

# TRANSMITTING? GOT YOU!

Bill Keirnan, Linkabit L-3 and John Gielen, SurCom International

In the area of EW and SIGINT L-3 Linkabit is a well-known and established supplier of direction finding and monitoring systems. The current system MD403 is in use with the Royal Netherlands Army for over 7 years. The system is well respected for its accuracy, low weight and low power consumption. Together with the local partner in the Netherlands, SurCom International, the system has been serviced and training has been provided since the start of the deployment of the system. Developed as a man portable system, SurCom International and L-3 Linkabit have engineered the system to be mobile and have built it into the Mercedes G-model. This was done in such a way the vehicle is not recognizable as such by making a clever covert solution for the antenna.

The PRD-13(V)3 is the latest tactical ESM system in L-3 Linkabit's combat-proven PRD-13 product line, which was first introduced approximately 20 years ago. This third-generation system continues the legacy of what has been the predominant tactical ESM system of choice for both the U.S. and international ISR communities. The PRD-13(V)3 system allows mission commanders to scan large segments of bandwidth to quickly characterize the RF environment. It provides increased Situational Awareness (SA) and the ability to search the RF spectrum on a continuous basis without placing added burden on SIGINT operators. Directed and general search modes operate

together to acquire well understood signals, while concurrently providing SA with detection, angle of arrival (AOA) and signal characterization on new potential targets. This capability provides tactical and long-term strategic advantages on the battlefield.

Enhancements to the PRD-13(V)3 include software-defined processing, significant weight and power reduction, and an IP-based architecture that enables remote operations, as well as networking of multiple systems. For PRD-13(V)3 OTM operations, an additional Android™-based handheld controller enables the system to be controlled through a tether to the processor or via



a wireless network. The complete OTM system fits into a standard rucksack and weighs less than 32 pounds (14 Kg).

L-3 Linkabit recently completed comprehensive field trials of the PRD-13(V)3 tactical On-The-March (OTM) Electronic Support Measures (ESM) system. Field trials took place in Southern California and involved two phases. The first phase occurred in the rugged desert environment of Ocotillo; the second phase was conducted in the mountainous region of El Capitan. The trials included exploitation and direction-finding (DF) of line-of-sight and beyond-line-of-sight electronic transmissions using both single and multiple PRD-13(V)3 systems. Findings from the trials showed that the PRD-13(V)3 meets or exceeds the rigorous requirements of today's tactical military operations.

"The PRD-13(V)3 significantly improves on our PRD-13(V)2 in terms of size, weight and power, while maintaining the (V)2's known excellent performance," said Elissa Seidenglanz, senior vice president of division operations and deputy general manager at L-3 Linkabit. "We are very pleased to be providing the ISR community with a true On-The-March SIGINT capability that delivers even greater capability from a much smaller form factor."

## KEY BENEFITS OF THE PRD-13(V)3

- Software-defined tactical collection and DF are used for ground, airborne and maritime operations
- IP-based – enables networking of multiple units including remote control and wireless connectivity
- Three RF channel design provides simultaneous collection, scan and DF
- Low SWaP – only one military battery required for nine hours of constant operation

