraine to Receive a New MBT



The Ukrainian Ministry of Defence has put into service the enhanced version of the Oplot main battle tank developed by the Kharkiv Morozov Machine Building Design Bureau (KMDB).

The decision was taken on May 28, 2009 after the tank had undergone in 2008-2009 extensive army-conducted trials of its firing, mobility, protection capabilities and other characteristics of the tank.

The upgraded Oplot MBT differs from the basic Oplot version in having a commander's combined panoramic sight with independent day and thermal channels, which make it possible to accurately fire the remote-controlled anti-aircraft machine gun at air targets at elevation angles of up to +60°; separate (independent from the gunner) thermal imager and laser range-finder for the tank commander; new-generation Nozh-2 built-in explosive reactive armour array, which is capable of defeating tandem-warhead high-explosive anti-tank ammunition; new radio equipment; complex movement control system, which provides automatic gear shifting and smooth turning during tank movement; upgraded digital instrumentation panel for the tank driver; improved driver's steering wheel; more environment-friendly 1200 hp 6TD-2E diesel engine; more powerful auxiliary power unit (10 kW rather than the previous 8 kW).

The new tank is planned to enter production at the Malyshev Plant, which is now involved in upgrading T-64 MBTs for the Ukrainian Army to the BM Bulat configuration.

#### About KMDB:

The Kharkiv Morozov Machine Building Design Bureau (KMDB) is a state-owned enterprise, which is now Ukraine's leading design authority for armoured fighting vehicles and used to play a key role in the development of armoured tracked vehicles in the former Soviet Union.

The contemporary activities of the KMDB are distinguished by three main factors:

- the ability to offer customers a wide range of armoured vehicles and other products for both military and civil use, as well as obsolete vehicle upgrade packages

- the provision of equipment closely tailored to customer's individual requirements
- the availability of long-term support for the end user

## Defence Industry

### Textron Marine & Land Systems Delivers 2000th ASV



New Orleans, LA -- Textron Marine & Land Systems, an operating unit of Textron Systems, a Textron Inc. company, rolled the 2,000th Armored Security Vehicle (ASV) off its Slidell, Louisiana assembly line today and recognized the milestone in a ceremony including top officials with the U.S. Army Tank-automotive and Armaments Command (TACOM).

Col. Scott Kidd, U.S. Army Project Manager, Tactical Vehicles, joined representatives from the U.S. Army Military Police School, local government officials and Textron Marine & Land Systems employees to mark the delivery of the 2,000th ASV.

“The ASV, the first Convoy Protection Platform, continues to remain safe, suitable and effective in the war fight. The production of the 2000th unit is significant reflecting the relevance of the system and the ability of the Textron workforce to produce a high quality product,” said Col. Kidd.

“This ASV program has been outstanding because of the dedication of the people here at Textron Marine & Land Systems who put their efforts into making the best vehicle possible for our troops,” said Textron Marine & Land Systems General Manager Tom Walmsley. “The vehicle designed and built here has protected thousands of soldiers doing their duty in operations all over the world. That is what we’re about here. Every soldier that returns home to his or her family because he or she was in an ASV is a triumph for every employee here working on this program.”

The ASV is a 4X4 wheeled armored vehicle that offers significant crew protection through the employment of multiple layers of armor, defending against small arms fire, artillery projectile fragments, Improvised Explosive Devices (IEDs) and land mines. The ASV possesses superior mobility, agility, handling and ride quality through the utilization of a four-wheel independent suspension system.

The ASV has maintained exceptional operational readiness and combat availability rates over the life of the U.S. Army program as vehicles log more than 30,000 miles per year in combat operations. Textron Marine &

Land Systems has achieved more than 44 consecutive months of on-time delivery to the U.S. Army on the ASV program.

The ASV family of vehicles performs a wide variety of missions including scout, infantry personnel carrier, reconnaissance, command and control and recovery. U.S. Army ASV missions include operations with the Military Police, convoy protection, perimeter security, as well as Field Artillery Combat Observation and Lasing Teams (COLT) with the M-1200 ASV configuration.

### About Textron Systems

Textron Systems Corporation has been providing innovative solutions to the defense, homeland security and aerospace communities for more than 50 years. Known for its unmanned aircraft systems, advanced marine craft, armored vehicles, intelligent battlefield and surveillance systems, intelligence software solutions, precision smart weapons, piston engines, test and training systems, and total life cycle sustainment services, Textron Systems includes AAI Corporation, Lycoming Engines, Overwatch Geospatial Systems, Overwatch Tactical Operations, Textron Defense Systems, and Textron Marine & Land Systems. Textron Systems Corporation is an indirect wholly owned subsidiary of Textron Inc. More information is available at [www.textron.com](http://www.textron.com).

## Contracts

### Oshkosh Defense Awarded Two Contract Modifications to Repair Heavy, Line Haul Vehicles

OSHKOSH, Wis. -- Oshkosh Defense, a division of Oshkosh Corporation, received two contract modifications from the U.S. Army Tank-automotive and Armaments Command (TACOM) Life Cycle Management Command (LCMC) that extend current refurbishment efforts of heavy and line haul vehicles at the company's Kuwait facility.

The contract modifications, valued at more than \$17 million, are for work that will be completed by the Oshkosh Defense Theater-Provided Equipment Refurbishment (TPER) program.

The TPER program is the result of an urgent requirement to repair tactical vehicles worn from extreme conditions and return them to full mission operability, which enables soldiers to accomplish their missions using the best available equipment. Vehicles covered by these two contracts include the Palletized Load System (PLS), Heavy Expanded Mobility Tactical Truck (HEMTT), and Heavy Equipment Transporter (HET), which are all produced by Oshkosh as part of the Family of Heavy Tactical Vehicles (FHTV). Additionally, HET trailers and M915 Line Haul family of vehicles are included in the contract, which were not originally produced by the Oshkosh Defense.

“Oshkosh has always been dedicated to supporting our U.S. forces in-theater through the expansion of maintenance facilities, increased in-country personnel

and timely response to urgent needs,” said Andy Hove, Oshkosh Corporation executive vice president and president, Defense. “Continuation of this work affirms our ability to cost-effectively support these vehicle fleets while providing the Warfighters in the field with the vehicles they need in a timely manner.”

The Oshkosh Defense TPER work will extend through spring 2010 with these latest modifications. Upon completion of these efforts, more than 1,700 vehicles and trailers will have been repaired and returned to U.S. forces.

**About Oshkosh Defense**

Oshkosh Defense, a division of Oshkosh Corporation, is an industry-leading global designer and manufacturer of tactical military trucks and armored wheeled vehicles, delivering a full product line of conventional and hybrid vehicles, advanced armor options, proprietary suspensions and vehicles with payloads that can exceed 70 tons. Oshkosh Defense provides a global service and supply network including full life-cycle support and remanufacturing, and its vehicles are recognized the world over for superior performance, reliability and protection. For more information, visit [www.oshkoshdefense.com](http://www.oshkoshdefense.com).

confidence. Our team has extensive experience and the necessary competence in the area of protection, integration and project management. Initially we will perform tests to find the best solution that yield optimal protection at the lowest possible weight, says Niclas Sahlgren,” CEO at Akers Krutbruk.

Akers Krutbruk are experts in the area of developing advanced protection systems for military vehicles. The company has participated in hundreds of vehicle projects and carried out thousands of tests.

“Akers Krutbruk has proven that they deliver good solutions on time, and successfully develop products that have an optimal combination of weight, cost and level of protection. We have complete confidence in Akers Krutbruk, and feel certain that they will design the best system to protect the soldiers in the Archer cabin, says Hans Pettersson, Program Manager at BAE Systems Bofors.

The market potential for Archer is great, and at this point there is an anticipated order of 48 systems in 2009 from the Swedish and the Norwegian Armed Forces. There has also been a show of interest from the Armed Forces in other countries such as Denmark, Belgium, Malaysia, Qatar and the Czech Republic.

**Defence Industry**

**BAE Systems Bofors signs a contract with Akers Krutbruk**



Akers Krutbruk has been selected to develop the protection system for Archer, the BAE Systems Bofors artillery system.

Akers Krutbruk has been selected to develop the protection system for Archer, the BAE Systems Bofors artillery system. The Swedish and Norwegian defence organizations have ordered the development of Archer. The process of developing the system is scheduled until 2010, with an option of delivery of a series planned for fall 2011.

The Archer System is based on reused parts of the classical model of haubits 77B, and Volvo’s dumper A 30D. Akers Krutbruk’s assignment is to develop an advanced mine and fragment protection system to create a safe working environment for the three or four soldiers that operate in the cabin.

“We are pleased to have received this vote of

**Defence Industry**

**Base10 Selects RTI's Real-Time Middleware for Unmanned Ground Vehicle Project**



SUNNYVALE -- 2009—Real-Time Innovations (RTI), The Real-Time Middleware Experts, today announced that Base Ten Systems Electronics GmbH (Base10) has selected RTI Data Distribution Service for their unmanned ground-based vehicle (UGV) project.

When the German Ministry of Defense needed the expertise to develop a UGV for deployment in hazardous environments, Base 10 was the natural choice. Base 10 has over 30 years of experience in the use and adaptation of commercial electronics and microprocessor technology for military applications.

**German Armed Forces RoboScout**

Base10 is currently in the development phase of the RoboScout project, a system demonstrator comprising two ground vehicles and a mobile command post,

scheduled for delivery to the German Armed Forces next year. RoboScout is built around a modular design to support multi-role operation, from SIGINT and reconnaissance through convoy and transport systems. It also has the ability to support both terrestrial and satellite data links, as well as acting as a communications relay station for other vehicles.

For such a mobile system, comprising multiple autonomous components, reliable real-time communications is a major concern. Base10 found that RTI's real-time middleware, the RTI Data Distribution Service, addressed a number of key technical and systems integration issues in the development of this ground-breaking UGV project.

The communications environment for such an autonomous unmanned vehicle system has a demanding combination of special requirements, including low-latency real-time performance; high reliability and deterministic messaging; ability to support modularity and flexibility in system configuration; and to operate transparently in a heterogeneous communications environment using satellite and radio data links.

### **RoboScout Mobile Command Post**

Base10 found that RTI Data Distribution Service provides the ideal framework for communication and integration within the modular design of the RoboScout architecture, helping them to meet their performance requirements on this challenging and innovative UGV project.

The publish-subscribe model of RTI Data Distribution Service middleware also ensures that future upgrades and expansion to the RoboScout system can be undertaken with minimal effort, by greatly reducing the time involved in new software integration in support of additional functionality. It is the intention that the RoboScout System will be compatible with present and future military networks.

### **About RTI Data Distribution Service**

RTI Data Distribution Service is a high-performance messaging, data distribution and data caching infrastructure for the development and integration of real-time, net-centric applications. It meets the demanding requirements of mission-critical systems including deterministic performance; low latency; high throughput; full fault tolerance; the ability to run in ad hoc and autonomous environments; and support for unreliable or low-bandwidth networks such as wireless and satellite links. A loosely coupled integration approach significantly reduces long-term software maintenance costs by allowing individual subsystems to be added or upgraded without impacting existing software.

RTI Data Distribution Service provides application programming interfaces that comply with the Object Management Group (OMG) Data Distribution Service for Real-Time Systems (DDS) specification, the leading standard for real-time application integration. RTI also natively supports the Real-Time Publish-Subscribe (RTPS) wire protocol for peer-to-peer interoperability

with other RTPS-compliant DDS implementations. RTI is the world's leading supplier of DDS related software and services.

### **About RTI**

Real-Time Innovations (RTI) provides high-performance infrastructure solutions for the development and integration of distributed real-time applications. RTI's data distribution, messaging, caching and Complex Event Processing (CEP) capabilities deliver dramatic improvements in latency, throughput and scalability while slashing cost of ownership. A broad range of industries have leveraged the company's software and design expertise, including defense, intelligence, simulation, industrial control, power generation, transportation, finance, medical and communications. Founded in 1991, RTI is privately held and headquartered in Sunnyvale, CA. For more information, please visit [www.rti.com](http://www.rti.com).

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## Contracts

### BAE Systems Awarded \$19 Million Contract Modification To Upgrade Caiman MRAP



HOUSTON, Texas -- BAE Systems was awarded a contract modification worth \$19 million from the U.S. Marine Corps Systems Command in Quantico, Virginia to upgrade 1,800 Caiman Mine Resistant Ambush Protected (MRAP) vehicles.

The upgrades will increase the functionality and dependability of several of the Caiman's systems and individual items. Work will take place at the Kuwait Refurbishment Facility and is anticipated to be completed by July 2010.

"These engineering upgrades to the Caiman MRAP provide our forces with the latest vehicle enhancements," said Chris Chambers, vice president and general manager of Global Tactical Systems in Sealy, Texas. "These enhancements improve our military's ability to safely and effectively accomplish their mission."

BAE Systems manufactured 2,868 Caiman MRAPs during the vehicle's 22-month production run, with the first vehicle delivered just 43 days after the initial contract award.

BAE Systems manufactures the Caiman in Sealy, Texas, where it employs more than 2,700 people. The Sealy facility has a long history with wheeled vehicle products and has established itself as a world-class designer, volume manufacturer and through-life supporter of high-quality, best value, military tactical wheeled vehicles with payload capacities from 2.5 to 18 tons.

#### About BAE Systems

BAE Systems is the premier global defense, security and aerospace company delivering a full range of products and services for air, land and naval forces, as well as advanced electronics, security, information technology solutions and customer support services. With approximately 105,000 employees worldwide, BAE Systems' sales exceeded \$18.5 billion (US \$34.4 billion) in 2008.

## Defence Industry

### First Mastiff 2 and Ridgback vehicles now operational



The first batch of new armoured vehicles have reached Afghanistan and have now been put to work in front line operations.

300 new Mastiff 2 and Ridgback vehicles are now operational with trained crews and are giving troop commanders better capability for battlefield tasks.

Various upgrades make the two vehicles more up-to-date including: explosive attenuating seats to provide better protection to the soldier on impact; improved armour; improved axles and suspension to cope with the difficult terrain; better thermal imaging for the drivers; and greater crew capacity.

Minister for Defence Equipment and Support, Quentin Davies, said:

"The Mastiff is already giving troops a battle-winning edge in Afghanistan and Mastiff 2 is even better as we have improved the vehicle in line with comments from personnel on the front line.

"Ridgback will supplement the excellent work currently carried out by its bigger brother Mastiff and offer our forces first-rate protection with greater manoeuvrability and easier access to urban areas."

With a maximum speed of 90kph for Mastiff 2 and 40mph for Ridgback, both vehicles will be armed with the latest weapon systems, including a 7.62mm general purpose machine gun, 12.7mm heavy machine gun or 40mm automatic grenade launcher. Both vehicles have a redesigned interior making it the vehicle of choice for protected mobility troops in Afghanistan.

The vehicles are based on the US Cougar made by Force Protection, with the UK integration work carried out by NP Aerospace, based in Coventry.

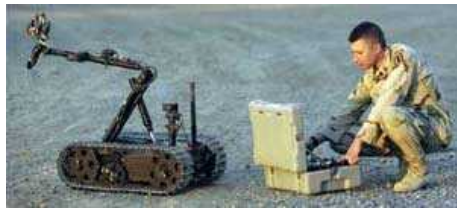
All training on the vehicles has been carried out at the Defence School of Transport, based near Hull, which is the largest driver training school in Europe.

## Robots

### TALON Family of Robots Introduces Two-Way Hailer

Waltham, Mass. -- QinetiQ North America, makers of the leading TALON® family of military/first-responder robots, announced today that it has created a two-way hailer capability for its robots that makes them more effective in a variety of scenarios because it enables the robot

operator to "listen" and "speak" with high fidelity and volume control.



Initial systems have been delivered to the SWAT (Special Weapons And Tactics) teams of police departments in Texas and Florida.

Developed by QinetiQ North America's Technology Solutions Group, the enhanced hailer provides secure encrypted two-way wireless audio communications between a TALON robot and an operator up to 2,600 feet (800 meters) line-of-sight away. Two-way conversations can be conducted at four volume levels from whisper mode to loud. The 120-decibel siren can be used to warn, distract, or disrupt voice communications. The two-way hailer is easy to install on a TALON and can be quickly transferred from one TALON to another.

"We feel our new, two-way hailer will be particularly useful for military checkpoints, building clearance, barricaded suspects, hostage negotiations and emergency evacuations, in short any situation where there's a need for urgent, two-way communication that might need to be whispered or shouted," said Dr. William Ribich, President of QinetiQ North America's Technology Solutions Group.

The TALON two-way hailer is controlled via a portable, wearable control unit that is completely separate from the robot control unit. It can be attached to a utility belt or vest using its Molle straps. The clip-on two-way handset broadcasts and receives audio to and from the TALON. The hailer's hand-held controller adjusts the handset and broadcast volume levels as well as activates the siren and auxiliary input. The auxiliary input can be connected to an MP3 player or laptop computer for playback of recorded messages or loud music.

#### **TALON Two-Way Hailer at a Glance**

- Volume adjustable two-way communications
- Police/Fire siren included
- Easy to install and remove
- Operates independently of the TALON operator control unit
- Continuous remote listening when not broadcasting
- Secure encrypted digital communication prevents third-party intervention
- Auxiliary audio input for MP3 player or laptop

Since TALON's initial deployment in 2000, the QinetiQ North America family of robots has expanded to include small, medium and large unmanned vehicles that can be configured for specific tasks, such as IED defeat, CBRNE/hazmat identification, reconnaissance, combat engineering support and SWAT/MP unit assistance. Today, more than 2,500 TALON robots are deployed around the world, surpassing any other military robot.

## **Future Technologies**

### **High-tech response to rocket attacks: Rheinmetall to supply new force protection technology to the Bundeswehr**



German troops serving in Afghanistan will soon be equipped with a highly effective new form of protection against rocket, artillery, and mortar attacks. The German government has contracted with the Düsseldorf-based Rheinmetall Group to supply the Bundeswehr with newly developed air defence systems worth around Euro110.8 million.

The current contract encompasses two systems as well as an option for additional services such as documentation and training at a later date, worth approximately Euro20 million. Under a follow-on contract, worth around Euro13.4 million, Rheinmetall will also supply the corresponding ammunition.

Dubbed the Nächstbereichs-Schutzsystem, or "very short-range protection system", the state-of-the-art NBS is a major milestone in the Bundeswehr's SysFla programme, which is progressively upgrading Germany's air defence capabilities; it also represents an important strategic success for Rheinmetall.

Until now, the Bundeswehr – like the armed forces of other nations – lacked a weapon system capable of intercepting small incoming projectiles; in recent months, Bundeswehr bases in Kunduz and Masar-I-Sharif have come under repeated attack by insurgents employing typical hit-and-run tactics.

The NBS C-RAM is specifically designed to defeat the threat which rocket, artillery and mortar attacks pose to Bundeswehr units deployed in hazardous areas of operation. The Bundeswehr will be the world's first army to possess an effective defence against this kind of asymmetric threat, which is particularly prevalent in Afghanistan.

Building on decades of expertise and experience in the field of air defence, Rheinmetall's "Skyshield" technology will make it possible to detect, track and shoot down incoming projectiles before they can reach their target, with virtually no advance warning.

Moreover, since the sensor data enable determination of the impact zone as well as attacker's location, base personnel are able to take cover and/or appropriate countermeasures. The system remains in a high state of readiness around the clock.

An NBS C-RAM system consists of an operations/fire control centre, two sensor units and six 35mm automatic guns. These are capable of firing 1,000 rounds per minute and, like the fire control unit, are largely automated. The automatic guns fire programmable

"Ahead" ammunition, developed by Rheinmetall specifically for C-RAM applications.

One of the company's principal divisions, Rheinmetall Air Defence is a global leader in short- and very short-range air defence systems. Besides stationary cannon-based systems like the NBS C-RAM, Rheinmetall supplies mobile guided missile-supported systems, sensor technology and advanced networking and command and control systems. Under the Oerlikon brand name, Rheinmetall air defence products have enjoyed a global reputation for high performance and precision dating back nine decades.

**Training And Simulators**

**Oshkosh Defense Awarded First HEMTT A4 Delivery Order for U.S. Army National Guard**



OSHKOSH, Wis. -- Oshkosh Defense, a division of Oshkosh Corporation, has been awarded a delivery order from the U.S. Army Tank-automotive and Armaments Command (TACOM) Life Cycle Management Command (LCMC) to supply more than 100 next-generation Oshkosh® Heavy Expanded Mobility Tactical Trucks (HEMTT) to the U.S. Army National Guard.

The delivery order, the first the company has received for its new HEMTT A4 vehicles for the National Guard and issued under the Family of Heavy Tactical Vehicles (FHTV) contract, is valued at more than \$38 million. Under the delivery order, Oshkosh Defense will manufacture and supply more than 100 new HEMTT A4s. The variants that will be produced are the M978A4 fuel tanker and the M985A4 cargo truck.

“The HEMTT A4 features performance and protection upgrades and will be a significant addition to the National Guard’s fleet,” said Andy Hove, Oshkosh Corporation executive vice president and president, Oshkosh Defense. “Whether mobilized for disaster relief at home or in-theater operations abroad, National Guard units will continue to rely on these heavy-payload vehicles for their many different logistics missions.”

This next-generation vehicle incorporates a fully air-conditioned and armor-ready cab, more powerful drivetrain, improved suspension, safety improvements, and other enhancements. The Oshkosh HEMTT A4s are long term armor strategy (LTAS) compliant and come off the assembly line fitted with upgraded suspensions and integral (“A” kit) armor. They also will be ready to receive an add-on (“B” kit) armor appliqué that can be quickly and easily installed in the field.

**About Oshkosh Defense**

Oshkosh Defense, a division of Oshkosh Corporation,

is an industry-leading global designer and manufacturer of tactical military trucks and armored wheeled vehicles, delivering a full product line of conventional and hybrid vehicles, advanced armor options, proprietary suspensions and vehicles with payloads that can exceed 70 tons. Oshkosh Defense provides a global service and supply network including full life-cycle support and remanufacturing, and its vehicles are recognized the world over for superior performance, reliability and protection. For more information, visit [www.oshkoshdefense.com](http://www.oshkoshdefense.com).

**Defence Industry**

**The Chairman of the Ukrainian Parliament Drove the Oplot Main Battle Tank**



On 16 June 2009 Volodymyr M. Lytvin, the Chairman of the Supreme Rada (Ukrainian parliament), visited the State-Owned Enterprise Kharkiv Morozov Machine Building Design Bureau (SOE KMDB).

The head of the Ukrainian parliament examined the armoured vehicles developed and manufactured by SOE KMDB (including the newest Ukrainian Oplot main battle tank, Dozor light armoured personnel carrier, BTR-4 and BTR-3U armoured personnel carriers, BMPT-72 heavy infantry combat vehicle and computer-based tank crew training simulators), as well as personally driving the Oplot tank for almost half a kilometre.

It took just several minutes to teach the Ukrainian parliament's speaker (who is a historian in his background education) how to drive the Oplot MBT, because the driving procedures of this 50-ton vehicle is quite similar to driving procedures of an modern motor-car.

Volodymyr M. Lytvin joked that, although the Oplot is a very sophisticated fighting machine, it is much easier to handle it than to handle the Ukrainian parliament.

**About KMDB:**

The Kharkiv Morozov Machine Building Design Bureau (KMDB) is a state-owned enterprise, which is now Ukraine's leading design authority for armoured fighting vehicles and used to play a key role in the development of armoured tracked vehicles in the former Soviet Union. The contemporary activities of the KMDB are distinguished by three main factors:

the ability to offer customers a wide range of armoured vehicles and other products for both military and civil use, as well as obsolete vehicle upgrade



packages



the provision of equipment closely tailored to customer's individual requirements  
the availability of long-term support for the end user

### Defence Industry

## Oshkosh Defense MTVR OBVP Participates at Coalition Warrior Interoperability Demonstration

OSHKOSH, Wis. -- Oshkosh Defense, a division of Oshkosh Corporation, is demonstrating its Medium Tactical Vehicle Replacement (MTVR) with On-Board Vehicle Power (OBVP) at this year's Coalition Warrior Interoperability Demonstration (CWID) in Dahlgren, Va.

The annual Joint Chiefs of Staff-directed exercise began on June 15 and continues each weekday through June 25 at the Naval Surface Warfare Center Dahlgren.

CWID is an annual event that allows the military and other government agencies to identify solutions to fill current gaps in communications and information sharing capabilities. Selected technology solutions undergo interoperability trials to assess their operational effectiveness.

To demonstrate the export-power capabilities of the MTVR with OBVP at CWID, the vehicle will power an operations center, two Humvees with communications equipment and the Oshkosh display using the company's diesel-electric drive technology. This is a system that delivers up to 20 percent more power than current systems without reducing mobility. The MTVR with OBVP offers 120 kW of exportable military-grade power while stationary, and in motion provides 21 kW of military-grade power. These features allow the vehicle to satisfy the greater demand for electrical power facilitated by modern military equipment.

"We are living in an age in which military vehicles must not only be able to provide robust transportation capabilities, but also meet any number of additional technological needs," said Andy Hove, Oshkosh Corporation executive vice president and president, Defense. "The MTVR with OBVP provides exportable power while maintaining or improving the mission requirements of the vehicle, and CWID is a great forum to demonstrate these advanced technologies."

Oshkosh's MTVR is an all-terrain, multipurpose

logistics vehicle used by the Marines and Navy Seabees. The vehicle comes in several variants for the transportation of troops, materials or equipment. Since 1998, Oshkosh has supplied the Marines and Seabees with more than 10,000 MTVRs, which have been successfully operating in off-road missions in Iraq, Afghanistan and around the world.

### Defence Industry

## The Slovenian MoD took over the first Patria 8x8 armoured vehicle



The first of the altogether 135 Patria AMV 8x8 armoured vehicles ordered by the Slovenian Ministry of Defence was handed over to the representative of the said Ministry, State Secretary Uroš Krek, at the factory Indop in Indop on 18 June 2009.

In addition to the now delivered vehicle, the Ministry of Defence will receive another 12 Patria AMV 8x8 vehicles during June 2009.

"The first delivery implies a remarkable turning point in the fulfilment of every agreement. The project will now proceed to the next phase during which Patria will deliver excellent vehicles to the Slovenian army", says Mr Seppo Seppala, President of Patria Land & Armament Oy.

"We have passed this turning point thanks to the outstanding cooperation between the project teams and partners in Finland and in Slovenia. As part of the contractual offset obligation Patria has created the ability to manufacture Patria AMV vehicles in Slovenia. Our local partner Indop d.o.o. has shown excellent performance during the whole process."

### Contracts

## KONGSBERG receives multi-million US Army order for the Common Remotely Operated Weapon Stations (CROWS)



KONGSBERG has booked an order valued at MNOK 152 from the US Army.

The order is part of the NOK 8 billion Common Remotely Operated Weapon Stations (CROWS) framework agreement signed in August 2007.

CROWS is a joint acquisition programme for weapon stations for the US Army's vehicle programmes. A common solution will result in substantial efficiency gains in respect of protection, training, support and further development.



## Defence Industry

### DSM Dyneema introduces new ballistic tape for lightweight vehicles



New material is selected by Ten Cate in vehicle up-armoring project for Dutch military in Afghanistan.

DSM Dyneema launched Dyneema BT10, its first commercially available product made from a novel, proprietary ballistic tape (BT) technology. The announcement was made jointly at the DVD exhibition, (Millbrook, UK), with Ten Cate Advanced Armour, who has selected Dyneema BT10 for armor upgrading on the Patria XA-188 APC commissioned by the Dutch DMO (Defensie Materieel Organisatie). The vehicles will be used by the Dutch military forces stationed in Afghanistan and delivery is expected to be completed by October 2009.

Ten Cate's armor solution is based on a ceramic strike face backed with a combination of Dyneema BT10 and Dyneema® HB26 for optimal cost and performance balance.

"Dyneema® BT10 performed extremely well as a backing material behind the strike face armor and helped deliver a cost effective, light weight ballistic protection solution with excellent overall performance" commented Søren Gert Larsen, General Marketing Manager at Ten Cate Advanced Armour.

Ten Cate also stated that Dyneema® BT10 has been tested and certified according to NATO standards STANAG 4569 and AEP55.

Dyneema BT10 provides vehicles with optimum protection without sacrificing crucial mobility. It will allow designers and manufacturers to balance the requirements for better performing vehicles, increased payloads, and room for future weight growth at a competitive cost level and is part of a growing range of light-weight and ultra-high armor protection material solutions from DSM Dyneema.

The expanding Life Protection portfolio of DSM Dyneema will soon include a premium grade UD material which raises the performance/weight equation to

a new higher level. The premium grade will be launched this week at the Institute for Defense and Government Advancement's (IDGA) 4th annual Military Armor Protection conference in McLean, Virginia, USA.

Dyneema BT10 is the first in a new ballistic tape technology platform that offers the ballistic performance of Dyneema at a price which makes it highly competitive with aramids in many armor systems, at a weight level which outperforms aramids and approaches Dyneema HB (Hard Ballistic) products. These include UD (unidirectional) composite products such as Dyneema® HB26 that sets the standard in light weight, stand alone protection.

In-house tests have shown that Dyneema BT10 is lighter and stronger than the next best aramid based armor solution and offers many of the performance attributes of Dyneema HB26 at a slightly higher weight. Dyneema BT10 proves to be a very cost effective material for the most severe and unconventional threats emerging today. Furthermore, it is ideally suited as backing behind a strike face and as spall liner in overmatch situations.

"Our new range of ballistic tape products, led by Dyneema BT10, extends our range of vehicle protection materials," said Robert Smulders, Global VP Life Protection for DSM Dyneema. "This gives more choice and flexibility to customers to find the protection solution with the right balance of performance, weight and cost for their needs. We anticipate that the Dyneema BT range of products will become the material of choice for a wide range of vehicle platforms that require better protection against conventional as well as the most dangerous and emerging threats today."

DSM Dyneema is on target to significantly increase its global capacity for materials for personal protection (helmets, inserts and vests) and vehicle protection as part of a previously announced up to \$450 million expansion, the majority of which is occurring at its Greenville, N.C., facility.



## Defence Industry

### Supacat's new Coyote Tactical Support Vehicle (Light) introduced at DVD



The new 'Coyote' Tactical Support Vehicle (Light), due to enter service later this year in support of operations in Afghanistan, received its official launch today by Quentin Davies, Minister, Defence Equipment and Services, at DVD, the annual event showcasing land equipment for the UK's Armed Forces.

Designed by Supacat, over 70 of the new Coyote

vehicles are being manufactured by Babcock alongside the existing Jackal 2 production line.

“The ‘Coyote’ is the latest Supacat product developed to meet the rapidly evolving operational requirements of our armed forces. Coyote is an exciting new variant that will take the capability levels, both in terms of protection and mobility, of support type platforms way above that previously on offer to the UK forces”, said Nick Ames, Managing Director, Supacat.

‘Coyote’ shares common design features with the Jackal 2 and provides the same increased levels of protection and mobility. It’s 6x6 configuration offers a higher payload of up to 3,000 kilos and provides a large, flexible load space at the rear of the vehicle. Powered by the same 6.7 litre turbo-charged Cummins engine ‘Coyote’ is equipped with a gun-ring and seats up to four crew.

In April a J74 million contract was awarded to Supacat as prime contractor, supported by Babcock as vehicle manufacturer, in response to the UK MoD’s latest Urgent Operational Requirement (UOR) to deliver more than 70 of the new 6x6 ‘Coyote’ TSV(L) and around 110 Jackal 2, the enhanced, latest iteration of the widely acclaimed ‘Jackal’ weapons-mounted 4x4 patrol vehicle, also designed by Supacat and manufactured by Babcock. The contract for Coyote and Jackal 2 is part of the J700 million Protected Mobility Package announced by the MoD in late 2008.

“The ‘Coyote’ will be built at Devonport using the same successful continuous improvement manufacturing techniques and ‘pulse line’ production that have been successfully applied to produce the Jackal vehicles at a rate of one per day,” Babcock Equipment Solutions Managing Director Roger Gillespie said. “A number of Jackal 2 patrol vehicles have already been built and delivered under the latest UOR contract, with the first of the Coyotes scheduled for delivery this month.”

To deliver the contract Supacat and Babcock have formed an innovative alliance to ensure the UK Armed Forces receive the best possible equipment within the shortest possible timescale, working with the MoD’s Protected Mobility Team in a close and open partnering relationship. As the design authority Supacat is responsible for design, development, prototyping, integration and overall programme management. Babcock is responsible for detailed production planning, purchasing and manufacture at its Devonport dockyard facility. A single project office, located at Supacat’s facility in Dunkeswell, Devon, provides overall control.



## Contracts

### BAE Systems Awarded \$124.8 Million To Refurbish M113 Vehicles

ARLINGTON, Virginia -- BAE Systems has been awarded \$124.8 million in U.S. Army contracts to reset, upgrade and maintain M113 vehicles.

Several contracts awarded to the company by the U.S. military cover repairs and improvements on the

combat-proven infantry vehicles. Specifically, awards include:



- \$87.7 million for the reset of 697 M113 vehicles. During the reset process, BAE Systems will repair existing vehicles to pre-deployment condition and provide some upgrades to enhance survivability, mobility and communications.
- \$23.3 million for parts and materials. This covers the acquisition of long-lead items needed for future repairs to M113 vehicles.
- \$7.8 million for add on armor. BAE Systems will add additional protection to 120 M113 vehicles.
- \$6 million for support and maintenance on M113 vehicles at Fort Hood, Texas. This award will cover support to the U.S. Army’s 1st Cavalry Division.

“The M113 Family of Vehicles is an integral component of the Army’s Heavy Brigade Combat Teams,” said Joe McCarthy, vice president, Heavy Brigade Combat Team Systems for the company. “BAE Systems will continue to support our troops by repairing, maintaining and improving the M113 throughout the life cycle – freeing soldiers to focus on their mission.”

The M113 family of vehicles is one of the most widely used combat vehicles in the world. More than 80,000 of the armored tracked vehicles have been produced, including more than 40 variants. The M113 family is used by at least 44 countries. It can transport 12 troops and a driver and is capable of amphibious operation, extended cross-country travel over rough terrain and high-speed operation on improved roads and highways.

Work on these contracts will be performed by the existing workforce at BAE Systems’ facilities in Anniston, Alabama; Aiken, South Carolina and Fort Hood, Texas.

The contracts are all managed by the Army’s TACOM Life Cycle Management Command.

### About BAE Systems

BAE Systems is the premier global defense, security and aerospace company delivering a full range of products and services for air, land and naval forces, as well as advanced electronics, security, information technology solutions and customer support services. With approximately 105,000 employees worldwide, BAE Systems’ sales exceeded J18.5 billion (US \$34.4 billion) in 2008.



## Exhibitions

### Navistar Defense Debuts Its Husky Tactical Support Vehicle at U.K. Vehicle Show

WARRENVILLE, Ill. -- Navistar Defense, LLC today debuted its International® Husky Tactical Support Vehicle (TSV) at the U.K. Ministry of Defence vehicle show known as DVD.



In April, the Ministry of Defence awarded the company a contract to provide 262 Husky vehicles. Organized by the Ministry's Defence Equipment and Support division, DVD offers attendees the chance to see vehicles in action on the show's off-road course.

Specially designed to meet U.K. urgent operational requirements in Afghanistan, the lighter and more mobile Husky is built to navigate the rough Afghan terrain, while offering added protection from ballistics fire, mines and roadside bombs.

The Husky, which is the medium variant for the TSV program, will be procured in three vehicle types: patrol, ambulance and command vehicle. Integrated with U.K. specific systems by Dytechna, the vehicle accommodates a four-person crew and is equipped with a MaxxFORCE® D 6.0 L V8 engine, Allison five-speed automatic transmission, and also incorporates Plasman Sasa's armouring solution.

Last month, Navistar also delivered its first two Husky prototypes, ahead of schedule, to undergo final requirements testing before full production begins this summer.

"The Navistar team is going after an aggressive delivery commitment to provide our U.K. forces with the equipment they need as soon as possible," said Archie Massicotte, president, Navistar Defense. "Not only will we deliver quickly to support those in theater, but Navistar is prepared to rapidly incorporate design changes into our vehicles as in-theater threats evolve."

Navistar Defense is an affiliate of Navistar International Corporation, a holding company whose subsidiaries and affiliates produce International® brand commercial and military trucks, MaxxFORCE® brand diesel engines, IC brand school and commercial buses, the Monaco®, Holiday Rambler®, Safari®, Beaver®, McKenzie™ and R-Vision® brand RVs, 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 and service parts. Another affiliate offers financing services. Additional information is available at [www.Navistar.com/newsroom](http://www.Navistar.com/newsroom).



## Defence Industry

### Rheinmetall wins EUR54 million order to equip the Bundeswehr with an advanced mortar system



Rheinmetall AG of Dusseldorf has just been awarded a EUR54 million contract to equip the German armed forces with a state-of-the-art mortar system.

The system's newly developed 120mm mortar track and associated support vehicles make an important contribution to the mission-oriented modernisation of the Bundeswehr armoury. This important order encompasses eight Wiesel 2 ("weasel") vehicles, each of which is armed with a 120mm mortar (1ePzMrs). An option exists for an additional two vehicles configured for a command and control role, and worth some EUR7.5 million. Delivery is slated to take place in 2011.

Combining impressive firepower with advanced command and control technology, Rheinmetall's highly mobile Mortar Combat System significantly enhances the Bundeswehr's combat effectiveness, enabling it to respond to new threats in situations where it has hitherto often lacked the necessary capabilities. On the international plane, this state-of-the-art system places the Bundeswehr on the global cutting edge.

Based on Rheinmetall's tried-and-tested Wiesel 2 lightweight tracked armoured vehicle, various configurations of which have already been successfully fielded, the air-portable Mortar Combat System is specially designed to support infantry and airmobile operations in scenarios where protection is required. It supersedes obsolete, manually operated Tampella-type mortars, which have long since ceased to meet today's operational needs. Furthermore, some existing stocks of mortar ammunition are now over 25 years old, and thus no longer authorised for use.

The vehicles just ordered constitute a mortar platoon which will be used to support ongoing operations in Afghanistan. In particular, the system is expected to play an important role in countering asymmetric threats to Bundeswehr bases and convoys in this challenging area of operation. Thanks to its enhanced range, heightened precision and optimised lethality, the system also lends itself to operations in difficult terrain and in urban areas.

The complete Mortar Combat System can be airlifted in a CH-53 cargo helicopter or Transall C 160. Rugged yet flexible, it is designed to deliver maximum mobility

even in tough terrain, as well as substantially increasing the firepower, combat effectiveness and accuracy of units deployed in harm's way.

Force protection also features more prominently than in previous systems: the Wiesel 2 provides its 3-man crew with effective protection against ballistic threats and NBC agents.

Fast and flexible, the Mortar Combat System is able to respond very quickly to emerging threats even in a constantly shifting operating environment, aided by efficient and effective use of newly developed, enhanced range, high-precision mortar ammunition. The system is ready for action just 60 seconds after breaking cover, and can fire up to three rounds in less than 20 seconds.

Moreover, since the lePzMrs mortar track can evacuate its fire position approximately 15 seconds after completing a fire mission, it is able to take cover before the rounds it has fired have reached the enemy position. This kind of "hide, hit, run, hide" tactic makes enemy reconnaissance much harder, thus adding to the safety of the soldiers on board the Wiesel 2.

Although the mortar tracks can also be deployed autonomously, one of the most salient characteristics of this "system of systems" is its outstanding networkability with all relevant command echelons. Linking the individual vehicle systems into a unified information network – with a constant exchange of operationally relevant data – enhances the Mortar Combat System's overall operational effectiveness and ability to react quickly. It all comes down to teamwork: targets are detected and identified, information analysed and processed, options weighed and fire control data generated; finally, the lePzMrs Wiesel 2 mortar track goes into action.

Rheinmetall's new 120mm mortar ammunition can hit targets up to approx. 8,000 metres away, a substantial increase in range; it is also significantly more accurate and effective. The use of terminal phase-guided munitions should lead to a further increase in performance. New smoke/obscurant and infrared illumination rounds are also planned.

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## Contracts

### **SAIC Awarded Blanket Purchase Agreement, \$357 Million Task Order to Support Mine Resistant Ambush Protected (MRAP) Operations**

Science Applications International Corporation today announced it has been awarded a prime single award blanket purchase agreement (BPA) by the U.S. Army TACOM Life Cycle Management Command (LCMC) to support the Joint Program Office (JPO), Mine Resistant Ambush Protected (MRAP) Vehicle by providing MRAP Joint Logistics Integrator (JLI) and Operational Readiness Services.

The first task order under the BPA has a one-year base period of performance, one twelve-month option, and one six-month option, and is valued at more than \$357

million if the options are exercised. Work on the task order will be performed in Iraq, Afghanistan, Kuwait and at locations throughout the U.S. as required.

MRAP vehicles support urban combat operations, multi-mission operations, and mine/IED clearance operations and explosive ordnance disposal. Under the task order, SAIC will provide planning, management, and analytical support to all levels of the MRAP JPO team. SAIC will provide logistics services as well as services in support of JPOs oversight and management of original equipment manufacturers during activities associated with fielding, training, and sustainment operations. Additionally, SAIC will enable JPO MRAP to rapidly perform logistic engineering analysis and provide timely insight into fleet readiness and sustainment.

"SAIC has supported MRAP operations for the past 17 months," said Jim Cuff, SAIC senior vice president and business unit general manager. "As we transition from a subcontractor role to that of the prime contractor, we look forward to continuing our support of the Army and the critical MRAP program as the joint logistics integrator."

SAIC also supports Command, Control, Communications, Computers, Combat Systems, Intelligence, Surveillance, and Reconnaissance (C5ISR) programs for the Space and Naval Warfare Systems Command (SPAWAR), providing prototyping, integration and logistics services supporting C5ISR for more than 300 distinct variants of MRAP vehicles.

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## Future Technologies

### **Revolutionary armour unveiled at Defence equipment event**



A ground-breaking armour system and a fleet of new armoured vehicles that will provide better protection to troops in Afghanistan were unveiled at the Defence Vehicle Dynamics (DVD) event yesterday, Wednesday 24 June 2009.

The revolutionary, textile-based TARIAN vehicle armour system will give lightweight protection against rocket-propelled grenades, in place of the current bar armour that is fitted to vehicles such as Mastiff and Ridgback.

More than 20 sets of TARIAN armour have been ordered and are already being used on operations in Afghanistan, with half of them fitted to the Heavy

FCS is the Army's largest modernization program.

Equipment Transporters.

The new system, developed with Dorset-based AmSafe in Bridport, will mean weight saved on armour can be applied elsewhere on the vehicle.

The DVD event also saw the unveiling of the Wolfhound, Husky and Coyote Tactical Support Vehicles (TSV), the first time these newly-purchased trucks have been seen in public.

More than 400 of these brand new vehicles are currently being manufactured across the UK, with delivery to training units expected later this year.

The new TSV fleet will be used to accompany front line patrols and carry essential combat supplies such as water and ammunition.

Minister for Defence Equipment and Support, Quentin Davies, said:

"Troops on the front line have high-quality, versatile equipment that gives us the battle-winning edge in Afghanistan. We are working tirelessly to ensure they have the right equipment for the right job and ensuring that we respond quickly and innovatively to equipment requests from the front line.

"The new TSVs and TARIAN armour system are just two examples picked out from the vast array of kit and equipment that is on show. The number of items on display clearly demonstrates that we have many more success stories to tell about our flexibility in delivering equipment to where it is needed."

The DVD event also saw a taste of combat action as soldiers from 1st Battalion The Rifles and 29 Commando Regiment Royal Artillery simulated a battle group in action on the front line.

They were fully equipped with personal body armour, rifles and the new Husky and Ridgback vehicles and even called in air support from Apache and Merlin helicopters.

Both units have recently returned from front line operations, with 1st Battalion The Rifles helping to mentor the Afghan National Army and 29 Commando Regiment Royal Artillery based at Musa Qaleh.

DVD is a two-day equipment showcase which highlights the importance of diverse areas such as fuel delivery, clothing, food and vehicles that have been bought or upgraded under the Urgent Operational Requirements programme.

The event is organised by Defence Equipment and Support, the part of the MOD which equips and supports the UK's Armed Forces.



## Future Technologies

### Future Combat System (FCS) Program Transitions to Army Brigade Combat Team Modernization

The Under Secretary of Defense for Acquisition, Technology and Logistics issued an acquisition decision memorandum (ADM) today that implements decisions regarding the Future Combat Systems Brigade Combat Team (FCS BCT) program announced by Secretary Robert M. Gates in April.

In making decisions for the fiscal 2010 FY10 Gates expressed a specific concern that the portion of the FCS program to field new manned combat vehicles did not adequately reflect the lessons of counterinsurgency and close quarters combat in Iraq and Afghanistan. He was further troubled by the terms of the current single contract covering the whole FCS effort. The restructuring ordered today addresses these issues.

The ADM released today cancels the Future Combat Systems Brigade Combat Team (FCS BCT) program and in its place directs the Army to transition to a modernization plan consisting of a number of separate but integrated acquisition programs to meet the secretary's objectives. Those integrated programs include one to spin out the initial increment of the FCS program to seven infantry brigades in the near term and additional programs for information and communications networks, unmanned ground and air vehicles and sensors, and an integration effort aimed at follow-on spinouts to all Army brigades. The ADM also terminates the manned ground vehicle portion of the previous FCS program and directs an assessment with the Marine Corps of joint capability gaps for ground combat vehicles. The assessment will inform new requirements for Army ground combat vehicle modernization, leading to the launch of a new acquisition program in 2010.

The termination of the Manned Ground Vehicles portion of the FCS program will negatively impact the Army's ability to develop the Non-Line-of-Sight Cannon (NLOS-C) independent of the FCS development timeline as required by the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act of 2009. The department is working closely with the Congress to determine the appropriate path forward for the NLOS-C.

The ADM directs the Army to identify the most efficient means to end the manned ground vehicle development effort with the least cost to the taxpayer and to use work already completed in any follow-on ground combat vehicle developmental programs.

The Army's Training and Doctrine Command (TRADOC) has established a task force to examine critical issues in Army-wide modernization. This modernization task force will lead a comprehensive review of force designs, the BCT modernization plan, network integrated architectures, and ground combat vehicle operational requirements.

"The BCT modernization strategy will yield a versatile mix of BCTs that will leverage mobility, protection, information, and precision fires to conduct effective operations across the spectrum of conflict," said Lt. Gen. Michael Vane, director, Army Capabilities Integration Center, TRADOC.



## Contracts

### Slovak Army orders 10 Iveco-built LMVs

Iveco Defence Vehicles announces that on June 23, 2009 the Slovak Army and Iveco signed a contract

for a batch of 10 Light Multirole Vehicles to be delivered by the end of the year.



Flavio Marchesoni, Sales & Marketing Director of Iveco Defence Vehicles said: "This contract win builds on the success of the LMV which has been selected for front line duties by 9 armies to date".

Designed to incorporate high tactical mobility with high maximum road speed and optimal off-road and cross-country performance, the LMV has high protection levels against anti tank and anti personnel mines with an emphasis on crew protection rather than vehicle integrity. High reliability, ease of maintenance and low through life costs were key considerations during the design of LMV.

Built in and external diagnostics allow timely identification of impending malfunctions, allowing preventive maintenance to be undertaken, whilst the facility to collect functional data allows effective whole fleet management. The use of COTS (Commercial off the Shelf) main assemblies such as the gearbox and engine ensures that performance and reliability have been proven over many millions of road miles in demanding environmental conditions. This provides an outstanding level of reliability and consequently excellent fleet availability.

The LMV is suitable for numerous weapon system installations such as 7,62mm or 12.7mm remote weapon stations as well as 40mm grenade launcher and is therefore well adapted to any peacekeeping and patrol mission. The provision of anti-mine protection has also been given a high priority, with the over-riding aim being to ensure the survival of the crew. To this end, a normal control cab has been used and the results of the latest research into mine protection has been incorporated, including a vee-shaped vehicle bottom. This can be up-armoured as required to meet the appropriate level of threat. The overall structure of the vehicle has been designed in accordance with the 'crashworthiness' concept. The design of the vehicle itself and the materials which have been used in its construction are specifically designed to manage and absorb the blast energy generated by a mine detonation. Since the beginning of operations in Afghanistan, the high protection of the LMV has proved its worth in saving the life of the crew in many occasions.

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## Robots

### QinetiQ North America Receives New \$56.4M Contract for TALON Robots

WALTHAM, Mass. -- QinetiQ North America, makers

of the leading TALON family of military/first-responder robots, announced today that it has received a \$56.4 million IDIQ (indefinite delivery, indefinite quantity) contract for purchase and delivery of TALON GEN IV robots, repair parts, spare kits, and other related equipment and services from the Naval Surface Warfare Center, Indian Head, MD, for the Naval EOD Technical Division (NAVEODTECHDIV), the single-service manager for all EOD (explosive ordnance disposal) equipment.

Work will be performed by the Technology Solutions Group and is expected to be completed in early 2010.

"Once again, we thank the U.S. Navy for its continued support of our robotics programs," said Dr. William Ribich, president of QinetiQ North America's Technology Solutions Group. "Robots help protect our warfighters, a fact that is demonstrated every day when a robot accomplishes a dangerous assignment while the warfighter controls it from a safe distance."

Since TALON's initial deployment in 2000, the QinetiQ North America family of robots has expanded to include smaller (Dragon Runner(TM) SUGV) and larger unmanned vehicles (MAARS) that can be configured for specific tasks, such as IED defeat, route clearance, CBRNE/hazmat identification, reconnaissance, armed reconnaissance, checkpoint security, combat engineering support and SWAT/MP unit assistance. Today, more than 2,800 TALON robots are deployed around the world, surpassing any other military robot.

QinetiQ North America is an independent, innovative technology provider that earns over one billion dollars in revenue operating with small company speed and agility while leveraging significant global resources. QinetiQ North America's Technology Solutions Group, headquartered in Waltham, MA, includes the businesses formerly known as Foster-Miller, Inc., Planning Systems Incorporated, Automatika, Applied Perception, Spectro, Inc., and the research and development activities of Apogen Technologies, Inc.

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## Defence Industry

### BAE Systems Acquires South African Designed Iguana Light Armoured Vehicle



BENONI, South Africa -- BAE Systems has acquired the South African designed and developed "Iguana" light armoured vehicle and will rebrand it as RG34. The vehicle will be marketed to military, peace-keeping and security authorities globally.

Iguana was developed by IADSA, under contract from Sabiex in Belgium. BAE Systems acquired the

intellectual property from Sabiex under an agreement for an undisclosed amount, signed earlier this week. The acquisition of the armoured vehicle is consistent with the company's strategy to developing its South African market capabilities.

BAE Systems will continue to develop the RG34 to further enhance its operational versatility and appeal. "Growing our business organically and through acquisitions is a vital strategy for us. Acquiring a mature, light armoured vehicle such as the RG34 to complement our product range, is an important step that will provide additional growth opportunities for the South African business," said Johan Steyn, MD BAE Systems' Land Systems South Africa business.

"We acquired the vehicle and are rebranding it as the RG34 because it enables us to expand our range of successful and world-acclaimed South African designed and built RG vehicles," explained Steyn.

BAE Systems will display the RG34 at the DefenceWeb Peacekeeping Conference, to be held 24-25 June 2009 at Gallagher Estates, South Africa.

One of the RG34's unique features is its specially designed, multi-link hydro-pneumatic suspension, which is mounted on a very rigid structure. This provides the vehicle with excellent road performance, a small turning circle and comfortable clearance over humps.

Like most of the other members of the RG family of vehicles, the RG34 is mine-resistant, having undergone extensive mine-blast tests and verifications.

The vehicle is suitable for multi-purpose light operations such as reconnaissance, patrol, command and control and specialist support (eg. ambulance), light armour combat (weapon platforms and Armoured Personnel Carriers) and security.

BAE Systems Land Systems South Africa's recent export success with its RG products has established the Benoni-based company as one of the world's leading supplier of mine-resistant and armour proof vehicles. Its products are in service with numerous military, peace-keeping, police and public security authorities across the globe.

### **About BAE Systems**

BAE Systems is the premier global defence, security and aerospace company delivering a full range of products and services for air, land and naval forces, as well as advanced electronics, security, information technology solutions and customer support services. With approximately 105,000 employees worldwide, BAE Systems' sales exceeded J18.5 billion (US \$34.4 billion) in 2008.

