Saab Introduces Sirius Compact L20C

By Andrew White

Saab unveiled the latest member in its family of Sirius Compact tactical electronic warfare (EW) solutions at an event in Nuremberg, Germany in October.

The Sirius Compact L20C Communications Electronic Support Measure (C-ESM) sensor has been designed to support warfighters operating against near-peer adversaries at the tactical edge, providing end users with capability to detect, classify, localize and track communications signals, including radios and UAV signals, according to company officials.

An official statement confirmed the "NATO-compatible" L20C sensor is capable of remote operation, thereby making it easier to avoid detection by enemy EW teams. "With high bearing accuracy and state-of-the-art signal processing for robust signal detection, L20C supports the electromagnetic situation picture (Recognized Electromagnetic Picture). The compact form factor and NATO-compatible interfaces enable a wide range of deployment scenarios, such as soldier-borne transport, use on highly mobile light vehicles or tool-free installation on masts," the statement added.

The L20C sensor has been designed as a software defined system, capable of being interfaced into command and control systems Carl-Johan Bergholm, head of Saab's business area Surveillance. He added, "Customers will benefit from L20C to always stay ahead of the threats through its capability to track enemy communication signals. In combination with Sirius Compact L20R, it provides users with vital information simultaneously to deliver situational awareness that is of the highest relevance on today's battlefield."

Thanks to its low-size, weight and power design, Sirius Compact L20C can be carried by a team of two in addition to

being integrated on board “almost any vehicle including unmanned ground vehicles or static masts…without tools”, Saab officials confirmed before adding it can operate on-the-move.

Saab has also published a video illustrating potential concepts of operation for the L20C which sees a 6×6 quad bike with L20C antenna forward deploying alongside a Polaris MRZR-2 light tactical all-terrain vehicle. The quad bike and antenna are left in place and all personnel recover to a stand-off position to remotely operate the system. The video also illustrates the L20C antenna being deployed on board a generic uncrewed ground vehicle, as well as on foot, by a team of two dismounted warfighters who then mount the L20C on a tripod.

The Sirius Compact L20C kit comprises a lightweight compact digital antenna; ruggedized processing box and end user device; power supply; and tripod or mobile mast solution.

Weighing less than 25kg and using an inertial measurement unit or GNSS for positioning , the solution operates between 20 MHz and 3GHz frequency ranges with 6GHz as an option for customers. It includes Ethernet and 18 to 32 VDC interfaces.

Potential mission profiles include establishing a NATO Recognized Electromagnetic Picture (REMP); tactical EW reconnaissance; ground-based air defense and counter-UAS; force and critical national infrastructure protection; and border protection.

A spokesperson for Saab would not disclose whether the company has a launch customer lined up to purchase the L20C but did confirm demonstrations are scheduled although further details were not shared.

The spokesperson also confirmed L20C could be “easily integrated” on board light military vehicles and specifically mentioned “side-by-side” light tactical all-terrain vehicles from the likes of Polaris, which manufactures the MRZR-2 and -4 platforms. The spokesperson also suggested uncrewed ground vehicles could carry the L20C using the “Zippermast” mast system.