

36th Engineer Brigade Defender Europe '24 Lessons Learned

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Figure 1: The 20th Engineer Battalion of 36th Engineer Brigade crosses a company of Polish M1 Abrams tanks across the Drawa River during Immediate Response '24. Photo taken by MAJ Rafal Kazmierczyk, at the Drawsko Pomorski Combat Training Center (DCTC), 11 May 2024¹.

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The 36th Engineer Brigade participated in immediate response within the Defender Europe '24 exercise series in Poland during the late spring of 2024. This exercise saw the brigade deploy the 20th Engineer Battalion and the brigade tactical command post from Fort Cavazos, TX to the Drawsko Pomorski Combat Training Center (DCTC) to conduct wet gap crossing and live fire operations with Polish and British forces. The brigade brought forward a tactical command post (TAC) element to coordinate with a U.S. Army National Guard division headquarters and the battalion drew multi-role bridge and combat engineer company armored equipment from army pre-positioned stocks (APS). The brigade and battalion learned several important lessons throughout this exercise – ranging from scenario design considerations down to nuanced tactical intricacies dealing with international partners. The following captures the key take aways and recommendations to units deploying to Europe and participating in joint exercises.

All major exercises in the European Theater follow the United States Army Europe and Africa (USAREUR-AF) Joint Exercise Life Cycle (JELC) which drives all operations to include Joint Multinational Readiness Center (JMRC) rotations for regionally aligned force (RAF) units. The JELC always involves a concept development conference (CDC) to develop initial courses of action and training objectives, initial planning conference (IPC) to begin detailed planning among identified stakeholders, a pre-deployment site survey (PDSS) to evaluate the training site for suitability and feasibility given initial inputs, a main planning conference (MPC) to finalize equipment, and training objectives, and a final planning conference (FPC) to develop the concept of operations across joint, multi-component, and multi-national training.

The JELC creates the momentum required to get major initiatives and deployments started. All JELC events are important in the successful execution of the exercise, and it is imperative to send the right and empowered personnel to speak on behalf of the organization. It will be difficult to send key personnel away to each conference – but leaders should seek to have attendees from each staff or warfighting function involved to think in a comprehensive way about the exercise. That said, there are weaknesses in the JELC process. First, there are few, if any, natural opportunities for commanders to engage and discuss the exercise and their goals. The vast majority of the planning is isolated staff work and only a single rehearsal of concept – away from the training location is conducted where commanders are required participants. This should be understood from the outset, and participants must actively create opportunities for their commanders to meet, interact, and discuss their objectives for exercises. As a result of minimal deliberate involvement of commanders in the planning process, it also becomes very difficult to operationalize these exercises. The scope and structure of the training events are largely unknown as the bulk of the energy is devoted to simply getting units to the right place with their equipment – which creates issues on the ground and a loss in training value. Synchronizing operations within an exercise, coordinating resources, and aligning commander training objectives are often left out of this deployment centric planning process. Participants must intuitively understand the gaps in the JELC and work adjacent coordination and rehearsals to solidify plans with the host nation.

There is tremendous value in deploying to Europe and working with North Atlantic Treaty Organization (NATO) partners, host nation forces, and serving under component 2 U.S. Army Headquarters. The 36th Engineer Brigade felt the benefits of deploying a large force into Poland as it comprehensively stressed systems and exercised the installation while educating a cohort of Soldiers and leaders about deployment operations. However, there are facets of multi-national and multi-component exercises that should be built into running estimates and actively planned against before the exercise.

The 36th Engineer Brigade worked with a component two division headquarters during the Defender Europe '24 exercise. The brigade and division educated one another and eventually found their roles as division and brigade staffs, but not without friction and a willingness to be flexible. From the early JELC conferences it was apparent that the component two had a complex problem set in managing the Title 10 order durations for their staff over the course of the exercise. Creating continuity and shared understanding in short windows is extremely challenging while personnel rotate constantly. This presented some friction in that the brigade and battalion were hungry for information regarding the tactical exercise, and eventually it became understood that we would serve as the linkage between exercise participants and provide some of the synchronization required during execution. Once we assumed that role and facilitated the organization and a portion of the key events on the timeline interoperability flowed smoothly.



Figure 2: MAJ John Kearby, 20th Engineer Battalion Operations Officer, leads the Battalion Combined Arms Rehearsal in preparation for the Wet Gap Crossing Operation. Photo taken by SFC Adrian Wilkins at DCTC on 04 May 2024².

Leading up to Defender Europe '24, the 36th Engineer Brigade had recently completed a division level wet gap crossing exercise at Fort Cavazos, TX with 1st Cavalry Division. This event was organized by the III Armored Corps and featured live and constructive environments, opposition forces, and doctrinal combined arms maneuvers. The capability of the 36th Engineer Brigade and 20th Engineer Battalion was sought by the supported headquarters. That presented a conflict in that the component two division headquarters had not yet experienced planning or controlling a wet gap crossing and felt much more fulfilled by the strategic benefits of the mission, rather than its tactical features. That training objective misalignment presented some issues, and we could have worked to nest or manage our expectations earlier to synchronize efforts sooner.

Some of the most rewarding work during Defender Europe came from working with our international partners. Valuable relationships and lasting trust were built with both Polish and British forces during the exercise and there is confidence within the brigade of their ability to work well with partner nations in the future. There are considerations to work through when approaching joint exercises – doctrine, language, and relationships which must be deliberately negotiated to achieve success.



Figure 3: MAJ John Kearby, 20th Engineer Battalion Operations Officer, discusses Wet Gap Crossing Operations with MAJ Rafal Kazmierczyk, the 7th Coastal Brigade (POL) Engineer. Photo taken by SFC Adrian Wilkins at DCTC on 05 May 2024³.

Each nation's military operates under its own set of doctrine and standard operating procedures. The doctrine is shaped by national experiences, strategic priorities, and cultural factors, leading to variations in how operations are planned and executed. When multiple nations come together for a joint operation, these differences can create friction or confusion. During Immediate Response '24, the differences were on display during the American led crossing operation, followed by the British Army led crossing operation. While seemingly nuanced, the role of the crossing area engineer and the crossing area commander between the US Army and British military are quite different. For example, the U.S. Army utilizes an engineer brigade headquarters as a crossing area engineer whose role is to advise the division commander on how to execute a wet gap crossing and on critical decisions. During the British led crossing, the US engineer brigade and engineer battalion were essentially in an advise and assist role because the British brigade commander has the authority to make critical decisions such as when to cross each force. It is a small difference between our militaries but understanding the doctrine of how each of our Army's fight is critical before undertaking a high-risk operation such as a wet gap crossing. Rehearsals were critical to identify the differences and provide an opportunity to harmonize these doctrinal differences. Through practice, we aligned our country's tactics, techniques, and procedures, ensuring that all units were able to synchronize under a common framework during the gap crossing operation.



Figure 4: The 43d Multi-Role Bridge Company “Gators” conduct longitudinal rafting operations with the 7th Polish Coastal Brigade at the Drawsko Pomorski Combat Training Center. Photo taken by MAJ Rafal Kazmierczyk, 11 May 2024⁴.

Language differences can be a significant challenge in multinational military operations. Miscommunication due to language barriers can lead to operational failures, delays, or even dangerous misunderstandings. Even speaking the same language can lead to misunderstanding due to common military phrases that differ between partners. For example, an engineer equipment park (EEP) in U.S. Army terminology is the same thing as a Zulu Muster in British Army language. There are also differences in tactical task definitions, standard procedures, and equipment capabilities that all need to be deliberately clarified. Rehearsals at echelon mitigated this risk by allowing forces to practice communication protocols in a controlled environment. They also provided an opportunity for interpreters and liaison officers to refine their roles and ensure that key messages are accurately conveyed. Over time, we saw these rehearsals help build a shared vocabulary and understanding, reducing the likelihood of language-related issues during the actual mission.

While the natural challenges of working with new people and organizations were expected, the most significant issues faced during Immediate Response ‘24 were with communications systems. Within the exercise there were component 2 U.S. Army elements, parts of the 4th Infantry Division rotational force, the 36th Engineer Brigade, two separate Polish brigades, a British armored brigade combat team, and a Polish range control element. The multitude of different systems and policies employed by each nation were highly complex and crafting a coherent and executable PACE plan was challenging. The Mission Partner Environments (MPE) interactions between nations had inconsistent functionality and created a stale common operating picture across the division. Due to the duration and timing of the Defender Europe exercise, risk reduction events and international communications exercises across the full pace were not planned or adequately conducted. It is exceedingly important to work with higher

headquarters to ensure that these events are programmed and executed across the multi-national, multi-component enterprise. Those risk reduction events must also address tactical communications as the movement and distribution of communications security (COMSEC) in a semi-permanent setting is full of complexity and challenge. There are a range of solutions that exist to these networking and communications issues – but they all require disciplined and deliberate planning and execution to get right.



Figure 5: Overhead view of the Crossing Sites at the Drawsko Pomorski Combat Training Center. The 44rd MRBC has two rafts and the 23rd AMPH has two M3 Rigs in preparation for rafting or ferrying operations. Photo taken by MAJ Rafal Kazmierczyk, 11 May 2024⁵.

The previously stated issues were solved through the heavy use of liaison officers (LNOs). During both the final planning conference and separate wet gap crossing key leader engagement at Fort Cavazos, TX, these LNOs were identified for specific echelons with foreign partners. LNOs were sent forward with a joint battle command-platform (JBC-P) and frequency modulation (FM) radio to relay relevant data from their integrated unit, providing a near-seamless transition of information. This also allowed for easy reference to both unit's capabilities, concept of operations, and terminology to avoid confusion and reduce errors in planning. However, the limiting factor with liaison officers (LNOs) is available personnel. Most Soldiers and leaders with awareness of the concept of operations, battalion capabilities, and other information relevant to the battalion were largely limited to staff officers in the rank of captain and above. These individuals were also needed by their organic unit and therefore sparingly assigned as LNOs. The 20th Engineer Battalion prioritized the company through division levels for LNOs, in which a captain linked in with the company to battalion level, the operations officer linked in at the brigade level, and the battalion commander linked in at the division level. The division level was necessary to provide the division commander with experience and expertise on wet gap crossing operations, in which both British and Polish forces faced challenges.

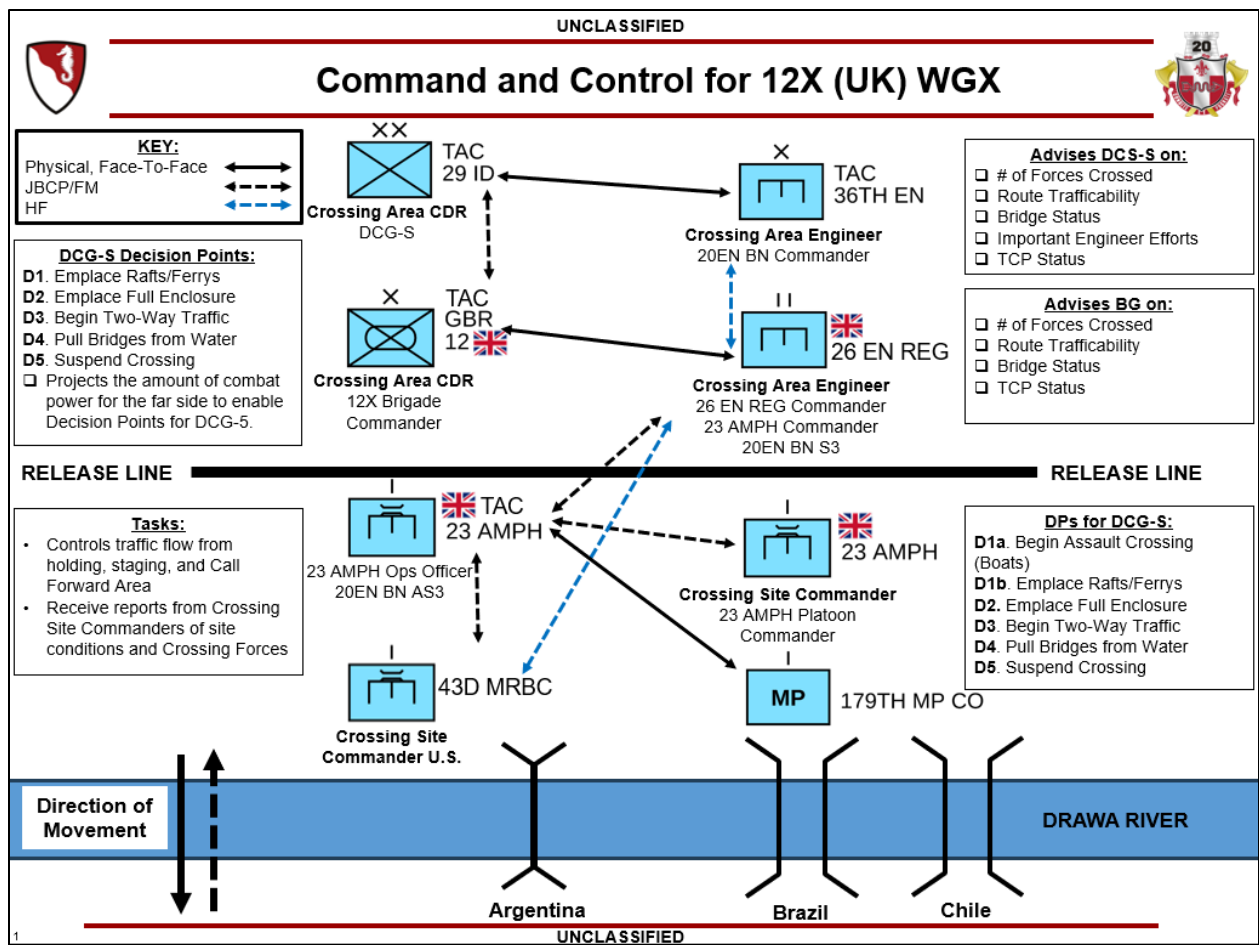


Figure 6: Concept of Command and Control utilizing LNOs from the 36th Engineer Brigade during the British Wet Gap Crossing⁶.

The value of these multi-national and multi-component exercises in Europe is largely strategic. The power and messaging delivered when multiple nations deploy combat power and conduct missions and training together is significant on the world stage. However, the tactical and operational training value to the battalion and company units should not be misconstrued as beneficial. The optics around these exercises rarely lends itself to the repetitive and deliberately challenging components of quality training events. Where you might want to insert difficulty, or conduct multiple iterations, or stress different echelons or leaders in a typical event – those opportunities are not going to be present in these missions. It is more important for the exercise to demonstrate joint capabilities and interoperability. This is well known but is worth stating as the frequency of these exercises can lend them to be seen as culminating events for units – similar to CTC rotations or other mission readiness exercises – but they are certainly not that. Another feature of these exercises is the joint presence of high-ranking leaders and officials from the multi-component and multi-national contingent. These typically manifest in distinguished visitor days that support the larger purpose of the exercise but can be problematic for the participants. Highly scripted sequences and distorted battlefield geometries are setup to facilitate easy visitation and display – but they limit the training value gained by the Soldiers and staffs. They also risk creating poor habits at the brigade and battalion level where every opportunity to execute large scale operations is meaningful and impactful – a bad repetition can have long lasting implications. As this will likely always be a component of high visibility events,

units need to ensure they recognize these events for what they are and look to create separate opportunities to challenge their formations at echelon.



Figure 7: Soldiers from the 43d Multi-role Brigade Company raise the US colors on a bridge erection boat during gap crossing operations. The pride and spirit of each nation participating in Defender Europe was on display throughout the exercise and it certainly enriched the event. Photo taken by 2LT George Jones at DCTC on 12 May 2024⁷.

There is a place in brigade and battalion level training programs for deployments to Europe in support of major exercises with our foreign partners. The Soldier experiences and partnership, benefits to readiness, as well as the immense strategic value make these missions essential. They should however be approached with clear understanding of what the strategic impact is to the Soldiers executing them, and what the gaps need to be closed by the staff to make the most of these events. Units must first recognize the complexity of these missions and own their piece of the JELC process. They must proactively build relationships with adjacent units and create engagement opportunities for their commanders. They should stress communications from the outset and see the friction that will bring into their mission. Hedge those expected issues with well-equipped LNOs and work to foster relationships between those LNOs and the units they are supported. Recognize the gaps in experience and capability and be ready to fill in and over communicate capabilities and operational design. Execute rehearsals, tactical exercises without troops, working groups with partnered forces at a higher frequency than with an exclusively U.S. forces exercise. During international exercises, there is plenty of friction created for various reasons. There is no substitute for outstanding leadership; leaders must be at the point of friction to ensure operational success. Closely manage expectations and understand where the value of these missions is and see the continued training requirements that your formations will require.

Biographies

MAJ Kearby currently serves as the 36th Engineer Brigade Operations Officer and was the 20th Engineer Battalion Operations Officer during Immediate Response 24. His previous assignments include Chief of Operations for the 36th Engineer Brigade, Assistant Professor in the Department of Mathematical Sciences at West Point, and Company Commander and Task Force Engineer in 1st Brigade, 1st Cavalry Division. He holds Master of Science Degrees in Operations Research from NC State University and Civil Engineering from Missouri University of Science and Technology, and a Bachelor's Degree in Civil Engineering from the United States Military Academy at West Point.

MAJ Mike Caddigan currently serves as the Battalion Executive Officer for the 62nd Engineer Battalion. He previously served as the Brigade Plans Chief for the 36th Engineer Brigade at Fort Cavazos, TX and served as the Brigade Operations Officer during Immediate Response 24. MAJ Caddigan has a Master of Science Degree in Engineering Management from Missouri University of Science and Technology and is a graduate of the United States Military Academy at West Point. He is also a graduate of the U.S. Army Command and General Staff College.

CPT Sam Fleshman currently serves as the Plans Chief for the 62nd Engineer Battalion, 36th Engineer Brigade at Fort Cavazos, TX and served as the lead planner for the Brigade's execution of Defender Europe '24. CPT Fleshman holds a Master's Degree in Engineering Management from Missouri University of Science and Technology and a Bachelors Degree in Mechanical Engineering from Colorado State University.

CPT Garrett Wilke currently serves as the Company Commander for 43d Multi-Role Bridge Company under 62nd Engineer Battalion. He previously served as the Assistant Operations Officer for 20th Engineer Battalion during Immediate Response '24. CPT Wilke holds a Master's Degree in Engineering Management from Missouri University of Science and Technology and a Bachelor's Degree in Civil and Environmental Engineering from The Citadel.

¹ Photo By MAJ Rafal Kazmierczyk, 11 May 2024.

² Photo taken by SFC Adrian Wilkins at DCTC on 04 May 2024.

³ Photo taken by SFC Adrian Wilkins at DCTC on 05 May 2024.

⁴ Photo taken by MAJ Rafal Kazmierczyk, 11 May 2024.

⁵ Photo taken by MAJ Rafal Kazmierczyk, 11 May 2024.

⁶ 36th Engineer Battalion concept of command and control.

⁷ Photo taken by 2LT George Jones at DCTC on 12 May 2024.