

Intelligence Support to Combined-Arms Maneuver

by MAJ Michael J. Childs

On short notice your brigade combat team is deployed for an initial-entry operation to protect the government and populace of Atropia from the aggressor nation to the north, Donovia. Your enemy is capable, determined, trained and well-equipped. Your company is at the spearhead of the Atropian defense. Your orders are to partner with host-nation forces and engage in close combat to stop the invading Donovanian army.

The fight will be unlike any you have faced before. You are expected to execute a wide range of missions, from conducting combined-arms maneuver to establishing wide-area security. To make matters more complex, your BCT will execute these tasks simultaneously, engaging an organized force of T-80s and BMP-2Ms one moment and an insurgency sympathetic to the Donovanian cause the next.

You have the latest technologies like Force XXI Battle Command Brigade and Below (Blue Force Tracker or Enhanced Position-Location Reporting System-based systems), the world's most lethal armored fighting vehicles and a company-level intelligence-support team equipped with the latest suite of digital systems capable of accessing classified

networks via the Secure Internet Protocol Routed Network. You can connect anywhere on the battlefield to pass and receive critical information in real time. As a leader in this organization, you are to harness our nation's incredible capability to decisively engage the enemy and win.

This may sound like a script for the next Hollywood blockbuster action film, but, in fact, this scenario reflects reality for Soldiers who deploy to the National Training Center. The NTC prepares our warriors for future conflicts and trains our leaders to defeat any type of enemy, from aggressive nations with organized military capabilities to decentralized extremist threats like al-Qaeda or Hezbollah.

Lessons-learned

Today many of our Soldiers are experienced veterans of Iraq and Afghanistan. Our company formations are organized with the latest equipment, training and manpower based on lessons-learned over the last 10 years of combat. Our Army has shown a remarkable ability to adapt to our enemies in a counterinsurgency environment.

We learned the value of pushing reconnaissance and surveillance assets to the lowest levels. We resourced our companies with intelligence-support teams, sharing information through our SIPRNet, accessible down to the company level. We trained our leaders to operate in an uncertain and complex environment and made remarkable progress sharing intelligence from the bottom up, especially as our brigades accomplished WAS tasks.

However, this newfound experience came with a cost. Recent observations from the NTC revealed that our brigade intelligence warfighting function does not effectively collect, analyze and disseminate intelligence when we are engaged in CAM operations. Moving forward, the brigade IWfF must be prepared to live in both the digital and analog worlds.

U.S. Army Training and Doctrine Command Pamphlet 525-3-1, *The United States Army Operating Concept 2016-2028*, states that our Army must be capable of accomplishing both CAM and WAS missions simultaneously. However, the way we organize for combat and pass relevant information differs based on our military objectives and the specific type of enemy we face. For example, when fac-



<u>DIVISION</u>	<u>BRIGADE</u>	<u>BATTALION</u>	<u>COMPANY</u>
<u>LOWER TI</u>	<u>LOWER TI</u>	<u>LOWER TI</u>	<u>LOWER TI</u>
<ul style="list-style-type: none"> • Combat radio (frequency modulation) • FBCB2 (BFT-EPLRS) • Remotely operated video enhanced receiver • Tactical satellite • High frequency 	<ul style="list-style-type: none"> • Combat radio (FM) • FBCB2 (BFT-EPLRS) • One Station Remote Video Terminal • TACSAT • HF 	<ul style="list-style-type: none"> • Combat radio (FM) • FBCB2 (BFT-EPLRS) • OSRVT • TACSAT • HF 	<ul style="list-style-type: none"> • Combat radio (FM) • FBCB2 (BFT-EPLRS) • OSRVT
<u>UPPER TI</u>	<u>UPPER TI</u>	<u>UPPER TI</u>	<u>UPPER TI</u>
<ul style="list-style-type: none"> • CPOF • Ventrillo • Jabber • Secure Voice Over Internet Protocol • Portal • Exchange • SIPR/NIPR - Joint Network Node • Joint Worldwide Intelligence Communication System/ National Security Agency Network - Trojan • Air and Missile Defense Work Station • Intelligence Analysis System • Battle-Command Sustainment Support System 	<ul style="list-style-type: none"> • CPOF • Ventrillo • Jabber • SVOIP • Portal • Exchange • SiPR/NiPR - JNN • JWCS/ NSAnet - TROJAN • AMDWS • IAS • BCS3 <p>WHAT SYSTEM IS OUR LOWEST COMMON DENOMINATOR WHILE IN CONTACT?</p> <p>HOW DO WE FIGHT WHEN DIGITAL AND ANALOG IS BLENDED?</p> <p>WHAT MINIMUM SYSTEMS AND OVERLAYS DO WE NEED?</p>	<ul style="list-style-type: none"> • CPOF • Ventrillo • Jabber • SVOIP • Portal • Exchange • SIPR/NIPR - Command-post Node • JWCS/ NSAnet - Trojan • AMDWS • IAS • BCS3 	<ul style="list-style-type: none"> • Jabber • SVOIP • Portal • Exchange • SIPR/NIPR - SIPR-to-NIPR Access Point

- DECISION-MAKING TOOLS/GRAPHICS**
- OPS OVERLAY
 - OPS SYNCH MATRIX
 - EXCHECK
 - FIRES OVERLAY
 - NAI OVERLAY
 - SITTEMP / EVENTTEMP
 - BDA/ BLOOD CHARTS
 - COLLECTION MATRIX

Figure 1. Digital-to-analog mission command at different echelons.

ing an organized conventional enemy force, we may employ collection assets to identify key weapons systems and pass intelligence through our frequency modulation or FBCB2 nets while formations are on the move. However, when facing an insurgent force, we may employ collection assets to identify the whereabouts of key enemy personalities and pass intelligence through our established classified networks right from our CoIST because we are stationary and focused on “consolidating our gains to ensure freedom of movement and action.”¹

Same responsibilities, CAM or WAS

In spite of how we pass information, we are charged with the same responsibilities when conducting both CAM and WAS operations. First, all five functions of the intelligence process – plan, prepare, collect, process and produce intelligence – must be met. Second, we must constantly analyze, disseminate and assess information to help commanders at echelon maintain initiative and exploit success.²

Our intelligence process does not change when we transition between CAM and WAS. Yet we must be cognizant of how formations receive and process relevant

information when engaged in CAM operations.

Truthfully speaking, our intelligence community is not proficient in passing information over both analog and digital systems of record. Therefore, it is imperative that intelligence Soldiers and leaders from the company to the brigade become comfortable using mission-command systems that reside on both the upper and lower tactical Internet. This means that intelligence Soldiers must be able to operate a wide range of Army systems from the FM radio and FBCB2 to the upper TI systems like command post of the future, Distributed Common Ground System-Army, Tactical Ground Reporting System and tactical chat programs like Jabber or Microsoft Windows Internet Relay Chat.

We must realize that when formations are on the move or in contact, the primary means for receiving and disseminating intelligence will be on the lower TI over systems like FBCB2 and FM radio. In addition, intelligence support through the orders process must be applicable to the CAM fight, and products must translate to both our analog and digital systems. In reality, during CAM, intelligence Soldiers must be prepared to communicate and support maneuver commanders in two worlds.

As we plan for operations, the IWfF plays a heavy role in mission analysis. During the military decision-making process, the brigade staff must make many assumptions for the planning process to continue.

Intelligence products

When conducting CAM operations, these assumptions often are focused around enemy capabilities, vulnerabilities, composition, disposition and strength. From this, our brigade staff develops a prioritized high-payoff target list and analyzes in both time and space how the brigade should collect on the enemy and ultimately defeat or destroy his critical assets. Therefore, by the first warning order to the subordinate battalions, the brigade collection manager (or chief of reconnaissance) must employ collection assets to answer these assumptions about the enemy and continue to drive the planning process.

WARNO 1 should be heavy on R&S tasks. Subsequently, Soldiers must examine the threat and develop a series of products to drive the planning process. Included are the intelligence estimate, threat order-of-battle charts, threat templates derived from enemy doctrine, terrain and weather analysis, named-area-of-interest

overlay, threat situational template, threat event template and collection plan.

Our analysts are very comfortable developing intelligence products in DCGS-A and PowerPoint. However, this presents two significant issues. The first issue is that DCGS-A is not designed as an expeditionary system, meaning that it requires a stationary and stable network to effectively pull information from databases, analyze this data and distribute overlays over the Publish and Subscribe Server via our brigade's Army Battle Command System.

The second issue is that PowerPoint (even compressed files) are too large to send over our lower TI systems and require subordinate units to access Web portals, an extremely difficult task while on the move or in contact with the enemy.

Intelligence products are packaged into an operations order and may be posted to a Web portal accessible in three clicks or less. When units are stationary under the optimal mission-command architecture, this works great. However, when formations are postured in temporary tactical assembly areas, ready to maneuver at a moment's notice, these PowerPoint products are not practical, nor are they easily accessible, as we strive rapidly to disseminate intelligence across the brigade to the lowest levels possible.

In a CAM fight, this can be very challenging, as companies and, in some cases, battalions do not have access to Web portals or classified networks. These systems usually come on line when maneuver units consolidate their gains, establish stationary mission-command nodes and transition to WAS.

As the brigade moves from the planning process to operations, our IWfF must prepare commanders with the critical intelligence they need to understand both the terrain and threat. To accomplish this during CAM, we must maximize systems that are universal at echelon like FBCB2 and FM radio.

To accompany these systems, brigades need standardized reporting formats and defined nets to build in efficiencies, ensure brevity and communicate quickly on the battlefield. When we examine our communications systems from the company to the brigade level, FBCB2 and FM radio emerge as our universal systems. Both are ideal for communicating in a CAM fight.

It only seems logical for our IWfF to communicate over these two critical systems of record as well. As such, our intelligence products from company to brigade should be passed verbally over FM and graphically over FBCB2. Battalions and companies that establish their upper TI systems can also use tactical chat programs to pass written information as well as files without tying up significant bandwidth.

In both the planning and preparation phases of combat operations, brigades benefit from developing their products and especially their critical decision-making overlays on FBCB2. For the IWfF, it is crucial to develop a NAI overlay and a situational template/event template in FBCB2 using the shape-file feature inside the system. This can be accomplished in the very early stages of planning.

When these overlays are sent to a prebuilt address book (ideally with company com-

manders, battalion commanders, battle captains and key staff), they become dynamic decision-making tools, ensuring the brigade fights from a common set of graphics. In addition, items like the HPTL, weather effects and current intelligence estimate can be drafted as a free-text message and sent to the same distribution list.

If the commander chooses, he can insist that subordinate units acknowledge receipt as a means to guarantee widest dissemination. In each shape file or enemy icon, more information can be added such as a grid describing the graphic – or in the case of a digital SITTEMP, the analyst building the overlay can write the task and purpose of the enemy or even describe the enemy course of action as it pertains to that particular threat icon.

When updates are made and published to the force due to current battle tracking and reporting from the bottom up, units across the board have the latest and most accurate snapshot. When these digital overlays are disseminated with the operations order, subordinate units are provided a common set of graphics – and they are armed with situational awareness about the enemy, whether stationary or on the move.

Developing digital overlays in FBCB2 also contributes to bottom-up refinement from the company level up to the brigade, which is crucial as the brigade transitions to the execution phase of its operation. When companies make enemy contact, members of the CoIST (who are also drivers, gunners and fighters) are able to confirm or deny the threat read and provide bottom-up assessments through their enemy contact reports or follow-up debriefs and threat assessments.

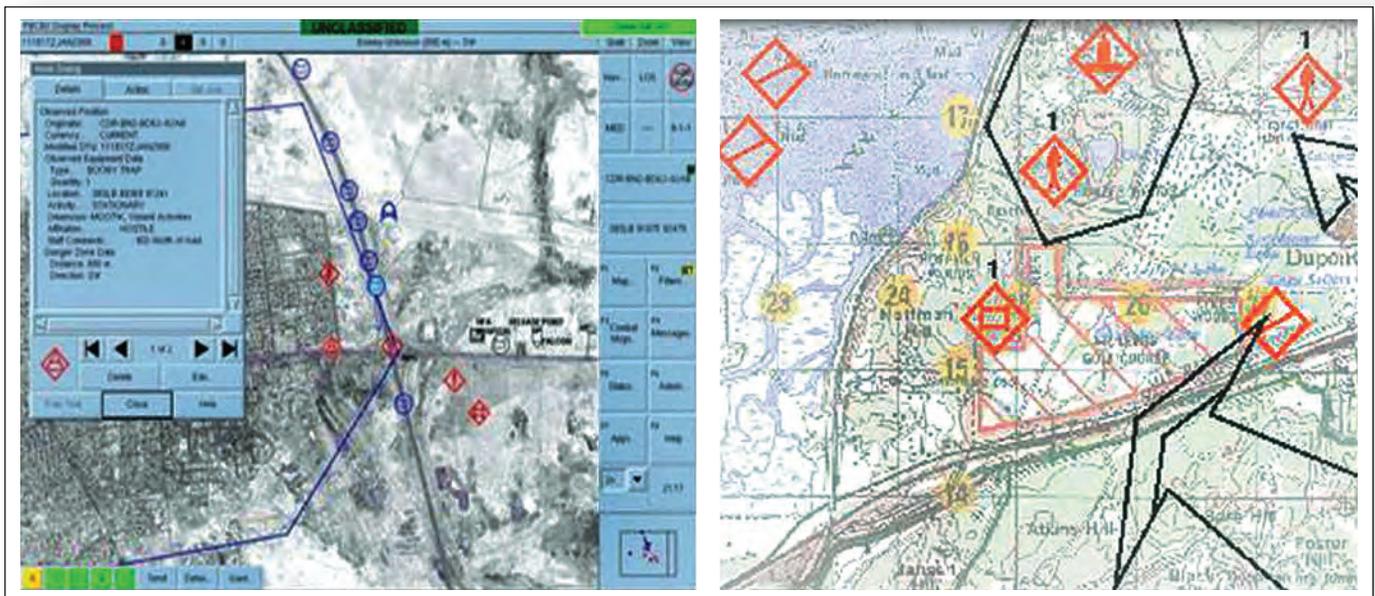


Figure 2. FBCB2 situational template.

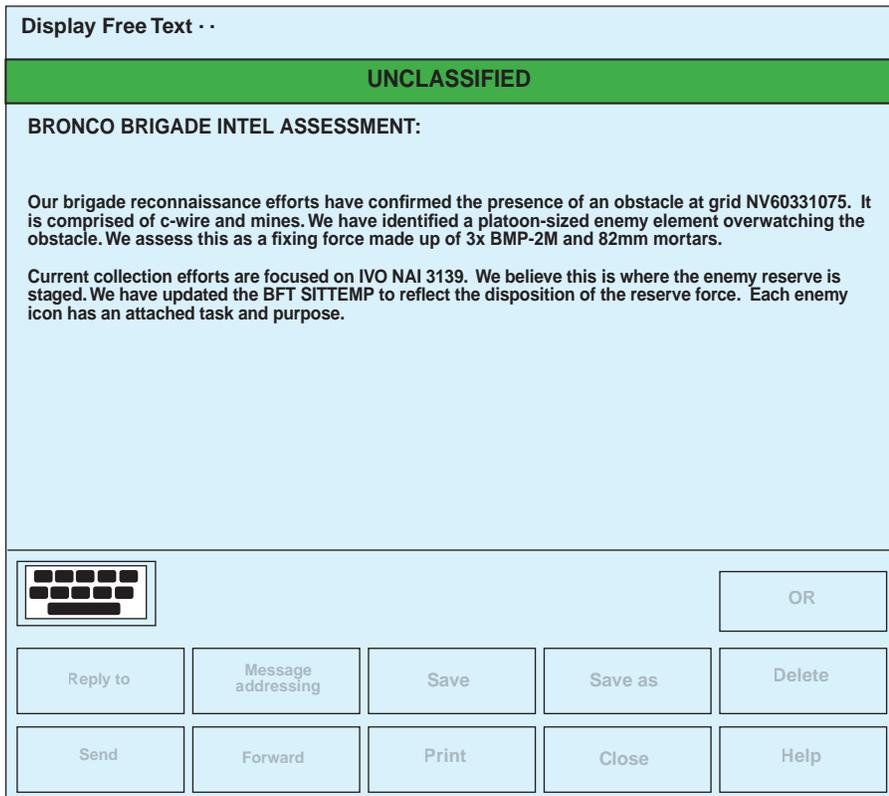


Figure 5. FBCB2 free-text intel assessment.

Coupled with this digital information-sharing, the brigade must operate an operations and intelligence FM net to pass voice data in real time. In 15 rotations from January 2011 to June 2012, only three brigades established an O&I net, and of those three brigades, only one used it. That brigade reaped great benefits, successfully providing the entire formation with a common enemy sight picture. The IWfF soldiers from the CoIST to the brigade level were able to regularly listen in to a FM broadcast call and share intelligence about the threat, further contributing to crosstalk and bottom-up refinement.

As mentioned before, the IWfF must be prepared to live in two worlds. When conducting simultaneous CAM and WAS missions, the brigade headquarters becomes the echelon that must translate both analog and digital information to subordinate units. With this construct in mind, the brigade S-2 section must establish the right systems to make the brigade successful.

Recent observations during the Decisive-Action Training Environment exercise in March 2012 revealed the brigade S-2 must have access to a FBCB2 in the brigade's main command post to stay a step ahead of the threat and pass indicators to maneuver units in contact. In addition, the brigade S-2 section must have a dedicated FM radio in both the brigade intelligence-

support element and the S-2 current operations section to make rapid assessments and disseminate them to the force.

Putting this infrastructure into practice results in subordinate units empowered to receive critical information and push refinements to the brigade, confirming or denying enemy activity in their operating environment. Because the BCT supports subordinate units who are using upper and lower TI systems at any given time, the onus is on the brigade to echo updates from FBCB2 into tactical chat to level the bubbles and achieve the maximum amount of information-sharing possible, especially if one battalion is conducting CAM missions while another is simultaneously establishing WAS.

Not only does the brigade have to be the echelon that translates analog and digital data, it also must be the point of consolidation for enemy battle-damage assessments during the CAM fight. The brigade intelligence section has the manpower and systems necessary to assess the effects subordinate units are having on the enemy. Therefore, prior to execution, the brigade S-2 must develop and disseminate BDA or "blood" charts.

The key to developing a useful chart begins with the brigade wargame during MDMP. The brigade S-2 must take the order-of-battle chart and task-organize the enemy the way they will fight on the bat-

tlefield. In addition, the enemy's strength must be taken into account. When this is complete, the chart can be built. Number systems to build in efficiencies so that intelligence Soldiers can make rapid assessments to the commander on how many enemy fighters and key threat assets remain.

During CAM execution, the brigade must be able to confirm or deny its threat SITTEMP and EVENTTEMP. Battalions are given R&S tasks to accomplish, and sometimes they are given organic assets like the Shadow unmanned aerial system or low-level voice-intercept teams. In addition, the brigade often controls division- and corps-level assets, identifying the threat across the entire depth of the brigade's operational environment.

When synchronizing the collection effort, the brigade must help paint the threat picture. This is when the O&I net and the use of FBCB2 overlays become most crucial to the fight. On the O&I net, the brigade S-2 benefits from giving periodic or scheduled intelligence estimates through a broadcast call to all subordinate units who tune in.

Immediate or "flash" traffic should also pass as enemy indicators are identified. When these indicators are passed over voice, all stakeholders listening immediately have situational awareness. However, when coupled with a written FBCB2 free-text message, the brigade S-2 ensures widest dissemination. This message also provides a written assessment for reference later by CoIST or battalion S-2 sections when sending bottom-up refined intelligence.

As upper TI systems come on-line, the same message should post concurrently to a common O&I tactical chat room, ultimately serving as a current intelligence running estimate accessible to every battalion main command post and any adjacent brigade command post monitoring tactical chat nets.

Follow-up

After the dust settles and battalions begin to consolidate their gains, the brigade can take advantage of upper TI systems and publish a graphic intelligence summary assessing the post-BDAs and effects on the threat. Incorporated in this assessment should be an updated SITTEMP.

This is also the ideal opportunity for the brigade S-2 to update the digital overlays on FBCB2 and publish an updated intelligence summary, which can occur over FBCB2 free-text or FM radio as a broadcast call to all stations on the net.

This completes the intelligence cycle and opens the dialogue with subordinate units, who can provide bottom-up refined information for the next meeting engagement on the battlefield.

In conclusion, while our intelligence process does not change between CAM and establishment of WAS, the way we share information does. When our intelligence Soldiers are provided the equipment to share information on both the upper and lower TI, our maneuver units in contact are more informed. Furthermore, the IWfF, from company to brigade, understands its analysis and reporting requirements across all communication systems available.

Brigade S-2s must develop intelligence products that are accessible in our tactical fighting vehicles, and we must be will-

ing to share information over our FM nets. With these considerations in mind, the brigade IWfF will make a considerable impact to help drive maneuver operations during the planning, preparation and execution phases of the CAM fight. Ultimately, when intelligence Soldiers operate in both the digital and analog worlds, commanders at echelon are empowered with the critical intelligence they need to engage and defeat our enemies on any battlefield.



MAJ Michael Childs is a BCT intelligence trainer at NTC, Fort Irwin, CA. He has served as assistant S-2, battalion S-2 and surveillance troop commander in support of both Operation Iraqi Freedom and Operation Enduring Freedom. His military

education includes the Military Intelligence Officer Basic Course, Infantry Captain's Career Course and Signals Intelligence Electronic Warfare Officer Course. He is a graduate of the Army's Airborne and Air Assault schools. He received a bachelor's degree in English literature from Temple University, Philadelphia, PA, and has been selected to attend intermediate-level education at the College of Naval Command and Staff in Newport, RI.

Notes

¹ Chapter 3, "How the Army Fights," TRADOC Pam 525-3-1, **The United States Army Operating Concept 2016-2028**, August 2010.

² Chapter 1, "Intelligence Process," Field Manual 2-0, **Intelligence**, March 2010.

ACRONYM QUICK-SCAN

ABCS – Army Battle Command System
AMDWS – Air and Missile Defense Work Station
BCS3 – Battle-Command Sustainment Support System
BCT – brigade combat team
BDA – battle-damage assessment
BFT – Blue Force Tracker
BMP – Boyevaya Mashina Pekhoty (Russian fighting vehicle)
CAM – combined-arms maneuver
CoIST – company intelligence-support team
CPN – command-post Node
CPOF – command post of the future
DCGS-A – Distributed Common Ground System-Army
EPLRS – Enhanced Position-Location Reporting System
EVENTTEMP – event template

FBCB2 – Force XXI Battle Command Brigade and Below
FM – frequency modulation
GRINTSUM – graphic intelligence summary
HF – high frequency
HPTL – high-payoff target list
IAS – Intelligence Analysis System
IVO – in vicinity of
IWF – intelligence warfighting function
JNN – Joint Network Node
JWICS – Joint Worldwide Intelligence Communication System
MDMP – military decision-making process
NAI – named area of interest
NIPRNet – Non-Secure Internet Protocol Routed Network
NSANet – National Security Agency Network
NTC – National Training Center

O&I – operations and intelligence
OSRVT – One-System Remote Video Terminal
PAM – pamphlet
R&S – reconnaissance and surveillance
ROVER – Remotely Operated Video-Enhanced Receiver
SIPRNet – Secure Internet Protocol Routed Network
SITTEMP – situational template
SNAP – SIPR to NIPR Access Point
SVOIP – Secure Voice Over Internet Protocol
TACSAT – tactical satellite
TI – tactical Internet
TRADOC – U.S. Army Training and Doctrine Command
WARNO – warning order
WAS – wide-area security