

# Army Guide monthly



# **10** (181) October 2019

- Raytheon, Rheinmetall form joint venture for US Army combat vehicle competition
- Multimillion-euro order from Hungary
- BAE Systems unveils Robotic Technology Demonstrator Vehicle at AUSA
- RAVEN Countermeasure System protects vehicles from missile threats



## Defence Industry

### Raytheon, Rheinmetall form joint venture for US Army combat vehicle competition



DETROIT, MI, -- Raytheon Company and Rheinmetall Defence have established a joint venture to offer the Lynx Infantry Fighting Vehicle for the U.S. Army's Optionally Manned Fighting Vehicle, or OMFV, competition. The U.S.-based joint venture is called Raytheon Rheinmetall Land Systems LLC.

Scheduled for fielding in 2026, the OMFV is expected to replace the Bradley fighting vehicle. The new vehicle will be optimized for urban combat and rural terrain. The Army has named the OMFV as a top modernization priority supported under the service's Futures Command structure.

"This advanced combat vehicle will be made in America," said Sam Deneke, Raytheon Land Warfare Systems vice president. "Our team will produce and deliver a fighting vehicle to the U.S. Army that protects our troops and gives them an overwhelming advantage on the battlefield."

Raytheon and Rheinmetall joined forces in 2018 to offer Lynx for the Army's OMFV competition. Lynx is a next-generation, tracked armored fighting vehicle designed to address the critical challenges of the future battlefield. Lynx provides ample growth capacity to support new technologies over the vehicle's lifetime, and features lower life-cycle costs.

"Lynx will be built in America by American workers," said Ben Hudson, global head of Rheinmetall's Vehicle Systems division. "By choosing Lynx, the Army has an extraordinary opportunity to provide U.S. troops with a fighting vehicle that will enable them to outmatch the threat for decades to come."

Raytheon technology earmarked for the Lynx includes the company's advanced weapons, like the TOW™ missile, Active Protection System, third-generation sights, Coyote® unmanned aircraft system and cyber.

The Lynx team will submit its bid on or before Oct. 1, 2019.

## Contracts

### Multimillion-euro order from Hungary

Rheinmetall is taking on an important role in the modernization of the Hungarian Army. The Düsseldorf-based Group is producing the main

armament and fire control technology for forty-four Leopard 2 main battle tanks as well as the main armament, fire control technology and chassis for twenty-four PzH 2000 self-propelled howitzers. The package also encompasses thirteen HX and TGS logistic trucks. The contract, worth around €300 million, was recently signed. Delivery begins in 2021 and will be completed in 2025.

Rheinmetall has partnered with Krauss-Maffei Wegmann (KMW) to carry out the project. In December 2018 KMW won an order from the Hungarian armed forces for forty-four new Leopard 2A7+ tanks and 24 new PzH 2000 self-propelled howitzers. This will make Hungary the 19th Leopard 2 user nation and the eighth nation to opt for the PzH2000.

As well as having design authority, Rheinmetall is the original equipment manufacturer (OEM) of the 120mm smoothbore technology used in all versions of the Leopard 2 tank.

The same is true of the 155mm L52 main gun of the PzH 2000 self-propelled howitzer.

Tried and tested around the globe, the Group's 120mm smoothbore gun and ammunition have been continuously perfected right from the start. The higher-pressure 120mm L55A1 gun earmarked for the Leopard 2A7+ was successfully qualified at the end of 2017, and already supplied and installed for two Leopard 2 user nations in mid 2018. Moreover, the L55A1 tank gun is capable of firing the programmable DM11 multipurpose round.

In addition, Rheinmetall possesses comprehensive expertise in the field of tracked armoured vehicles, including as an OEM. The Group developed the chassis of the PzH self-propelled howitzer.

## Robots

### BAE Systems unveils Robotic Technology Demonstrator Vehicle at AUSA



The RTD prototype leverages decades of BAE Systems expertise in the design and development of combat vehicles, as well as advanced electronic systems.

BAE Systems debuted its Robotic Technology Demonstrator (RTD) representing leap-ahead advancements for unmanned combat vehicles today at the Association of the United States Army's (AUSA)

## Annual Meeting & Exposition.

The RTD prototype showcases advanced capabilities and is adaptable for future weapon systems, sensors and other payloads. The RTD features autonomous mobility to help keep soldiers out of harm's way, a Hybrid Electric Drive for fuel efficiency, a 30 mm remote weapons station, a suite of sensors for 360-degree situational awareness and surveillance, composite rubber track system, and a small legged robot for reconnaissance missions among other key new technologies. The demonstrator reflects BAE Systems' commitment to investing in the future of Army warfighting capabilities and the soldier.

"The Robotic Technology Demonstrator is designed as a 'rolling lab' to integrate emerging autonomy and lethality technologies for testing. The electrical infrastructure, advanced optics, and software that have been integrated onto this highly reliable and robust chassis provides the foundation for truly game-changing battlefield capability," said James Miller, director for business development at BAE Systems Combat Vehicles. "BAE Systems built this demonstrator to help us determine the best way to mitigate risk for our soldiers while increasing their lethality."

The RTD technologies include sensors with true 360-degree situational awareness to include long-wave infrared imaging, signal processing and video distribution. It also includes a tethered unmanned aerial system to support situational awareness and reconnaissance.

The RTD prototype leverages decades of BAE Systems expertise in the design and development of combat vehicles, as well as advanced electronic systems. BAE Systems is a world leader in tracked and wheeled combat vehicles, including Infantry Fighting Vehicles, self-propelled howitzers, personnel carriers, and amphibious vehicles.



## Exhibitions

### RAVEN Countermeasure System protects vehicles from missile threats



BAE Systems, a leader in radio-frequency and optical electronic warfare systems, unveiled its RAVEN Countermeasure™ system for combat vehicles as part of its integrated vehicle protection system (VPS) suite of products. RAVEN is a proven directable infrared countermeasure capable of defeating anti-tank guided missiles, protecting ground vehicles and their crews, and improving mission effectiveness without the use of kinetic countermeasures.

"The RAVEN Countermeasure system is part of a layered defense, and is easily tailored to any vehicle, mission, or budget," said Ryan Edwards, business development manager for Soldier and Vehicle Electronics at BAE Systems. "Our vehicle protection systems improve crews' situational awareness and survivability, regardless of their vehicle or the threats they face."

The RAVEN Countermeasure system, is a rugged, reliable laser-based countermeasure capable of defeating a variety of guided missile threats. The system is lightweight, modular, and scalable, and provides armored forces with efficient vehicle protection in a small, cost-efficient package. It is specifically designed for capability growth to address future threats as they emerge.

RAVEN is compliant with the U.S. Army's Modular Active Protection System (MAPS) program and is designed to integrate directly with threat detection and countermeasure cueing systems, including BAE Systems' 360 Multifunction Vehicle Protection Sensor, a long-wave infrared situational awareness and warning system that serves as the eyes of the company's integrated VPS suite. The 360 MVP Sensor can cue RAVEN to quickly and efficiently defeat threats and also provides 360-degree situational awareness for improved vehicle mobility, lethality, and integral survivability. As part of a layered vehicle defense system, RAVEN complements kinetic countermeasure systems with a virtually unlimited number of shots.

Earlier this year, the U.S. Army recommended the integration of the RAVEN Countermeasure system onto a Bradley Fighting Vehicle for the MAPS Program's Layered Active Protection Demonstration, which took place in September 2019. The recommendation followed the Soft Kill Rodeo, a series of tests to determine which non-kinetic active protection system technology has the most potential.

BAE Systems' integrated VPS suite builds on the company's extensive experience developing aircraft survivability equipment. With decades of experience designing, delivering, and sustaining electronic warfare systems, the company has a deep understanding of the evolving battlespace and the solutions warfighters need to address emerging threats.

The company's vehicle protections systems are developed at its manufacturing center of excellence in Austin, Texas.

