

AN/MLQ-40(V)3 Multi-Sensor SIGINT System — Prophet

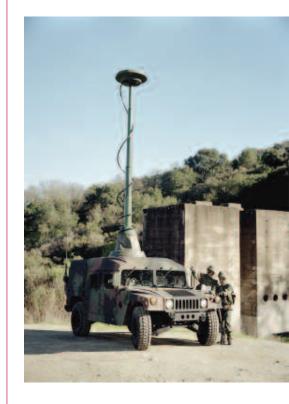
The AN/MLQ-40(V)3 system is a mobile ground-based tactical signal intelligence (SIGINT) system tailorable to the growing battlefield and future contingencies of the 21st century. The system's electronic support (ES) and ground surveillance capabilities provide a picture of the battlefield and early warning of potential threats to supported forces.

Integrated on a pallet, the AN/MLQ-40(V)3 system is installed as an integral part on a modified M1097 high mobility, multi-purpose wheeled vehicle (HMMWV), and performs signal intercept and DF in the 20-2,000 MHz frequency range providing signal characteristics and line of bearing (LOB) data on signals of interest. The MA-458/MA-723 VHF/UHF DF and monitor antennas provide coverage of the specified frequency range.

Operational Capabilities — The AN/MLQ-40(V)3 can operate in three configurations: stationary with the motorized 6-meter telescoping mast extended, on-the-move (OTM) with the mast secured, and as a dismounted man-portable SIGINT system, the AN/PRD-13(V)2. The telescoping mast allows the operators to rapidly switch from stationary to OTM operations in approximately 2 minutes.

The AN/MLQ-40(V)3 SIGINT system can support directed search, general search, or a combination of searches, providing the user with mission flexibility. It can demodulate and collect conventional AM, FM, CW, and SSB signals in the specified frequency range.

The HMMWV has a load-carrying capacity for four personnel with their mission essential and personal gear for a 72-hour mission duration, including fuel. The specialized electronic warfare (EW) shell on the HMMWV is ruggedized, fully EMI shielded/grounded, equipped with an integral landing pad for the ES antenna, and a storage compartment for the dismounted man-portable SIGINT system.





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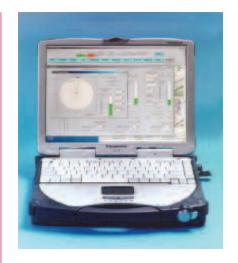
System Description — The AN/MLQ-40(V)3 system includes the HMMWV-mounted pallet and the man-portable AN/PRD-13(V)2. The pallet is comprised of a base, the motorized telescoping mast, integrated MA-723 VHF/UHF Monitor Antenna and MA-458 VHF/UHF DF Antenna, Lighting Protection Unit (LPU), and the three distinct manned stations: the Operator Station, the Linguist Station, and the Navigator/Team Commander Station.

Operator Station — Comprised of the human-machine interface (HMI) on a rugged notebook computer, the Control System Interface Unit (CSIU), and System Control Unit (SCU). The wireless-based HMI provides network operation of the MD-405A Receiver/ Processor controls on the laptop, status of Prophet controls on the laptop, map displays with LOB overlays, databases of information collected by the system, and interfaces with the communications system to send or receive data to/from command posts or to network with other platforms. The CSIU houses the power circuits and controls. The SCU provides mast control, DF bearing control (true or relative), lamp and BIT control, displays system status, and provides audio control, including jacks for the stereo headphones and recorder.

Linguist Station — Comprised of the MD-405A Receiver/Processor and Processor System Interface Unit (PSIU). The MD-405A is the core component of the man-portable system and provides three receivers (one DF and two monitors) to be used in directed search and monitor modes. The PSIU provides a message exchanger and process monitor, and provides control and/or performance monitoring for multiple interfaces (NAV, MD-405A, mast). Additional computer interface ports and auxiliary audio interfaces are located on this panel, with capabilities for selective channel signal monitoring.

Navigator/Team Commander Station — Comprised of the TACNAV and communications system. The TACNAV system provides dynamic vehicle location information and system orientation for navigation while on the move. The Single Channel Ground and Airborne Radio System (SINCGARS) is used as the communications system. However, other communication systems that have voice and tactical data transfer capability can be integrated into the AN/MLQ-40(V)3 system.

Note: All specifications subject to change without notice



HMI PROVIDED BY A RUGGED NOTEBOOK COMPUTER



LINGUIST STATION



DISMOUNTED MAN-PORTABLE MD-405A IN THE FIELD

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