

Tap into the Power of the Next Generation Soldier System

Soldier Mod interview with Alain Tremblay of Rheinmetall Canada

The development of cutting-edge soldier systems is a topic that's currently sweeping the globe. The "next generation" of this technology is shrouded in mystery, raising a variety of important questions as we ride the wave of its evolution: which trends will be influencing future soldier systems? How do we maintain a focus on addressing user needs while avoiding the temptation to jump on each shiny new bandwagon?

For some brief context, soldier systems exist to streamline and simplify the in-field experience for combat personnel. While military vehicles come with integrated communication systems, dismounted soldiers who travel on foot require specialized equipment to maintain razor-sharp situational awareness. The vehicle-mounted equipment is too heavy to take with them, and the engine is what powers their batteries, so a fully-mobile solution is a necessity.

What do they need? A portable system that collapses all the information they need onto a compact screen. A tool that is as lightweight as it is rugged. An instrument that can connect to various networks for increased uptime, with a battery that can take them anywhere. A piece of equipment that facilitates uninterrupted real-time communication and streamlined mission fluidity. We spoke to Alain Tremblay of Rheinmetall Canada to understand how the company's next-generation Argus soldier system meets and exceeds these modern-day requirements.

Rheinmetall's new system was born of a need for innovative development. "We need to listen to our customers, and in particular, the end user," said Tremblay. "We needed to make a shift while still retaining the DNA that made Argus successful, as used by the Canadian military." This soldier system is ready for action, fielded in multiple national and multinational operations. Rheinmetall Argus is found in mature and deployed systems around the world, including Infantryman of the Future IdZ-ES for the German Army.

According to Tremblay, to achieve this goal, it's all about providing a customer-centric solution and asking the important questions: what types of issues are they experiencing? How can we solve their problems? How can we provide a complete solution while accommodating each customer's needs? The answer: scalable and modular equipment.

"Every Army and department is different, so they need different systems," said Tremblay. "This is due to their specific choice of radio, peripherals, connectivity, and more." Rheinmetall Canada is the only organization that is not bound to a single hardware; given that Argus' framework is completely open, it allows for non-discriminatory integration of hardware devices.

To complement Argus' capacity for customization, Rheinmetall goes to great lengths to future-proof their soldier system as much as possible. This means updating the integrated technology as it evolves, giving clients an "insurance policy" that the system they choose will serve them well for years and years to come.

The system is engineered by soldiers, for soldiers, putting the end user first when it comes to usability, but also in terms of the system's ideal weight. The average soldier carries 36 kilograms on their person, so the equipment added to their arsenal has to be exactly what they need, both on the frontline and in other highly challenging environments.

"Adapting our solution to any battlefield architecture means providing a seamless, reliable flow of information between all levels of command," said Tremblay. "It also means being able to maintain operations in the most challenging of conditions."

When it comes to collaboration, Rheinmetall is all about pooling expertise. "We are always happy to foster relationships with other companies and bring on their wisdom and know-how," said Tremblay. "Collaborating



with BAE Systems and the Broadword® Spine® is a great example of how we are able to integrate with nearly any type of equipment. Their smart vest, with our Argus system imbedded, provides a high-tech bespoke system for the end user."

Another partnership, this time with Ultra Electronics, has brought Ultra Lynx to life: a Soldier Worn Power Data system that aims to take the headache out of power management, effectively optimizing the system without adding any extra battery weight.

Remember - the average warfighter carries at least 36 kilograms, so each addition of weight to their physical burden needs to be backed up by an exceptional value proposition. "We need to be able to power any product so we can continue to improve on the system," said Tremblay, "from Micro UAV's to specific MDE's."

On the whole, the battlefield is experiencing a sort of "digitization" in the modern age, and it's no small feat to ensure that all relevant systems can effectively communicate with each other that's where Argus comes in.

"To accomplish such streamlined communication, we needed to integrate BTA, create the ability to paint a target, facilitate compatibility with different radio transmission feeds, and build a unified network with our software," said Tremblay. "This allows every soldier to be part of server-supported situational awareness in the battlefield."

Information is power in the battle space, according to Tremblay. From a single soldier to artillery to air power, being part of the same chain of command requires a no-



fail communications system. "By keeping the important players connected, we hope to help eradicate blue on blue fatalities."

The next-generation Argus soldier system gives the user an unparalleled capacity for communication and mission readiness, wrapped up in one lightweight, ergonomic package. And no matter what kinds of challenges the modern soldier will face on the battlefield, Rheinmetall's future-proof technology is sure to stand the test of time. ■

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