ARMADA INTERNATIONAL

July Spectrum SitRep

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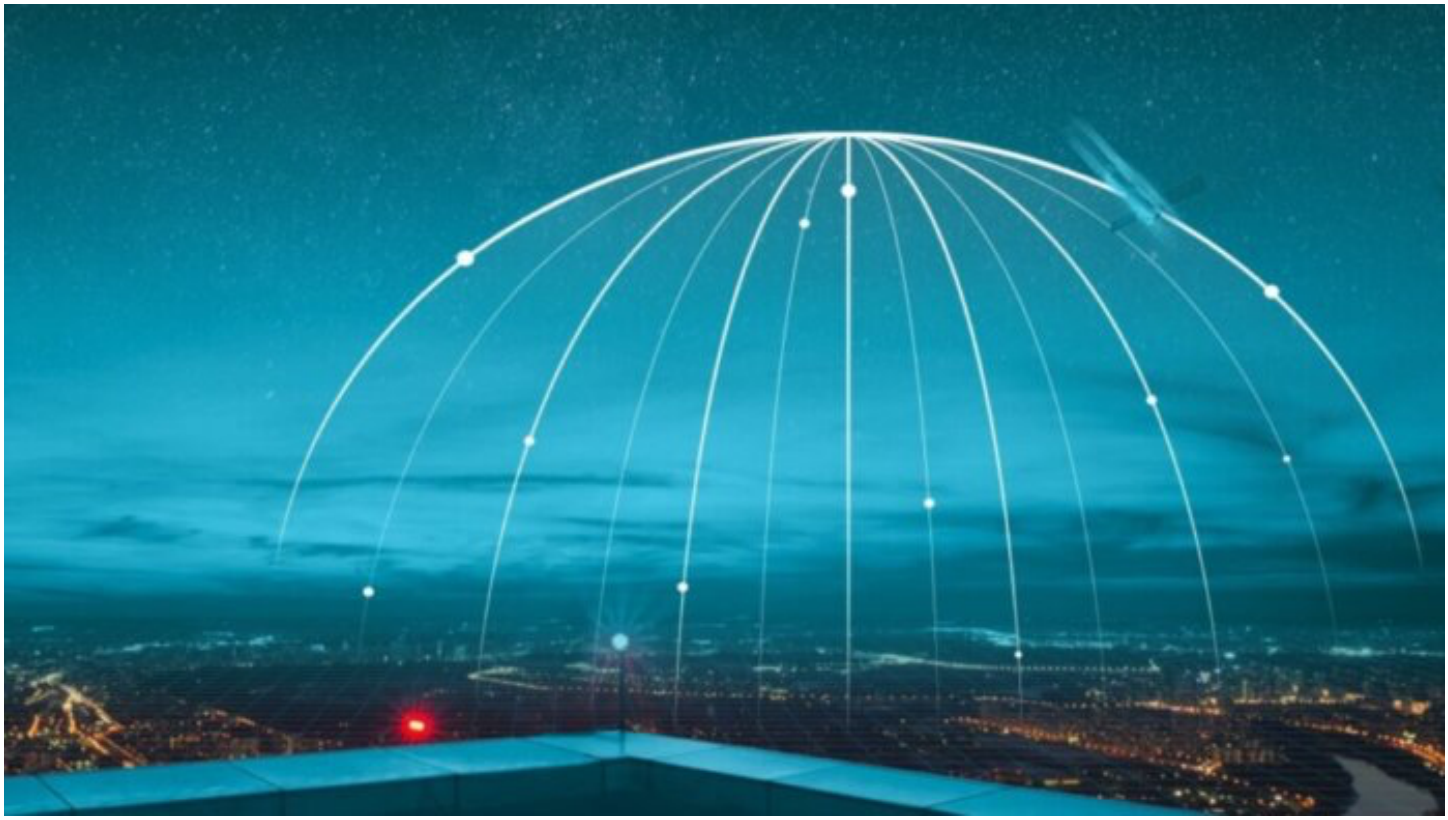

Armada's monthly round-up of all the latest electronic warfare news in the product, programme and operational domains.

Products

Rohde & Schwarz took advantage of the Eurosatory defence exhibition held in Paris between 13th and 17th June to launch its UMS400 lightweight Communications Electronic Support Measure. A press release said the system covers an eight kilohertz to eight gigahertz waveband. It can be used for spectrum monitoring and emitter location. The UMS400 was not the only new product from the company launched at the event. Two new

monitoring and direction-finding antennas, the ADD557SR and ADD597 respectively, were also unveiled. The press release said these can be installed on vehicles to detect and locate low probability of interception signals. All these products can be used alongside Rohde & Schwarz' CEPTOR communications intelligence software.

Leonardo launched its Newton electronic warfare simulation software at this year's CANSEC exhibition. The software can be used for tactical and operational simulation as well as product design and development.

Leonardo launched its Newton electronic warfare simulation software at this year's CANSEC defence exhibition held in Ottawa, Canada between 1st and 2nd June 2022. Announcing the news in a press release, the company said the software can be used to "accelerate and validate the development of new electronic warfare technologies, tactics and techniques." It can help model and test new technologies in realistic contemporary, and anticipated future, environments. As well as simulating RF (Radio Frequency) threats and countermeasures, Newton can replicate optronic and infrared threats and responses. The press release added that the product replaces the firm's Tactical Engagement Simulation Software.

French maritime Signals Intelligence (SIGINT) provider Unseen Labs were also exhibiting at Eurosatory and revealed plans for new satellites. The company provides maritime SIGINT to government clients and private sector customers like marine insurers. Unseen Labs has a constellation of seven BRO (Breizh Reconnaissance Orbiter) satellites collecting maritime SIGINT. Company officials told *Armada* these provide global coverage. They have revisit rates of between six and eight hours for emitters of interest anywhere on the globe.

Officials declined to provide specifics on the frequencies covered by Unseen Labs' satellites. They did say these include standard vessel radio frequency emissions. This means the satellites maybe capable of detecting emissions from three megahertz/MHz to 10.68 gigahertz/GHz. Such a waveband comprises marine radio and standard vessel navigation radars. Unseen Labs will add a further three satellites to the BRO constellation by the end of the year, officials continued. This should reduce current revisit rates to the circa six-hour mark. Over the longer term, the company plans to have a constellation of 25 satellites. This would cut revisit rates to every 30 minutes for targets anywhere on earth.

Netline took the opportunity of the 2022 Eurosatory exhibition in Paris to launch the latest version of its DroneNet-RD CUAV system.

Netline unveiled its latest version of its DroneNet-RD Counter-Uninhabited Aerial Vehicle (CUAV) sensor at Eurosatory. In a press release, the company said that DroneNet-RD detects and locates a UAV via the latter's Radio Frequency (RF) emissions. UAVs use radio signals to link the aircraft to its pilot on the ground. In addition to detecting the aircraft, the press release stated that the DroneNet-RD can also jam UAVs.

Bird Aerosystems was also exhibiting at Eurosatory and showcased its new Hybrid Eye self-protection system at the event. This takes capabilities the company has developed for aircraft self-protection and adapts them for vehicle protection. Hybrid Eye uses a phased array radar transmitting in C-band (5.25GHz to 5.925GHz) to detect incoming threats. The radar is supplemented by infrared and laser detectors. These sensors are housed in four boxes positioned on the vehicle in such a way as to provide 360 degrees of protection. Once the incoming threat is detected, countermeasures are triggered. Company officials told *Armada* that Bird Aerosystems has won a contract to demonstrate Hybrid Eye on a vehicle.

MAG Aerospace and Boldend announced via an 8th June press release that they had successfully completed the integration and testing of Boldend's cyber capabilities on an airborne platform. This tested the integration of cyber, EW and information operations capabilities on an airborne platform. According to the press release, "The test was conducted to not only demonstrate the ability of the tool to successfully operate at altitude and speed on an airborne platform but, demonstrated both companies' ability to rapidly prototype, integrate, and connect next generation technology in a swift and reliable manner." The concept was developed, the systems integrated and prototyped and tested within seven days, the press release said.

COMINT Consulting's new Krypto Keyfinder works with the company's Krypto-1000 allowing the decryption of ARC4 encryption used by digital mobile radios.

On 21st June COMINT Consulting unveiled its new Krypto Keyfinder product. A company press release said this enables the decryption of ARC4 40-bit encryption. Krypto Keyfinder is used with COMINT Consulting's Krypto1000 Communications Intelligence (COMINT) software. This can run on any standard personal computer or group of PCs. COMINT Consulting told *Armada* that extracts from intercepts containing the key are sent directly from the Krypto1000 software to the Krypto Keyfinder for immediate analysis.

ARC4 encryption is commonly used by Digital Mobile Radios (DMRs). As the ongoing war in Ukraine shows DMRs are often used by militaries, particularly at squad and platoon levels. As Krypto Keyfinder software can run on standard PCs, this means that ARC4 decryption can be done close to the tactical edge. This saves time. Raw COMINT no longer needs to be sent up echelon for decryption and analysis elsewhere: "This could take days, weeks or months, assuming the particular service/agency (where the COMINT is sent) even has such a capability", says the company. Such an approach greatly accelerates the COMINT intelligence cycle at the tactical level: "The ability to do this in the field in a matter of seconds, minutes, hours or days is a huge advantage. Also, end users not only can now listen to all of the previously-decrypted files, but they can continue to listen to the now-decrypted target network in real-time". COMINT Consulting said that Krypto Keyfinder is available now and ready for use.

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