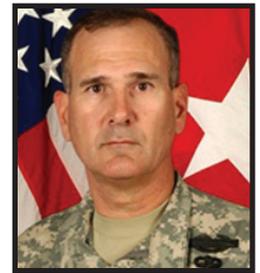


# Modernization commander offers NIE perspectives



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**Please describe the unique role and structure of the 2nd Brigade, 1st Armored Division as an operational Brigade Combat Team that has been dedicated to the Army's Network Integration Evaluation effort.**

The 2nd Brigade, 1st Armored Division is a Heavy Brigade Combat Team that is organized with a standard MTOE [modification table of organization and equipment] complement of personnel and equipment. They've restructured it to have all the capabilities that the current force has in it – so it has tanks and Bradleys, heavy artillery, Strykers, MRAPs and light artillery – and a full complement of the associated support equipment that goes with that. They have a full complement of network theater-provided equipment, which allows us then to look at standard MTOE, legacy equipment, theater-provided equipment, on top of the programs of record that are coming up on decisions, or emerging technologies that show promise or fill one of our gaps.

Army strategists attached the brigade to the Brigade Modernization Command for the purpose of conducting Network Integration Evaluations twice a year. So essentially the brigade has allowed us to change the way we evaluate systems. We used to perform tests and/or evaluations in a sterile environment. Now, we integrate those systems so we can take a look at the entire network in one operational environment with a full Brigade Combat Team.

**How will the fielding of integrated network “capability sets” lessen the burden on deployed Soldiers and improve training packages for this type of gear?**

Many units deployed to Iraq and Afghanistan over the last 10 years experienced the pain of what Soldiers call a drive-by fielding. Drive-by fielding was done with the best of intentions – to provide the latest capabilities to deployed units most in need of them. But it created significant challenges for units as well. Often there was not enough training before deployment. Units learned to use capabilities while conducting combat operations. There was also a lack of up-front integration to ensure different systems could communicate, or in some cases, even operate at the same time.

Now we get a chance to integrate those systems into the overall network capability before they go out to the field. In the past, we also fielded based on a specific

type of organization, such as Infantry or Stryker. And now as you look at the larger Army and we're trying to field a system that's compatible across the force, we have to take into account size, weight, power and cooling considerations that are different for each one of those types of formations. So I think it enables us now to become a little bit more proactive.

It also takes a certain type of training to understand how to get the benefit out of an integrated system. You still have to understand the individual pieces and parts of it. So now even though we train the Soldiers on an individual system, what we see in the evaluation is the integrated capability--the integrated training challenge, the integrated benefit that we get as opposed to the stand-alone systems. If we were now to take a step back and evaluate systems by themselves, we may achieve different results, for anything from handheld radios to a mission command system. From a training perspective I think it will help guide the force, will help provide the specific task editions and standards that need to be developed, formalize those and get those into Soldiers' hands.

There's also the question about how Soldiers learn today. Instead of a technique that may have worked 20 years ago, we may need a different type of technique today. We're looking at how to best formulate the training so Soldiers can take an intuitive system and put it into motion quickly and know how to get the most out of that particular system.

**How has the change in requirements definition helped to guide the NIEs and new Agile Process approach to acquisition?**

Requirements definition changes have helped in multiple ways, starting with early definition of capability gaps and having Soldiers in the loop for feedback early and often. We respect the standard acquisition process and we still think there is a need for that, but for network-related capabilities we believe that the Agile Process may provide us a path to at least start to catch up with industry. Right now we would estimate that we're probably somewhere between eight and 10 years behind, based on current industry standards for network-related capabilities. So TRADOC develops the capability gaps, provides those to the ASA(ALT) System

of Systems Integration Directorate, which then issues an announcement that goes out to industry and asks them what capabilities they may have that fulfill the specific gaps that we have. Then we determine, based on the nominations that come back in, what specific systems we will bring in to a Network Integration Evaluation. Those are the early phases of the Agile Process lifecycle. Past that, once we've decided what systems are coming in, we train the Soldiers, field the equipment, put them in a tactical environment, seek out their feedback, evaluate that feedback and provide it back into the Army so they can identify the most promising systems that are ready to go now.

Once we get into Phase 6 of the Agile Process, then it's back to the Army staff and ASA(ALT)'s hands as to what systems they want to buy now, what they want further development on – which may come back into a subsequent NIE – and what systems simply don't show promise at this point in time, and need a major reworking before we put them back in Soldiers' hands.

This is a fundamental and positive change in the way we do business. It gets Soldiers in the loop. It's based on known gaps that we have. It involves all aspects of the TRADOC, the ASA(ALT) community and the Army Test and Evaluation Command community.

### **What has been one of the biggest lessons learned due to Soldier feedback from the NIE and how has the Army taken that feedback and acted on it?**

I think the biggest lesson learned had to do with the Nett Warrior program. Army researchers had developed a Soldier-worn mission command system over a number of years, and when it was brought out to the NIE 11.2, we realized that it was not in the right shape, weight, or sustainability to meet Soldiers' needs. We reshaped it between 11.2 and 12.1 and brought back a commercial solution that addresses the same gap but does it on a more cost-effective basis, while lowering the weight and power requirements. That particular program saved the Army more than \$800 million based on reshaping.

Every Soldier has a different perspective, and so we appreciate all feedback. With both the 2/1 AD users and with our industry partners, we need to make sure they know what they're doing is important to the Army. All of us are focused on the same thing, and that is getting

the right capability into Soldiers' hands at the right time, at the right maturity level so that it improves their mission effectiveness.

### **How will NIE 12.2 differ from previous exercises (scenarios, test footprint, etc.) and why is this significant?**

It will be a classified exercise, and will have a higher command, which will be the 101st Airborne Division. They'll be operating out of Fort Campbell, Ky., and they will actually control the operations of the 2nd Brigade in the box over the network – over Warfighter Information Network-Tactical Increment 2. We've gone from what I would consider the static environment that we had at the first two exercises, which was more Forward Operating Base-focused, to an above-ground, hybrid threat, controlled free play environment. It's a non-cooperative OPFOR [opposing force], and it's really not just about the opposing force, but also the operating environment. You've got a criminal element, a host nation security force, governmental officials, a mounted threat that may be working out of a sanctuary, an indirect fire threat, and conventional obstacles such as mines and other things that block the roads.

The 2/1 AD is going to have tanks and Bradleys out fighting as part of this force. The Tactical Operations Centers are going to have to jump and re-establish network connectivity. In the past we haven't had to jump. We've moved them into the box and set them up. So you'll see a very mobile exercise. You'll find a much more fluid environment.

As for the test footprint, by the time that we're done with the evaluation, we expect to extend all the way to the northern reach of White Sands for at least one battalion TOC and the associated number of companies. You'll see it extend quite a bit, almost to where we were for 11.2, maybe a little bit further. For 12.1 we kept it close, because of the maturity of the network and the challenges we had with integration. This one, based on the work that's being done at Aberdeen Proving Ground, Md., and the teamwork between ATEC, ASA(ALT), and BMC, I think we'll find ourselves being able to project combat power all the way to the north part of White Sands.

## **ACRONYM QuickScan**

**2/1 AD** - 2nd Brigade, 1st Armored Division  
**ASA(ALT)** - Assistant Secretary of the Army for Acquisition, Logistics, and Technology  
**ATEC** - Army Test and Evaluation Command  
**BMC** - Brigade Modernization

Command  
**MRAPs** - Mine Resistant Ambush Protected vehicles  
**MTOE** - Modification Table of Organization and Equipment  
**NIE** - Network Integration Evaluation  
**OPFOR** - Opposing force

**SoSI** - System of Systems Integration (directorate under ASA(ALT))  
**TOC** - Tactical Operations Center  
**TPE** - Theater-provided equipment  
**TRADOC** - U. S. Army Training and Doctrine Command  
**WIN-T** -- Warfighter Information Network-Tactical