



Industry Day

BG John W. Charlton
Commanding General
Brigade Modernization Command

Agenda:

- **The TRIAD and BMC**
- **NIEs and the Timeline**
- **NIE 13.2: What we Saw / What we Need**
- **NIE Way-Ahead**
- **BMC Lessons Learned**

NIE 13.2

EMPOWERING THE WARFIGHTER

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NIE Triad

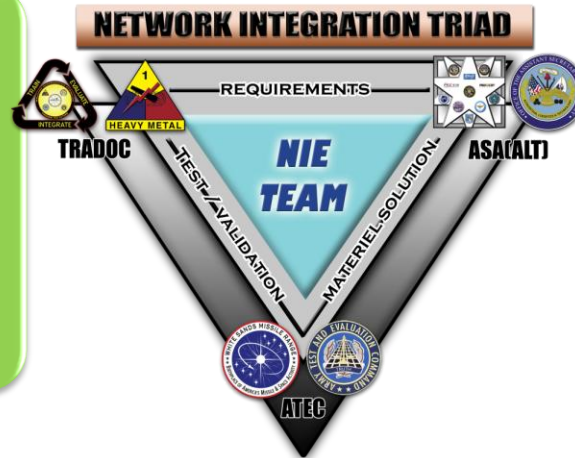


Training & Doctrine Command – Brigade Modernization Command

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.

Other Stakeholders:

ARCIC
MCOE
MCCOE
CAC-T
SIGCOE
SCOE
FCOE
AVCOE
2/1AD



Army Test & Evaluation - Operational Test Command

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

Other Stakeholders:

Army Evaluation Command
Electronic Proving Ground
Developmental Test Command

Assistant Secretary of the Army (Acquisition, Logistic, & Technology) - System of Systems Integration

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

Other Stakeholders:

PEO-3CT
PEO-IEWS
PEO Soldier
All PMs with participating systems

Army Stakeholders:

CIO/G6
DA G3, 4 & 8
FORSCOM
CTCs
2&3 BCT, 101st Abn
3&4 BCT, 10 Mtn
Army Materiel Command
- CERDEC
- CECOM
- CTSF



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**



NIE 14.2 Timeline

Home Station Training

20 JAN – 28 MAR

SUE New Equipment Fielding / Training

10 9 8 7 6 5 4 3 2 1

9 Weeks

10 MAR – 11 APR

VALEX/ COMDEX

5 Weeks

14-18 APR

TLP

1

13 JAN - 14 MAR

Individual Trng

Individual Weapons Qual

BCT Fires Cert

Vehicle Gunnery Table(s)

Unit Maintenance and Services

Bde/BN MDMP/ CPX

FBTX / WSMR

21-25 APR

Deploy/
FIELD
COMDEX

1

28 APR – 17 MAY

Pilot Test /
Tactical Operations

20-23 MAY

Joint
Training
Event

4 Weeks (Ph I-II)

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



What we saw: The Network

The Network was stable, reliable, and well integrated w/MRAP platforms

- **Communications, position location over extended ranges & varied terrain successful**
- **Allowed BCT to conduct mission command at the halt (ATH) and on the move (OTM)**
- **Text/VOIP calls widely used vice command nets**
- **NETOPS tools useful, but soldiers need more training**
- **UTRs improved, but still lack necessary flexibility**
- **COMSEC changes challenging**
- **Security patches over network validated**
- **Too many separate networks**
- **Cyber tools good, but need continued improvement; soldier/leader training!**
- **Leader vehicles sometimes positioned as network extension nodes**
- **Dismounted connectivity to the network challenging – range limitation**
- **Validated Air/Ground integration gateway – Range + BandWith limitations**
- **Network not integrated in aviation platforms**



What we need: The Network

- **Shift focus to IBCT, SBCT, ABCT & AVN integration (adjust 2/1AD org to support)**
- **Accelerate ABCT & AVN network integration and MC system upgrades**
- **Validate command net capability; Increase exercise operations tempo**
- **Increased combined arms maneuver; validate network reliability over x-country terrain**
- **Continue to improve NETOPS tools; develop sustainment training capability**
- **Must have over-the-air capability for UTR and COMSEC change-over**
- **Increase network extension capability (Ex., RETRANS w/HNR, aerial tier & dismounted nodes!)**
- **Validate transport convergence; move toward one reliable, secure, flexible network...Accelerate Sustainment!**
- **Understand Computer Network Defense (CND) as force protection; develop doctrine, TTPs for BCT CND; continue aggressive cyber threat at NIE**



What we saw & need: Training

What we saw:

- **Growing NET and sustainment training requirement for 25-series soldiers (equipment, network management, CND, system integration)**
- **Leaders must understand the network (Maneuver the Network)**
- **No home-station training for capability sets (network, MC systems, leader MCOTM vehicles)**
- **NET for the 25-series MOS is an investment in network performance**
- **Personnel – shortages of 25-series Soldiers has significant impact on the network**

What we need:

- **Accelerate home station training for capability sets (network, CPs, MCOTM vehicles)**
- **Leverage MTCs for CS training**
- **Network and MC system training in the institutions**



What we saw & need: Command Posts

What we saw:

- **Main CPs too big, complex, and inefficient; lack portability & scalability**
- **2/1AD TAC CP: mobile, small and provided CDR command post capability forward; provided redundancy for Main CP**

What we need:

- **Develop Main CPs as an integrated platform**
 - **Portable, scalable, survivable**
 - **Reliable, intelligent, efficient power grid**
 - **Simplify (wireless, less equipment)**
- **Develop mobile TAC CPs for BN/BCT**
 - **MOBILE, self-contained OTM/ATH capability**
 - **Mobile power & server platform**
 - **Small, mobile network platform**
 - **All vehicles x-country capable**



What we saw & need: Mission Command

What we saw:

- **Legacy systems lack integration, simplicity**
 - Staff briefed by individual system, not COP
 - System integration failed or was too complex
 - CPCE performed poorly and legacy systems were not well integrated
 - Units caught in complex transition phase – don't need a digital master gunner
 - Systems didn't enable Mission Command - simple tasks too complex

What we need:

- **Make CPCE the priority MC system**; accelerate migration of legacy system capabilities to CPCE
- **Focus on enabling Mission Command**
 - Situational understanding
 - Commander's visualization
 - Provide capabilities to Soldiers
 - Build trust
 - Supports decision making
 - Simple / intuitive



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 Way Ahead



- ***JIIM integration***
- ***Increased USMC participation to ensure continued ground force compatibility***
- ***Hybrid OPFOR***
 - ***increased mounted forces w/VISMODS***
 - ***increased OPFOR capabilities (UAV, cyber/EW, rocket/indirect fire)***
- ***Increase tempo/intensity of exercise; shorten (stress equipment, soldiers, MC systems)***
- ***More CAM and x-country***
- ***Update 2/1AD org to support future CS development/fielding - Network equipment!***
- ***Continue BMC support to CS fielding; post TTPs, SOPs online***
- ***LFX & ECM for SUTs***



Backup

MISSION TRAINING BRIEF

(Takeaway Slides)



U.S. ARMY



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THE IRON BRIGADE

OLD IRONSIDES

STRIKE HARD!



NET/NEF DATA POINTS

NET Window: 22JUL – 20SEP

3 rd QTR			4 th QTR			1 st QTR		
APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

SUT Requirements

CPOF: All units <ul style="list-style-type: none"> • Personnel: 378; Main-hours 6,454 • Target audience for CPOF is BDE/BN Staff • 48 systems x 3 operators per system = 144 staff personnel to be trained across the BDE // 60 staff personnel in BDE alone • BDE/BN S6 personnel must also attend SYS ADMIN 	1-1 CAV: 8 systems; 22 PAX 1-35 AR: 7 systems; 19 PAX 1-6 IN: 7 systems; 19 PAX HHC BDE: 21 systems; 58 PAX	BSTB: 5 systems; 14 PAX 4-27 FA: 7 systems; 19 PAX 47 th BSB: 6 systems; 17 PAX
CMD WEB (part of CPOF): All units <ul style="list-style-type: none"> • Target audience for CPOF is BDE/BN Staff who do not have access to a CPOF system • Number of personnel to be trained is unknown at this time due to a RFI to the test officer for clarification on required numbers 	1-1 CAV: 15 PAX 1-35 AR: 15 PAX 1-6 IN: 15 PAX HHC BDE: 31 PAX	BSTB: 15 PAX 4-27 FA: 15 PAX 47 th BSB: 15 PAX
AN/PRC/117G: All units <ul style="list-style-type: none"> • Personnel: 126; Man-hours: 5,040 • Affected Units: 	1-1 CAV: 6 PAX 1-35 AR: 73 PAX 1-6 IN: 4 PAX HHC BDE: 16 PAX	BSTB: 19 PAX 4-27 FA: 19 PAX 47 th BSB: 6 PAX
JWARN: All units <ul style="list-style-type: none"> • Personnel: 14; Man-hours: 784 • 2 personnel per BDE/BN 		

CATEGORY	Required # of Soldiers for Training	Projected # of Training Man-hours	Percentage of NET Training Man-hours
SUTs	605	14842	30.4%
SUEs	251	2956	6.1%
DEMOs	132	6026	12.3%
Carry-Over	158	1356	2.7%
Baseline	749	23687	48.5%
TOTAL	1895	48867	100%



FLEET BUILD

Fleet Build Begins 26 JUN
161 2BCT Vehicles are required for integration

1-1 CAV



Vehicles: 18

- MATVs: 2
- HMMWV: 2
- M1083 (MTV): 2
- Stryker: 6
- TCN: 1, Caimen: 1
- Maxxpro: 4

Systems (SUT/SUE)

- CPOF - JWARN
- 117G - ROAMER
- NEURAL STAR
- JBC-P - MGR

1-35 AR



Vehicles: 93

- M1083 (MTV): 4
- MATV: 37
- HMMWV: 12
- TCN: 1
- Maxxpro: 37
- Caimen: 2

Systems (SUT/SUE)

- CPOF - JWARN
- 117G - JBCP TIGR
- Fusion NCS
- Flex Fuel

1-6 IN



Vehicles: 28

- M2A3 BFV: 15
- M1A2: 1, -M1068:1
- BFIST M3: 1
- MATV: 4, TCN: 1
- M1083 (MTV): 1
- M113A3: 3

Systems (SUT/SUE)

- CPOF - JWARN
- 117G

4-27 FA



Vehicles: 6

- MATV: 2
- M1068 (CP): 1
- HMMWV: 2
- TCN: 1

Systems (SUT/SUE)

- CPOF - JWARN
- 117G - EMSI

2/1 STB



Vehicles: 11

- MATV: 4
- M1068 (CP): 1
- HMMWV: 4
- TCN: 2

Systems (SUT/SUE)

- CPOF - JWARN
- 117G
- Arial Net Extension
- Variable Generator

47th BSB



Vehicles: 5

- MATV: 1
- HMMWV: 3
- TCN: 1

Systems (SUT/SUE)

- CPOF - JWARN
- 117G - JBCP: JCR
- Flex Fuel - LDG
- SWDS



FORCE MODIFICATION REQUIREMENTS

<p>CPOF</p> <p>U.S. ARMY</p> <p>Units assigned: All Units</p> <ul style="list-style-type: none"> •Timeline: NEF 24-28 JUNE 2013; NET to be published 20JUN. •Personnel: Approx 378 LV1 and LV2, and CPOF maintainer courses •Equipment turn-in : 1-1 CAV(6), 1-6 IN (5), 1-35(4), 4-27FA(5), 47thBSTB(5), BDE(16), STB(7): 48 Systems total (re-allocation # TBD) •Turn in 48 CPOF, 4 BCSS, 2 SMC, 7 Mission Command Gateways <p>MTV</p> <p>Timeline: NET/NEF 10-20 Sept 13 (awaiting BMC/DIV Order)</p>	<p>NETT WARRIOR:</p> <ul style="list-style-type: none"> • Units assigned: HHC BDE, 1-1, 1-6, 1-35, 4-27, STB, 47TH • Timeline: NEF 17-19 JUL 13; NET Dates 22JUL-09AUG 13 (4 day class) • Personnel: HHC BDE(7), 1-1 CAV(111), 1-6IN(140), 1-35(186), 4-27FA (5),STB (64),47THBSB(40) 513 TOTAL FOR TNG • Equipment: HHC BDE(14), 1-1 CAV(91), 1-6IN(115), 1-35(115), 4-27FA (10),STB (44),47THBSB(40) 429 TOTAL ISSUE • NMIB: 16 JULY 2013 (Supply SGT's and Company/Battery XO or CDR's)
<p>RAM WARN:</p> <ul style="list-style-type: none"> •Units Assigned: 2/1 STB (HHC BDE), 4-27 FA, 47th BSB •Timeline: NEF from 16 JUL- 18JUL 13; NET 22 JUL- 13 AUG 13. NEF: HHC 17 0900 JULY 13, 4-27FA 17 1300 JULY 13, 47TH BSB 18 0900 JULY 13, 18TH is also a make up day •Personnel/Equipment: 2/1 HQ ADAM CELL 2 pax (140A/14G), 4-27FA Target Acquisition Platoon 2 pax (1A/13R), 47th BSB 3pax (25U,948B,94F) up to 16 names total. Equipment: 1 system per BN •NMIB: 260930JUN13 JULY 2013 (Supply SGT's and Company/Battery XO or CDR's) 	<p>BUSK III</p> <p>Units Assigned: HHC BDE, 1-1, 1-6, 1-35, 4-27</p> <p>Timeline:</p> <ul style="list-style-type: none"> • NEF dates as follows: 23ea 22-26 July 2013 23ea 12-16 Aug 2013 22ea 16-20 Sept 2013 •NET will be conducted from 29 JUL- 03 AUG 13. •Personnel/Equipment: 1-6in (41), STB (17), 1-1 CAV(26), 1-35AR(34) and available mechanics: 118 Total vehicles & operators



A PERSPECTIVE: THE CHALLENGE

U.S. ARMY

- 8 Weeks** until LOADEX (9 SEP)
- 602** Total Vehicles Requiring Services
 - 94 in JUN 13 - 128 in JUL 13
 - 160 in AUG 13 - 220 in SEP 13
- 48867** Projected Training Man-Hours
- 1895** Soldiers Required for Training
- 161** Vehicles Requiring Integration
- 71,820** Hours of Required 350-1 Training

Predictability - The biggest issue that affects the BCT Readiness, Performance, and Preparation at every level: Brigade, Battalion, Company ... Soldier.