

# INTERIM BRIGADE COMBAT TEAM: TRAINING TOC OPERATORS

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## Introduction

What lessons can be learned from training Tactical Operations Center (TOC) personnel for the 2001-02 Interim Brigade Combat Team (IBCT) (now called the Stryker Brigade Combat Team)? To answer that question, scientists from the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI), with assistance from a contractor team from TRW, observed the IBCT this past year at Fort Lewis, WA. They used questionnaires and interviews as their observation tools. The goal was to develop a basis for shortening the learning curve for future units transitioning to current digital systems or to future battle command systems. Such systems can horizontally and vertically link soldiers through networks of computers. In particular, ARI looked at lessons learned related to operator training, key personnel, and command involvement for digital systems.

## Background

The Army initially established the IBCT at Fort Lewis, WA, to test new concepts and ideas for future warfare as part of the Army's transformation. The IBCT developed and implemented concepts for the application of enhanced combat power

using lighter, more agile combat forces. These included digital system enhancements to the command, control, communications, computers, and intelligence network. The IBCT incorporates new concepts regarding digitization of the battlefield and trains soldiers to apply these concepts, the associated equipment, and tools.

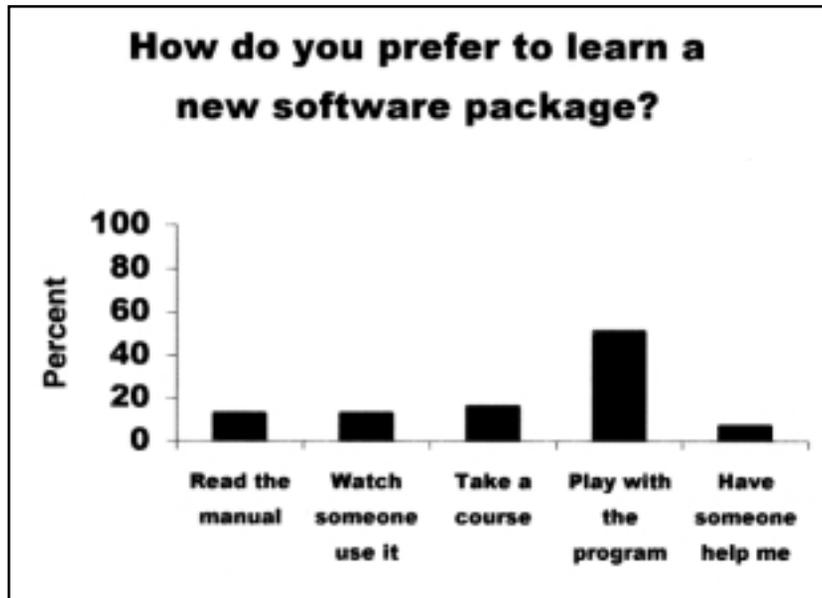
COL Steven L. Bailey, Commander, 3rd Brigade (IBCT), 2nd Infantry Division emphasized how his unit leverages the new digital system capabilities in unanticipated ways. Accurate troop location allows him, as a commander, to move beyond "know where I am, know where my buddies are, and know where the enemy is located." In comparison to conventional systems, digital systems allow more time to develop plans, formulate alternative courses of action, and consider what's best to do. There are also notable changes in field operations according to LTC Leonard McWherter, 1st Battalion, 23rd Infantry Regiment. He reports that soldiers, starting from different locations with no radio contact, can coordinate movements and arrive at a designated site at the same time. Lessons learned as part of these and other experiences with digitization, summarized in the next three sections, provide a glimpse of how the

Army can improve training now and in the future.

## Operator Training

Through new equipment training, soldiers should be given every opportunity to work with digital systems on realistic drills after a brief introduction. Immediate hands-on experience, coupled with knowledgeable coaching, will enable soldiers to move further along the learning curve and to assume greater duties and responsibilities. "Practice, practice, practice" is essential during tactical exercises. The best training for digital systems is done on the actual equipment in context instead of in a separate classroom environment.

Bailey devised a training plan that routinely gave his soldiers the opportunity to practice in tactical exercises. Training was difficult because system operators, often the least experienced enlisted soldiers, needed to learn basic operations and how to hook up hardware, to use system upgrades, and to troubleshoot malfunctions. In addition, they needed skills to rapidly handle large amounts of data and to coordinate their work with operators of other digital systems. Bailey stated that soldiers must know how to make digital systems "do what's needed," which is



could replace a Scout platoon leader or any line company platoon sergeant in a heartbeat, but he couldn't replace Specialist X—at least not anytime soon.

The value of trained digital system operators became increasingly important as the IBCT assimilated system upgrades and had to train replacement personnel. Having new equipment training routinely after each upgrade was impractical because of the frequency of changes. System operators familiar with prior versions quickly determined how the upgrades could be used during TOC operations. In fact, two-thirds of operators responding to a survey indicated that they preferred to learn by hands-on exploration of a software package (see accompanying figure). Nevertheless, peer-to-peer teaching by experienced operators can help shorten the learning cycle for new replacements.

Another interesting observation was that soldiers who gained confidence and knowledge on a system began observing and interacting with their peers. That facilitated the learning of other interdependent digital systems and applications. This teamwork helped the IBCT achieve horizontal team integration as the soldiers became multifunctional.

### Command Involvement

A commander's personal interest in digital system training for TOC operations reinforces its importance and assures that soldiers attend. Soldiers at all levels focus on what is important to the commander, an essential ingredient of digital system operations that must integrate across systems and specialties. The commander must place similar emphasis on digital systems and on combat operations training.

More so than with other training, the commander's support and personal involvement was critical to the soldiers receiving quality digital

well beyond the focus of new equipment training on the basics of making the system work. With Bailey's approach, new training problems appeared and were highlighted for added practice.

Because of new operating procedures, the IBCT senior leadership had to deal with the frustrations of faulty systems and undertrained personnel. For now, soldiers must learn problem-solving techniques so that short-term, work-around fixes can be made before long-term solutions become available. Individual initiative plus trial and error are important factors in finding work-arounds that can become part of the IBCT procedures.

The enlisted soldiers responsible for day-to-day system operations in the TOC received more detailed training than a staff officer did, but not all received the same levels of training. Therefore, some digital system skills were acquired and retained better than others. Operators become more capable and experienced with increased training time spent routinely in field exercises or simulations. Thus, training was enhanced by after action reviews (AARs) that emphasized problems,

work-around solutions, and shared learning. Additionally, these AARs were stored for soldiers to review in common files of lessons learned.

### Key Personnel

Information flow to the commander through the digital system is dependent on the operator. Thus, it was necessary to develop and implement a cross-training plan to build operator proficiency throughout the breadth and depth of the TOC personnel. Operators were encouraged to teach one another so they could learn system functions and tasks other than their own.

Commanders within the IBCT came to view the well-trained digital system operators as key personnel. As the junior enlisted operators gained system familiarity and understood the terminology, they performed tasks that a soldier normally would be expected to perform only after years of experience. They learned tactical language, schemes of maneuver, missions, military symbols, and graphics that ordinarily are introduced during attendance at an Advanced Noncommissioned Officers Course. This sparked one battalion commander to comment that he

training. It was also important for soldiers to train together and interact with one another's systems. With the commander involved, staff officers made it a priority for their soldiers to train. The result was greater operational proficiency as soldiers were better able to exploit systems' capabilities for TOC operations. To ensure everyone understood the vital importance of digital systems for operations, one commander even moved his office into the TOC and performed routine business from there.

### Improved Systems Training

Lessons learned to date suggest many training questions about how the Army may better prepare to operate in a digital systems environment. For example:

#### **Operator Training**

- Should digital system proficiency be translated into some type of common skill?
- How much adaptability and flexibility is essential for midlevel and junior-level soldiers?
- How should the Army assess digital skill proficiency, adaptability, and flexibility?

#### **Key Personnel**

- What knowledge do trainers or facilitators need to be effective with digital systems?
- What should be the performance standards for operating digital systems and networks?
- How much individual initiative and responsibility must soldiers take to learn and sustain effective digital system skills?

## **Soldiers must manage the flow of information in digital systems as a vital part of enhancing the lethality of the IBCT as a multimission, quickly deployable unit.**

#### **Command Involvement**

- What modifications should the commander make in unit training to support digital systems?

#### **Conclusion**

Lessons from the IBCT reinforce and augment what we have learned from the 4th Infantry Division at Fort Hood, TX, and from earlier Army Warfighter Experiments. Soldiers must manage the flow of information in digital systems as a vital part of enhancing the lethality of the IBCT as a multimission, quickly deployable unit.

The first IBCT made excellent progress toward training technically proficient soldiers to be ready to fight. Responsibility was pushed downward to the junior enlisted soldier, who learned functions that normally would be associated with a soldier at a higher level. Consequently, soldiers proficient in digital systems became critical members of the unit. Soldiers found that they trained themselves and their peers on the use of system upgrades. There was less emphasis on rank and occupational specialty and more emphasis on function, adaptability, and collaboration within a digital system network. Leading all this was the commander, who emphasized training on the digital system within the TOC with the same intensity previously reserved for combat operations training.

Many questions are yet to be answered and many other questions

are yet to be asked, but the IBCT points the Army in the right direction. Such lessons learned from training digital systems should be applied more broadly throughout the Army as it fields the Future Combat Systems and transitions to the future force.

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