

Maintaining an Armored Division's Momentum through a Wet Gap Crossing

Lessons Learned

1st Cavalry Division

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1ST CAVALRY DIVISION WET GAP CROSSING PLANNING AND EXECUTION, DEFENDER EUROPE 20 AND WARFIGHTER

A contested wet gap crossing (WGX) is arguably the most difficult mission for an armored division (DIV). Not only is it resource intensive, but the WGX poses significant risk to operational tempo and logistical lines that extend across lines of communication. This mission set is especially problematic as the Army transitions its focus from years of counterinsurgency to large-scale ground combat operations. In order to conduct a successful and synchronized WGX, an armored DIV must assign proper command and control, conduct deliberate WGX planning nested with the military decisionmaking process (MDMP), task organize critical enablers in order to project their capabilities, and practice aggressive traffic control through multiple crossing sites. These actions provide the maneuver commander with flexibility and options as the battle unfolds and they allow an armored DIV to maintain a steady tempo, quickly maneuver through vulnerable crossing sites, and exploit success on the far side of the WGX.

SETTING CONDITIONS FOR A WET GAP CROSSING

The first step to set conditions for a WGX is to identify clearly the DIV tactical command post (DTAC) as the element responsible for command and control at the crossing site. Also, appoint the deputy commanding general for maneuver (DCG-M) as the crossing forces commander (CFC). This designation allows the DIV to focus continuously on shaping operations beyond the coordinated fire line (CFL). The DTAC, “is a facility containing a tailored portion of the unit headquarters designed to control portions of an operation for a limited

time” (Field Manual [FM] 6-0, *Commander and Staff Organization and Operations*, 05 MAY 2014). The pairing of a WGX with the DTAC and the DCG-M enables a clear division of labor for planning and executing the deep and close fight between the DIV main command post (CP), DTAC and subordinate brigades. This framework also provides the foundation to ensure that planning, synchronization, and logistical support are maintained beyond the WGX itself. Additionally, this framework allows the DIV to synchronize all warfighting functions (WfFs) throughout the operation. If the close fight is managed by the DTAC and the operation is appropriately synchronized, the DIV Main can maintain tempo while simultaneously shaping the DIV deep fight.

Once the command and control and CFC are identified, it is essential for the planning team to conduct deliberate MDMP. Mission analysis (MA) is the most important phase of the MDMP to set conditions for the operation. Of note, the WGX is rarely the final objective; however, it is a vital step to meeting the enemy or terrain-based objective. Within MA, a thorough terrain analysis is critical for the development of crossing site overlay(s) and running estimates.

During terrain analysis, the division engineer (DIVENG) and the DIV G-2 (intelligence officer) must work closely to identify hydrology and linear obstacles that the DIV may have to cross. The potential obstacles can range from small irrigation canals to major rivers and lakes. The mobility assets available must also be capable of breaching the identified terrain. The planning team must identify all hydrologic obstacles and widths, existing fixed bridges, their length, and military load class (MLC). This information provides one of the earliest indicators to determine if a hasty or deliberate gap crossing will be required. If the width of the obstacles is greater than the organic engineer

capability of a DIV or armored brigade combat team (ABCT), a deliberate WGX is likely based on time and resources required to cross the obstacle.

Additionally, terrain analysis must depict detailed ingress and egress routes to the crossing sites, and the routes may limit crossing capacity more than the WGX sites themselves. Organic DIV assets must be able to use the identified routes to stage units, build crossing sites, and maintain tempo for maneuver and sustainment forces. The routes help the DIV Staff determine the most suitable crossing sites along the linear obstacle. They also help inform potential priority information requirements (PIRs). The PIRs can be used to gather information from national, operational, or tactical assets to identify the width, depth, velocity, and entry/exit bank slope conditions for each potential crossing site.

Next, the DIVENG and G-2 must build a crossing site overlay that shows all feasible crossing sites. This product should highlight the width and frontage for each site, outline the assets needed to cross the site, and show the approximate crossing capacity (e.g., vehicles per hour) of the allocated assets. The overlay must display crossing methods such as fording, the use of existing bridges, and the employment of tactical bridges (ribbon bridge, dry-support bridge, or AVLB [Armored Vehicle Launched Bridge]) or line of communication bridges (ACROW, Bailey, Mabey-Johnson). The crossing site overlay also includes tables that show the time required for engineer assets to improve the site. Based on the feasible crossing sites and the composition of the maneuver force, the planning team then assigns assets to the DTAC. The assigned assets must include redundancy of bridging assets for the operation.

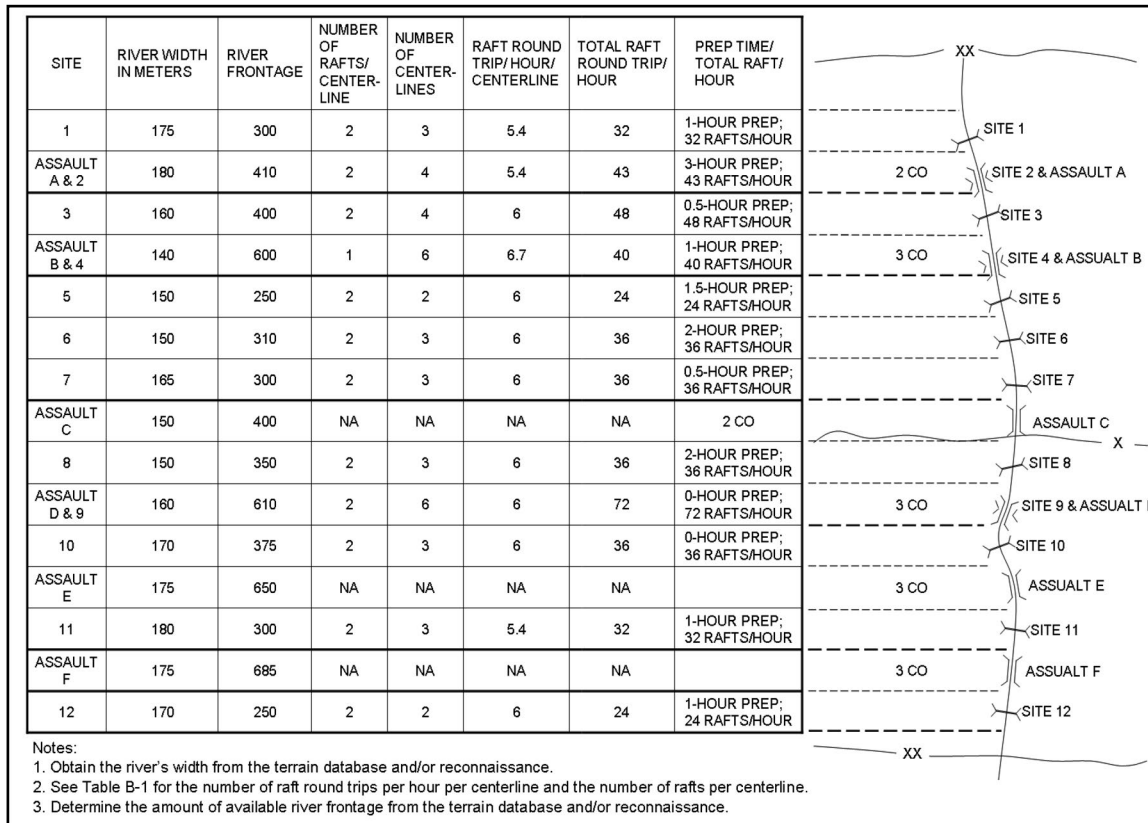


Figure 1. Division Crossing Site Overlay

Course of action (COA) development is the most time consuming portion of MDMP for the WGX planning team. In a time-constrained environment, it is difficult to illustrate all of the options available to the maneuver commander. In order to make this process easier, the DIV staff standardizes WGX running estimates and products with embedded calculators to reduce the time needed to adjust COA parameters. Successful COA development must generate options for the maneuver plan that indicate how and where the maneuver force will meet its objective. Backward planning is vital to

generating effective and feasible options. Once broad maneuver options are generated, the DIV staff can then develop crossing area overlays for each COA. The crossing area overlay must have a release line (RL) that shows the area controlled by the DTAC and CFC. The crossing area extends on each side of the linear obstacle; of note, its size varies based on the terrain. Lastly, the crossing area overlay is also used for terrain identification and management. This is vital to control the movement and timing of the maneuver and sustainment forces through the WGX.

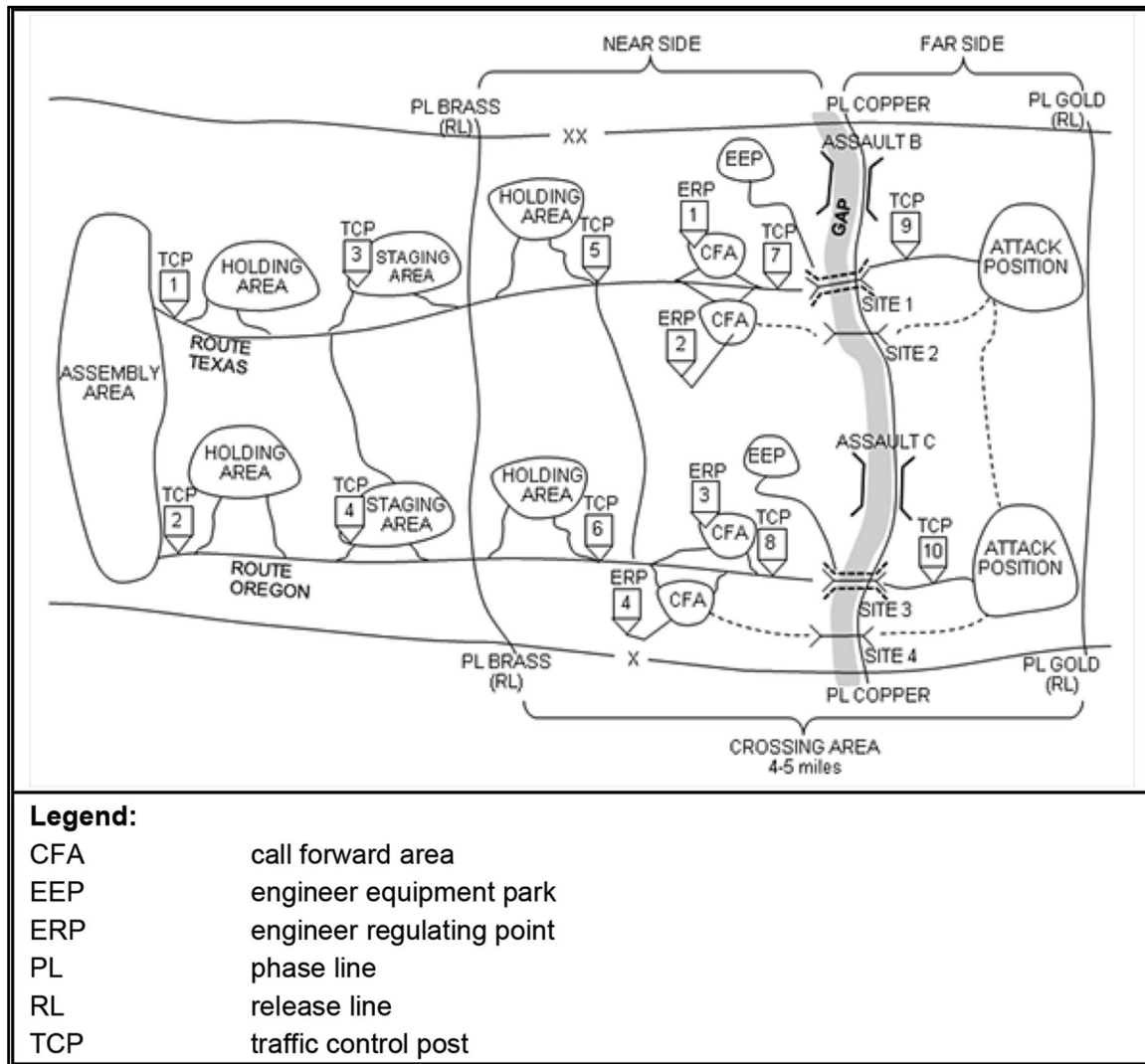


Figure 2. Crossing Area Overlay

1ST CAVALRY DIVISION KEY TAKE-AWAYS: SETTING CONDITIONS FOR A WET GAP CROSSING

While Army Training Publication (ATP) 3-90.4, *Combined Arms Mobility*, 08 MAR 2016, discusses the role of the DTAC in controlling the close fight during a WGX operation, it fails to describe in detail how important the DTAC is. DTAC's importance includes:

- Conducting terrain management within the crossing area
- Managing crossing areas with the use of release lines
- Controlling the DIV-level sustainment assets as they move through the crossing area

The division transportation officer (DTO) is critical to gather, analyze, and submit detailed requests from the DIV main or support area command post (SACP) for the movement of all sustainment assets through the crossing area. The DTAC then provides the specific time and call forward area for assets to move to the far side of the WGX. Additionally, current doctrine is confusing as it designates crossing area commanders (CAC) and crossing area engineers (CAE) at multiple echelons. Brigade commanders and brigade engineer battalion (BEB) commanders should be designated as CACs and CAEs, while the CFC and crossing forces engineer (CFE) should be the DCG-M and the engineer brigade commander.

In terms of terrain analysis, the DIV's and BCT's ability to produce detailed terrain analysis with primary, alternate, and lateral routes to potential crossing sites cannot be underestimated. Doctrinal references about terrain analysis are focused on the production of geospatial products using data sets; however, they lack the specificity needed to provide situational understanding to commanders and staff at echelon. Consequently, the planning team needs to produce an extremely thorough understanding of terrain based on detailed analysis of baseline geospatial products. The priority to analyze data follows:

- Restricted/unrestricted terrain
- Mobility corridors and routes
- Hydrology, topography, trafficability, and soils
- Foliage and vegetation

Key terrain must be determined by the commander's guidance and the staff's analysis of terrain. Terrain analysis for a WGX will cover an enormous land area. It is important to determine the base map size and scale (1:100,000 or 1:250,000) early in the planning process to prevent rework. Lastly, graphic control measures described in doctrine to manage terrain during a WGX are not understood across all Wffs. Graphic control measures must be emphasized by maneuver and lead planners to help reinforce their importance. It is important for planning teams to use and reinforce the doctrine early in the planning process, terrain management and graphic control measures must be understood by everyone involved.

TASK ORGANIZATION AND ENABLERS

An armored DIV is likely to conduct a deliberate WGX with tactical bridges when limited permanent bridge crossing options exist. To conduct a deliberate WGX at the DIV level, the doctrinal task organization described in ATP 3-90.4 consists of an assault force, assured mobility force, bridgehead force, and breakout force. Mission analysis, terrain analysis, and COA development determine the feasibility of a deliberate WGX. The feasibility is often limited by the tactical bridging assets available. When planning a deliberate WGX, the planning team must account for at least a 50 percent redundancy in breaching and WGX equipment. This estimate is based on the high probability of enemy contact and projected loss of critical assets. Additionally, WGX sites that are wider than the organic engineer capability of a DIV or ABCT will require non-organic assets such as a multi-role bridge company (MRBC). Lastly, the planning team must allocate maneuver units with breaching assets to reduce obstacles on both the near and far side of the WGX.

In addition to assets available, the planning team must consider how to task organize engineer, fires, protection, and sustainment assets. The addition of one or more MRBCs may strain the span of control of an ABCT. As a result, it is recommended to task organize the crossing force under a separate engineer battalion headquarters designated as the assured mobility force. One MRBC can manage two crossing sites and has enough bridging assets to close a gap fully in excess of 200 meters. One company of military police (MP) should be task organized to the assured mobility force for each crossing site to ensure streamlined communications

and movement control through the battlespace. The planning team must also task organize sustainment elements in such a way to ensure maneuver forces have full logistical support once a bridgehead and full-closure is established. Maneuver forces must have the sustainment capacity to survive, maintain momentum, and potentially exploit success on the far side of the WGX.

During the planning process, air defense artillery and air missile defense assets are task organized at echelon to the appropriate brigades and battalions to mitigate risk and prevent enemy influence based on threat COAs. The DIV planning team must provide deliberate and dynamic targeting based on threat COAs, array position artillery areas (PAAs) to maintain continuous fires coverage for the DIV close and deep area, and align adequate sensors to facilitate effective fires. Additionally, plans for utilizing chemical, radiological, biological, and nuclear (CBRN) assets to operate decontamination sites must be coordinated, with CRBN reconnaissance assets task organized with the assault and bridgehead force to provide accurate information to the DIV to facilitate decision making

at likely points of friction. This task organization provides options in movement and maneuver for DIV follow-on forces and enables the DIV to detect and then respond appropriately to maintain tempo through the WGX. Synchronizing enablers during development of task organization in the planning process will facilitate conditions setting at the WGX prior to the arrival of the assault force at the WGX. This will enable the DIV to establish multiple lanes for simultaneous crossing and is essential.

After planning teams have task-organized assets, a battalion-level crossing synchronization matrix must be built for each COA. The crossing synchronization matrix should include the rough crossing capacity timelines generated during MA, COA sketches, and draft task organization. Additionally, an in-depth timeline is used during COA analysis (Wargaming) to test the COA's feasibility and expose synchronization problems. ATP 3-90.4 is used to determine vehicle-crossing capacity, rafting should be considered first for the initial assault to secure the far-side objective. Next, the planning team must identify the enemy and friendly conditions necessary to transition from

	H-3	H-2	H-1	H	H+1	H+2	H+3	H+4	H+5
EN SPT CO 1	MOVE TO SITE B	PREP RB15s	EXECUTE ASSAULT BOAT OPERATIONS; ASSAULT SITE B						PERFORM ROUTE MAINTENANCE OF ROUTE 3 OPERATE CROSSING SITE 3
EN SPT CO 2	MOVE TO ASSAULT SITE C	POSITION AND PREPARE BOATS	EXECUTE ASSAULT BOAT OPERATIONS ASSAULT SITE C						PERFORM ROUTE MAINTENANCE OF ROUTE 7
EN SPT CO 2 (-)		MOVE TO SITE 7	ESTABLISH ERP's		PREPARE SITE 7				OPERATE CROSSING SITE 7
EN SPT CO 3	MOVE TO SITE 5		ESTABLISH ERP's		PREPARE SITE 5				PERFORM ROUTE RECONNAISSANCE OF ROUTE 5 OPERATE CROSSING SITE 5
MRBC 1	DELIVER ASSAULT RAFTS			MOVE TO EQUIPMENT PARK 3	BUILD RAFTS, SITE 3	OPERATE RAFTING, SITE 3			CONSTRUCT BRIDGE, SITE 3
MRBC 2	DELIVER ASSAULT RAFTS		MOVE EQUIPMENT TO PARK 5	CONSTRUCT BRIDGE, SITE 5					OPERATE BRIDGE, SITE 5
MRBC 3	DELIVER ASSAULT RAFTS			MOVE EQUIPMENT TO PARK 7	BUILD RAFTS, SITE 7	OPERATE RAFTING, SITE 7			CONSTRUCT BRIDGE, SITE 7

Figure 3. Engineer Synchronization Matrix

	H-5	H-4	H-3	H-2	H-1	H	H+1	H+2	H+3	H+4	H+5	H+6
CAB	STAGING AREA 3											
	ROUTE 3			SUPPORT ASSAULT B			ASSAULT B			CROSSING SITE 3		
CAB	STAGING AREA 7											
	ROUTE 7			SUPPORT ASSAULT C			ASSAULT C			CROSSING SITE 7		
RECON SQDN	STAGING AREA 5											
	ROUTE 5			SUPPORT ASSAULT B			CROSSING SITE 5					
STAGING AREA 3	CAB						FA BN			BSB		
STAGING AREA 5	RECON SQDN						BSB (-)			BSTB		
STAGING AREA 7	CAB						BSB (-)			FOLLOW-ON FORCES		
SITE 3	CAB						FA BN					
SITE 5	RECON SQDN						BSB (-)			BSTB		
SITE 7	CAB						BSB (-)					
ROUTE 3	CAB						FA BN			BSB		
ROUTE 5	RECON SQDN						BSB (-)			BSTB		
ROUTE 7	CAB						BSB (-)			FOLLOW-ON FORCES		

Figure 4. Crossing Synchronization Matrix

rafting to using a full closure tactical bridge. The conditions should account for time in the plan to employ a full closure bridge. This is often dependent on whether the emplacement happens during periods of low visibility. Lastly, the planning team and the DIV commander use a conditions/transitions matrix to clarify the conditions required to transition from: permanent bridges to tactical bridges, assault boat to rafting, rafting to full closure bridges, and single versus multiple bridge emplacements.

Another key factor for planning a deliberate WGX is having the requisite knowledge and expertise on the planning team itself. When building the planning team, it is important to include LNOs from all attached or operational control (OPCON) units. The added team members must cover non-organic fires, air defense artillery (ADA), engineer, and MP assets. These personnel can help refine planning factors and assumptions as well as enable subordinate units to conduct concurrent planning with their organic headquarters. The plan must be as detailed as possible. Often, planners “hand wave” or disregard the specificity required to execute the complexity of a WGX. Lastly, it is essential for the plan to include detailed analysis on timing, overall synchronization, and scheme of maneuver. A thorough, refined timeline makes orders production for subordinate units infinitely easier.

Once a feasible COA is selected by the Commander, there is a significant amount of work the planning team and DIV staff must accomplish to ensure the DIV has the necessary fighting products to execute the WGX. One of the most important products is the crossing synchronization matrix. This tool is used by the CFC and CFE to synchronize the execution of the crossing itself. It shows the subordinate unit’s composition, disposition, and location as they relate to time. The crossing synchronization matrix is built in conjunction with the terrain management plan; furthermore, it is developed with the DIV G-3 (operations) to ensure that all DIV-level fighting products are synchronized. The matrix shows details down to the company level. This level of specificity will help the commander understand and visualize the tempo required for the proposed scheme of maneuver. The DIVENG must publish an Engineer Execution Matrix that shows subordinate engineer units their detailed tasks in support of the WGX. Once the planning tools are created, the planning team must leverage wargaming to refine their utility. Detail and thorough analysis is required to make wargaming successful.

1ST CAVALRY DIVISION KEY TAKE-AWAYS: TASK ORGANIZATION AND ENABLERS

Current doctrine discusses some of the tools and planning products required for the synchronization of a WGX operation; however, those tools are often not understood and leveraged during the planning process. For example, the crossing site overlay is seldom incorporated at the DIV level due to the lack of specificity of WGX data and analysis. As a result, the staff and commander do not know whether a crossing site is feasible to handle a proposed maneuver element. Additionally, doctrine does not adequately describe the employment of tactical bridging assets and the requirements needed to support the crossing sites. In order to conduct a successful WGX, commanders must understand the specifics required to transition from the use of tactical bridging assets (MRBC) to the use of sustainment bridging assets line of communications bridging (LOC-B). Doctrine currently lacks planning guidelines to determine the conditions or triggers required to transition bridging assets for forward movement and simultaneously maintain the tempo of the operation. Lastly, doctrine needs to provide the framework for the task organization of LOC-B assets as this engineer capability normally resides in echelons above brigade (EAB).

During the planning phase for a WGX, commanders must consider the training level of their staffs. WGXs require experienced staffs that are proficient in planning and executing operations. The complexity of a WGX requires commanders at echelon to ensure a deliberate staff training progression is followed prior to the execution. The training progression must include multiple scenarios to build the requisite knowledge and expertise.

CROSSING THE WET-GAP AND BEYOND

Several critical activities must occur during execution of the WGX. These activities include execution of march tables, clearly and efficiently executing the hand-off between mission command nodes of the deep and close fight, and maintaining visibility on critical transition points as the WGX is executed. The division main, DTAC, CFC/DCG-M, and all associated transitions, must be reiterated for successful mission accomplishment. During execution of the WGX, the DTAC controls the deep fight from 25 kilometers to the corps

boundary, brigades control from 10-25 kilometers, and battalions from 5-10 kilometers. Transitions can be controlled if subordinate commanders are sufficiently empowered to the lowest level possible, leaving the DTAC to monitor vice control. While some commanders will seek to reserve authorities to control pace, tempo, and resourcing, wet gap crossings require the reservation of specific and deliberately decided responsibilities for the commander, while providing authority to executing units to the maximum extent possible. The implementation of mission command principles is foundational to success in the close fight. Units must understand their roles and responsibilities to meet the commander's intent. If forces do not understand the specifics of the WGX, there is potential to desynchronize the entire operation.

The division cavalry squadron (DIVCAV) is leveraged to set conditions for the WGX through the conduct of reconnaissance and security. Its capability can pull critical information as well as provide area, zone, and route reconnaissance for the DIV shaping operations. The DIVCAV is responsible for destroying enemy forces within 5-8 kilometers of the crossing sites. When the DIVCAV accomplishes this; it allows division artillery (DIVARTY) to preposition fires assets as far forward as possible. When fires assets are prepositioned forward, this extends the DIV's ability to shape the deep fight beyond the WGX. Once the DIVCAV crosses the WGX, it must secure the near and far side of objective. This action serves as the initial security for maneuver forces at the crossing sites. Lastly, the planning team must provide the DIVCAV clear reconnaissance objectives and bypass criteria in order to maintain tempo throughout the operation.

Once the maneuver forces begin the WGX, the planning team may consider the employment of family of scatterable mines (FASCAM). Often, FASCAM is used on the flanks of the crossing sites to limit the enemy's ability to maneuver near the crossing site as well as disrupt the enemy's ability to employ their reserve forces on the far side of the crossing. FASCAM employment also provides the initial far-side forces an additional degree of force protection while the DIV builds combat power on the far side. In addition to FASCAM, the use of organic and joint fires will assist maneuver forces at the WGX. Furthermore, the employment of integrated joint special technical operations

(IJSTO) and cyber electromagnetic activities (CEMA) assets enable the DIV main deep fight. These assets will also assist the DIV to secure an initial foothold on the far side of the crossing site. Before maneuver forces establish a foothold on the far side, a detailed conditions check occurs between the DTAC and DIV Main. The transition of command and control from the DTAC to the DIV Main is the greatest risk to the DIV's WGX. The commander and planning team must ensure that conditions are set for the DIV Main to execute shaping operations on enemy forces at the crossing sites. There must be a seamless transition between the DTAC and DIV Main in order to employ fires on all threats that can influence the initial crossing force.

Upon initial seizure of the foothold, units must quickly disperse to mitigate enemy indirect fire effectiveness while the DTAC ensures enemy air assets do not have influence on the foothold. Further, flooding the far side with forces in an effort merely "building combat power" should be avoided. DIVs must deliberately build combat power while avoiding an over concentration of forces in the foothold that could be exploited by the enemy. The DTACs presence is a vital part of DIV ability to identify and assess the "point of friction" by maintaining situational awareness at the WGX.

During the assault across the wet gap, the flow of traffic is strictly enforced by the CFE and DTAC. Engineer assets must conduct continuous maintenance of the crossing site banks. Recovery assets must be prepared to move vehicles should they become immobilized. The DIV main monitors the current operations of the crossing while executing deep operations to isolate the crossing areas, far side objectives, and to prevent enemy counterattacks. Integration of deep fires, electronic warfare, ADA, and fixed- and rotary-wing aviation must be deliberately planned and is instrumental in denying enemy influence on crossing sites. The DIV leverages adjacent units and multinational assets to integrate brigades during the crossing, while securing the bridgehead and advancing the attack.

While securing the bridgehead, the CFC, operating out of the DTAC, provides command and control for the river crossing, allocates additional resources, and prioritizes crossing efforts. After the breakout force moves beyond the bridgehead objectives, the CAC, normally the lead brigade commander or executive officer, begins to conduct a relief in place with a designated rear

area commander. Relief in place with follow-on forces allows the CAC to reorganize their forces to continue the attack as required. The DTAC and CFC regain control of the close area from the CAC to direct the attack of the lead brigade and integrate follow-on forces into the fight. These actions trigger the transition of the deep area to the new close-area fight. The DTAC is essential to the WGX by providing situational awareness and command and control for the DIV Main. The DTAC ability to manage the close fight enables the DIV's ability to maintain tempo through the WGX.

To ensure tempo is maintained throughout the WGX, MP units control checkpoints in accordance with the published march tables, down to vehicle number at given times, to enable decision authorities the opportunity to halt or adjust unit movements that do not support overall mission accomplishment. The attached MP units control staging areas, holding areas, and traffic control points (TCPs) to control movement at the crossing site. During planning, adequate time is allocated to properly task organize the DIV organic MP assets in direct support of the brigade commander at the WGX to ensure unity of effort and command. MP assets are essential to providing communications, uninterrupted movement and maneuver support, and traffic control at the crossing areas and sites in order to maintain tempo. It is imperative for MP units to report continuously the status of units at the crossing sites.

During the WGX, sustainment planners ensure that once a bridgehead and full closure is established, sustainment forces are prepared to provide logistical support to the maneuver plan. The ability to position sustainment assets forward is paramount for the WGX to support the near and far side of the crossing sites to ensure the DIV maintains momentum, survivability, and the ability to conduct future operations. As maneuver forces approach the bridgehead, they must have all necessary logistical items for bridge and bank maintenance. This capability is advantageous to ensure tempo is maintained and supplies can be pushed forward. The planning team must push recovery assets from the brigade support battalions (BSB) to the maintenance collection points (MCP). This will prevent forward support companies (FSCs) from having degraded capabilities. Lastly, refuel operations during the WGX should be handled by the FSCs and BSBs. FSC tankers must carry enough fuel to sustain maneuver forces on the far side of the wet gap. If necessary, a refuel

site can be established on the near side objective to both fuel and defuel assets. The DTO must integrate and synchronize the combat sustainment support battalion (CSSB) and BSB class (CL) III (B) resupply missions with the maneuver plan.

As the DIV attacks across the WGX, the DIV main and DIV fires must provide deliberate and dynamic targeting against deep objectives. These objectives often include brigade, DIV, and corps-level targets. The planning team must clearly identify feasible PAAs that can support the maneuver forces during the WGX. As previously mentioned, every effort must be taken to ensure artillery assets are pushed as far forward as possible. The planned PAAs should provide continuous coverage of fires for the DIV close and deep areas. This effort by the DIV main in control of the deep fight beyond the span of control of the DTAC at the WGX, is essential to enable follow-on forces to exploit subsequent objectives on the far side.

1ST CAVALRY DIVISION KEY TAKE-AWAYS: CROSSING THE WET GAP AND BEYOND

WGxs require maneuver forces to maintain tempo against an agile enemy. The planning team must conduct detailed planning in order to generate options for the commander that emphasize tempo during the operation. While current doctrine addresses tempo during a WGx, most of the literature is tailored to deliberate WGxs. Commanders and staffs at echelon must look for opportunities to seize the initiative, consolidate gains, execute hasty WGxs, and then quickly transition to highly synchronized and deliberate WGx operations. The ability for a staff to quickly transition from one task organization to another as well as reposition maneuver forces across the battlefield, is gained through multiple iterations of MDMP and scenario execution. The current command post exercise (CPX)/Warfighter exercise (WFX) model does not provide the requisite number of planning cycles and scenario executions to build this level of proficiency. Commanders at echelon must leverage as many training events as possible to train their staffs with this level of complexity.

CONSOLIDATION AND REORGANIZATION

In order for an armored DIV to quickly consolidate and reorganize on the far side of a WGx, all commanders in conjunction with the WGx planning team, ensure aggressive traffic control is followed throughout the operation. Aggressive traffic control is done with in depth route analysis and the prioritization of movement, which play a critical role in determining how the DIV allocates resources to the maneuver forces as they conduct the WGx. Additionally, alternate modes of distribution must be considered for the WGx. Alternate modes provide the commander additional options as he or she describes and directs the unit during operations. The planning team must ensure the DIV DTO and sustainment brigade support operations (SPO) are involved in the MA, COA development, and wargaming. Their efforts will help the DIV rapidly consolidate and reorganize on the far side of the WGx, generate combat power, and prepare for future operations.

Route analysis is the foundation for consolidation and reorganization. It is especially critical once a preponderance of the DIV begins consolidation on the far side of the WGx. At this point, the DIV must be capable of simultaneous distribution operations at the crossing, moving the DIV support area (DSA) forward, and evacuating casualties and battle damaged equipment. Furthermore, all these actions are likely to be done on constrained crossing sites under enemy contact with potential CBRN contamination. The planning team regularly updates and refines their route analysis; the DTO disseminates detailed route information at least twice daily and all routes are aligned with operations at echelon. The threat level, traffic volume, direction of travel, and CBRN condition must be specified for all routes and updated via new route overlays in the DIV common operational picture (COP). If these factors are properly analyzed, they will extend the DIV's operational reach. The DTO and SPO must overlay running estimates and priorities for CL III (B), CL V, casualties, and mortuary affairs with planned routes to identify shortfalls in time and space. This analysis will pay dividends to consolidate and reorganize. Lastly, any shortfalls will trigger decision points for the commander to update the priority of movement.

Conditions based priority of movement is essential to successful consolidation and reorganization. Based on the route analysis, the DTO and SPO should help develop conditions-based triggers to recommend changes to the movement priorities. Here are some examples of conditions-based triggers: the number of casualties requiring evacuation from far side, any CL III (B) or CL V shortages in the DSA or brigade support area (BSA), the number of replacements in the DSA, and any change to the CBRN threat level. The triggers will cause the DIV to increase rearward traffic at crossing sites, move sustainment assets forward, reallocate rotary-wing assets, or move decontamination capability to affected routes. In addition, the planning team identifies any second- and third-order effects for changing movement priorities. The commander needs to understand how movement priorities and triggers affect potential decision points during the WGX. This is critical during consolidation and reorganization because the DIV will be in the process of collapsing the rear boundary and shrinking the DSA. Detailed planning and a thorough understanding of decision points will alleviate the commander from focusing on the close fight and shift the thought process to future operations. Lastly, priority of movement enables the commander to position the appropriate forces on the battlefield. Examples of this prioritization include the forward placement of artillery and sustainment assets based on the priorities of the commander.

Lastly, alternate modes of distribution enable the commander to allocate additional resources to consolidation and reorganization operations. Common user land transportation (CULT) assets are essential to echelon the DIV forward after the conditions are set on the far side. Leveraging alternate modes of distribution unencumbers DIV CULT assets to echelon the DIV. Additional alternate modes of distribution for the planning team to consider include: corps-level distribution of CL III (B) and V directly to BSAs by, fixed-wing aerial delivery from a higher echelon support area, and rotary sling-load from the DSA.

These alternate modes can decrease sustainment traffic on routes and crossing sites, increase flexibility for organic CULT assets to echelon the DIV support area forward, and enable the DIV to sustain momentum during consolidation and reorganization.

1ST CAVALRY DIVISION KEY TAKE-AWAYS: CONSOLIDATION AND REORGANIZATION

Corps level sustainment assets forward positioned in the DIV area are essential to enable the rapid movement through the WGX. This capability is also crucial to extend the DIV's operational reach on the far side of the crossing. Assault hose line teams, movement control teams, and MRBCs are not organic to the DIV. These enablers must be requested early in the planning process for the DIV to employ them effectively during the WGX. Corps planners must recognize this requirement and be prepared to commit these assets early for the DIV. Maneuver and sustainment commanders must understand where and when to employ corps level sustainment assets. This will help maximize the effectiveness of the assets and sustain the DIV's momentum through consolidation and reorganization. Lastly, sustainment planners must be involved in all aspects of planning for a WGX. Their expertise is required to provide the level of detail necessary to synchronize the WGX as well as maintain tempo, momentum, and flexibility throughout the operation.

CONCLUSION

A contested WGX is arguably the most difficult mission an armored DIV can execute. In order to achieve success, commanders and staffs at echelon must take deliberate steps to plan, synchronize, and allocate resources. This involves detailed analysis and MDMP to identify potential gaps in the capabilities required for this mission set. When it comes to a WGX, you can never have too many details. Tempo is the key to seize the initiative, prevent enemy reconnaissance, and exploit success. DIVs must train to develop PIRs that identify multiple crossing sites. The DIV must also be prepared to execute hasty and deliberate WGX planning cycles. This transition in planning requires multiple training scenarios across multiple training events. Maintaining momentum during a WGX is tough. Focus on detailed terrain analysis and fighting products, push fires and sustainment assets as far forward as possible, execute deliberate terrain management and movement control, and be prepared to execute simultaneous deliberate and hasty WGXs.

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