

# Army Guide monthly



## # 8 (143) August 2016

- **Boxer 8X8 CRV downselected for Australia's LAND 400 Phase 2 program**
- **AMV35 selected for Land 400 evaluation**
- **Saab Receives Order For Vehicle Electronics For Leopard 2 Tank**
- **UK Team Bids for Challenger 2 Upgrade**
- **Rheinmetall submits comprehensive offer to upgrade and enhance the British Army Challenger 2 Main Battle Tank fleet**
- **AM General awarded \$356 million contract to build 1,673 hmwvs**
- **First Batch Of Denel Vehicles Shipped To UAE Client**
- **Lithuania boosts army with 88 BOXER vehicles**
- **DRS Technologies Awarded Up To \$400 Million U.S. Army Contract To Build New Joint Assault Bridge System**
- **Textron Systems Delivers First TAPV to the Canadian Army**



## Defence Industry

### Boxer 8X8 CRV downselected for Australia's LAND 400 Phase 2 program



Rheinmetall is pleased to have been selected by the Commonwealth of Australia for the Risk Mitigation Activities (RMA) of the LAND 400 Phase 2 program.

Rheinmetall Defence has offered the Commonwealth the latest version of the BOXER 8X8 vehicle that is fitted with the in-service LANCE turret and a growth path that includes a 35 mm main gun and the Northrop Grumman command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) architecture.

Ben Hudson, Head of Rheinmetall's Vehicle Systems Division, said: "We are delighted to have been selected in Australia for the next phase of this important program. BOXER is combat proven and offers the highest levels of survivability and mobility, that when combined with the in-service Lance turret, will deliver the capabilities that allow Army to fight, survive and win on the battlefields of today and tomorrow".

Rheinmetall Defence will establish an Australian Industry Capability program for Land 400 that strengthens existing industrial capability in Australia and creates high technology enduring jobs for hundreds of Australians by localising design and manufacturing expertise in electro-optics, weapon systems, fire control and sensor systems, turret manufacturing, variant design and manufacture, integration, armour systems, simulation, training and fleet sustainment.

Rheinmetall Defence Australia Managing Director, Andrew Fletcher, said: "We look forward to demonstrating BOXER's capabilities to the Commonwealth through the RMA process and working closely with Australian industry and our partners, Supacat, Northrop Grumman and Tectonica to establish a world class combat vehicle design, manufacturing and sustainment capability for the Australian Defence Force and the region."



Patria's modern, agile, highly protected military-off-the-shelf Armoured Modular Vehicle integrated with the combat-proven E35 turret from BAE Systems Högglunds.



BAE Systems Australia Chief Executive Glynn Phillips said: "BAE Systems will manufacture the AMV35 in Australia if we are selected as the successful tender. This will secure and retain in-country capability and contribute significantly to the Australian economy throughout the expected 30-plus year life of the vehicles.

"Our three test vehicles are built and ready for the Australian Defence Force's test and evaluation program. Our team is now focussed on maturing our in-country manufacturing plans to ensure we provide the Australian Army with the best capability while also delivering the maximum economic benefit across our Australian supply chains."

Mika Kari, President of Patria's Land business said: "BAE Systems and Patria have together developed a great solution for Australian soldiers and the Australian economy. We are now in a position for the AMV35 to be evaluated, continue our partnership with BAE Systems and forge stronger links with Australian industry."

BAE Systems is committed to embedding as much Australian industry content in this vehicle as possible and to helping grow local industrial capability, with the manufacturing, technology and intellectual capability transitioning to an Australian production line.

Both Patria and BAE Systems Högglunds have transferred technology involved in the production of the AMV and the E35 turret to several other countries, successfully demonstrating capability transfer and the in-country economic advantages this brings, including long term sustainment, upgrade and maintenance activities.

BAE Systems has already had more than 260 registrations of interest from small to medium sized businesses throughout regional and metropolitan Australia and is planning an industry roadshow to engage suppliers directly in the next few months.

SAAB defence products feature as sub-systems in the AMV35 vehicle and weapon system. In July 2015, SAAB Australia and BAE Systems Australia signed a Memorandum of Understanding committing both organisations to collaborate to maximise Australian industry involvement and further develop Australian capability through the Land 400 project.



## Defence Industry

### AMV35 selected for Land 400 evaluation

BAE Systems Australia and Land 400 bid partner Patria have been confirmed as one of two tenders selected to take part in the 12-month Risk Mitigation Activity for the Australian Army's Land 400 Phase 2 combat reconnaissance vehicle program.

BAE Systems Australia has offered the AMV35 –

## Contracts

### Saab Receives Order For Vehicle Electronics For Leopard 2 Tank

Defence and security company Saab has received an order from the German company Krauss-Maffei Wegmann GmbH regarding development of new vehicle electronics for the Leopard 2 tank. The order value is approximately SEK130 million. Deliveries will be made during the period 2018-2022.

Krauss-Maffei Wegmann GmbH is a primary supplier of the Leopard 2 tank to the Swedish Defence Materiel Administration and the Swedish Army, where the tank is designated as Stridsvagn 122.

The order encompasses design and development of vehicle electronics, delivery of vehicle electronics units and cables, as well as training and documentation. The order also enables the tank to be integrated with the Swedish Battalion Combat Management System.

“This order shows that we are a long-term supplier in the field of vehicle electronics,” says Jonas Hjelm, head of Saab business area Support and Services.

“It’s important that the tank is integrated into the Swedish Battalion Combat Management System. The order reinforces our role both as a supplier for the Battalion Combat Management System and as a supplier and partner of the Swedish Army and the international defence industry,” says Jonas Hjelm.

Saab provides a broad range of vehicle electronics for C4I, surveillance and diagnostic functions for armed forces worldwide and the international defence industry.



## Contracts

### UK Team Bids for Challenger 2 Upgrade



AMPTHILL, BEDFORDSHIRE -- Lockheed Martin UK is to bid for the Ministry of Defence’s contract to upgrade the British Army’s Challenger 2 tanks.

In collaboration with Elbit Systems UK, Lockheed Martin UK will submit a proposal to undertake the Life Extension Project (LEP) that will see the main battle tanks in service until 2035.

Lockheed Martin UK is the prime contractor for the Warrior Capability Sustainment Programme, which is upgrading a minimum of 380 armoured fighting vehicles for the Army. The company is also designing and delivering 245 turrets for the AJAX vehicles that are being produced by GD UK.

In June, a new BJ5.5 million manufacturing facility

was opened at Lockheed Martin’s Ampthill site in Bedfordshire where work on Warrior and AJAX will be undertaken. If successful, the facilities would also be used to deliver the Challenger 2 LEP, creating and safeguarding jobs at the site.

Richard Muir, Business Development Director from Lockheed Martin UK, said:

“We have a proven track record of designing and delivering turrets for armoured fighting vehicles through the Warrior and AJAX programmes. The ability to transfer knowledge between programmes ensures commonality and reduces risk.

“We have invested millions of pounds in our facilities and have doubled our workforce of skilled engineers to develop our Ampthill site into a centre of excellence.

“By teaming with Elbit Systems UK, and using our established and predominantly UK-based supply chain, we’re confident we can offer an innovative solution to extend the life of Challenger 2 and deliver improved capability to the British Army.”

The team brings together Lockheed Martin’s experience in armoured fighting vehicles with Elbit System’s proven expertise and experience in LEPs and obsolescence management across more than 3,000 platforms.

Martin Fausset, CEO of Elbit Systems UK said: “Elbit Systems’ reputation as a leader in solutions for land forces is based on more than four decades of experience.

“Elbit produces one of the most diverse and comprehensive ranges of land-based sensors and systems in the industry. The company’s total solution concept covers the entire spectrum of combat vehicles, from complete modernization and training to maintenance depots and life-cycle support services.

“Working through its UK subsidiaries, which employ some 500 people, Elbit Systems Ltd expects to both create and sustain high tech jobs in several locations across the country.”



## Defence Industry

### Rheinmetall submits comprehensive offer to upgrade and enhance the British Army Challenger 2 Main Battle Tank fleet



Rheinmetall has submitted a comprehensive offer to extend the life and substantially upgrade the capabilities of the British Army fleet of Challenger 2 Main Battle Tanks (MBTs) in response to the Challenger 2 Life Extension Project (LEP) Request for Tender.



## AM General awarded \$356 million contract to build 1,673 hmwvs



SOUTH BEND, Ind. -- AM General has been awarded a \$356,213,318 contract to manufacture and deliver 1,673 HMMWVs to the U.S. Government for further delivery to the Afghanistan National Army and Police.

The contract calls on AM General to deliver 1,259 -M1151A1B1 HMMWVs and 414 - M1152 A1B2 HMMWV models. Vehicle manufacturing will commence at the AM General Military Assembly Plant, Mishawaka, Ind., later this month, with an estimated completion date of July 29, 2017.

"This contract announcement reinforces AM General's position as the global leader in Light Tactical Vehicles. Our international partners continue to rely on us to meet the most diverse range of mission capabilities offered by the most adaptable, affordable Light Tactical Vehicles on the planet," said AM General President and CEO Andy Hove. "We pride ourselves on developing and delivering these solutions to our customers with the speed, efficiency, and reliability only our company can offer."

As the U.S. Government and foreign countries engage in more rapid, dispersed and challenging missions around the globe, deployability and readiness are key determinants of success. AM General's HMMWV platform has been the answer for more than three decades, delivering the modular design with unmatched reliability and innovation to achieve the mission.

Global demand for new production and remanufactured Light Tactical Vehicles, automotive kits, spare parts and training services is as strong today as ever. AM General's robust pipeline of international sales is testament to its best in class workforce, manufacturing processes, and management team.



## Defence Industry

### First Batch Of Denel Vehicles Shipped To UAE Client

The first batch of RG31 mine-resistant vehicles manufactured by Denel Vehicle Systems for the UAE Armed Forces has been shipped.

The RG31 is a Mobile Mortar Platform (MMP) which is highly-regarded for its 4x4 capabilities, mobility and the protection it offers against anti-tank mines and explosive devices.

Rheinmetall provides a wide range of cutting edge systems that are integrated in tank fleets around the world and is currently actively engaged in the upgrade and delivery of Leopard 2 MBTs for two major international customers. Through continual investment in research and development Rheinmetall has remained at the cutting edge of tank technology.

Rheinmetall has leveraged its extensive knowledge of MBTs to develop an innovative solution for the Challenger 2 that will not only extend the life of the tank but allow it to be brought in-line with the latest generation of MBT capabilities using proven high technology readiness systems. Rheinmetall's solution will replace major obsolete components in the Challenger 2 while at the same time introducing new capabilities that will substantially improve the combat power of the British Army.

Ben Hudson, Head of Rheinmetall's Vehicle Systems Division, said "Our team has put together an innovative proposal to solve not only the obsolescence issues of the Challenger 2 but to also cost effectively enhance the capabilities of the MBT. One example of this is that our solution can integrate either the existing 120mm L30 rifled gun or our proven 120mm L55 smooth bore system that is in service with the German Army and can fire the latest generation kinetic energy rounds and our unique 120mm air-burst ammunition. When combined with the new optronics, situational awareness and fire control systems our solution will allow the Challenger 2 to fight, survive and win on the battlefields of today and tomorrow."

Rheinmetall is committed to, and has the expertise to, undertake all aspects of the Challenger 2 LEP Design Authority and will fully incorporate UK suppliers into the Program conducting both the fleet upgrade and Through Life Support in the UK, while also establishing a long term UK presence linked to this and other projects.

Peter Hardisty, Managing Director of Rheinmetall Defence UK and Rheinmetall MAN Military Vehicles UK, said "Incorporating UK suppliers into our team is fundamental to the long term supportability of the UK fleet and we have had fantastic support already from a number of UK partners who are members of our team, including Supacat, Thales UK and BMT. The Company is committed to transferring substantial MBT technology into the UK and generating an enduring UK capability to support not only the MBT fleet but also the fleet of over 7,000 trucks we have delivered to the British Army."

Rheinmetall and its Defence divisions - Vehicle Systems, Electronic Solutions and Weapon and Ammunition - set the global standard for excellence in a wide array of disciplines and offer an extensive array of military hardware that deliver mobility, lethality, survivability of troops, reconnaissance capabilities and networking of national and international systems.



Johan Steyn, CEO of Denel Vehicle Systems says an order for 24 RG31 MMP vehicles was placed by its client in the United Arab Emirates, the International Golden Group (IGG) in June 2015. This follows on the successful delivery of 73 vehicles that are already in service with the UAE Armed Forces.



In terms of the follow-on contract Denel Vehicle Systems was required to make some 30 improvements to the performance and reliability aspects of the vehicle based on assessments in the operational environment.

The client recently visited Denel for static acceptance of the vehicles as well as dynamic testing conducted at Armscor's Gerotek test facilities in Pretoria West.

"The vehicle was put through rigorous testing and met all the expectations and requirements of the client," says Steyn.

The first batch of eight vehicles was shipped off to Abu Dhabi where IGG would fit further customised equipment required by the client. Denel Vehicle Systems is currently producing the second batch that will undergo further testing by the clients within the next two months.

Denel Vehicle Systems – formerly known as BAE Systems Land Systems South Africa – produces a number of armoured protected vehicles including the RG12 and the RG21. Variants of the RG31, now acquired by the UAE, are widely used by the United Nations and peacekeeping forces from countries such as Canada, Spain and the United States of America.

The RG31 MMP has a range of 800km at a speed of 80m/h and carries a crew of 4 people, including the driver.



### Contracts

## Lithuania boosts army with 88 BOXER vehicles



The European Organisation for Joint Armament Cooperation (OCCAR) and the Lithuanian Ministry of Defence have commissioned ARTEC GmbH to supply 88 high-protection BOXER vehicles to the Lithuanian army starting in 2017.

ARTEC, a joint venture between Krauss-Maffei Wegmann (KMW) and Rheinmetall, will deliver the

vehicles with medium-calibre weaponry in a remote-controlled turret.

Consequently, the BOXER family is now extended by the Infantry Fighting Vehicle variant.

Production will be carried out by ARTEC's two parent companies. 53 vehicles will be manufactured by KMW and 35 by Rheinmetall.

The German Armed Forces already have more than 400 BOXER vehicles in different variants in use or in the procurement process, and the Dutch Armed Forces have 200.

Together with the Lithuanian vehicles, just short of 700 vehicles therefore have been contracted by three user nations.

Globally, the BOXER is one of the best-protected 8x8 wheeled vehicles. It offers its crews maximum protection from mines, IEDs and direct fire, and is characterized by high mobility, both on roads and in the roughest terrain. The concept of drive and mission modules provides high flexibility and a diversity of variants covering an unsurpassed spectrum of capabilities.



### Contracts

## DRS Technologies Awarded Up To \$400 Million U.S. Army Contract To Build New Joint Assault Bridge System



ARLINGTON, VA -- DRS Technologies, Inc., a Leonardo-Finmeccanica company, announced today that the U.S. Army has awarded it a competitively-bid indefinite delivery, indefinite quantity contract worth up to \$400 million to build the new Joint Assault Bridge (JAB) system.

The JAB system is a track-wheeled vehicle built on a modified M1 Abrams platform. It is designed to carry, deploy and recover a heavy "scissor" bridge that provides gap-crossing capability for combat vehicles to cross wet or dry chasms. The system is an important tool for U.S. military ground forces, giving combat vehicles the ability to freely navigate the battlefield.

"The ability for combat vehicles to navigate easily on the battlefield is critical to the success of our armored vehicle warfighters," said Joe Matteoni, vice president and general manager, DRS Sustainment Systems. "This is an important program for our ground combat units, and DRS Technologies and Israel Military Industries Systems are proud to support our heavy armor combat teams by providing this technology to assist them in achieving

their missions,” he said.

DRS Technologies’ Sustainment Systems business unit, based in St. Louis, MO., will be responsible for the overall production, management of the M1A1 chassis assembly, hydraulic bridge launcher production and the entire system integration. Production will occur in West Plains, Missouri, and Anniston, Alabama.

DRS has a public-private partnership with Anniston Army Depot for the management of the chassis assembly and worked with Israel Military Industries on the engineering and design of the JAB system.

#### **About DRS Technologies**

DRS Technologies is a leading technology innovator and supplier of integrated products, services and support to military forces, intelligence agencies and prime contractors worldwide. The company specializes in naval and maritime systems, ground combat mission command and network computing, global satellite communications and network infrastructure, aviation support and avionics systems, and intelligence and security solutions. Additionally, DRS builds power systems and electro-optical/infrared systems for a wide range of commercial customers. Headquartered in Arlington, Virginia, DRS is a wholly owned subsidiary of Leonardo-Finmeccanica S.p.A., which employs more than 47,000 people worldwide.



### **Defence Industry**

#### **Textron Systems Delivers First TAPV to the Canadian Army**



NEW ORLEANS, LA -- Textron Systems Canada Inc., a Textron Inc. company, August 19 announced the delivery of the first Tactical Armoured Patrol Vehicle (TAPV) to the Canadian Army. The Canadian Army is fielding the first vehicles to the 5th Canadian Division Support Base Gagetown and the 2nd Canadian Division Support Base Valcartier.

The TAPV is a 4x4 wheeled armoured vehicle specifically engineered and designed to provide survivability, mobility and versatility over the full spectrum of operations. The comprehensive, modern design is aimed at shielding troops from ballistics and roadside blasts while providing large power reserves for future electronics enhancements, with an ergonomically designed interior for optimum comfort and payload.

“We believe the TAPV is the most mobile, survivable and reliable armoured vehicle in the world today,” said Textron Systems Vice President of Land Systems Richard Valenti. “We are excited to start these deliveries to the Canadian Army and support the program through

operational capability and beyond.”

In April 2016, the TAPV completed a very rigorous Reliability, Availability, Maintainability and Durability (RAMD) test program during which it faced multiple operational tests, including driving more than 130,000 kilometers on challenging terrain representing operational profiles prescribed by the Canadian Army. The TAPV’s RAMD testing also included firing the remote weapons station and conducting more than 4,700 hours of remote weapons station usage, including 1,650 hours of silent watch operations. Testing was conducted over three months, day and night, six days per week. The final results showed that the TAPV exceeded the reliability and maintainability requirements of the contract.

Textron Systems plans to deliver at least 30 vehicles per month to the Canadian Army with all 500 vehicles scheduled to be delivered by December 2017. The fleet will be distributed across seven bases. The Canadian Army expects to declare full operational capability by mid-2020.

#### **About Textron Systems**

Textron Systems’ businesses develop and integrate products, services and support for aerospace and defense customers, as well as civil and commercial customers including those in law enforcement, security, border patrol and critical infrastructure protection around the globe. Harnessing agility and a broad base of expertise, Textron Systems’ innovative businesses design, manufacture, field and support comprehensive solutions that expand customer capabilities and deliver value. Textron Systems consists of its Advanced Information Solutions, Electronic Systems, Geospatial Solutions, Lycoming Engines, Marine & Land Systems, Support Solutions, TRU Simulation + Training, Unmanned Systems and Weapon & Sensor Systems businesses.

