

# Making Art Out of Digits

Employing the art of war

To maximize information technologies

And make units more effective

by Lieutenant Colonel John Hadjis

Popular press and professional journals have focused on the application of information technologies in the science of war to build a more effective combat force. Such arguments consistently favor greater centralized control of decision-making by better-informed senior commanders. This article argues that a focus on the art of war, and applying information technologies to enable better and faster decision-making at all levels, can create faster, more lethal units, and greater overall combat capability.

We invest time and money for information dominance in order to kill the enemy more quickly, more effectively, and with less risk to friendly forces. Digitized units can become more lethal when they leverage enhanced information and situational awareness (SA) with a solid foundation in three critical aspects: standard operating procedures (SOPs), platoons that flawlessly execute their battle drills, and personalizing your equipment to fit your needs (in the digitized commander's case, the Army Tactical Command and Control Systems, or ATCCS). Mastering these basics, coupled with information dominance, serves to build the confidence and intuitive abilities of leaders at all levels. Challenging training exercises that exploit the information dominance advantage produce bold leaders and soldiers who each influence the action in ways that bring synergistic effects and battlefield success. A unit composed of such soldiers and leaders would be a masterpiece in the art of war.

Digitized units that hone these areas can become more agile than any enemy they will face, and consequently more lethal. They will consistently act inside the enemy's decision cycle. Tactical agility denies the enemy opportunities to shape the battle with chemical at-

tacks, scatterable and conventional mines, indirect fires, fixed and rotary wing aircraft, and developed security zones and combat outposts. Extraordinary agility by blue (BLUEFOR) units can render the red force combat ineffective before decisive direct fire engagement. Analysis of 33 offensive operations conducted by task forces training at the National Training Center (NTC) in fiscal years 99 and 00 supports this argument.<sup>1</sup>

ATCCS make our division and corps commanders tremendously capable. They can observe and act on information provided by real time unmanned aerial vehicle (UAV) feeds and JSTARS downlinks. In 4ID, this capability will soon be available to brigade commanders. ATCCS systems and weapons used to prosecute the deep fight (Longbow AH-64s, close air support, and long-range rocket systems) enable senior commanders to dictate the terms of the close fight to the enemy.<sup>2</sup> Our senior leaders set the conditions for close victory. Maneuver units, agile enough to get a sizable, combat effective force to the decisive terrain, are better able to exploit shaping efforts by brigade and division and less dependent on them. This desirable combination provides increased flexibility to senior commanders in allocating resources to deep, close, and rear fights.

The observations and tactics, techniques, and procedures (TTPs) advanced here are not mere academic or theoretical musings. These result from an extensive eight-month train-up of constructive and virtual simulation, culminating in a rotation to the NTC. What follows are TTPs to maximize information dominance, and tactical agility methods that have stood the rigorous test of engagement simulation against a freethinking opposing force (OPFOR).

## Does It Work?

Success at the NTC is relative. Like most units, our battalion did not achieve the *MTP 71-2* published standard for missions at NTC. Fact is, the OPFOR at NTC is better skilled at their tactical drills than any BLUEFOR unit with less than 10 NTC rotations a year will ever be. OPFOR also benefits from the terrain component of situational awareness that no other unit can match, but information dominance applied toward building tactical agility helped even the odds.

We killed the OPFOR and forced him to react to us. Our digitized, redesigned armor battalion of three companies killed 1.06 OPFOR vehicles/aircraft/squads for every friendly loss, seized our assigned objective, and forced the OPFOR to commit his reserve in our offensive missions at NTC.<sup>3</sup> This is not quite double the kill ratio of 1 to .673 for battalions that had four maneuver companies. With 14 fewer tanks, and without the Division XXI enablers designed to level the playing field, we still proved more lethal than the average tank battalion because we applied fundamentals from the art of war to leverage our information dominance and act faster than the enemy.

## SOPs

Maximizing the capability of your ATCCS and being faster than the enemy begins with effective SOPs that have been internalized by your people. Effective SOPs speed your ability to issue and react to orders, so that you can make and disseminate decisions faster than the enemy.

The best method I've seen to develop your SOPs is to conduct a full-up Military Decision-Making Process (MDMP) with your staff and commanders, and write an order for each of a task force's



The Force XXI Battalion Command Brigade and Below system offers a powerful tool to see the enemy and speed friendly reactions. The author suggests mounting the commander's system in an M113, rather than a tank.

bread and butter missions (deliberate attack, hasty attack, movement to contact, and defense in sector). Make those orders your SOP. The selected course of action (COA) from the orders should become a "play" for how you will fight each mission (with minor adjustments based on METT-T) every time you receive it.

Agility comes from changing as little as possible from your set play. Modify the play only as required to accomplish a specified or implied task from your higher that you don't routinely do. Our plays have set task organizations and movement formations (which we never change), and standard tasks and purposes for subordinate units and essential fire support tasks (which we often modify as part of the MDMP for the specific mission we have received). The purpose is to do it the same way every time, in other words by SOP.

The plays greatly speed your commanders' ability to get ready for the upcoming fight. They can anticipate their upcoming tasks because they understand their set task and purpose, and how they contribute to the task force play. This allows them to concentrate on rehearsals and pre-combat inspection, so they can react successfully to changes in conditions during execution.

Agility comes from the common understanding of the play, not from its perfect execution. Fragmentary orders (FRAGOs) during the fight are the "audible from scrimmage" that fits the play to the current METT-T situation.

### Well-Drilled Platoons

Great SOPs and ATCCS won't make you quicker if your platoons can't execute.<sup>4</sup> Being faster than the enemy requires platoons that flawlessly execute their battle drills. Platoons don't maneuver. They react to contact with set drills. It makes no difference if the contact is visual, from the air, or from indirect or direct fire, they must violently execute a set drill without thinking in order to survive and win.

Well-drilled platoons make you more agile. "Drills provide virtually automatic responses to situations..."<sup>5</sup> Your guys will be faster than the enemy because they'll do things automatically while his guys have to stop, think, then act. Your decision cycle will be faster because while your platoons automatically execute a drill for the given situation, the enemy is scrambling to convey his intent and orders. You and your commanders stay two steps ahead of the enemy as you consider what to do next while he deals with the situation at hand.

### Personalizing ATCCS

Force XXI Battalion Command Brigade and Below (FBCB2), for those who are not familiar with it, is a computer command and control system mounted in combat and support vehicles and command posts. It is the primary maneuver battalion ATCCS system and enables the user to see his and other instrumented friendly forces (depicted as icons) on a map in real time.

The system is a tremendous aid in making a task force commander men-

tally more agile. We say to "see the battlefield" you must "see" the enemy by understanding his doctrine and capability. You must "see" the terrain by knowing its effect on yours and the enemy's COAs. Finally you must "see" yourself through your subordinate unit status reporting. FBCB2 essentially gives you 100 percent accuracy for the third requirement. It is a powerful command and control aid that can make you exponentially quicker in your ability to get units moving where you want them and massed at the decisive point.

Look hard at where you are fighting from and decide if it's the best place to "see" the battlefield, maximize the potential of FBCB2, and help you think and act faster than the enemy. I turned tank commander responsibilities for my tank over to my battalion master gunner and operated from my M113. I found it a better platform from which to issue FRAGOs and fight the battalion.

You can wire your M113 so that your FSO and you have all the nets you need to command the battalion and control fires. FBCB2's position in an M113 makes it arguably the best digital platform you have. Its mount enables you and the FSO to stand in the cargo hatch with the screen right in front, so you can quickly glance down for a SA update while on the move.

If you are going to be fast, you can't allow the tremendous advantage FBCB2 gives you to abrogate your duty to per-

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sonally lead your outfit instead of managing its icons. To best leverage your advantage, form a command group consisting of your tank, the S3 in his tank, and you in your M113 with the FSO. Offset your command group behind the lead platoon of the task force's lead/main effort company. Your goal is to see the task force's first contact with your own eyes.

Personalizing FBCB2 to fit your needs and becoming comfortable with it means developing and executing training so that operating the system is as normal as operating the FM radio. Force your people to become comfortable with their ATCCS. My approach is purposely draconian. I have banned paper maps with overlays, and we only produce and disseminate digital graphics. This includes units working with us that do not have FBCB2. We use brigade Terrain Index Reference System (TIRS), published in the brigade TACSOP, to convey the scheme of maneuver to persons fighting from non-digitized platforms. Banning "analog" graphics forces us to use FBCB2 and provide a work-around for those who don't have the system.

Set up FBCB2 so it helps you, and your subordinate commanders and staff think and act faster. The system allows you to set the screen display to various settings that give either an exploded or detailed view, and allows you to see individual platform icons, or collapse them into a higher unit. Collapsing four

individual tank icons into a platoon displays them as a platoon icon located at the center of mass of the four individual vehicles.

I set my screen to 1X power and leave all friendly icons open. Seeing every icon lets me see the actual disposition of my units and those on the flanks and helps me visualize the time distance factors required to act on orders I issue. My XO sets the display on the command post's Maneuver Control System to the same settings, so that the battle staff can see the implications of decisions we make on both our units and those on the flanks. My company commanders generally work with their screens in 2X power, with units on the battalion's flanks collapsed into platoon icons. 2X gives them a detailed view of their company and the map, which aids in both command and control and in navigation.

## Final Thoughts

Nobody knows with absolute surety what the environment of the next conflict will be like. What we do know is that the pace of operations will be high, the weapons available to the enemy lethal, and that we'll have very little, if any, time to overcome training deficiencies. Leveraging information technologies by small unit leaders who have demonstrated a mastery of the art of our profession can create agile units that will dominate the enemy.

## Notes

<sup>1</sup>Armor Task Force/Cavalry Squadron and OPFOR Casualty Data from Rotation Take Home Packages Fiscal Years 1999 and 2000 (National Training Center, Fort Irwin, Calif., FY 99 and FY 00).

<sup>2</sup>MG Benjamin S. Griffin and LTC Archie Davis, "Operation-Centric Warfare: Setting the Conditions for Success at Brigade and Battalion," *Army*, Vol. 50, No. 8, August 2000, p. 24.

<sup>3</sup>3-66 Armor, *Rotation 00-10 Take Home Package*, (National Training Center, Fort Irwin, Calif., 19 August - 2 September 2000).

<sup>4</sup>United States Army Training and Doctrine Command, *TRADOC Pamphlet 525-100-2 Leadership and Command on the Battlefield Battalion and Company*, (Fort Monroe, Va., 1993), p. 55.

<sup>5</sup>Department of the Army, *FM 17-15 Tank Platoon*, (Washington, D.C., 3 April 1996), p. 3-31.

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