

## Nett Warrior

### Executive Summary

- In July 2013, the Assistant Secretary of the Army for Acquisition, Logistics, and Technology authorized an additional low-rate initial production (LRIP) for 2,052 Nett Warrior systems, which allows the program manager to buy 21 percent of the Approved Acquisition Objective.
- The Army Test and Evaluation Command (ATEC) conducted two Limited User Tests (LUTs) on Nett Warrior at the Network Integration Evaluation (NIE) 13.1 in November 2012 and NIE 13.2 in May 2013. DOT&E published Operational Assessment reports on both Nett Warrior LUTs.
- Nett Warrior demonstrated a capability for providing situational awareness and communications to each equipped leader in directing forces under his control.

### System

- The Nett Warrior is a dismounted leader situational awareness system for use during combat operations. Nett Warrior consists of the following:
  - End User Device (EUD), a commercial off-the-shelf Samsung Note smartphone
  - Government-furnished Rifleman Radio (AN/PRC-154A)
  - Conformal battery
  - Connecting cables
- Frequent Nett Warrior enhancements integrate improved commercial EUD technologies.
- The Nett Warrior graphically displays the location of an individual leader, other leaders, friendly vehicles, battlefield messages, and enemy activity on a digital geo-referenced map image. The Nett Warrior is connected through a secure radio to the Soldier Radio Waveform network to communicate



among different echelons using voice, data, and position location information messages.

### Mission

- Leaders within the Brigade Combat Team will use Nett Warrior to provide improved situational awareness, command and control, and enhanced communications.
- Combatant Commanders employ Nett Warrior-equipped infantry and cavalry dismounted leaders as part of a Brigade Combat Team to conduct operations (offensive, defensive, stability, and defense support of civil authorities) against conventional or unconventional enemy forces in all types of terrain and climate conditions.

### Major Contractors

- EUD: Samsung – Seoul, South Korea
- Rifleman Radio:
  - General Dynamics C4 Systems – Scottsdale, Arizona
  - Thales Communications Inc. – Clarksburg, Maryland

### Activity

- ATEC executed two LUT events on Nett Warrior in FY13 during NIE 13.1 and 13.2 at Fort Bliss, Texas, and White Sands Missile Range, New Mexico.
- DOT&E published Operational Assessment reports on both Nett Warrior LUTs.
- In July 2013, ATEC conducted a ballistic test on the conformal battery at Aberdeen Proving Ground, Maryland.
- In July 2013, the Assistant Secretary of the Army for Acquisition, Logistics, and Technology authorized an additional LRIP for 2,052 Nett Warrior systems. These additional systems are intended to provide additional test assets to reduce program risk, provide Soldier feedback, and establish the production line at Tobyhanna Army Depot, Pennsylvania. This additional LRIP allows the program

manager to buy 21 percent of the Approved Acquisition Objective.

- The Army conducted all testing in accordance with DOT&E-approved test plans.

### Assessment

- During the LUT events, Nett Warrior demonstrated a capability to provide situational awareness and communications to each equipped leader in directing forces under his control. Nett Warrior enhanced such tasks as issuing orders, land navigation, message reporting, and command and control.
- Testing revealed interoperability problems between Nett Warrior and the Joint Battle Command – Platform (JBC-P).

# ARMY PROGRAMS

The systems could not consistently transmit and receive survivability and command and control data messages. The Nett Warrior software could send and receive only 5 of 25 variable message formats used with JBC-P.

- The Army could better assess operational effectiveness with a more robust real-time casualty assessment tool than the Multiple Integrated Laser Engagement System, which provides end-of-battle casualty results without the benefit of GPS tracking of users, real-time user engagement feedback, and video playback.
- Nett Warrior met material reliability and availability requirements during the NIE 13.1 LUT. Nett Warrior demonstrated a reliability point estimate of 342 operating hours exceeding the objective requirement of 291 hours. Nett Warrior demonstrated 95 percent availability, with the requirement being 90 percent.
- The reliability and availability values demonstrated during the NIE 13.2 LUT were just below the Army-specified requirements. Demonstrated reliability did not affect mission accomplishment.
- During operational testing, Soldiers indicated the value of Nett Warrior but found that the Rifleman Radio suitability

shortfalls reduce the suitability of the Nett Warrior. For further information, see the FY13 Annual Report on Rifleman Radio.

- At night, screen brightness can inadvertently disclose the user's location to the enemy.
- The Army conducted ballistic testing, shooting the conformal battery in one of the battery's 16 cells. The conformal battery continued to provide power. There was no "spalling" or expelling of battery materials. There appears to be no degradation in protective characteristics of the Improved Outer Tactical Vest when worn with the conformal battery.

## Recommendations

- Status of Previous Recommendations. The Army addressed the previous recommendations.
- FY13 Recommendations. The Army should:
  1. Increase the number of Variable Message Format messages Nett Warrior can receive so that it is more interoperable with JBC-P.
  2. Use the ATEC Personnel and Equipment Tracking System real-time casualty assessment tool during future operational testing to better assess the operational effectiveness of Nett Warrior.