

# Army Guide monthly



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## Army

**German Army receives 30 Fennek JFST**

Munich/The Hague -- The Dutch DMO (Defence Materiel Organisation), responsible for the bilateral Fennek program, has ordered the modification of 30 Fennek reconnaissance vehicles to JFST (Joint Fire Support Team) status for the German Army on behalf of German Federal Office of Bundeswehr Equipment (BAAINBw).

The contract includes retrofitting to the latest configuration state in the versions Forward Artillery Observer and Forward Air Controller, as well as replacing obsolete component assemblies and the corresponding software adjustments.

The total order value amounts to approx. EUR 88 million. The Fennek scout cars will be retrofitted to the Fennek JFST 1A3+ variant between 2018 and 2022 and then transferred back to the German Armed Forces.

The Fennek JFST has extremely high-performance observation equipment and a communication connection which enables voice and data radio from the air force and marines. The system's tasks include battlefield monitoring, target acquisition and directing fire.

The Joint Fire Support Team consists of two vehicles, an artillery observer and a forward air controller.

**Rheinmetall to modernize the Bundeswehr's Boxer command vehicles**

Rheinmetall has been tasked with modernizing 38 Boxer multipurpose armoured transport vehicles for the Bundeswehr, all of them configured for a command role. On 28 June 2017, OCCAR, the European procurement agency, awarded the Boxer consortium, ARTEC, a contract to upgrade these vehicles to A2 status. ARTEC is expected to pass the order on to consortium partner Rheinmetall MAN Military Vehicles during the next few weeks. For Rheinmetall the gross value of the contract

comes to around €21 million (€18 million without VAT). The order will be complete in mid 2020.

Modernizing the Boxer command vehicles to A2 design status will involve a whole host of modifications affecting both the chassis and mission module. Among other things, the vehicles will be retrofitted with advanced driver visualization technology, weapon systems, IT equipment modules and communication systems. This will lead to improvements with respect to handling, protection, combat effectiveness, networking and logistics, further enhancing this battle-proven, extremely well protected family of 8x8 wheeled vehicles.

The scope of performance encompasses both one-time and serially produced products and services. In general, the one-time items relate to development activities such as system safety, environmental compatibility analysis, logistic support analysis and interactive electronic documentation.

Besides the 38 command vehicles, the German armed forces are upgrading 124 Boxer armoured personnel carriers, 72 heavily protected field ambulances and twelve driver training vehicles to A2 status.

The upgrade of the chassis to A2 design status includes the "Fit-for" driver visualization system installation kit, modification of the exhaust gas and cooling air flow, repositioning of the towing cable and the driver's station, and covering of the rear spotlights. In addition, labelling in conformity with the Bundeswehr's Automatic Identification Technology (AIT) is being introduced. Furthermore, requirements generated by the safety workshop are being implemented, including an ABS function check and monitoring of the differential lock.

Modification of the command vehicle module to A2 design status encompasses installation of a fire suppression system; AIT labelling; a remotely controlled FLW200 weapon station that can be operated from multiple locations in the vehicle; common displays for the vehicle commander and section leader; transmission of the video signal from the driver visualization system to the commander's station; as well as alteration of the external storage capacity, antenna configuration and loading. Additional components will be integrated into the vehicle's IT suite, including DVI, LAN, Y adapter cables and a DC/DC transformer. The upgraded vehicles will also be equipped with a voice over IP/ VoIP capability.



## Defence Industry

**General Dynamics to Deliver New EAGLE 4x4 Armored Patrol Vehicles to Denmark**

MADRID -- General Dynamics European Land Systems (GDELS) has been awarded a supply contract for the Danish Army's new 4x4 Armored Patrol Vehicle program (APV). After a competitive tendering process, including an intensive comparative vehicle trial, the Danish Defence Acquisition and Logistic Organization (DALO) has selected GDELS-Mowag's EAGLE 4x4 vehicle platform.

The initial batch consists of 36 vehicles in the Patrol configuration with first deliveries in 2018. The contract has options for further variants including Electronic Warfare, Support and Reconnaissance. The vehicles will complement the Danish Army's existing EAGLE vehicle fleet.



“We are very proud to have received this contract after an intensive international competition. The Eagle’s selection underlines the confidence and satisfaction of our Danish customer with our products and proves the “first-in-class” position of our EAGLE 4x4 in the segment of light and highly protected vehicles.” said Thomas Lattmann, Director International Business & Services, General Dynamics European Land Systems.

The contract was signed on June 15, 2017, through General Dynamics European Land Systems – Mowag, the Switzerland-based subsidiary of General Dynamics European Land Systems.

**Facts about the EAGLE 4x4**

The EAGLE 4x4 is one of the most advanced light armored wheeled vehicles and it has demonstrated its excellence in various military missions. The tremendous growth potential and power reserves of the EAGLE will provide the Danish Armed Forces with a vehicle capability to meet today’s and tomorrow’s requirements. Different configurations of the EAGLE vehicle family are successfully in service with the Danish Armed Forces, the German Bundeswehr and the Swiss Army. In addition to its unmatched level of protection, the EAGLE 4x4 provides increased payload and crew capacity. With its unique suspension and drive-line system, the EAGLE 4x4 sets the standard in terms of mobility and maneuverability in this vehicle class.

Reconnaissance Vehicle (CRV) contract.

Rheinmetall is using the LANCE turret assembly to determine which Australian companies can deliver skills, parts and expertise in the manufacture and assembly of turrets in Australia.

Supacat has been an important part of the build process and is Rheinmetall’s teaming partner in the Land 400 Phase 2 Risk Mitigation Activities currently being conducted by the Commonwealth of Australia.

Rheinmetall has co-located its RMA operation at Supacat’s Port Melbourne facilities and the BOXER CRV team comprises senior Supacat personnel.

Victorian companies Able Industries Engineering and Nezkot Precision Tooling and Engineering have each played an important role in the construction of the turret by supplying products and services during the assembly process.

“Much of this work could have been conducted in manufacturing facilities in Europe but we have found each of the Victorian companies deliver a service and capability that meets or exceeds our needs to successfully compete for the Land 400 program,” said Rheinmetall Defence Australia Managing Director Andrew Fletcher.



**Army**

**UK - JLTV and Accessories**



The State Department has made a determination approving a possible Foreign Military Sale to the United Kingdom for Joint Light Tactical Vehicles (JLTV) and accessories. The estimated cost is \$1.035 billion. The Defense Security Cooperation Agency delivered the required certification notifying Congress of this possible sale today.

The Government of the United Kingdom (UK) has requested a possible sale of up to two thousand seven hundred forty-seven (2,747) Joint Light Tactical Vehicles (JLTV). This possible sale also includes baseline integration kits, basic issue item kits, B-kit armor, engine arctic kits, fording kits, run-flat kits, spare tire kits, silent watch kits, power expansion kits cargo cover kits, maintainer and operator training, U.S. government technical assistance and logistics support services, and other related elements of logistics and program support. Total estimated cost is \$1.035 billion.

This proposed sale supports the foreign policy and national security policies of the United States by helping to improve the security of a NATO ally which has been, and continues to be, an important partner on critical foreign policy and defense issues.

The proposed sale will help improve the UK's Light Tactical Vehicle Fleet and enhance its ability to meet current and future threats. The UK will have no difficulty

**Defence Industry**

**Supacat Involvement In Rheinmetall Lance Turret Built**



Three Victorian companies have joined with Rheinmetall Defence Australia to assemble and test the first LANCE two-man turret in Australia as part of bidding for the Land 400 Phase 2 Combat



absorbing this equipment into its armed forces.

The proposed sale will not alter the basic military balance in the region.

The principal contractor of this sale will be Oshkosh Defense, LLC, Oshkosh, Wisconsin. The procured items will require minimum contractor support until the foreign customer can eventually transition to internal organic support. There is no known offset agreement associated with this proposed sale.

There will be no adverse impact on U.S. defense readiness as a result of this proposed sale.

This notice of a potential sale is required by law and does not mean the sale has been concluded.

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## Defence Industry

### Rheinmetall selects Queensland for Military Vehicle Centre of Excellence

Rheinmetall Defence Australia today announced it had selected Queensland as its location for its Military Vehicle Centre of Excellence (MILVEHCOE) and the Australian Headquarters that will be established if the company is successful in securing Australia's Land 400 combat reconnaissance vehicle program.

Currently the largest supplier of military vehicles to the Australian Defence Force, Rheinmetall will establish the MILVEHCOE as a sovereign industrial capability for the continuous design, manufacture, export and support for military vehicles, turrets and tactical systems. The MILVEHCOE will also draw on a supply network across Australia to deliver products and services from local industry into Rheinmetall's Global Supply Chain.

Rheinmetall is delivering more than 2500 logistics trucks to the Australian Army under the LAND 121 Phase 3B program and is currently bidding for the supply of the armoured combat reconnaissance vehicle under the Commonwealth of Australia's Land 400 Phase 2 program.

As a centre of excellence, the MILVEHCOE will be the focal point for the LAND 400 combat vehicles, LAND 121 logistics vehicles, and other complex defence projects. Advanced manufacturing jobs will be created in a wide range of technologies including military vehicle design, medium calibre weapons and ammunition, protection systems, fire control and surveillance systems, and systems engineering and integration.

The MILVEHCOE will include significant design, prototyping, manufacturing and system test capabilities; including a mobility test track, medium caliber firing range and an electro-magnetic compatibility test chamber. In partnership with a strong industry network, the MILVEHCOE will provide Australian engineering, manufacturing and support of military technology for Australian and global export programs.

Ben Hudson, Rheinmetall Defence Executive Board Member and Global Head of Vehicle Systems, said "Queensland is an outstanding location to establish the MILVEHCOE. The state offers a range of significant attributes including access to the Australian Army,

industry partners, a skilled workforce and an excellent site to build a state of the art facility."

"The MILVEHCOE will provide a natural hub for Government, Army, industry and academia to collaborate in developing a range of new technologies and products for the Australian and global markets. This will in turn ensure the sustainability of the industry in Australia while also generating high quality local jobs and enriching the Australian economy." Mr Hudson said.

"Rheinmetall is committed to transferring military vehicle intellectual property, technologies and skills to Australia," said Rheinmetall Defence Australia's Chief Operating Office, Mr Gary Stewart.

"It should be emphasised that MILVEHCOE will draw on skills, services, products and capability from every state and territory in Australia."

Rheinmetall's plans were shared in private briefings across Australia with more than 400 companies during last year's industry showcase for the Land 400 Phase 2 program.

An existing network of Queensland-based companies supports many of Rheinmetall's current projects in Australia and overseas, including Nioa, Penske, Holmwood Highgate, Hilton, Harris Communications, Haulmark, ELBIT and LaserDyne Technologies.

"The performance of these companies gives Rheinmetall the confidence that Queensland industry has the quality and capability to locally design, manufacture and support military vehicles in Brisbane, Townsville and the regional training locations," Stewart said.

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## Defence Industry

### Rheinmetall wins major order package worth €115 million



The German Bundeswehr has contracted with the Rheinmetall Group to supply expanded capabilities and additional equipment for the Puma infantry fighting vehicle. The Koblenz-based Federal Office for Bundeswehr Equipment, Information Technology and In-Service Support (BAAINBw) has awarded the project management company an order for a comprehensive expansion package with a gross value of €260 million (€218 million without VAT). In addition to this comes optional retrofitting with further components, for which €108 million (including VAT) has been allocated. A member of the defence consortium tasked with developing and producing the Puma, Rheinmetall's share in the current order comes to €115 million (€97 million without VAT); commissioning of Rheinmetall within the consortium will take place in the next few weeks.

These expanded capabilities will further enhance the infantry fighting vehicle's combat performance in a number of areas as well as providing improved possibilities for training.

Specifically, the expansion package includes among other things the development of a new turret-independent secondary weapon system (TSWA) for the Puma; the installation of advanced visualization and display technology; and the provision of new training resources.

The turret-independent secondary weapon system (TSWA) will significantly strengthen the vehicle's battlefield performance and especially its self-defence capabilities. Remotely controlled from the vehicle's rear fighting compartment, it is an unmanned weapon station mounted on the rear section of the vehicle rather than on the rotatable turret. This means that threats can be addressed even at very close quarters without having to use the main armament, which is especially important in urban terrain, significantly enhancing crew protection. The TSWA fires 40mm lethal and non-lethal (e.g. tear gas and flash-bang) ammunition with a maximum range of 400 metres.

The new order includes sample integration, readying the system for full-scale production and fabrication of three TSWA prototypes. The actual serial production order, in which the entire Puma fleet will be retrofitted with the weapon system, is expected to come in 2023.

In the visualization domain, the Puma's will be upgraded to meet current standards, with the current black and white monitor and accompanying optics being replaced by a state-of-the-art, high-performance colour displays. This will provide the vehicle commander and gunner with a high-resolution, highly detailed view of the surrounding terrain and the current tactical situation. It will also open up greater possibilities for reconnaissance and target engagement. A new infrared searchlight mounted on the rear of the vehicle will enhance the driver's night vision capability. Just awarded, the development order includes sample integration of the visualization technology into three vehicles, with exercise of a subsequent series production option envisaged for 2020.

Another order encompasses additional training resources for the operator of the Puma turret, one of the IFV's most technically sophisticated subsystems. Separate turret training systems, consisting of the serial turret and the upper section of the Puma's hull, will in future enable the commander and gunner to train with no need for the actual vehicle. Maintenance personnel can practise repair and assembly procedures in a highly effective, highly realistic manner. This relieves the pressure on scarce resources as well as cutting costs, as it avoids tying up the vehicle hardware and results in less wear and tear. This way training can be conducted in a much more flexible way.

Delivery of the turret trainers is to take place during the 2019-2023 timeframe. The order includes eleven new turret trainers as well as the upgrade of an existing system, which will in future give the Bundeswehr a total of twelve systems, or two per battalion. Specifically, they

will be deployed at all German mechanized infantry bases as well as at the Bundeswehr training centres in Aachen and Munster.

The Puma infantry fighting vehicle is the most advanced system of its kind worldwide. When it comes to combat effectiveness, mobility, C4I capabilities and situational awareness, it sets new standards. Along with modular, high-performance protection, the Puma possesses a unique degree of battlefield lethality and is fully capable of taking part in network-enabled operations. Roomy enough to carry nine troops, this state-of-the-art IFV can be airlifted to the area of operations in an A400M military transport plane.

The Puma is currently being introduced into the German Army. Delivery of all 350 vehicles, which began in June 2015, is scheduled for completion in 2020. The first units are now undergoing training in the use and operation of the Puma system.

## Future Technologies

### The Rheinmetall Infantry System



Rheinmetall has displayed its new "Infantry System" for the first time. It substantially enhances the combat performance of dismounted troops in connection with unmanned systems and fire support elements.

The centrepiece of the system is the infantryman, who continues to play a central part in the new operational scenarios of today's ground forces. Infantry forces have to be able to move, shoot and communicate in fast-paced, mainly dismounted operations in difficult, complex, mainly urban terrain – sometimes in extreme weather conditions. Faced with multiple symmetric and asymmetric threats, they have to be able to engage opponents with scalable, proportionate intensity.

Rheinmetall's "Infantry System" welds soldiers, their sensors and effectors, including unmanned systems and vehicles, into a highly effective fighting machine, creating a uniform picture of the tactical situation and bringing individual components into the networked-enabled operations loop. The system is specifically designed for infantry operations in difficult terrain, including towns and cities.

Among other things, the "Infantry System" encompasses the following systems and components:

#### The IdZ-ES soldier system:

"Future Soldier – Expanded System" (IdZ-ES) is the most advanced system of its kind anywhere. This modular combat equipment kit has been in active service since 2013. Paired with the Group's TacNet command

and control technology, the IdZ-ES forms the backbone of the Rheinmetall Infantry System. Flexible inclusion of other assets, sensors, effectors and platforms is possible at all times.

**The RS556 modular assault rifle and RS40\* add-on grenade launcher:**

A state-of-the-art, 5.56mm x 45 cal. assault rifle, the RS556 is designed for maximum modularity, ease of use and reliability. The 40mm RS40 grenade launcher can operate as an add-on component or in standalone mode. Rheinmetall also supplies laser light modules and fire control unit/aiming devices for small arms.

**Boxer multimission wheeled armoured vehicle with Lance turret:**

The two-man LANCE turret turns this high-mobility, highly protected, battle-tested 8x8 vehicle into a versatile, high-performance combat platform. Its state-of-the-art sensors and airburst-capable 30mm MK30-2/ABM automatic cannon make it a superb battlefield all-rounder with an excellent hunter/killer capability. The vehicle commander can directly observe the unfolding situation and issue orders from the open hatch. Particularly in difficult terrain, moreover, the manned turret facilitates operation of the vehicle as well as communication with dismounted troops. Importantly, it is also possible to correct weapon malfunctions without leaving the safety of the armoured turret.

**The Multi Mission Unmanned Ground Vehicle (MM UGV):**

Unmanned systems in combination with infantry components enable rapid reconnaissance and action, facilitating combat operations in difficult terrain, e.g. in built-up areas, woods and mountains. In places where the threat to infantry forces is especially acute, unmanned systems can efficiently perform the tasks of their human counterparts. Rheinmetall's unmanned multimission wheeled vehicle features a modern modular design. Different mission kits enable it to carry out a wide variety of missions, including reconnaissance and surveillance. It is also able to serve as a weapon platform or in a transport role, and can be remotely controlled or operate autonomously.

Finally, Rheinmetall has a proven ability to integrate other components and systems into its "Infantry System" and "Mechanized Infantry System", resulting in comprehensive, flexible, made-to-measure solutions geared to current and future military requirements.

The VBMR will succeed the VAB, manufactured in the 70s and 80s and used intensively by the French Army in all its theatres of operation in the last thirty years. The VBMR will be an info-enhanced vehicle interconnected in real time to other vehicles thus providing new operational capability, collaborative combat.



This first dynamic demonstration of the VBMR, whose development, manufacture and vehicle support contract was awarded by the French Defence Procurement Agency (DGA) in December 2014, reflects the concrete advances of the Scorpion programme. It demonstrates compliance with the development and industrialisation schedules by the France team targeting the first deliveries of the VBMR by end 2018. It is also the result of a beneficial and efficient collaboration between Nexter, RENAULT TRUCKS Defense and Thales, united in a temporary joint venture, and their service providers and partners, coordinated by DGA on behalf of the French Army.

This programme, structuring for Nexter, RENAULT TRUCKS Defense and Thales, and for the entire French industrial fabric affected by the JV outsourcing orders, gives significant impetus to our terrestrial defence industry.

**Defence Industry**

**Jankel supports Belgian National Day at the Military & Civil Parade**



On 21st July 2017, Jankel will be joining many other military and security organisations and institutions for Belgium's National Day.

**Defence Industry**

**First Parade On The Champs-Elysees For The Army's Future Connected Armoured Vehicle**

Versailles -- Nexter, RENAULT TRUCKS Defense and Thales are proud to have contributed to the success of the July 14th parade on the Champs-Elysees with the presence of a Multirole Armored Vehicle (VBMR) in a dynamic demonstration in front of the Presidential grandstands.

The national holiday, one of ten public holidays in Belgium, commemorates Leopold of Saxe-Cobourg, who in 1831 swore allegiance to the new Belgian constitution, resulting in him becoming the nation's first monarch and the start of the independent state of Belgium.

The day is to be celebrated with a range of activities, including a military parade and presentations from the



Belgian Police, Fire Service, Army and The Red Cross.

Jankel has a close relationship with the Belgian Armed Forces and are under contract to supply them with a fleet of Fox Rapid Reaction Vehicles (RRV); one of which will feature in the parade.

This recent procurement by the Belgium Special Forces of over a 100 Jankel Fox RRVs saw the Belgium Defence Minister, Steven Vandeput comment that the vehicles "allow the Belgian army to enter the 21st century". The Fox fleet brings together Toyota's expertise in automotive technology and reliability, with Jankel's military protection and upgraded terrain performance.

Speaking on behalf of the company about the parade, Jankel Managing Director Mike Mullen said, "We're honoured to have our vehicle showcased in the prestigious parade past the Royal Palace on their National Day. It really is a fantastic event and we're proud to be able to support the emergency and military services in Belgium."



### Defence Industry

#### BAE Systems expands teaming in Italy for highly mobile armored vehicles



BAE Systems has signed an agreement with the Goriziane Group SpA, an Italian company that specializes in the engineering and maintenance of vehicles and other heavy equipment, to support the BvS10, the latest generation of highly mobile and widely used armored vehicles.

The agreement significantly builds on BAE Systems' current relationship with Goriziane Group in support of the BV206, and calls for joint marketing and sales of the BvS10. The BvS10 is combat proven and designed to operate in difficult terrain while offering fully amphibious capability for littoral operations, making it capable of accessing some of the world's most remote regions. The BvS10 is in service with an ever increasing number of European Union and NATO countries.

"Our new, extended agreement with Goriziane Group further demonstrates BAE Systems' commitment to work closely with industries in the countries we do business in to support government programs and local economies," said Tommy Gustafsson-Rask, general manager of BAE Systems Hagglunds, which produces the BvS10, as well the CV90 Infantry Fighting Vehicle, in Ornskoldsvik, Sweden. "Goriziane Group's excellent record of producing high quality work has made it a trusted partner for years."

The BvS10 is the successor to the legacy BV206

all-terrain vehicle. More than 11,000 BV206s have operated in more than 40 countries over the last few decades. The Italian military is one of the largest users of the BV206 and BV206S vehicles. Leveraging the BV206's venerable design, the BvS10 offers improved mobility, better soldier protection, and lower life-cycle costs, leaving it well suited for the Italian Armed Forces' mission profile.

"We are pleased with the latest agreement with BAE Systems and see tremendous potential for the BvS10 in Italy, and we will continue to perform the services we provide at the highest possible level," said Massimo Zanin, president of Goriziane Group.

Countries under contract to receive or are already operating the BvS10 include Austria, France, the Netherlands, Sweden, and the United Kingdom.



### Defence Industry

#### More CASSPIRS Ready For Delivery To African Client



Another consignment of 21 Casspir mine-protected vehicles is ready for handover and shipment to an African client. This forms part of a total order of 45 vehicles of which Denel has already delivered 24 during December 2016.

The total fleet is based on the Denel New Generation Casspir NG2000 Series, a cutting-edge product derived from the well-known and battle-proven Casspir MPV of which more than 3 000 units were manufactured.

The main purpose of the vehicles is to equip a newly established peace support contingent for mainly participation in African Union (AU) peace support missions, says Peter Faro, General Manager of Mechem, a global leader in the detection and destruction of landmines, also designs and manufactures mine-protected vehicles such as the Casspir range of personnel carriers that is in wide use across the world.

The new generation Casspir has improved features but is still affordable, easy to maintain and cost effective to operate. This is the main reason why it is very successful in the market. The drive-train and most components are inter-changeable on the 15 variants on the Casspir base line. The family of vehicles offer a wide spectrum of solutions in a 'one force concept' and a real force multiplier for any user in an operational theatre.

The order placed by the client is for the supply of 8 of the 15 variants available on the Casspir platform. It includes troop carriers, ambulances, command and control, cargo, recovery, fire support, as well as water and fuel variants.

“To strengthen Denel’s commitment we have two in country technical representatives who aid and assist the client on all technical matters and facilitate fleet management and support training,” says Faro. This is welcomed by the client given that, in the past, many products were procured and delivered with very limited to no support.

Added to this order of vehicles, Denel also offers training services for drivers and technicians, as well as spares to facilitate repairs from Level 1 to Level 3.

In view of the good relationship between the client and Denel, an opportunity exists for the future supply of a very large quantity of Casspir vehicles based on the various variants, as well as mine-protected logistical trucks that share the same drivetrain and armoured hull. This concept is much welcomed by the user because it cuts down on maintenance and repair costs as well as fleet management.

Faro says the new generation Casspir is doing very well in African markets and the demand is high. Since the opening of the Casspir production in 2010 more than 200 vehicles of various variants were sold to clients in Africa and the United Nations. Currently, Denel enjoys a big interest for local supply and has a current order running for the supply to a local client.

Vehicle (PMV). The Bushmaster is equipped with AxleTech’s proven Independent Suspension Axle Systems (ISAS®) and the combat vehicle has been successfully deployed by three armies around the world.

The LTSA corresponds to Thales’ contract with the Australian Defence Force to produce 1,100 vehicles for the Project LAND 121 Phase 4 program. Vehicle deliveries to the Australian Defence Force will be completed in 2021. AxleTech manufactures the Hawkei ISM products at its facility in Saint-Etienne, France. The company will also provide integrated logistics support beyond the vehicle production period.

**Defence Industry**

**Australian Army Contracts Leonardo DRS For Next-Generation Combat Computing Upgrades**



ARLINGTON, VA -- Leonardo DRS announced today that it will provide the Australian Army with its next-generation platform Battle Management System (BMS) hardware, called the Mounted Family of Computer Systems, or MFoCS, for its M1A1SA main battle tanks and associated combat vehicles.

**Defence Industry**

**AxleTech International and Thales announce long-term supply agreement**



Troy, Michigan -- AxleTech International entered into a long-term supply agreement (LTSA) with Thales to deliver its 3000 Series Independent Suspension Modules (ISM) designed for the Hawkei 4x4 Protected Mobility Vehicle-Light (PMV-L).

The Hawkei represents a new generation of protected vehicles, offering a three-metric ton payload, armored protection, mobility, and transportability. AxleTech’s proprietary ISM system is engineered to deliver ultimate cross-country mobility and ride control to meet the vehicle’s different mission profiles.

“The Hawkei leverages our expertise in independent suspension systems and we are pleased to continue to work with Thales to support their vehicle platforms,” said Bill Gryzenia, Chief Executive Officer at AxleTech.

The program demonstrates the continuation of a long-standing partnership between AxleTech and Thales. The companies previously joined forces on the production of the Thales Bushmaster Protected Mobility

Leonardo DRS received a direct commercial sale in the amount of \$3.1 million for the initial phase of the Australian Army Land 907 BMS program. This is the first order of the MFoCS system by the Australian Army which will provide its armored cavalry units improved connectivity within the Australian Defense Force as well as increased joint U.S. and coalition battle management system interoperability in the field. Leonardo DRS will produce MFoCS systems in its Melbourne, Florida facility and install the system in five locations across Australia.

“Leonardo DRS is proud to provide the proven MFoCS system to the Australian Army for many of its armored cavalry vehicles. We have a long history of providing its land forces with combat-proven hardware for a wide range of platforms,” said Jerry Hathaway, vice president and general manager of DRS Land Electronics business. “MFoCS is the most advanced family of ultra-rugged computers, providing the warfighters of our close allies with this technology gives us the satisfaction of knowing they have the right equipment to ensure mission success on the battlefield,” Hathaway said.

The upgrade to MFoCS with dismountable tablets and rugged sunlight-readable touch-screen displays, will give users the capability to support, not only systems like Blue Force Tracking, but provides commanders with



numerous options that provide increased joint, U.S., and coalition interoperability.

MFoCS units are being installed across U.S. military services including aircraft, wheeled and tracked vehicles, tactical operations centers, and other mission command platforms. MFoCS was developed and produced based on knowledge and experience gained through over 18 years of delivering mission critical computing components for such programs as FBCB2, JBC-P, BFT, Movement Tracking System (MTS) Logistics as well as the UK Army Bowman program. Leonardo DRS has fielded more than 300,000 BMS computing and display systems worldwide.

- Point Detonation with Delay (PDwD); here the warhead detonates once it has penetrated the target interior;
- Air Burst/AB Mode; in this case – at ranges of up to 5,000 metres – the warhead detonates ahead and above the designated target, rendering it effective against area targets.
- Officially referring to it as the “Multi Purpose (MP) DM11”, the US Marine Corps already uses the DM11, primarily for engaging unarmoured and lightly armoured targets in asymmetric conflicts. The first series production lot was delivered to the Bundeswehr in 2014. In the meantime, other Leopard 2 user nations have also taken delivery of initial shipments of the service version of the DM11.

## Defence Industry

### Rheinmetall wins important framework agreement to supply Bundeswehr with ammunition

Rheinmetall has entered a framework agreement to supply the German Bundeswehr with ammunition. In an initial move, the Federal Office for Bundeswehr Equipment, Information Technology and In-Service Support (BAAINBw) in Koblenz has placed an order for 5,000 rounds of DM11 service ammunition. The gross value of this first individual order comes to around €45 million (€38 million without VAT). Delivery will take place in 2017 and 2018.

The framework agreement lays the groundwork for further procurement orders by the Bundeswehr for ammunition of every type and calibre. In the short term, the next order is likely to be for 120mm practice ammunition. In the medium term, the framework agreement offers Rheinmetall the prospect of order volume well into the three digit million euro range.

Already in service with the US armed forces, the versatile 120mm DM11 cartridge has proven highly effective in combat operations. Rheinmetall is renowned worldwide for its 120mm smoothbore systems, which for example serve as the main armament of leading tanks like the Leopard 2 and M1A1 Abrams. These include its L44 and L55 tank guns as well as kinetic energy, multipurpose and practice ammunition. Furthermore, Rheinmetall is a globally acknowledged specialist for upgrade programmes for main battle tanks. In the medium-calibre domain, too, Rheinmetall is a global technology leader, offering a wide array of products.

Rheinmetall's time-delay multipurpose 120mm x 570 HE Temp. DM11 round is programmed after loading. This means that the fuse programming can be altered at any time. Importantly, the system modification necessary for this (the programming kit) can be readily retrofitted into any main battle tank with a 120mm smoothbore gun and a modern fire control unit.

The ammunition can be used in three different fuse modes, making it the world's most advanced and effective HE round:

- Impact Fuse Mode/Point Detonation (PD); here, the warhead denotes upon impact with the target, resulting in a large breach;