PROPHET

Prophet is a suite of division-level Signals Intelligence/Electronic Warfare (SIGINT/EW) sensor and jamming subsystems. It consists of two acquisition programs: (1) Prophet, formerly known as Prophet Ground; and (2) Division Tactical Unmanned Aerial Vehicle (TUAV)-Signals Intelligence Program (DTSP), formerly known as Prophet Air.

The Prophet ground system's primary mission will be to provide force protection information to maneuver brigades and armored cavalry units in near-real time. The force protection is based on Prophet's ability to provide timely reports on opposing force voice activity. Prophet Block I will consist of an Electronic Warfare Support system mounted on a Heavy HMMWV. The receiver/processor can be removed from the vehicle to operate as a dismounted man-pack system in support of forced entry airborne or air assault operations. The mounted system can operate both from a stationary position and on-the-move. Prophet Control, a team of military intelligence analysts equipped with an All Source Analysis System-Light (ASAS-Light), will provide technical control to the systems and analyze the reports generated by the Prophet operator. Prophet Control will interoperate with the ASAS Remote Workstation at a brigade or armored cavalry unit. Prophet Block II will add an Electronic Attack capability. Blocks III-V will add coverage of additional signal types by the Electronic Warfare Support and Electronic Attack systems and new sensors. Development of Block III will likely precede Block II because a new receiver that will be part of Block II is necessary before proceeding with the development of the Electronic Attack capability.

The DTSP will provide the capability to electronically map radio frequency emitters on the battlefield and conduct Electronic Attack against targeted emitters. The DTSP consists of two elements: (1) SIGINT and Electronic Warfare payloads for the TUAV; and (2) workstation software that will remotely control the mission payload and display and analyze the data. The workstation software will be hosted on the Distributed Common Ground Station-Army (DCGS-A). DCGS-A will provide reports to ASAS in the Analysis and Control Element (ACE) at division.

BACKGROUND INFORMATION

The concept for the PROPHET program was initiated in 1998, following unfavorable results from the DT and the Combined DT/OT of the Ground Based Common Sensor-Light (GBCS-L). The Army and DOT&E found that GBCS-L was neither effective nor suitable. As a result, the Army

terminated the Intelligence and Electronic Warfare Common Sensor (IEWCS) program, which included GBCS-L and two other SIGINT/Electronic Warfare systems.

The Army restructured the IEWCS program as the Prophet program. As part of the restructuring, the Army's first step is to field the HMMWV-mounted Prophet as a replacement for the Army's aging tactical ground SIGINT legacy systems: Teammate, Trailblazer, Trafficjam, and the AN/PRD-12. The Army Program Executive Officer (PEO) Intelligence, Electronic Warfare and Sensors is the Milestone Decision Authority (MDA) for both Prophet and DTSP.

TEST & EVALUATION ACTIVITY

Based on the results of a two-phased IOT&E conducted during the 1QFY01, the Army MDA approved production of the Prophet system pending a comparison of the winning contractor's design with the LRIP system configuration that was tested in the IOT&E. This post-contract award comparison is necessary due to a build-to-function vice build-to-model acquisition strategy.

For DTSP, the Army PEO approved proceeding to a Component Advanced Development (CAD) phase and requested that the PM prepare an Evaluation Strategy for submission to OSD. The draft DTSP evaluation strategy is undergoing Army review prior to submission to OSD.

TEST & EVALUATION ASSESSMENT

During IOT&E, Prophet demonstrated the potential to provide accurate and timely force protection information in a low intensity scenario. However, the mid- to high-intensity scenario of the IOT&E strained the ability of the Prophet system, a system that uses no computer-assisted aids and voice reporting, to provide accurate and timely reports. As a result, the winning contractor has proposed to add a man-machine interface, and digital message preparation and reporting in the production system, based on ASAS-Light. Since the Prophet that was tested during IOT&E is no longer representative of the production system, the Army will need to conduct additional OT for the production system.

Test planning has been hampered by the lack of approved an Operational Requirements Document (ORD) and Critical Operational Issues and Criteria (COIC). This problem resulted in the late completion of the operational test plan for Prophet, and continues to affect test planning for future blocks of Prophet and for DTSP.

LESSONS LEARNED

Based on test experience with the Intelligence and Electronic Warfare Common Sensor program, the Prophet operational testing requires a more dynamic and realistic environment than the static developmental testing range configuration that has been used for prior Army SIGINT OTs. DOT&E is coordinating with the Army testers to ensure that operational testing to support each milestone will be conducted in an operational environment as part of field training exercises.