

New at Eurosatory 2018

11 June 2018

The Oerlikon Skyranger mobile air defence system – Rheinmetall’s high-mobility, Boxer-based solution for ground-based air defence

Rheinmetall is proud to present its new Oerlikon Skyranger Boxer, a high-mobility, highly effective, future-proof wheeled armoured air defence vehicle based on the battle-tested Boxer, born and bred for network-enabled operations.

The Oerlikon Skyranger Boxer is designed first and foremost for short- and very short-range mobile, ground-based air defence. It can shoot down incoming rockets as well as mortar rounds – but also unmanned aerial systems, including the low, slow and small kind, e.g. quadcopter drones; it is also highly effective against low-flying aircraft.

The heart of the new Oerlikon Skyranger Boxer is the air defence module, equipped with an Oerlikon Revolver Gun Mk3 turret. The system features an integrated sensor unit with X-band tracking radar and electro-optical sensors as well as electronic warfare components. This enables swift, autonomous engagement of externally assigned targets. The Skyranger can receive and process target data from both 2D and 3D search radars. Furthermore, the integrated search sensor technology and Oerlikon Skymaster battle management system give the Skyranger an autonomous sector-monitoring and target engagement capability. The tried-and-tested 35mm x 228 cal. Revolver Gun delivers massive firepower and excellent precision. Teamed with Rheinmetall’s proprietary Ahead airburst ammunition, the Oerlikon Revolver Gun Mk3 is extremely effective against low altitude aerial targets of virtually every type.

Known in German as the “Skyranger-FlaK-Radpanzer”, the new system is based on the combat-proven Boxer wheeled armoured vehicle. Thanks to its modular architecture, this highly mobile, superbly protected 8x8 vehicle combines extreme operational versatility with excellent future adaptability. Owing to its design, the Boxer mission module can carry a payload of up to 15 tons. Thus far, some 700 of these vehicles have been delivered to, or ordered by, three different NATO member nations: Germany, the Netherlands and Lithuania.



In addition, in March 2018, the Australian government recommended procuring the Boxer Combat Reconnaissance Vehicle (CRV). The British Ministry of Defence also announced in March that it would be re-joining the Boxer programme via the international procurement agency OCCAR. This will make it possible for the UK to procure the Boxer under the rubric of its Mechanised Infantry Vehicle (MIV) defence project. The Boxer is manufactured by ARTEC, a joint venture owned by Krauss-Maffei Wegmann (36%) and Rheinmetall (64%).

An overarching concept for ground-based air defence – strategic cooperation with Raytheon

Successful air defence demands a holistic approach. As Europe's foremost maker of military systems and equipment Rheinmetall's approach is to networking all relevant sensors, effectors, platforms and C4I assets into a single, scalable, system of systems. This will create a highly effective, modularly scalable and flexible ground-based air defence system covering the full mission spectrum. Here the Düsseldorf-based high-tech group is cooperating closely with America's Raytheon.

Short- and very short-range air defence

Effective SHORAD – “Nah- und Nächstbereichsschutz (NNbS)” in German military parlance – requires a total system concept. As an experienced SHORAD supplier, Rheinmetall's proposal calls for a mix of automatic cannon and guided missiles, and in the nearby future augmented with high-energy laser weapons as well as directed energy (high-power microwave).

Tactical air defence systems

Over the next few years, the Bundeswehr and six other NATO partners will be utilizing the Patriot integrated air and missile defence technology to counter the threat from e.g. tactical ballistic missiles. Rheinmetall is Raytheon's national partner for Patriot in Germany.

A phased upgrade from the current Patriot Config 3+ system to next-generation (NextGen) status will meet the future requirements for a long-range ground-based air defence system.

Even in the concept phase, the systemic approach embodied by Rheinmetall SHORAD and the Patriot NextGen meets the requirements for comprehensive, adaptable, modular air defence, enabling a single-source approach covering all aspects of air and missile defence.

Patriot forms the backbone of integrated air and missile defence for seven NATO nations and seven other partner countries, making it globally interoperable. A multinational solution, it significantly lowers lifecycle costs thanks to a common threat database and modernization costs shared across the 14-nation partnership.

Scalable tactical C2 design

Rheinmetall envisages a flexible, role-based command and control architecture for its ground-based air defence system. The scalable tactical ops centre concept with flexible C2 architecture enables optimized force composition in line with the given specific operational task.

“VSHORAD” army programme

Complementing the German Air Force's capabilities of ground-based air defence, the German Army has identified a requirement for an organic air defence capability against microdrones, to be available for NATO-VJTF 2023. The operational requirement envisages a wheel-mounted air defence vehicle for protecting units from very short-range aerial threats during deployed operations. Here Rheinmetall can offer a market-ready system. Future utilization and integration of VJTF 2023 components into the SHORAD system is assured, making this viable long-term investment.

For more information, please contact:

Oliver Hoffmann
Head of Public Relations
Rheinmetall AG
Tel.: +49-(0)211-473 4748
oliver.hoffmann@rheinmetall.com