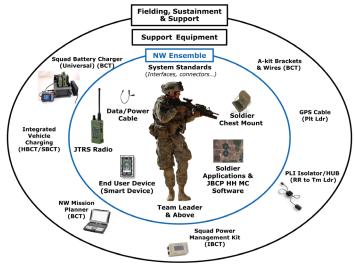# Nett Warrior
(formerly Ground Soldier System)

Executive Summary
- The Army conducted the Nett Warrior Limited User Test (LUT) of three competing systems from October 18 through November 5, 2010, at Fort Riley, Kansas. DOT&E provided an operational assessment on results from the LUT on April 21, 2011.
- The Army intended to make a Milestone C decision for Nett Warrior in 2QFY11, but the decision was delayed due to program restructuring directed by the Army's Configuration Steering Board (CSB).
- The CSB de-scoped the requirements to allow for the integration of a small End-User Device (EUD) based on current smart device technology. The intent is to produce a new configuration with significant weight and cost reduction.
- The de-scoping focused on system attributes such as operational temperature range (reduced), immersion in water (no longer a requirement), and electromagnetic effects (reduced). The CSB did not change any of the Key Performance Parameters in the restructuring of the program.
- The Army missed the opportunity to test the new configuration of Nett Warrior during the November 2011 Network Integration Evaluation 12.1 and prior to a Milestone C decision (now planned for 2QFY12).

System
- In June 2010, the Ground Soldier System was formally renamed "Nett Warrior" program.
- Nett Warrior is an integrated, dismounted Soldier situational awareness system for use by leaders during combat operations. It is designed to facilitate command, control, and sharing of battlefield information and integrate each leader into the digitized battlefield. The Army intends to use Nett Warrior to provide mission command and position location information down to the team leader level. Nett Warrior, as tested at the LUT, consists of:
  - A hands-free display and headset to view information
  - A computer to process information and populate the display
  - An interface device (mouse) for user-screen interaction
  - A system power source
  - A software operating system
  - A networked radio transmitter/receiver to send and receive information
  - Antennas and cables
- The new EUD version of Nett Warrior that emerged from the CSB consists of the following:
  - A small integrated EUD based on current smart device technology
    - A computer to process information and populate the display, a display to view information and allow for user interaction, and commercial GPS navigation capability

BCT - Brigade Combat Team
HBCT - Heavy Brigade Combat Team
JTRS - Joint Tactical Radio System
Plt Ldr - Platoon Leader
SBCT - Stryker Brigade Combat Team
GPS - Global Positioning System
JBCP HH MC - Joint Battle Command Platform Handheld Mission Command
IBCT - Infantry Brigade Combat Team
RR - Rifleman Radio
Tm Ldr - Team Leader

  - Government software and mission applications
  - An AN/PRC-154 Rifleman Radio transmitter/receiver from the Joint Tactical Radio System family of radios connected to an EUD to send and receive information and voice data
  - A system power source and support equipment in order to recharge the power source and provide power management in austere, underdeveloped areas
  - Support equipment for the program that includes a mission planning device for use at platoon level and above, as well as various expeditionary power generation, power storage, and power management devices for austere environments
- The program change allows the replacement of four components (military helmet-mounted head display, ruggedized keyboard, computer/navigation model, and associated batteries and cables) with a single EUD performing all the functions in a single integrated device based on a rapidly advancing commercial technology.
- Yearly Nett Warrior enhancements that will integrate improved commercial EUD technologies and other initiatives will be tested during the Army's Network Integration Evaluations.

Mission
Leaders within the Brigade Combat Team use Nett Warrior to provide increased situational awareness and enhanced communications. This will increase their ability to close with and engage the enemy to defeat or capture him, or to repel his assault by fire, close combat, and counter-attack.

Major Contractors
- The contractors who participated in the LUT:
  - General Dynamics C4 Systems – Scottsdale, Arizona
  - Raytheon – Plano, Texas
  - Rockwell Collins – Cedar Rapids, Iowa
- Vendor selection for the EUD version of Nett Warrior is still pending. Due to the reconfiguration of the Nett Warrior

System, the three contractors who were being considered were informed of the new requirements, which invalidated the old system designs.

Activity
- On April 21, 2011, DOT&E provided an operational assessment of the Nett Warrior LUT that took place October 18 to November 5, 2010. The LUT complied with the DOT&E-approved test plan.
- In June 2011, the overarching integrated project team recommended that the program proceed to Milestone C provided that voice communications are corrected so that they are understandable; light emissions from the eyepiece are corrected so positions are not given away; and weight is reduced.
- During the July 6, 2011, Army Systems Acquisition Review Council, the Vice Chief of Staff of the Army recommended that the Army conduct a CSB to validate Nett Warrior's use of an EUD that utilized smart device technology as was recommended by Soldiers who participated in Network Integration Evaluation 11.2. This caused the Milestone C decision to be postponed.
- The August 2011 Joint Requirements Oversight Council Memorandum 118-11 provided classification guidance that allowed for an EUD that utilized smart device technology.
- The August 2011 CSB endorsed the recommendation to de-scope Nett Warrior requirements. The G-3/5/7 validated these requirements on October 5, 2011.
- The de-scoping focused on system attributes such as operational temperature range (reduced), immersion in water (no longer a requirement), and electromagnetic effects (reduced). The CSB did not change any Key Performance Parameters.
- The new Nett Warrior configuration that emerged from the CSB allowed for the integration of a small EUD based on current smart device technology. This is intended to reduce weight and cost by replacing the military helmet-mounted head display, ruggedized keyboard, computer/navigation model, and associated batteries and cables.

Assessment
- The value of a Nett Warrior-like system to provide leaders needed situational awareness has been established in the LUT and in theater (e.g., three separate units deployed with legacy Land Warrior systems to Operation Iraqi Freedom and Operation Enduring Freedom between 2007-2011 in response to operational needs statements and reports that Land Warrior was a great capability in complex terrain).
- There were two Nett Warrior problems observed during the LUT that should have been corrected during developmental testing. Those problems included unclear voice communications and excessive light emissions during night time operations.
- The Army missed the opportunity to test the new configuration of Nett Warrior during the Network Integration Evaluation 12.1 in November 2011 and prior to a Milestone C decision (now planned for 2QFY12).
- Nett Warrior will undergo an information assurance test as part of IOT&E.

Recommendations
- Status of Previous Recommendations. During FY11, the Army continued to address the previous recommendations.
- FY11 Recommendations.
  1. Given that the system requirements have been de-scoped, the Army needs to provide data and evaluations for any testing that has already occurred or conduct additional testing for the de-scoped system.
  2. The Army needs to conduct information assurance testing on the de-scoped system in accordance with DoD Directive 8500.01E, DoD Instruction 8500.2, and the DOT&E Procedures for Operational Test and Evaluation of Information Assurance in Acquisition Programs (January 21, 2009).