



# Industry Day

## Brigade Modernization command Update

**PURPOSE:** Provide BMC / NIE Update

**AGENDA:**

- Agile Capabilities Life Cycle Process
- Network Integration Evaluations
- The TRIAD and Team of Teams
- NIE “Firsts”
- NIE 13.2 Overview and Timeline
- NIE Lessons Learned to make YOU successful
- NIE 14.1 Overview

**9 Jan 2013**

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# The Agile Capabilities Life Cycle Process

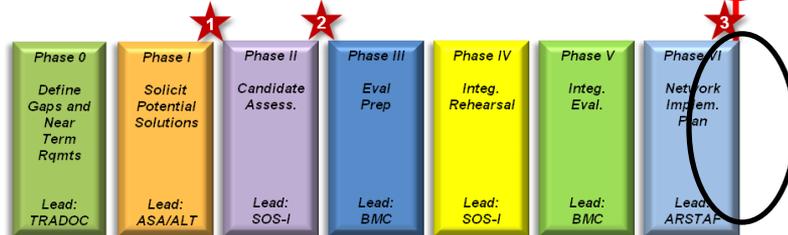


**NIE 12.2**

DP 1 - Viable Candidate List  
 DP 2 - Candidates Selected for Evaluation  
 DP 3 - Baseline Insertion

• CS Integrated Baseline  
 • NETOPS

**NIE 13.1**

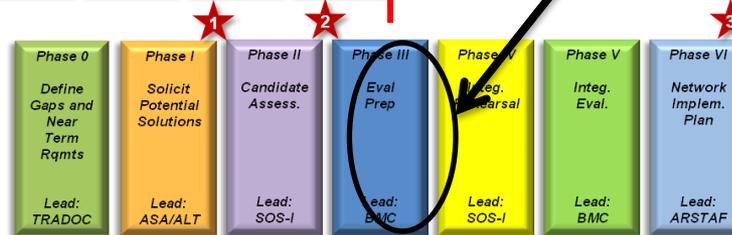


Where we are now

• Transport Convergence – OPS/Intel Convergence  
 • COE Platform/Dismount  
 • MCOTM refinement

Leverage RFP process to compete solutions

**NIE 13.2**



**NIE 14.1**



**Simultaneous Plan, Prepare, Execute, Assess**



# Network Integration Evaluation



## What is the NIE?

The Network Integration Evaluation (NIE) is a series of **semi-annual evaluations** designed to integrate and mature the Army's tactical network.

- Conduct **integrated and parallel Operational Tests** of select Army programs of record.
- Evaluate development and **emerging network capabilities** in an operational environment.
- Assess **non-networked capabilities** in an **integrated operational environment**.

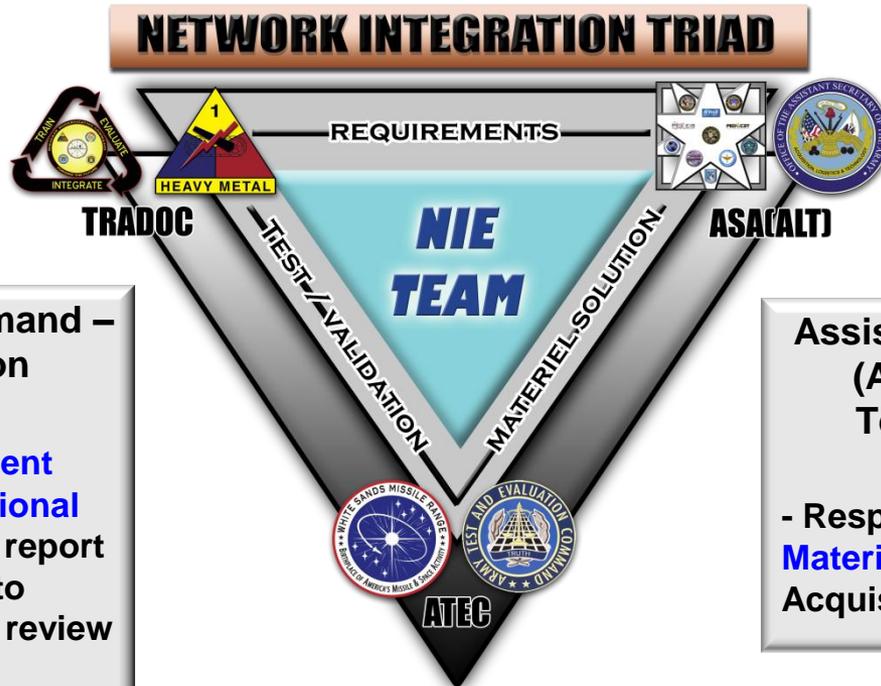
## What Makes the NIE Different?

The “Adaptive” Evaluation Concept:

- **Integrated** evaluations of capabilities **rather than discrete** evaluations
- Synchronized and consolidated feedback loop – **two evaluations per year**
- Evaluation and integration from **Platoon to BCT** levels
- Tactical AO encompassing up to **12,000 sq. km of complex terrain and airspace**
- Includes opportunities for **integrating industry solutions and emerging technologies** in parallel
- Established a **network baseline for incremental modernization**
- **The Business Case: Reduced costs thru efficiency & competition, quicker cycle times, and rapid technology insertions**



# The TRIAD



**Training & Doctrine Command –  
Brigade Modernization  
Command**

- Responsible for **development and execution of the operational evaluations**; Compiles final report for signature and provides to Department of the Army for review and approval

**Assistant Secretary of the Army  
(Acquisition, Logistics, &  
Technology) – System of  
Systems Integration**

- Responsible for **determining Material Solutions** for the Army's Acquisition Process

**Army Test & Evaluation Command –  
Operational Test Command**

- Responsible for the planning and execution of **operational testing for Programs of Record and DOD oversight programs.**



# Team of Teams



## Legend

### Test Locations



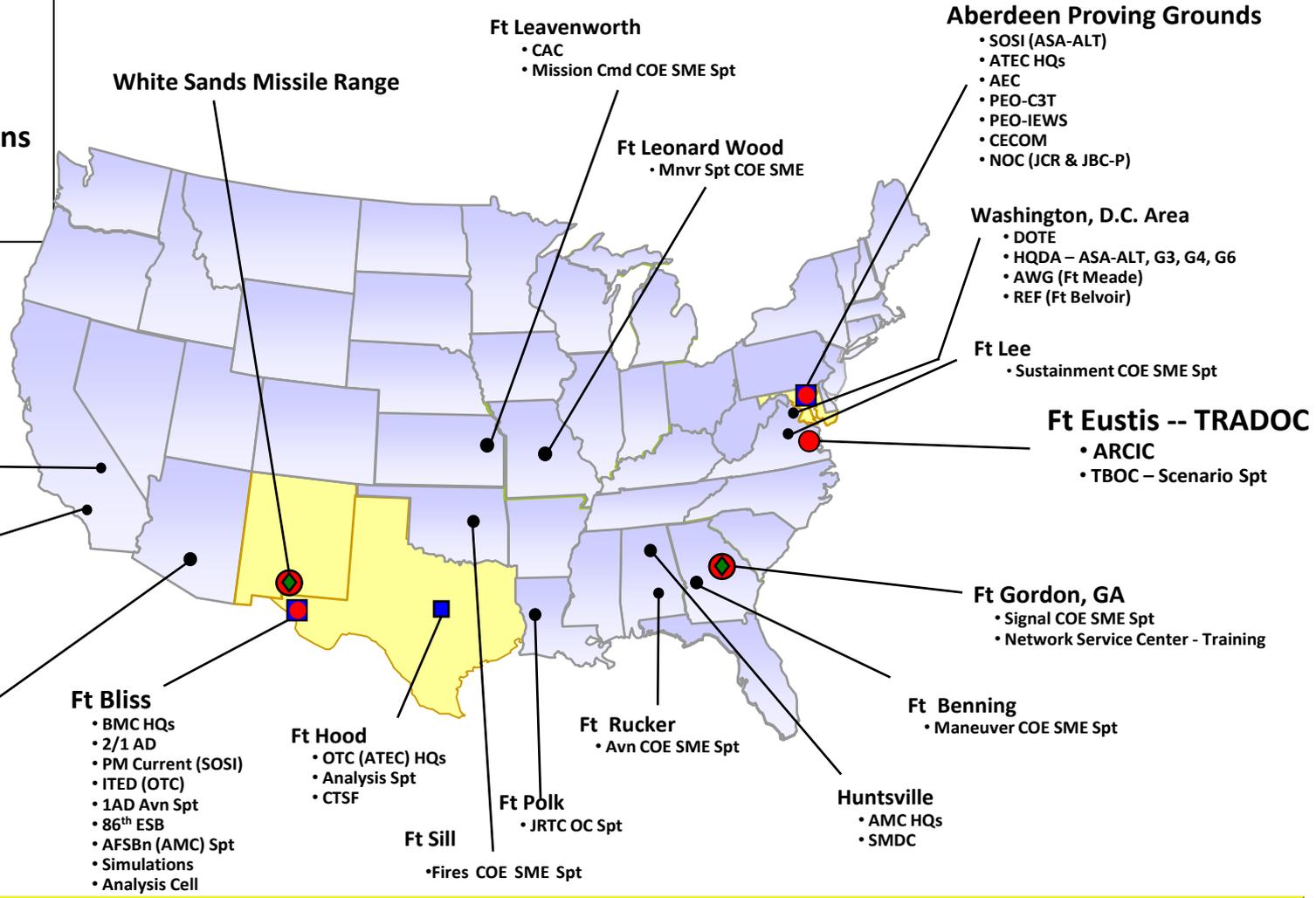
### HQs Locations



### Test Unit Locations



### Subject Matter Experts



**“The NIE it is one of the most important things strategically the Army has taken up in many years.”**  
**(Honorable John McHugh, Secretary of the Army )**



# NIE "Firsts"



## 11.2

- ❑ First semi-annual evaluation designed to integrate and mature the Army's tactical network.
- ❑ Integrated evaluations of capabilities
- ❑ Tripled the size of the integrated evaluations (BN to BCT)
- ❑ Tactical AO encompassing up to 12,000 sq. km of complex terrain, airspace and EM Spectrum
- ❑ Increased number of capability solution candidates

## 12.2

- ❑ HICON is 101st ABN (AA) (Fort Campbell, KY)
- ❑ Simulated flank BCT (Constructive)
- ❑ 1st Support Brigade (Fort Riley, KS)
- ❑ Classified Exercise
- ❑ Objective Network (WIN-T Inc 2 undergoing IOTE)
  - ❑ Brigade, BN, and Co CPs required to jump
- ❑ Dynamic, controlled free-play exercise

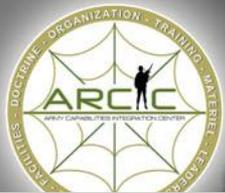
## 12.1

- ❑ WIN-T Inc 2 compatible SNAP v2 in the field
- ❑ Connected Nett Warrior (Droid) and JBC-P Handheld to Rifleman's Radio
- ❑ Distributed Position Location Information (PLI) into the FBCB2-JCR network
- ❑ First Industry participation
- ❑ Employed New Network Management tools, including: Joint Enterprise Network Manager (JENM), Soldier Radio Waveform (SRW) and the Warfighter Initialization Tool (WIT)

## 13.1

- ❑ *DRS MCOTM on heavy platform (B FIST)*
- ❑ *Dynamic Spectrum Allocation on the WNaN radio*
- ❑ *JENM Tool for adhoc task reorganization changes trained and pushed to company level*
- ❑ *VWP on heavy platform (M1 Abrams)*
- ❑ *VWP in MANET mode (vice being tethered to a specific TCN)*
- ❑ *Distributed SUT over the WIN-T Inc 2 Upper TI with YPG (Paladin)*
- ❑ *Roamer Net*
- ❑ *Voice Cross-banding between Maingate and SRW*

**"The NIE delivered a proof of concept that will significantly impact the development of the Army in 2020." (GEN R. W. Cone, CG, TRADOC)**



# NIE 13.2 Objectives and Gaps



## HQDA Objectives Prioritized List

1. Continue to evaluate Warfighter Information Network-Tactical (WIN-T) Increment 2 (execute WIN-T Inc 2 Follow-on Operational Test and Evaluation (FOTE) to standard), both in static Command Posts and with Mission Command (MC) On the Move (OTM) without Theater Provided Equipment (TPE).
2. Continue OPS/INTEL Convergence as the first phase of COE implementation (set the conditions for the operational test for DCGS-A in NIE 14.1).
3. Continue convergence of NetOps tools.
4. Evaluate instrumented Home Station Small Unit Training to include AARs as a non-networked capability.
5. Validate automated capability to apply security updates to MC apps connected to the LWN, both deployed and under Installation as a Docking Station.
6. Develop Mission Command Capabilities at Home Station. Evaluate integrated use of training enablers with CS13/14 and the One Network concept.
7. Evaluate Aerial Tier solutions (Air/Ground, Aerial extension) as a Lab Assessment.
8. Conduct a Technical Validation of Transport Convergence Phase I (Mission Command (MC) and Intelligence data) as a t that includes interface with the LandWarNet Enterprise, National and Intelligence Community (IC) Assets.
9. Integrate Capability Set configuration items onto Heavy platforms as a Lab Assessment.
10. Facilitate increased participation by Unified Action Partners during planning and execution.

## Testing Priorities / Focus Areas

- WIN-T Inc2 FOT&E (H1,G5,8,10)
- CS 14/15 Integrated Baseline (downsized configuration items for all BCT formations) (All)
- Mission Command On-the-Move refinement (Mounted and Dismounted TOCs) (H2,7,9 / G1,6)
- OPS/INTEL Convergence (H2,3 ,8/ G1,2,3,5)
- COE (Platform/Dismount) (H2,8 / G3)
- NetOps Tools (H3 / G1,2,3,4,5)
- One Network concept (H5,6 / G7,8)

\* HQDA Objectives and ARCIC Gaps that require further analysis to address the Testing Priorities / Focus Areas

## Mission Command/Network Gaps Guiding NIE 13.2 and Beyond

1. **Commander Applications for Mobile/Hand Held devices.** Provide commanders, company through Brigade, applications on their mobile/hand held device which assist them in their role as a commander.
2. **BDE S6 Staff Element and Working Group.** Re-align the Brigade S6 section focused on enterprise management, information assurance and computer network defense.
3. **Command Post Collaboration/Visualization.** Provide interactive displays that interact with data provided by the full range of command post mission command systems and permit individual and/or group collaboration.
4. **Network Visualization on the Common Operational Picture.** Provide applications that interface with existing NETOPS tools and provide a visualization of network status as part of the unit's COP.
5. **Robust Network at Company Level.** Provide a fused information and responsive access to combat power, to command posts and to the tactical edge.
6. **Aerial Layer Network/Air-Ground Integration (AGI).** Provide units, leaders, soldiers and sensors assured network access, range extension and throughput via the employment of an aerial layer network transport capability.
7. **Cyber Electromagnetic (CEM) Staff Element & Working Group.** Institution of a CEM Element, focused on holistic integration of CEM activities and associated capabilities.
8. **Integrated Employment of LandWarNet, Installation Networks, and Training Resources.** Utilize the installation as a docking station concept to update and maintain a sampling of the BCT Mission Command systems prior to deployment.
9. **Evaluate instrumented Home Station Small Unit Training to include AARs.** Develop solutions to document training events and soldier performance through an enterprise After-Action Review with a commander's interface capability.
10. **Evaluate Network Capabilities.** Demonstrate procedures required for a Theater Network Operations & Security Center (TNOSC) to assume technical control of the BCT.
11. **Operational Energy.** Maximize energy conservation and reduce logistical footprint for power and energy.



# 13.2 NIE Systems Under Test / Evaluation (SUT/SUE) & Demonstrations



5 SUT / 4 SUE

## SUT

1. WIN-T Increment 2
2. Nett Warrior
3. UASTCDL/UGCS (Unmanned Aerial System Tactical Common Data Link/Universal Ground Control Station) (Shadow)
4. Area Mine Clearance System (AMCS)
5. Joint Battle Command-Platform (JBC-P)

## Gap 1 Commander's Apps

~~Fires CoE~~ ~~Fires Warrior~~ *Withdrawn 28 Nov*

## Gap 3 CP Visualization

1. PD C-RAM – Cooperative Aviation Surveillance Sensor (CASS)

## Gap 8 Integrating LWN Installation and Training Resources

2. PEO STRI – Intelligence Low Overhead Driver (iLOD)

## Gap 11 OE Distribution

3. DRS- On Board Vehicle Power (OBVP) MAXXPRO Mobile integrated Command Post MiCP
4. PM MEP – Efficient Shelters

## Carryover

- DRS Technologies – Data Distribution Unit (DDU)

## Gap 4 Co Information Architecture

- Harris – Fusion Network Communication Server (NCS)
- PM SWAF – Northrop Grumman SoldierLink

## Gap 5 Network Visualization on the COP

- Kratos – NeuroStar

## Gap 6 Aerial Layer

- BAE – GMR Low SWaP (GLS) Air Tier
- Harris – PRC-152A and PRC-117G Aerial
- GDC4S – AN/PRC-117G Manpack Radio Aerial Tier
- Harris – Aerial C4ISR Payload Suite (ACPS)
- PEO AVN – Aviation Baseline-Networked Air Ground Integration

## Gap 9 SATCOM

- DRS – Mission Command on the Move
- ITT Exelis - GND/2D

## DEMONSTRATION

- Transport Convergence
- Turretless Bradley (Army Leadership Directed)
- Key Management Infrastructure

## DEMONSTRATION

- Host Based Security System (HBSS) (High Priority)
- Patch Management (High Priority)
- Trouble Ticketing (High Priority)
- Signal CoE Proposed BCT S-6 (Gap 2, S6 Staff Demo)
- Advanced Visualization Information System (AVIS) - (Gap 6)
- Expeditionary Combat Outpost (REF)
- Security Assistance Force Advisor Teams (SFAAT) ISR On the Move (REF)
- Automated Direct Indirect-fire Mortar (ADIM) (Army Leadership Directed)

as of 29 November 2012



# NIE 13.2 Timeline



## Home Station Training

22 January – 29 April

SUE New Equipment Fielding / Training



10 Weeks

11 March-29 April

VALEX/ COMMAX

5 Weeks

15-19 Apr

TLP

1

22-28 Apr

Deploy/  
FIELD  
COMMAX

1

## Ft. Bliss / WSMR

29 April – 7 June

Pilot Test /  
Tactical Operations

6 Weeks (Ph I-III)

7 January – 29 March

WIN-T Inc 2 Sustainment Trng

Ldr NET

Individual Trng

Gunnery Tbls I-VI

Gunnery Tbls VII - XII

Co CALFEX

Unit Maintenance and Services

Bde/BN MDMP/ CPX

**NIE is more than a field evaluation ... it is the integration, training and validation leading to DOTMLPF recommendations for the Army**



# BMC Lessons Learned to make **YOU** Successful



## **In preparation for participation in an NIE:**

- **Know number of NEF days/hours that are required • Know # of NET days/hours that are required**
- **At what echelon should your capability be evaluated**
- **How many Soldiers/leaders require training**
- **Recommend required/leader training required**
- **Timely safety release**

## **At the TIM, actual candidate vice power point is important so all can see SWaP**

- **“Engineer” speak is good; must be complimented by “operational” speak**
- **The right briefer can make or break your nomination**
- **Lifecycle management will become focus of future TIMs**

## **Lab based risk reduction pay dividends**

## **Robust Training Support Packages (TSPs) are key for NET & conducting sustainment training**

- **NET training products must be approved NLT 30 days prior to beginning of NET!**

## **COE Sponsor critical to the process Know the Agile Process – Communicate – Aggressively Prepare for TIM/Lab/NEF/NET**

**Better NET training product results in a better evaluation for you!**



# NIE 14.1 Overview



## HQDA Objectives Prioritized List

1. Conduct BCT Operational Evaluation of Transport Convergence (PH I), set conditions for theatre validation
2. Conduct Operational Assessment of CP CE V1.0; set conditions for fielding initial Ops-Intel Convergence capability in support of COE V1.0
3. Develop capabilities to deliver, collect and process integrated, multi-intelligence and relevant ISR to the edge.
4. Develop architectures, concepts and capabilities to improve full spectrum, combined arms warfighting functions through aerial layer operations and networked air-ground integration.
5. Integrate Capability Set configuration items in the Armored Brigade Combat Team
6. Validate the integration of the Army War fighting Functions with JIIM partners and assess specific joint mission threads (Fires, ISR, MC), set conditions for Joint Evaluation in 14.2
7. Continue to integrate Mission Command capabilities and CS 13/14 at home station using Installation as a docking station, distributed networks, as well as other training resources (LVC-ITE).
8. Continue to develop Home Station (low overhead) Small Unit instrumented training and AAR capabilities
9. Develop solutions to enhance the command post in order to increase operational agility; to include solutions that reduce energy requirements and promote sustainable practices.
10. Determine the DOT\_LPF implications of AROC approved route clearance capabilities within route clearance teams and the AROC approved mix of Infantry weapon capabilities within Infantry Rifle Squads and Platoons

## Endstate

- Transport Convergence operationally evaluated (capacity/performance tested)
- COE Environment implemented
- Improved capability at the edge (ISR, Aerial layer & Enterprise systems)
- Capability set baseline refined
- Home station training capacity improved (ILAAD, LVC-ITE)
- Solutions for Operational Energy evaluated (CP enhancement, energy reduction)
- BCT set for Joint Operations in 14.2

## ARCIC Recommended Gaps Guiding Network Integration Evaluation (NIE) 14.1 Dated 21 November 2012

1. Brigade/Battalion Command Post (CP) Mobility and Scalability.
2. CDR Applications for Mobile/HH
3. Network Visualization on the Common Operational Picture (COP)
4. Integrated LandWarNet, Installation Networks & Training Resources
5. Aerial Layer Network Extension
6. Air-Ground Network Architecture
7. Enterprise Network Capabilities (eMail)
8. Integrated Network Assurance (INA)
9. Host Based Security System (HBSS)
10. Integrated Trouble Ticketing
11. Unified Communications Capability
12. Evaluate instrumented Home Station Small Unit Training to include AARs
13. Operational Energy



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