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Multi Mission Radar – the ideal solution for Land Force Medium Range Radar

Rheinmetall Canada and its partner IAI ELTA are proud to propose their ELM-2084 Multi-Mission Radar (MMR) to serve as a Medium Range Radar (MRR) system to the Canadian Forces. The MMR is an advanced three-dimensional, S-Band radar supporting modular and scalable architecture, and is the world leading MRR system that detects enemy threats from Rockets, Artillery and Mortars attacks while simultaneously conducting Air Surveillance. The modular, solid state, electronically steered active array technology implemented in the MMR provides high redundancy and graceful degradation. The MMR is a highly mobile system, designed for fast deployment with a minimal crew.

The MMR is based on mature and proven technology which has been highly successful on operations and which guarantees high performance with very high system reliability and availability.

Truly multi-mission capable

The ELM-2084MMR is designed to perform hostile weapon locating, friendly fire ranging and air surveillance simultaneously. The MMR is able to detect rockets, artillery and mortars, at ranges up to 50 km, and it can process 100 targets per minute. It is also capable of carrying out artillery ranging missions and friendly fire ranging. Deployed in a C-RAM role, the MMR can provide fire control when integrated with a weapon system. The detection range of the Air Surveillance mode is up to 250 Km, with capacity for up to 1,200 targets.

MMR offers long-range detection with high angular accuracies and resolutions. Moreover, adding an extra power generator can increase the detection range.

The MMR can be operated in two modes: rotating (360° azimuth) and sector mode (120° azimuth) combined with electronic scanning. The elevation coverage is from -30° to 50°.

Because of its track-while-scan capabilities MMR delivers a reliable and improved air situation picture as well as reliable, uninterrupted tracking of any manoeuvring aircraft. Furthermore it can detect and track low radar cross-section (RCS) targets.
Advanced signal processing enables effective operation even in conditions of heavy clutter as well as in noisy and dense environments, with assured classification and identification of targets and superior low-altitude operation. Of course MMR includes advanced Electronic Counter-Counter Measure (ECCM) capabilities.

**High mobility and fast deployment**

The MMR features a fully integrated radar antenna, power generator and operator control shelter all mounted on one vehicle. It can be deployed on the battlefield in less than 20 minutes. All that is required is one vehicle and one radar operator, with no need for additional external equipment. This ensures low operating costs. Furthermore the MMR can be remotely operated.

For maximum strategic flexibility, the system is air transportable in C-130-type cargo planes.

Graceful degradation and very high availability make the ELM-2084 an important force multiplier, its state-of-the-art technology resulting in a high-performance system featuring excellent reliability and availability. Rheinmetall Canada, in partnership with IAI ELTA, is presenting the ELM-2084 Multi-Mission Radar (MMR) at CANSEC 2012.

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