The Battle of Taji and Battle Command on the Move

S BATTLES GO, it was a small victory, but for U.S. Army command and control (C2), the implications of the Battle of Taji might be far greater than the historical significance of the engagement itself. The battle began as the Bradley fighting vehicles and Abrams tanks of the 4th Infantry Division's (ID's) 1st Squadron, 10th Cavalry Regiment, and Task Force (TF) 1-8 seized their objectives at Taji Airfield, Iraq, on 16 April 2003. Just miles away, the 4th ID's commanding general sat in his newly modified Bradley command vehicle, watching the action unfold and coordinating the division's effort. Although it might not have appeared singularly unique, battle command in the 4th ID at Taji was exercised in a technically new style that foreshadows the future of land combat.

Nicknamed "Battle Command on the Move" (BCOTM), the new division command architecture is a radical departure from command arrangements the U.S. Army formalized during the early 1960s. In effect, in BCOTM, the division's commanding general is no longer tied to functionally staffed head-quarters in fixed locations. Also, he does not have to travel to different fixed locations within the division area to command the division. The headquarters and its associated information, planning, and execution capabilities come to the commander wherever he might be on the battlefield.

The evolution of the division and corps during the Napoleonic era introduced a new dynamic into the tactical command of troops in battle—the relocation to the rear of higher commanders, distancing them from their traditional frontline locations. This was an organizational imperative made necessary by the ever larger armies fielded by continental military systems during the 19th century. As the 20th century approached, command at division and corps levels

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evolved into an increasingly complex mosaic of commanders supported by a staff system that gathered information and transmitted orders to forward elements. Having efficient staff procedures was of as much concern as was actual command ability. One of the main difficulties of the system was the inability of commanders to locate themselves at the decisive point to be able to command their formations effectively.

During World War I, command at division and corps levels was generally exercised from rear command posts (CPs) tied by landlines and runners to forward elements. Because these systems were vulnerable and frequently became inoperable, commanders initially sought to retain control through complex orders and rigid procedures. When this method of command proved unable to break the deadlock of trench warfare, the Germans and, later, the Allies turned to more decentralized command arrangements based on mission-type orders.

There are notorious examples of commanders simply losing touch with the real conditions at the front. British officer Sir Ian Hamilton has been criticized severely for failing to go ashore in the early hours of the ill-fated Gallipoli invasion in Turkey. Likewise,

British Field Marshal Douglas Haig was famously out of touch with the frontline situation. The Germans also had problems with situational awareness, especially the German Army's premature wheeling (when executing the Schlieffen Plan maneuver), which resulted in a right hook short of Paris.

Ineffective situational awareness also affected the Ludendorff offensives in spring 1918. Later, even as decentralized tactical command evolved and partially broke the tactical deadlock, the problem of situational awareness at division and higher levels persisted. Large headquarters systems evolved that brought more and more information to fixed sites in rear areas, especially in intelligence, fire support planning, and logistics data that supported operations. This arrangement increasingly tied commanders to their headquarters.

During the 1930s, radio and signal communications provided a partial solution to the problem of command. The German Army exploited this technology in its C2 capabilities for its new Panzer arm. Many historians and students of military history can recall the famous photograph of a smiling General Heinz Guderian leading his corps from a radio-filled halftrack in France during the 1940 blitzkrieg. Guderian, a signals specialist, pioneered the concept of bringing the information flow to the commander, instead of the commander being forced to go to a fixed location where the information flow terminated. Bringing information to the commander freed the commander from the tyranny of having to lead from the rear and allowed him to exercise command from a forward location. Other German generals, notably Field Marshal Erwin Rommel, proved adept at adapting to this new style of command. U.S. commanders, such as General George S. Patton, Major General Raymond O. Barton, and Brigadier General Robert E. Wood proved even more skilled at managing their units from forward locations. In a general sense, a wave of heroic frontline fighting generals seemed to emerge from this transformation in command architecture.

The reality of leading from the front was much less heroic in a functional sense. By moving forward, World War II commanders disassociated themselves from the detailed planning and forward thinking that a fully staffed headquarters allowed. Efficient chiefs of staff who maintained the flow of staff work supported many of the more successful commanders, but most commanders experienced logistic and support difficulties at one time or another. Several were notorious for their willful neglect of logistic matters. Herein lay a challenge all division and corps commanders faced from 1940 until today—where to position oneself on the battlefield to be able to effectively influence both the current and the future tactical situation.

U.S. combat divisions were restructured in 1963 under the Reorganization of Army Divisions (ROAD) concept. ROAD was a massive reorganization of the entire army from the battle-group-based division of the 1950s to the contemporary brigade-based division. The associated command architecture for ROAD divisions continues in the Army today. At division level there are three tactical command elements to exercise command and control of the division in combat. Corps-level

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headquarters mirror this arrangement, which essentially breaks up the division headquarters into functional elements that specialize in various areas of command.

In contemporary U.S. command architecture, the close battle or current fight is the responsibility of the division tactical (DTAC) command post. The deep battle; intelligence analysis; coordination functions, with flank and higher formations; and future plans are the responsibility of the division main (DMAIN) headquarters. Logistics, maintenance, and support functions are the responsibility of the division support element (DSE), which is also called the division rear (DREAR) headquarters. Structurally, the DTAC is small, armored, and highly mobile, and it is supervised by an assistant division commander for maneuver. The DMAIN is large, softskinned, and is nominally the command center of the commanding general and his general staff. Finally, the DSE is a large collection of support elements that manages repair shops; fuel and ammunition dumps; and field hospitals and is supervised by an assistant division commander for support. Many commanders also have individual personal command posts that allow them to remain in touch as they roam the battlefield. The U.S. Army fought in Vietnam and the Persian Gulf using this command architecture, which remains a highly successful model for effective battle command. In the last analysis, however, the commander still had to travel to functional headquarters to participate in the three basic areas of battle command: the close fight; the deep fight and



In the few hours remaining, after unloading its vehicles from HETs and before crossing the line of departure (LD), the 4th Brigade completed precombat checks and final preparations. The 4th ID DTAC, unexpectedly delayed by congested roads, never arrived in time to set up or to establish command and control. . . . Thus, as LD time approached, Odierno was unexpectedly and perhaps prematurely forced to exercise battle command from his untested ACP.

future plans; and combat support functions. BCOTM breaks this traditional paradigm and paves the way for the delivery of information and function to the commander wherever he might be on the battlefield.

Command in the 4th ID

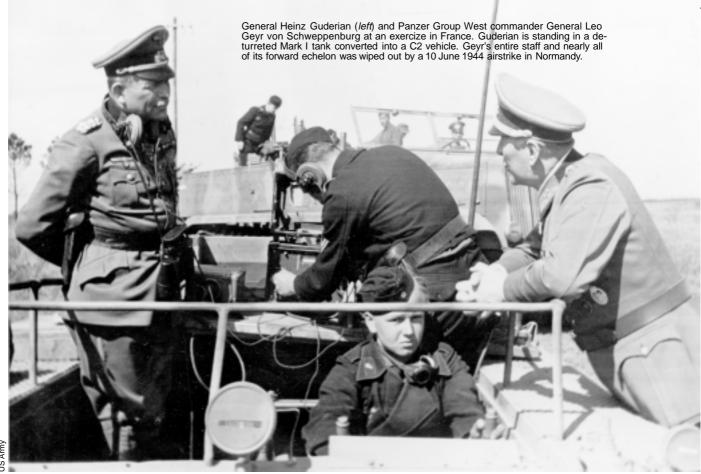
The 4th ID at Fort Hood, Texas, is developing a dynamic method of command based on emerging technologies. The 4th ID has been at the forefront of the Army's digitization effort and represents the most technically advanced large-scale tactical command. In many ways, it is the descendent of such famous testbed organizations as the 11th Air Assault Division, which pioneered air mobility tactics, and the 1st Cavalry Division (Triple Capability [TRICAP]), which linked combat aviation brigades with heavy armored divisions. As part of the Army's Force XXI program, the 4th ID was a visionary organization that fielded, tested, and leveraged advanced computer

technologies into the tactical array of systems. This multilayered design is not limited to information and microcommunications, it is inclusive of all types of manpower-saving enhancements.

After taking command in 2001, Major General Raymond T. Odierno steered the division's mindset from an experimental and test viewpoint back toward a readiness and deployablity viewpoint. He also looked seriously at restructuring the 4th ID's tactical command architecture to enhance his personal situational awareness of the battlefield. This initiative resulted from observing the tremendous advances in the division's capability to track units and individual elements using terrestrial tracking systems. In theory, the systems could deliver such information to any point in the division's area of responsibility. And, although not originally staffed or funded to experiment with advanced tactical C2 systems, Odierno tasked his staff to begin developing a highly mobile, state-of-the-art command post built around a Bradley fighting vehicle. His concept eventually became the BCOTM. Formally, BCOTM is titled the assault command post (ACP).

The ACP concept was placed into the hands of the division's force modernization officer, Lieutenant Colonel (LTC) Rocky Kmiecik. The basic concept was to modify a Bradley fighting vehicle and to build around the idea of bringing the division's information systems into the vehicle itself. The new hybrid command vehicle, called the M7 BCOTM-Bradley, has a communications suite that includes tactical satellite and three FM nets. The BCOTM-Bradley also brings a message processing unit that can run any combination of the following: maneuver control systems (MCS) (heavy or light); allsource analysis system (ASAS); Advanced Field Artillery Tactical Data System (AFTADS); Air and Missile Defense Work Station (AMDWS); and Force XXI battle command brigade and below (FBCB2) system.¹ These capabilities give the vehicle similar situation capabilities that division tactical command centers enjoy. Because the preliminary design looked so promising, the division received authorization to issue a contract to build four vehicles.

Communications and information display suites filled the already cramped fighting vehicle, so the division fielded an associated M1068 command track (a rebuilt M577) to accompany the new command Bradley. The M1068 is a greatly improved and enhanced command vehicle that adds complementary systems such as international maritime satellite, Iridium, C2 personal computers, SECRET Internet Protocol Network, and high-fidelity radio. The communications suite also includes Blue Force tracking, a new space-based information system in use in



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other Army divisions, but not in the 4th ID. This was necessary should the division go into combat side by side with conventional Army brigades and divisions.

The M1068 also provides power-generation for the command post. In tandem, the vehicles create a complementary and complete package of C2 capability that is armored, highly mobile, and can take an informed commander to any point on the battle-field. The four specially modified Bradleys, completed and delivered to the division in the first weeks of January 2003, were just in time for deployment to the Middle East for combat operations in Iraq.

In addition to the two command vehicles, the ACP included a security element of two Abrams tanks and a Bradley with its infantry squad, supervised by the division command sergeant major (CSM); two military police sections with armored high-mobility, multipurpose, wheeled vehicles; a line-of-sight communications team and a satellite-based secure, mobile, antijam, reliable tactical-terminal communications package; and an aviation section of two Blackhawk helicopters complete with divisional communications packages of their own. These assets provide the commander with a high level of security and mobility.

The Battle of Taji

Although the 4th ID was initially notified for deployment to Turkey, political decisions forced it to deploy into the combat theater through Kuwait. The division arrived about a week after hostilities began. The commanding general's untested and untried M7 BCOTM-Bradley was in one of the first ships to arrive and was immediately rushed to Camp New Jersey to join the headquarters in time to march north with the division's first combat elements.

From Kuwait, the tracked portion of the ACP package was loaded on heavy-equipment transporters (HETs) for tactical movement to an assembly area near Baghdad on 13 April 2003. The vehicles were assigned to the first convoy going north, which carried the ground elements of the 1st Battalion, 10th Cavalry Regiment, from the division's 4th Brigade. The DTAC was also placed in the first convoy going north but in a follow-on serial. After a 2-day road march through the Tigris-Euphrates Valley, the tracked vehicles were unloaded in Tactical Assembly Area Iron Horse, 25 kilometers south of Baghdad, and they proceeded to Baghdad International Airport. These were the first 4th ID formations to transit



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Baghdad through the 101st Airborne Division and 3d ID areas of operations. Odierno and his personal battle staff arrived by helicopter shortly thereafter and established command and control with the 1st Brigade's tactical CP in the forward area.² Meanwhile, the 1-10 Cavalry, as well as the 1st Battalion, 8th Infantry, moved to attack positions along the Samarra Canal north of Baghdad in preparation for an assault on the Iraqi-held airfield at Taji.³

The attack on the airfield was scheduled for 0900 on 16 April 2003. In the few hours remaining, after unloading its vehicles from HETs and before crossing the line of departure (LD), the 4th Brigade com-

pleted precombat checks and final preparations. The 4th ID DTAC, unexpectedly delayed by congested roads, never arrived in time to set up or to establish command and control. Important to note here is that the DTAC, itself an expanded command post that included fire support,

intelligence, and planning packages from the DMAIN, was still en route to forward areas.⁴ Thus, as LD time approached, Odierno was unexpectedly and perhaps prematurely forced to exercise battle command from his untested ACP. In its final but ad hoc configuration, the ACP included three officers, who acted as battle captains; the division G3; and the division command sergeant major.⁵ Brigadier General David Rodriguez, the assistant division commander for maneuver; Colonel Kevin Stramara, the division artillery commander; and Colonel Michael Moody, the 4th Brigade commander, positioned themselves at the BCM to deconflict and coordinate avia-

tion operations and fire support.

The absence of the DTAC in the forward area meant that the ACP was forced, on its own merits and capabilities, to command the first combat operation undertaken by the 4th ID in over 30 years. Fortunately, vision, funding, and hard work

Employment	Options
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Degree of control required	Employment	Time
Low	On the move	N/A
Medium	Short halt	0-2 hours
High	Long halt	2+ hours

provided an immediate situational awareness of the battle area that enabled Odierno to exercise effective command of the attack.

The DTAC arrived at 0600 but was not set up and operational until later. The ACP's presence in the forward area enabled the division to launch its attack on schedule and to connect in space and time to the commanding general. The ACP's absence would have delayed the 1st Brigade's attack by as much as 9 hours. Of note is that the division launched the attack from a forward assembly area that was over 230 miles from the DMAIN, which had remained in Kuwait.

A mere 18 hours from HET download, the 1-10 Cavalry and the 1-8 Infantry task forces crossed the LD and advanced north toward Taji Airfield. Resistance was light, but isolated pockets of Iraqi soldiers fought the U.S. advance. The fight was over quickly, and the airfield was declared secured at 1221. There were no U.S. casualties, and the 4th ID captured a rich store of enemy documents, including operational computers, weapons, and munitions.

In a larger sense, the Battle of Taji vindicated the concept of delivering effective C2 to the commanding general wherever he might be on the battlefield and represented a breakthrough in the control of Army divisions in combat. After the battle, Odierno noted that the ACP had performed better than expected and that it was quick and easy to bring into action to exercise effective operational control.⁶

The March Upcountry

In the 5th century B.C., the great Athenian mercenary general Xenophon led 10,000 Greeks up the Tigris River valley from Babylon (near modern Baghdad) to its headwaters and then to Sinop on the Black Sea. He later wrote *Anabasis, or the March Up Country*, about his experiences. The Tigris valley is much-fought-over ground that has seen the armies of the Macedonians, Romans, Arabs, Turks, and British. In 2003, it was America's turn.

On 17 April 2003, the ACP jumped forward twice, first to Taji Airfield and then to Sihab Abahr Military Complex, to prepare for the next phase of tactical movements north. The 4th ID was immediately tasked to maintain its momentum and to clear the routes north to Tikrit. The ACP jumped again on 18 April across the Tigris River to another military complex. Finally on 19 April, the ACP occupied the Presidential Complex in Tikrit itself, where it



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linked up with U.S. Marine Corps TF Tripoli. The tactical situation was changing almost by the minute as rapid U.S. advances followed the regime's collapse. A newly arrived battalion task force (1-66) was ordered to drive on Mosul to add combat power to the light U.S. forces airlifted there scant days before. The 4th ID was being stretched like a rubber band. Over half of its combat power, its main head-quarters, and most of its support elements were still in Kuwait, and its forward elements were almost in Mosul. The division was operating over lines of communications in excess of 400 miles. Effective communications between the division's front and rear elements were being extended to the thinnest margin.

Other division objectives were even farther away, and the rubber band was close to snapping. However, the division was entering a period of several days of reduced conventional threat wherein the commander could take risk in a somewhat lower level of command and control. To support the

complex operations that would immediately follow the occupation of the division area, Odierno needed to bring the DTAC and the DMAIN (over 80 and 300 miles away, respectively) into forward operating areas. He ordered the DTAC forward on 20 April, and the DMAIN began to disassemble and load up the same day. Both CPs were effectively out of the division command net. Once again, the tiny ACP, located at Saddam Hussein's New Palace that overlooked the Tigris River from a promontory in the city of Tikrit, carried the C2 burden for the entire division. The ACP simultaneously coordinated and executed the 4th ID's relief-in-place of TF Tripoli. The ACP's capabilities enabled Odierno to maintain visibility of the widely deployed forces while the two larger tactical CPs caught up with the rapidly moving forward elements. Not having a capable ACP would have substantially delayed the deployment to the forward area of the division's principal tactical command headquarters. The DTAC closed on the Main Palace at Tikrit on 20 April, and the DMAIN closed there on 23 April. As the 4th ID entered a critical phase of regime change in the stronghold of the Ba'ath Party, division headquarters was fully prepared to execute its mission.

In May 2003, the 4th ID conducted two widely separated political-military operations using the ACP. The first operation included a series of delicate diplomatic talks with the leaders of the Mujahedeen-e Khalq (MEK). Odierno, on behalf of coalition forces, negotiated MEK's disarmament and movement to protected locations.⁸ During this operation the ACP was moved directly to the negotiation site, which allowed the 4th ID negotiating team immediate access to higher headquarters and provided the ability to maintain continuity of operations throughout the 3-day period. Later, the ACP jumped to Kirkuk, where the division conducted a sensitive, extended selection process to establish an interim provincial government. Again, the ACP enabled Odierno to participate directly in critical operations far removed from the tactical and main headquarters.

Lessons Learned

The division learned several things from the Battle of Taji. First, the battle was fought with no FM communications between the division and brigade commander, and there were no landlines. Moreover, there were no paper maps or graphical overlays.⁹

Second, the BCOTM concept appears sound. The ACP was completely operational within 15 minutes of occupation and established connectivity and tight control immediately thereafter. Its presence at Taji enabled the brigade to attack on time with effective division-level command and control.

Third, at Taji, the difficulty of trying to integrate information systems of different generations became apparent when it proved difficult to merge the 4th ID situation, which used a terrestrial tracking system, with adjacent units, which used the newer Blue Force tracking system. Information was displayed on separate monitors, and Odierno had to integrate the information visually on the spot.

Fourth, the employment options the 4th ID developed for the ACP are based on the degree of control required for operational employment of the division and are as summarized in the table.

As the U.S. Army advances into the 21st century, it must continue to capture, leverage, and exploit technologies that multiply its combat effectiveness. The BCOTM concept creates a highly mobile, secure environment that contains a uniquely complete situational-awareness capability. The enhanced Bradley/M1068-equipped ACP gives the division commander unusual flexibility in deciding when and where to position himself during combat and postcombat operations. BCOTM is a proven, workable model that will continue to evolve and mature as an integral part of the Army's C2 architecture; it is the way forward. MR

NOTES

Major General Raymond T. Odierno, U.S. Army, is Commander, 4th ID, Tikrit, Iraq. He received a B.S. from the U.S. Military Academy, an M.S. from North Carolina State University, and an M.A. from the Naval War College. He has served in various command and staff positions in Iraq, Germany, and the continental United States (CONUS).

Lieutenant Colonel Edward J. Erickson, U.S. Army, Retired, is a political adviser to the commanding general, 4th ID. He received a B.S. from State University of New York-Albany, an M.Ed. from St. Lawrence University, an M.A. from Colgate University, and he is a graduate of the Command and General Staff College, Fort Leavenworth. He has served in various command and staff positions in Italy, Turkey, Germany, and CONUS

The MCS creates and automates the distribution of the common tactical picture as well as integrating the Battlefield Functional Area C2 System and the Battle Command System; ASAS; AFTADS; and AMDWS, and the FBCB2.
 The 1st Brigade, 4th ID, which commanded the 1-10 Cavalry and TF 1-8, conducted the attack on the Taji Airfield.
 Taji Airfield was the home of the Iraqi aviation and air defense schools.
 A. Although the DTAC was scheduled to arrive much eatlier, it was substantially delayed en route by an unexpectedly large Muslim Haj (pilgrimage) that put thousands of Iraqis directly on the division's march routes to Karbala.

The three officers in the ACP who acted as battle captains were LTC Rocky Kmiecik, LTC J.T. Thomson, and CPT Colin Brooks. The division G3 was LTC J.B. Bur-ton. The division CSM was Chuck Fuss.

Xenophon, Anabasis, or the March Up Country. See on-line at <www.fordham.edu halsall/ancient/xenophon-anabasis.html>.

^{8.} The MEK is an Iranian-backed paramilitary organization operating in central Iraq.
9. The authors believe that the Battle of Taji might be the first electronic (paperless) battle fought by a U.S. infantry division.