

# Army Guide monthly



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## Exhibitions

## Oshkosh Defense Introduces New M-ATV Variants at SOFEX 2014



Oshkosh Defense, a division of Oshkosh Corporation, is introducing new Mine-Resistant, Ambush Protected (MRAP) All-Terrain Vehicle (M-ATV) variants at the Special Operations Forces Exhibition & Conference (SOFEX), taking place May 5-8 in Amman, Jordan.

Oshkosh is evolving the combat-proven M-ATV family of vehicles to meet a more diverse range of mission requirements and needs for armed forces in the Middle East, North Africa region, and around the world.

The expanded global M-ATV family of vehicles includes two multi-mission models – the M-ATV Standard and M-ATV Extended, each with multiple variants. The M-ATV Standard is designed to provide response and support capabilities for a range of offensive and defensive missions in off-road environments. The M-ATV Extended delivers increased capacity for additional troops and equipment to support a wider assortment of mission profiles, such as mounted infantry support, explosive ordnance support and command-and-control. Variants include:

- M-ATV Standard Base (SXB)
- M-ATV Standard Upgrade (SXU)
- M-ATV Standard Special Forces (SXF)
- M-ATV Extended Intervention (EXI)
- M-ATV Extended Engineer (EXE)
- M-ATV Extended Command (EXC)

All M-ATVs deliver industry gold standard off-road performance and feature common components, such as the Oshkosh TAK-4® independent suspension system, and offer integrated cab crew protection. Collectively, the family meets a wider range of protection, performance, payload and transportability requirements for peacekeeping, internal security, border security, special forces, counterinsurgency and conventional military operations.

“The Oshkosh M-ATV already stands alone as the battle-tested, highly mobile MRAP of choice for a full range of missions,” said John Urias, Oshkosh Corporation executive vice president and president of Oshkosh Defense. “Our new M-ATV variants expand on this life-saving platform to address a more diverse mix of mission profiles and specialized functionality, threat levels and cost targets, so troops get the vehicle that’s right for their specific needs.”

The latest generation Oshkosh M-ATV will be on display at SOFEX 2014. The M-ATV has been in service with U.S. Forces since 2009 to meet an urgent need for a lighter, more mobile MRAP vehicle. The global M-ATV

family of vehicles are configured to perform in various mission profiles, in a standard or extended wheel base.

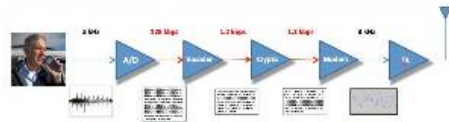
Oshkosh Defense’s unique systems integration processes and expertise allows command, control, communications and computer (C4) equipment for the M-ATV to be integrated at the vehicle design stage. A “first-pass” approach helps optimize ergonomics, reduce system interference and minimize costs. Oshkosh also offers the full range of sustainment services through its Integrated Product Support (IPS) group to support everything from M-ATV training and technical manuals to maintenance and parts support.

To date, Oshkosh Defense has received orders for nearly 10,000 M-ATVs from the U.S. military and Middle East armed forces, including the United Arab Emirates and Kingdom of Saudi Arabia.



## Defence Industry

## Announcement – Digital Voice option for Envoy™ HF Transceiver



AT Communication is pleased to announce the release of Digital Voice option for the Envoy™ Software Defined, digital HF Transceiver system. The Envoy™ Digital Voice option uses the latest powerful DSP and Vocoder technology to produce amazing voice clarity in the harshest of radio environments. Untrained operators will now overcome frustration common with analogue HF radios.

By adding to the advanced design techniques in the Envoy™, we have been able to deliver a radio that is even simpler to use by providing clearer voice communication in poor radio conditions. This noise free digital voice provides the dependency needed in mission critical environments not available with analogue radios. Your operators can now focus on the important messages rather than the technology.

Envoy™ already delivers the best possible analogue voice quality using:

- Dynamic range compression for maximum power and range
- Market leading receiver sensitivity ensuring reception of the weakest signals
- Easitalk™ - Patented DSP based noise reduction algorithm which eliminates background noise such as hiss, pops and tones
- Three different DSP options available for different conditions
- High grade DSP based (128-bit equivalent) encryption available

The Digital Voice option takes this clarity to a whole new unparalleled level.

Want to know more – visit this link to hear the difference for yourself – You will be amazed.

[http://hf-ssb-transceiver.at-communication.com/en/codan/codan\\_envoy\\_digital-voice\\_vocoder.html](http://hf-ssb-transceiver.at-communication.com/en/codan/codan_envoy_digital-voice_vocoder.html)

### About Envoy™

The Envoy™ is the latest generation smart Digital Software Defined HF transceiver providing reliable Digital Voice and Data communications.

Envoy's™ embedded IP connectivity allows control options simply not possible with conventional analogue radios. It is now possible to have crystal clear real-time digital voice conversations across the globe using the HF and Internet mediums with Envoy™. Unlike our competitor's radios – this functionality is possible without external accessories.

Our clients are now able to program, configure and upgrade their Envoy™ with new functionality without returning them to a depot. This offers significant operational flexibility and provides substantial savings on deployment, maintenance and total cost of ownership.

The multilingual user interface is highly intuitive with smartphone like icon controls providing rapid user adoption. With a built-in data modem sending messages and photos in the field has never been simpler.

The Envoy™ supports dual antenna inputs automatically selecting the best signal for even simpler operation and communication reliability.

AT Communication is renowned worldwide for providing leading-edge technology in mission-critical applications. The Envoy™ raises the standard again and is built on a pedigree of over 50 years of innovation.

[http://hf-ssb-transceiver.at-communication.com/en/codan/hf\\_ssb\\_transceiver\\_codan\\_envoy\\_sdr\\_software-define-d-radio.html](http://hf-ssb-transceiver.at-communication.com/en/codan/hf_ssb_transceiver_codan_envoy_sdr_software-define-d-radio.html)

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### Defence Industry

#### Textron Systems` Light Armaments Team to Develop Lightweight, Cased-Telescoped Small Arms for U.S. Army

Textron Systems Unmanned Systems, a business of the Textron Systems segment of Textron Inc., through its Light Armaments team, announced today a \$5.7 million contract from the Defense Ordnance Technology Consortium and the U.S. Army's Armament Research, Development and Engineering Center for continued development of lightweight, Cased-Telescoped (CT) weapons and ammunition.

Under this two-year award, the team will develop a CT carbine, as well as 7.62 millimeter (mm) CT ammunition and a machine gun operating mechanism. The CT ammunition utilizes a plastic casing to reduce weight significantly versus conventional ammunition while maintaining performance.

The Textron Systems Light Armaments team developed the flagship 5.56 mm CT Light Machine Gun under the Lightweight Small Arms Technologies (LSAT) program. The LSAT Light Machine Gun recently took part in the Army's Dismounted Non-Networked Experiment at Fort Benning, Ga., receiving positive user feedback. Providing up to a 40 percent, or 20-pound, weight reduction over current technology, the LSAT

Light Machine Gun and 5.56 mm CT ammunition have been demonstrated at Technology Readiness Level 7, while improving both lethality and reliability.

Leveraging the success of this design, the team has created a family of lightweight, 5.56 mm CT weapons. This includes a compact Light Machine Gun with a quick-change, 12-inch barrel and folding buttstock, developed for close-quarters applications and tested in 2012 by the U.S. Army Special Operations Command, as well as the operating mechanism for a carbine variant. The team also has developed an innovative caseless ammunition design, demonstrated to provide even greater weight reduction versus current technology.

The Textron Systems Light Armaments team intends to leverage the demonstrated success of prior designs to extend CT weapon and ammunition technologies to additional calibers and weapon configurations on the new program. For this effort, it leads a skilled team including Alliant Techsystems (ATK), ARES Incorporated, MSC Software and St. Marks Powder, a General Dynamics company.

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### Future Technologies

#### Oshkosh Equips M-ATV for Unmanned Route-Clearance Missions



Oshkosh Defense, a division of Oshkosh Corporation, has integrated its TerraMax® unmanned ground vehicle (UGV) technology onto an Oshkosh MRAP All-Terrain Vehicle (M-ATV) to demonstrate capabilities for route-clearance missions. TerraMax UGV technology has the potential to reduce troops' exposure to threats, such as improvised explosive devices (IED) in route-clearance missions, as well as optimize the number of troops needed for such operations.

Oshkosh is attending the Association for Unmanned Vehicle Systems International (AUVSI) Unmanned Systems 2014 in Orlando, Fla. beginning today through May 15, to demonstrate how TerraMax UGV technology can benefit route clearance and other missions.

“The clearance of threats like IEDs, mines and unexploded munitions pose challenges that global military forces have faced since World War II, and are expected to continue long after Afghanistan,” said John Urias, president of Oshkosh Defense. “Our TerraMax UGV technology can bring autonomous capabilities to existing manned vehicle platforms, like the M-ATV, to remove troops from targeted routes and provide greater standoff distance from explosive threats. It also has force-multiplication benefits with one operator controlling several vehicles, so logistics operations can be successfully completed with fewer troops.”

Equipped on the M-ATV, as well as other heavy and

medium tactical wheeled vehicles, TerraMax UGV technology enables one or multiple vehicles in a route clearance convoy to operate autonomously, resulting in fewer troops exposed to threats.

The TerraMax UGV system can be enhanced to intelligently incorporate counter-IED (C-IED) payloads such as ground-penetrating radar and mine rollers. The TerraMax operator control unit (OCU) also can provide over-the-horizon situational awareness to accompanying manned vehicles. The system is highly interoperable, using a widely adopted, non-proprietary open architecture messaging standard that enables modularity and easy integration of new subsystems.

Oshkosh is conducting this work independently and in parallel to efforts within the U.S. Marine Corps and Army to identify opportunities for using UGVs for route-reconnaissance and route-clearance missions. The effort expands on Oshkosh's efforts with the U.S. Office of Naval Research Cargo UGV project, which seeks to bring UGV capabilities to logistics convoy missions to help reduce troops' exposure to threats.



### Defence Industry

#### Rheinmetall Wins Major Contract from Sweden for Military Trucks



Rheinmetall has just booked another big order for its state-of-the-art, high-mobility truck families. In the medium term, Norway and Sweden intend to buy as many as two thousand military logistics vehicles with a total value of over €1 billion. Following the Norwegian procurement authorities, today Sweden too signed the framework agreement for joint procurement of military logistics vehicles from Rheinmetall MAN Military Vehicles (RMMV).

As a first step, the Swedish armed forces have placed an order for a first lot of 215 vehicles in various configurations. Of these, 51 will have specially protected driver's cabs, developed and manufactured by Rheinmetall.

Together, the armed forces of Sweden and Norway have thus ordered a total of 335 vehicles now in 14 different configurations, worth some €200 million. The first lot – consisting of a mix of different models – will be delivered between the end of 2015 and end of 2017.

Although the framework agreement does not contain details concerning the number of vehicles to be purchased, it expresses the intent of the procurement authorities of Sweden and Norway to buy up to 2,000 military logistics vehicles during the 2014-2026 timeframe. As a result, the total order value of the joint

procurement programme would exceed €1 billion.

A service agreement covering all of the vehicles supplied has also been signed. Covering an optional period of three decades, it could potentially mean over €1 billion in additional sales.

This new generation of vehicles will improve the transport and logistical capacity of the Swedish and Norwegian armed forces while simultaneously boosting their operational capabilities. Customized to meet the specific needs of both armies, a number of these vehicles will be equipped with protected cabs that provide the crew with optimum protection against mines, ballistic threats and shrapnel.

In order to further enhance crew survivability and combat effectiveness as well as the operational performance of the vehicles, they will be equipped with advanced communications and command technology and in some cases with remote control weapon stations mounted on the vehicle roof.



### Defence Industry

#### BAE and Rheinmetall Team to Offer Go-Anywhere Vehicles to Canada



Rheinmetall Canada Inc will display the BAE Systems BvS10 all-terrain vehicle on its outdoor stand (#2102) at the CANSEC defense exhibition in Ottawa from May 28 through May 29.

The move follows a teaming agreement signed by the two companies in late 2013 as part of a future bid for the Marginal Terrain Vehicles (MTV) program in Canada, offering the BvS10.

Rheinmetall Canada has long experience in Canada with managing government furnished equipment and system integrations. Rheinmetall will supply and integrate Canada-specific sub-systems, including the remote weapons station, as well as carry out support.

“Rheinmetall Canada has the technical and delivery capabilities we have been looking for to deliver this program and we are looking forward to a strong co-operation,” said Tommy Gustafsson-Rask, managing director at BAE Systems.

“The BvS10 is the original and best armored all-terrain vehicle,” said Alain Tremblay, vice president for business development at Rheinmetall Canada. “We believe it will provide Canadian forces the powerful and flexible capability they require.”

BAE Systems offers 50 years' experience of tracked all-terrain vehicles. Sweden, the United Kingdom, the Netherlands, and France all operate the company's BvS10 and more than 10,000 of the earlier, smaller



BV206 family of vehicles have been sold around the world. Soucy, based in Drummondville, Quebec, makes rubber tracks for the BV vehicles and, increasingly, for its larger CV90 stablemate.

Designed for use in arctic and other challenging conditions, BAE Systems' all-terrain vehicles are seeing increased use in humanitarian aid and disaster relief around the globe.

BAE Systems' factory in Örnsköldsvik, Sweden is currently building new BvS10s for Sweden and carrying out a major refurbishment of the British Royal Marines' BvS10 Viking fleet.



## Exhibitions

### Elbit Systems to Showcase a New Upgraded Version of the ATMOS 155mm/52 caliber Truck-Mounted Howitzer at Eurosatory 2014



Elbit Systems will showcase, for the first time at a global trade show, its new upgraded version of the ATMOS 155mm/52 caliber Truck-Mounted Howitzer. Mounted onboard a TATRA vehicle chassis, the ATMOS will be located at Hall 6 booth D-601.

ATMOS is a lightweight, long range, fast moving, truck-mounted self-propelled (SP) 155 artillery system. The new and improved version showcased at the show enables superior fire power, enhanced mobility and rapid response time.

The upgraded version offers ranges exceeding 40km with ERFB-BB ammunition and suitable propelling charge, at an extremely high firing rate of six projectiles per 60 seconds, achieved by using a unique new load assist device.

Its shoot-and-scoot capabilities are supported by an integrated electronic suite incorporating an INS-based laying system, as well as a semi-automatic loading system that reduces the amount of crew members needed in operation. The new ATMOS supplies fire support for all types of missions and can be easily interfaced with customers' existing C4I systems, enabling a common operational picture and enabling quickly close sensor-to-shooter loops.

The ATMOS can be mounted on any adapted high-mobility 6x6 or 8x8 truck chassis preferred by the customer (in this case it is mounted onboard a TATRA chassis). The protected cabin of the ATMOS is designed for a crew of 5-6 personnel, a driver, a commander, and an additional three to four crew members along with all personal equipment and small arms.

Able to fire all types of qualified 155mm ammunition, projectiles and charges that are in use by NATO and other countries, ATMOS is battle-proven and fully operational in artillery forces around the world, providing advanced fire support for a wide range of missions.

Udi Vered, General Manager of Elbit Systems' Land and C4I Division commented: "The new and advanced upgraded version of the ATMOS is based on the vast operational experience accumulated by Elbit Systems' battle-proven products used by the Israeli Defense Forces and other world-leading armed forces. Basing on our experience and know-how, we are able to deliver a highly flexible and unique solution that can be mounted on any chassis preferred by the customer. This integrative solution combines artillery systems and advanced electronic capabilities suitable for the growing trend of transition to wheeled mobile platforms for artillery, providing a tactical force-multiplier for fighting units on the battlefield."

