

# Army Guide monthly



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## Defence Industry

### Kharkiv Morozov Machine Building Design Bureau is preparing to deliver to Iraq the second batch of BTR-4 vehicles



Kharkiv, Ukraine -- The Kharkiv Morozov Machine Building Design Bureau is preparing to hand over to its customer – the Ministry of Defence of Iraq – the second batch of BTR-4 8x8 wheeled combat vehicles.

The Kharkiv Morozov Machine Building Design Bureau together with the State Enterprise Malyshev Plant and other sub-contractors, which are enterprises of the Ukroboronprom Concern, are stably working to fulfill the international contract. The second batch, which is ready to be delivered, consists of 62 vehicles, including frontline vehicles fitted with 30 mm armed Parus overhead weapon station, specialist vehicles (armoured ambulances and armoured repair and recovery vehicles), as well as training simulators and technical maintenance vehicles.

At present the representatives of the customer are expected to come in order to accept the vehicles so that the latter could be delivered to Iraq.

The vehicle production intensity achieved by the enterprises of the Ukroboronprom Concern within the framework of Iraqi Contract is on a par with that of the world's leading manufacturers.

Late in 2009 Ukraine and Iraq signed an USD457.5 million contract for supply of 420 BTR-4 combat vehicles. The main contractor is the Kharkiv Morozov Machine Building Design Bureau, with the Malyshev Plant being the main subcontractor (both enterprises are located in Kharkiv).

The BTR-4 was developed by the Kharkiv Morozov Machine Building Design Bureau. The first batch of BTR-4s intended for Iraq, consisting of 26 vehicles, was manufactured and delivered to the customer on 20 April 2011.



## Defence Industry

### Iveco Defence Vehicles completes delivery of over 200 heavy trucks to the UK MoD

Bolzano – Iveco Defence Vehicles has completed delivery of its largest ever order in UK of 206 6x6 and 8x8 Trakkers to support the Royal Engineers on operations.

Replacing the existing fleet, the new vehicles have

been supplied through two separate procurement routes. The first of these, for 182 6x6 vehicles, was through the C Vehicle PFI contract run by the company ALC as prime contractor. Vehicles were supplied in five variants, with three – the Medium Dump Truck, Self Loading Dump Truck and Truck Mounted Loader – being managed by Iveco and the other two variants – a Drill Rig and a Flush Capping System – being procured under ALC's direct control.



The second procurement resulted from the success of this 6x6 fleet in service. The requirement was for a fleet of Protected Self Loading Dump Trucks for service on operations. As Iveco had already developed a ballistic steel cab for the Trakker family, the 8x8 Trakker was a natural choice for this demanding role. The procurement was a direct purchase by the UK MoD, with Iveco managing the complete integration activity. This required input from five separate sub-contractors – GD(UK), Terex Atlas, Thompson Engineering, BI Engineering and KraussMaffei Wegmann.

A total fleet of 24 Self Loading Dump Truck (Protected) are now in service, with the majority of the fleet on operations, where they have been extremely well received. The protection provided by the steel cab, bar armour and other countermeasures has been particularly welcome.

This completes a series of successes in the field of logistic vehicles by Iveco in recent years, including significant contract wins in France, Switzerland, Germany and Spain. The company is currently bidding to supply Trakker to the Norwegian and Swedish Armed Forces to re-equip their logistic vehicle fleets.

The Trakker chassis has also been the prime mover of choice for a series of other programmes, including, most recently, the supply of FAUN truck mounted trackway systems to Turkey.

Trakker was originally designed for heavy commercial applications, such as quarry work, but its reliability, flexibility and durability has made it particularly suitable for adaptation to defence applications. It is complimented by the Iveco Defence Vehicles High Mobility Range of 4x4, 6x6 and 8x8 specialist military vehicles.

These programmes show how Iveco's strategy of forming industrial partnerships has allowed the development and delivery of vehicles to support military operations with highly reliable and tailor-made solutions at a competitive price and against tight time constraints.



## Exhibitions

**Oshkosh Defense Exhibits Protected Vehicle Capabilities at LAAD Security**

Personnel protection in Latin America is an increasing concern for corporate, municipal, federal and other government forces. Security and safety professionals will have an opportunity this week to learn more about the protected vehicle offerings from Oshkosh Defense, a division of Oshkosh Corporation, at the LAAD Security 2012 exhibition in Rio de Janeiro, Brazil, April 10-12.

Oshkosh will display its SandCat Tactical Protector Vehicle (TPV) at the show. The SandCat TPV combines the agility and drivability of a consumer truck with the protection capabilities of a tactical military vehicle.

“Our SandCat TPV is a highly customizable vehicle designed for public safety officials needing to increase their protective detail for special events such as the World Cup and the Olympics, as well as provide critical support needed for daily patrols in urban environments or off-road terrain,” said Serge Buchakjian, senior vice president and general manager of International Programs for Oshkosh Defense. “We back our vehicles and products with full life-cycle sustainment and support services anywhere in the world.”

Oshkosh Defense has more than 90 years of experience designing, manufacturing and sustaining world-class vehicles for governments and militaries around the world. Oshkosh uses a collaborative, integrated approach to meet customers’ needs, from vehicle design and flexible manufacturing to training and aftermarket sustainment. Oshkosh can also provide in-country manufacturing capabilities to provide lasting value to local economies. The company has produced more than 100,000 military-class trucks and trailers, with vehicle payloads that cover the complete light-to-heavy spectrum.

Oshkosh vehicles have been proven on severe off-road terrain and against a variety of modern threats, and used by militaries, special forces units and government agencies around the world. Oshkosh’s advanced technologies deliver capabilities such as extensive off-road mobility, exportable power, autonomous operation and integrated on-board diagnostics.

Oshkosh’s aftermarket solutions cover the complete spectrum of vehicle life-cycle support, including training services, instruction manuals, maintenance and repairs, parts supply, and fleet restoration services. Oshkosh Field Service Representatives (FSR) travel globally to ensure vehicles and personnel are at peak operational readiness. The company’s robust operator and

maintenance training services provide systems-level expertise on the platforms and technologies they support, with classes offered at the Oshkosh Product Training Center, regional service centers around the world or in-theater. Additionally, Oshkosh’s parts-supply network is available around the clock to provide instant access to spare and repair parts for all vehicle makes and models.

The SandCat TPV is part of the Oshkosh SandCat family of vehicles and can be configured to meet individual performance, protection and payload needs. The vehicle’s armor system can be customized based on the threat level and mission profile. Seating capacity can be adjusted to accommodate four to nine passengers. The vehicle also can be equipped with standard or customized storage, and is typically integrated with a wide array of weapons and communications systems. The SandCat TPV’s compact design, combined with a 14-inch vertical step capability and 42-foot curb-to-curb turning circle, enables mobility in both tight urban settings and rugged rural landscapes.

The SandCat family of vehicles also includes the base vehicle, Special Operations Vehicle (SOV) and Mine-Resistant Light Patrol Vehicle (M-LPV). These variants are based on the same lightweight, highly maneuverable platform for eased maintenance and repairs worldwide. Oshkosh has received orders for the SandCat from Mexico, the United States, Sweden, Bulgaria, Canada, Nigeria and Israel.



## Training And Simulators

**Saab Signs Extension Contract With the British Army**

Defence and security company Saab and the UK Ministry of Defence (MoD) has signed a two year extension contract for the Deployable Tactical Engagement Simulation training system (DTES) Managed Service, used by the British Army. The order amounts to J 11.7 million (approx. SEK 121 million), and was registered during the first quarter of 2012.

Since August 2009, Saab has delivered a Managed Service to the British Army for their combined training. It provides full technical and operational support to Battle Groups exercising in the harsh environment of Kenya.

“We consider this extended contract to be a symbol of the strong partnership between Saab and the British



Army, and a renewal of our commitment as a highly trusted overall training provider to a first class military customer. The Saab team in Kenya is well placed to continue to strengthen our position and we look forward to a long and successful relationship with the British Army,” says Henrik Hujer, Managing Director Training & Simulation at Saabs business area Security and Defence Solutions.

During the last three years of the contract, Saab has supported more than twenty exercises including one in which the entire system and its associated personnel were deployed to the UK and Salisbury Plain to support Mission Specific Training (MST).

In addition, Saab provides live simulation for UK MoD training in Afghanistan, Canada, Germany and the UK mainland.

The extended contract includes new and improved capabilities such as Medical Treatment Simulation, improved After Action Review facilities and Engagement Feedback Devices.

Earlier this year Saab was proud to receive a contract extension from the UK MoD for the Collective Counter-IED Trainer (CCT), in order to continue to provide the UK MoD with world class training for the detection of improvised explosive devices. This training continues to save lives. This contract was communicated on March 16.

### Defence Industry

## Supacat Selected for Australia's JP2097 Ph 1B (REDFIN) Special Operations Vehicle Programm



Dunkeswell, Devon, UK -- The Australian Defence Material Organisation (DMO) has selected Supacat as Preferred Bidder for the Special Operations Vehicle element of the Project Definition and Evaluation phase (PD&E) of JP2097 Ph 1B (REDFIN) program and has awarded Supacat an initial contract for this phase.

Supacat's successful bid offered the latest version of its Special Forces HMT Extenda vehicle. When approved, JP2097 Ph 1B (REDFIN) will provide the Australian Defence Force with a new family of Special Operations Vehicles. On completion of the PD&E phase the DMO is expected to acquire a fleet of vehicles under a separate contract.

The new vehicle, while retaining a high level of commonality with the Australian Army's existing 'Nary' HMT fleet, delivered by Supacat in 2009, provides

improved capabilities, particularly, in the areas of crew protection and vehicle versatility. Supacat's HMT is the most capable vehicle in its class with proven operational experience. It combines high levels of performance in the areas of mobility, protection, payload and firepower into an intuitive vehicle to operate and maintain. It has demonstrated its reliability, flexibility and capability on extended operations around the world and is the vehicle of choice for the elite land forces of the world's most active and influential armies.

Supacat will deliver the program through the Supacat Team Australia program office based in Melbourne. Supacat Team Australia is made up of 14 Australian industry partners who will provide the capabilities to deliver the production vehicles and the ongoing through life support of the fleet.

Mick Halloran, Managing Director, Supacat Pty Ltd, said, "Being selected for this key Australian program is a huge achievement for Supacat. We are looking forward to working with the Commonwealth, their preferred prime systems integrator for the command and control element, Elbit Systems of Australia, and our Supacat Team Australia partners to successfully deliver this first phase of REDFIN 1B. It is the launch pad for Supacat Pty in the Australian defence market".

Nick Ames, Managing Director of Supacat Ltd, said, "The REDFIN 1B award is pivotal to Supacat's expansion and confirms the superiority of our HMT series as the Special Operations 'vehicle of choice'. With our development of an in-country design and engineering capability, it positions Supacat to access future opportunities in the expanding Australian defence market as well as in diversified industry sectors in the Asia Pacific region".

### HMT EXTENDA

The Supacat HMT series is world renowned as the vehicle of choice for Special Forces, including Australia and the very latest configuration has been offered to meet the REDFIN 1B requirement.

Designed for use by Special Forces, the HMT Extenda is unique in being convertible to either a 4x4 or 6x6 configuration to meet different operational requirements by inserting or removing a self-contained third axle unit. Like other HMT series platforms, the HMT Extenda can be supplied with optional mine blast and ballistic protection kits and with a variety of mission hampers, weapons, communications, ISTAR and force protection equipment to suit a wide range of operational roles.

Supacat's 1B solution offers capability improvements in the key areas of firepower, protection, capacity, operability and safety based upon direct feedback from the worldwide operational use of existing HMT fleets. There are also a number of options offered that the Commonwealth may wish to choose from.

### Defence Industry

## Rheinmetall Defence and General Dynamics Form Tank Ammunition Joint Venture Company

Rheinmetall Defence of Dusseldorf and General Dynamics Ordnance and Tactical Systems, a business unit of General Dynamics, have formed a tank ammunition joint venture company named Defense Munitions International, LLC (DMI). The new company will develop and market new and existing 120mm kinetic energy and multi-purpose cartridges for the U.S. and international tank ammunition markets.

DMI combines the partners' full range of development, production and sales activities of 120mm tactical ammunition for main battle tanks. By combining their activities in DMI, the two partners aim to broaden their global market access, expand production efficiencies and selectively engage in joint development work. Select cartridge types and 120mm practice ammunition will not be part of this joint venture arrangement.

This forward-looking joint venture is the culmination of the longstanding partnership between General Dynamics and Rheinmetall Defence. For over a decade the two companies have worked together on numerous 120mm ammunition projects, such as the development and production of the KEW-A1 and KEW-A2 advanced tungsten kinetic energy ammunition for Abram's users worldwide.

Additionally, Rheinmetall has fielded the DM 63 tungsten kinetic energy round for the German Bundeswehr and other NATO users of Leopard tanks. Under the joint venture, DMI will continue these efforts while working to add further improvements to the KEW family. The company will also develop and produce advanced multi-purpose ammunition, leveraging the success of Rheinmetall's DM 11 cartridge, which was recently fielded by the United States Marine Corps in Afghanistan.

As Armin Papperger, member of the Executive Board of Rheinmetall AG, explains, "This pioneering joint venture is a transatlantic extension of our chosen policy of internationalization. Thanks to DMI, we will be able to respond better to our global customer base's desire for an increased product portfolio in the future as well as providing an expanded set of services. Our strategic relationship with General Dynamics, a joint venture for marketing and producing tactical tank ammunition, is the logical outcome of over ten years of working together successfully. By joining forces, we aim to take the lead in the global market for tank ammunition."

Michael Wilson, president of General Dynamics Ordnance and Tactical Systems, said, "We are excited about the creation of this joint venture with Rheinmetall. Our successful partnership over the last decade lays the foundation for this joint venture. Under DMI, we will continue to build upon that success within our existing customer segments while we expand our product offerings, including the Rheinmetall DM 11 multipurpose cartridge, recently fielded by the Marines, which adds another powerful capability to the warfighter's arsenal."

## Contracts

### GD introduces advanced smart displays for GCVs

General Dynamics (GD) Canada has unveiled its newly developed family of SD8000 smart displays with the quad-core 3rd generation Intel Core processor, designed to help military vehicles meet the critical computing-intense constraints of battlefield management.

The next generation smart displays bring the latest commercial computing technology to the battlefield, while conserving size, weight and power inside the vehicles.

David Ibbetson, General Dynamics Canada general manager said quad-core processing effectively doubles the vehicles' previous dual-core smart displays computing capabilities.

"Increased demand for warfighters to have rapid and direct access to information and sophisticated battle management applications requires highly integrated battlefield computing solutions," Ibbetson added.

Intel Intelligent Systems Group marketing director Matt Langman said that by using the increased energy efficiency and enhanced 3D graphics and video capability of the 3rd generation Intel Core processor family, GD will provide critical computing capabilities, while maintaining processing speed.

The ultra rugged displays are primarily developed for use in Ground Combat Vehicles (GCVs) and are naturally convection-cooled to meet rigorous military standards.

The displays feature touchscreen, multiple video and audio input channels, streaming and snapshot video capture, multiple vehicle-bus interfaces, wireless communications and Voice over Internet Protocol (VoIP) capabilities.

Additional key elements include an embedded ground-based GPS Receiver Application Module (GB-GRAM), multiple I/O ports and a solid state hard drive.

Intel Virtualization Technology has also been integrated by the company to enable the use of Multiple Independent Levels of Security/Safety (MILS), high assurance security architecture for controlled information.

Smart displays can easily adapt to the changing dynamics of the mission, while supporting interoperability and future technology enhancements, and are currently fielded aboard a variety of the US Army's GCVs, including the Mine Resistant Ambush Protected, Stryker and Bradley vehicles.

## Contracts

### General Dynamics Awarded \$7 Million by U.S. Army for Conversion of M2 Crew-Served Machine Guns

CHARLOTTE, N.C. -- General Dynamics Armament

and Technical Products, a business unit of General Dynamics, was awarded a \$6.9 million contract by the U.S. Army TACOM Life Cycle Management Command to convert more than 3,500 M2 heavy barrel (M2HB) machine guns to the M2A1 configuration.

The M2A1 offers the proven performance of the existing M2HB heavy barrel (HB) machine gun, along with new features and design improvements that are adaptable to existing M2HB weapons. These innovative improvements help eliminate operator error, decrease muzzle flash and streamline barrel changes. General Dynamics developed the M2A1 .50 caliber weapon upgrade after more than 30 years of experience manufacturing the M2HB for the U.S. Department of Defense. The M2 machine gun is one of the world's most effective crew-served weapons. "General Dynamics is proud of our role in making this highly effective weapon even better by improving its safety, reliability and ease of use," said Steve Elgin, vice president and general manager of armament systems for General Dynamics Armament and Technical Products. "Our success producing and advancing the M2 machine gun positions us to continue production well into the future." Production work will be completed at the General Dynamics facility in Saco, Maine, which employs over 400 people and has been the vendor of choice for the M2 machine guns since 1979. Conversion of the M2 guns under this contract will be completed in 2013. Program management will be performed at General Dynamics' Williston Technology Center in Williston, Vt.

the Abrams the most survivable tank in the world and enable it to fight as part of the Joint Force network for decades to come. The order authorizes the modernization of tanks that have been in the Army's inventory for up to 20 years. Work will be performed in Anniston, Ala.; Tallahassee, Fla.; Sterling Heights, Mich.; Lima, Ohio; and Scranton, Penn., with an estimated completion date of November 30, 2014. This award maintains the stability of the U.S. combat vehicle industrial base and helps protect critical commercial defense resources. Abrams production helps preserve a strong national industrial base of approximately 882 suppliers, 64 percent of which are small businesses, as well as a strong national defense.

## Contracts

### General Dynamics Awarded \$31 Million for Abrams Tank Upgrades



STERLING HEIGHT -- The U.S. Army TACOM Lifecycle Management Command awarded General Dynamics Land Systems \$31 million to begin upgrading 24 M1A1 Abrams main battle tanks and 22 M1A2 System Enhance Package (SEP) Version One (V1) tanks to the M1A2 SEP V2 configuration.

General Dynamics Land Systems is a business unit of General Dynamics (NYSE: GD). The most technologically advanced digital tank available, the M1A2 SEP V2 includes improved color displays, day and night thermal sights, auxiliary power and a tank-infantry phone. The configuration is a digitally connected tank with a state-of-the-art electronic backbone, powerful computers and an open architecture designed to accept future technologies without the need for significant re-design. The SEP enhancements make