

19TH ENGINEER BATTALION KUWAIT DEPLOYMENT

The 19th EN BN, based out of Fort Knox, KY, is composed of the Headquarters and Headquarters Co. (HHC), Forward Support Co. (FSC), 15th EN Co. (Horizontal), 42nd Clearance Co., 76th EN Co. (Vertical), 502nd Multi-Role Bridge Co., and 541st Sapper Co. (Mechanized). The battalion was led by myself and CSM Ethan Dunbar. In November 2013, the battalion deployed four companies (HHC, FSC, 15th, and 76th) to Camp Arifjan, Kuwait, in support of Operation Spartan Shield. Upon arrival in Kuwait, the unit conducted a Relief in Place (RIP) with the 205th EN BN, a Louisiana Army National Guard (LAANG) unit with a garrison headquarters in Bogalusa, LA. The 19th assumed mission command of the 844th EN Co. (Horizontal) and the 1021st EN Co. (Vertical), units from the LAANG. The 844th and 1021st would later be replaced by the 304th EN Co. (Vertical) and 961st EN Co. (Horizontal) from the Ohio Army Reserve. Throughout the nine-month deployment, the unit focused on providing construction support to United States Army Central Command (USARCENT), maintaining tactical soldier skills, partnering with the Kuwaiti Land Force's Engineers, and responding to Over-the-Horizon Engineer support requirements.

"MISSION COMMAND" BELOW IS THE FIRST OF 5 ARTICLES OUTLINING THE DEPLOYMENT.

MISSION COMMAND by LTC (P) JOHN P. LLOYD

1 **THE 19TH EN BN** championed six Lines of Effort (LOE) to focus the unit's energy toward the desired end state before transferring authority to the 528th EN BN in August 2014. The LOE were construction, resiliency, leader development, telling our story, partnership, and training. The battalion staff developed the LOE to link the conditions

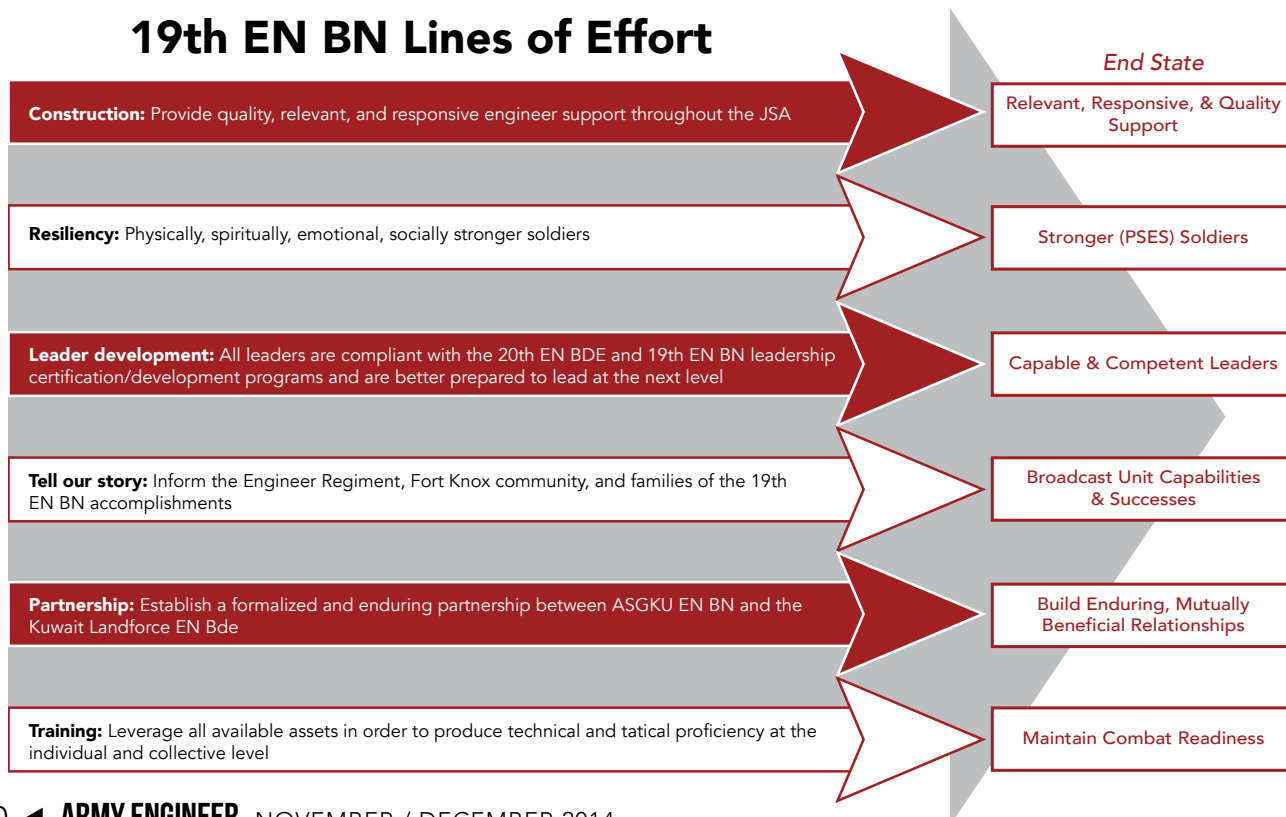
upon our arrival in Kuwait to our desired end state before departing theater. The LOE served as our primary organizing tool to relate the various and diverse missions and tasks intrinsic to the USARCENT rotational engineer battalion. The battalion employed quarterly targeting meetings to pair each LOE with supported objectives and desired conditions. During these meetings,

the appointed manager for each LOE would provide an update on the tasks completed and objectives reached.

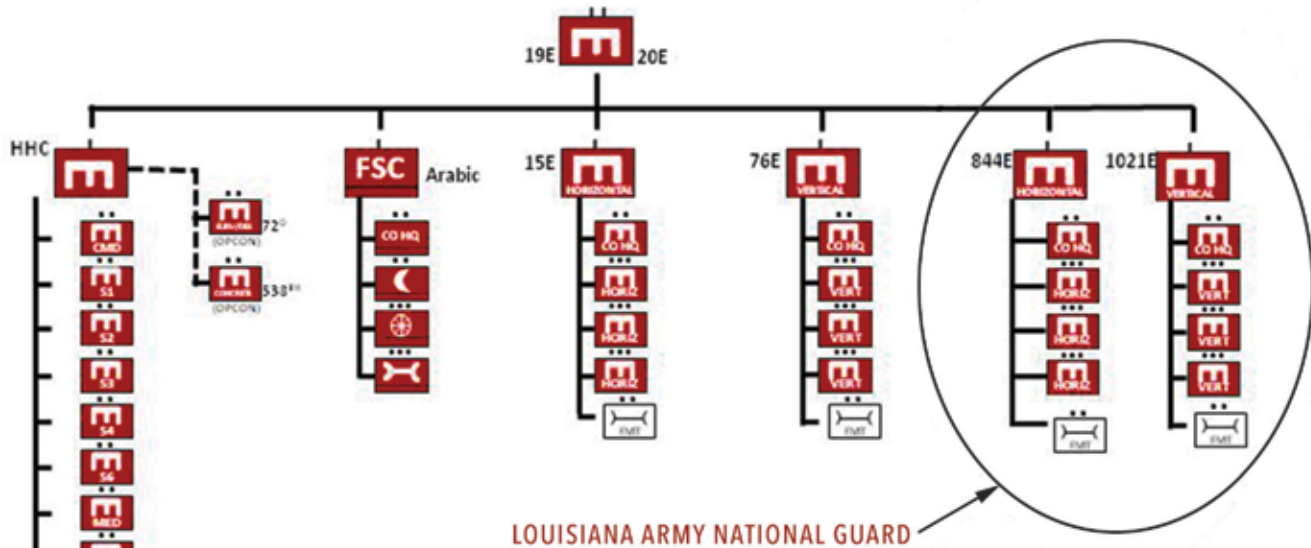
The responsibility for construction fell to the battalion operations officer as well as the construction management section OIC, who sought out a range of construction opportunities to provide quality, relevant, and responsive engineer support. The battalion

adjutant, chaplain, and master resiliency trainer spearheaded the Resiliency LOE and worked together to develop physically, spiritually, emotionally, and socially (PSES) stronger soldiers than when we arrived. Responsibility for leader development was undertaken by the battalion XO and command sergeant major, who utilized officer professional development and leader professional

19th EN BN Lines of Effort



19th EN BN Deployed Task Organization



development programs to ensure leaders were compliant with brigade- and battalion-level policies and prepared to assume “next level up” leadership positions. The battalion adjutant ensured that we were telling our story throughout the deployment. This LOE required the adjutant to make certain that leaders at all levels informed the engineer regiment, Fort Knox community, and families of the battalion’s accomplishments. This series and others like it are part of that effort.


The partnership LOE utilized the battalion intelligence officer, who took on the role of partnership OIC and worked to formalize an enduring partnership with the Kuwaiti Land Forces EN BDE through planning social events, key leader engagements, and interoperability events.

Finally, responsibility for our training LOE fell again on the battalion operations officer, who leveraged available assets to train tactically and techni-

cally at the individual and collective level in order to maintain combat-readiness for any Over-the-Horizon missions.

Oftentimes, our leaders found that certain missions and tasks furthered more than one Line of Effort. For instance, the 15th Horizontal Engineer Company conducted joint construction with Kuwaiti Engineer forces, which promoted both the construction and partnership Lines of Effort. At some point in the deployment, all leaders wrote a news release to one of their soldier’s hometown newspaper, detailing the work that the soldier had accomplished in support of Operation Spartan Shield. These articles served as morale boosters for soldiers, increasing resiliency while at the same time allowing the unit to tell its story to friends and family back home. Finally, a British warrant officer, working as a liaison for the Kuwait Land Forces Institute, came to Camp Arifjan and familiarized 19th EN BN officers on British military doctrine and history.

This one event significantly advanced both the professional development and partnership Lines of Effort.

Engineers are often described as the “Jack of all trades” for the Army, and our motto is “Let Us Try.” Naturally, engineer units are asked to take on a wide range of missions to support their command. The 19th’s LOE were printed and taped into every leader’s green book as a constant reminder of how their specific daily tasks fit into the big picture. In fact, a fair amount of the tasks that the unit set out to accomplish actually fell into more than one LOE, and we could often see how all the lines led to our desired end state. The LOE framework is not the sole solution to achieve a desired end state, and it may not work in every situation or with every unit. For the 19th EN BN’s deployment to Kuwait as the US-ARCENT rotational engineer battalion, however, this framework was the best way to link the seemingly disparate elements of the mission. 



LTC (P) JOHN P. LLOYD was commissioned an engineer in May 1995. He has served as an Army Fellow at the Asia Pacific Center for Security Studies in Honolulu; his troop time found him serving as a sapper platoon leader and company XO; battalion S-4; brigade plans officer; staff officer; company commander; aide de camp to the deputy commanding general, 18th ABN Corps; combat engineer trainer at NTC; current operations planner; battalion S-3 and XO; and brigade XO. He holds a bachelor’s from Cameron University, Lawton, OK, and a master’s in joint campaign and strategic planning from the National Defense University.

CONSTRUCTION

by **1LT LESLIE MARTELL, 1LT FOLEY ROVELLO,** and
2LT BRIAN BERGEMAN

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OPPORTUNITIES to execute a wide variety of construction projects were made possible by both political events across the USARCENT Area of Responsibility (AOR) as well as the severe flooding that struck Kuwait on 18 November 2013. The 14th Weather Squadron, USAF, described the severity of the flood as a once in 50- to 60-year event. The total rainfall accumulation over a short duration, coupled with the topography's poor drainage, led to severe flooding across the US, DOD, and Kuwaiti Ministry of Defense (KMOD) footprint. The flooding had a severe impact on civilian and military personnel, equipment, and operations. These opportunities and challenges allowed the 19th EN BN to exercise its core construction competencies.

Because of the unsigned Status of Forces Agreement with the Government of Islamic Republic of Afghanistan, the possibility of an immediate need to house redeploying troops from Afghanistan was identified by USARCENT and CENTCOM. The uncertain political situation, coupled with recent changes to regional transportation gateways, created a need for operational flexibility to allow commanders the ability to retain contingency forces. Kuwait serves as an ideal gateway for the AOR with enough capacity to house large numbers of troops. The Riabli Village Project was designed with the intent to house an additional battalion's worth of soldiers in support of Over-the-Horizon missions or in

transit as they redeployed to the United States. Riabli Village includes 60 containerized housing units (CHUs), eleven re-locatable buildings (RLBs), and twelve shower, latrine, and laundry trailers. Each CHU is designed from a 40-foot MIL-VAN Connex, divided into two living spaces with a shower and toilet shared in the middle. The CHUs are designed for single soldier occupancy per room, with two soldiers sharing the latrine. Conversely, the RLBs have rooms large enough to house four soldiers in two bunk beds, with showers and latrines in separate buildings. The Wet CHUs were stacked two units high in rows of ten, with the ability to house 120 soldiers. The RLBs were built by combining nine sections for a total of 17 rooms, providing housing for up to 748 soldiers. Ali al Salem was originally the gateway into the CENTCOM Theater of Operations; however, the decision was made to transition the gateway to Camp Arifjan. The base closure operations at Ali al Salem provided an opportunity to save government funds by relocating and repurposing these facilities. One platoon from the 205th EN BN was responsible for disassembling, blocking and bracing the RLBs, and transporting the buildings to the new project site on Camp Arifjan. The disassembly and preparation for movement took approximately two months. In addition to the facilities, 12 connexes worth of materials were shipped to the project site at Camp Arifjan. These connexes included key pieces such as ceiling grid and ceiling tiles. Ideally, these

materials would have been reused to help offset the cost of the project. Unfortunately, the manner in which these materials were removed and packaged for transport was so poor that it made the material unusable for the project. This discovery was not made until the project had been started and the materials had arrived on site.

The initial plan for the project called for sections of the RLBs arriving over a period of four months, with one building (nine sections) moving roughly every two weeks. The 14-day time gap would allow the previously placed sections time to settle and ensure that blocks were placed to accommodate the sections arriving next. The RLBs were placed on square, 18-inch concrete blocks that also were transported from Ali al Salem. The RLB sections were line hauled on M870 trailers which exposed the inner portions to the elements as they were transported. After the sections were placed, they were carefully tightened together. At this point, however, significant gaps remained between some of the sections due to damage inflicted from taking the sections apart and from the line haul. This created a large demand for spray foam and caulking to seal the gaps between the sections. The shower and latrine trailers and Wet CHUs were moved to Camp Arifjan in a similar fashion by the 205th EN BN and placed in an empty lot behind the Wet CHU project site before being placed by the 76th EN Co. in January 2014. The movement of all facilities was

the first phase of the project and was completed on schedule.

The refurbishment of the RLBs, showers, and latrines was initiated by the 1021st EN Co. (LAANG) and continued by the 76th EN Co. The reconstruction began the second phase of the project which was planned to last from October 2013 until January 2014. Planning factors were based on two engineer platoons consisting of 12W (carpenters), 12R (electricians), and 12K (plumbers) MOS soldiers working on the project for 36 hours per week. The refurbishment of one building was expected to take approximately 20 working days with this amount of manpower. A key assumption was made during the planning process that all buildings were in relatively the same condition and that each would require an equal amount of materials.

The contracting process on Camp Arifjan takes approximately 45 to 60 days from the time the Bill of Materials (BOM) is submitted until the time the materials arrive on the project site. With this planning factor in mind, the decision was made to submit a bulk order for all the buildings based on the requirements of the first four buildings. Ideally, all materials for a certain phase of a project would be inventoried and available before breaking ground on that phase. As more buildings began to arrive, it was apparent that not all of the facilities were in the same condition. For example, some required extensive dry-wall replacement, while others required none. When this

► *The shoulder of Mubarak Phase 1 was completely washed out, with the deepest portions reaching up to six feet. The crumbling roadway impeded continuous traffic flow along the main access route. PHOTO BY 1LT FOLEY ROVELLO*



problem arose, additional BOM requests were submitted to subsidize the materials on hand. Even after each building's materials were received, the condition of the materials was not adequate, and additional time and resources were required to achieve an acceptable quality of work.

Furthermore, the facilities were in much worse condition than originally projected. Construction on sand requires precisely compacted and leveled ground. The two to four weeks of settling time was not sufficient before beginning repairs, resulting in almost daily drywall cracks as the buildings continued to settle into place. This squandered many costly construction materials and resulted in completed buildings requiring rework. During December 2013 and January 2014, strong rainstorms washed away portions of the sand around the supporting blocks, causing further settling and damage.

The connexes, which had been shipped from Ali al Salem, contained large amounts of unusable materials. The ceiling grid and tiles within the facilities were built using Metric units. Mistakenly, these materials were used in the first two buildings while the platoons waited on the new materials to arrive. It was now obvious that there was a problem; the ordered materials were all in English units. The ¼ to ½ inch

► *HESCO baskets placed along the shoulder of Mubarak Phase 1. These baskets were an addition to the original scope of work, with the intent to slow washout from the roadway if another flood of such magnitude were to impact the region. PHOTO BY 1LT FOLEY ROVELLO*



difference from metric to English ceiling grids accumulated to several inches over the total dimensions of the room, making it difficult to complete the grid. The shower and latrine trailers faced similar problems with standard and metric pipe fittings for plumbing. Often, contractors will provide a substitute which they believed to be "close" to what was ordered. It is essential to note on BOM requests which items cannot be substituted. This was a major lesson learned during the contracting process.

Even with material difficulties, the project continued to progress according to sched-

ule. The original scope of work was extremely detailed and included activities such as replacing all doorknobs for door handles with a key lock, installing exterior lighting above doorways, removing old air conditioning units, running new wiring for all electrical outlets and overhead lighting, verifying serviceability of windows, replacing damaged drywall, painting, installing new floor trim, and installing drop ceilings. The first four RLBs were on track for timely completion but the lack of materials made the completion of further RLBs unlikely. The call was made by the project OIC to focus on different buildings while waiting for materials to arrive. During the January rainstorms, it was discovered that the roofs were leaking. An analysis of the roofs revealed that a sealant was required in order to keep moisture out. The search was on to find a roof sealant that would be able to withstand 125°F summer temperatures.

When the Department of Public Works (DPW) inspected the project site, they noted that each of the door handles and exterior lights could be replaced by DPW. This meant that materials had been ordered unnecessarily due to an inaccurate, or overly bolstered,

scope of work. A separate concern found with the ordered materials was that most of the overhead lighting shipped in the Ali al Salem connexes was constructed with magnetic ballasts. This type of ballast had caused electrical fires on Camp Arifjan in the past and was subsequently prohibited by the fire marshal. Replacing these lights with only ballasts would have been extremely time-consuming, putting the project far behind schedule and not guaranteeing the same quality of work. The decision was made to order new light fixtures, but this happened later in the project timeline, pushing the delivery date even further to the right. The last major change in the scope of work was adding a fire alarm system interconnected throughout the buildings and networked to the fire department. The specifications which were given required materials which could only be shipped from the United States. Additionally, part of the drop ceiling had to be removed in order to install the alarm systems. These changes and lack of materials delayed the project timeline by more than two months.

The final challenge encountered with the RLB project involved the moisture trapped

in the walls from the leaking roofs. In March 2014, mold was found growing in some of the completed buildings. This brought the project to a halt and DPW was called in to make a determination. The legal process behind the Riabli Village project was complicated with many unanticipated nuances. The RLBs and Wet CHUs each had a certain worth at purchase (original cost). In order to be classified as a "refurbishment," the project could not exceed 20% of the original cost. This included the cost of plumbing fixtures such as showers and latrines. The battalion had to ensure that "project splitting" was not executed to stay under the mandated cost thresholds. In addition to the 20% rule, there is a cap of \$200K for Combined Acquisition Review Board (CARB) approval and \$750,000 for MILCON funds. Projects under \$750,000 are funded with O&M (operations and maintenance) money. All of these considerations led to a legal investigation and the project was put on hold until it was reviewed and justified.

In August 2014, the Wet CHUs were completed and can now accommodate more than 180 soldiers. The most valuable lesson learned was the importance of the planning

process. While the execution timeline can be compressed (by adding additional workers to the project, manipulating work hours, etc.), the planning process must be deliberate. Planning to start work only after all materials had arrived would have given us time to react to the poor quality of the received materials. Additionally, more planning would have identified the hidden costs to construction, allowing the legal review to weigh in on the true value of the project. This could have changed our course of action before ordering any materials and leveraging troop labor toward the project. Planning is the most essential part of any project and should never be understated due to a desire to begin construction as quickly as possible.

Another construction mission during the deployment was the repair of the main access route, Mubarak Road, from Camp Arifjan to the primary civilian thoroughfare, Kuwait's Highway 40. The November 2013 flood severely damaged Mubarak Road. The roadway was left crumbling, creating an unstable access route with an estimated load-bearing capacity of only 20 tons. The operation was a significant undertaking because the flooding occurred within the first week of the 19th EN BN's deployment. The Mubarak Road project consisted of fourteen separate phases and required the entire 15th EN Co. for the first three



◀ *In support of construction operations at Camp Arifjan, a soldier from the 76th EN Co. operates a concrete grinder while a fellow soldier waits with a hose to cool down the blade. PHOTO BY 1LT MICHAEL CADDIGAN*

months of the deployment.

Challenges with the mission stemmed from planning and resourcing, with both impacting the first phase of the Mubarak project. The 15th EN Co. began working on the roadway with vague plans and a focus on the most highly damaged area. This was an immense undertaking because the area of roadway exhibiting the most severe damage was a 300-foot section beginning at the intersection of Mubarak and Highway 40. The section required 2,100 loose cubic yards (LCY) of fill. This effort required 1,100 man hours and 500 equipment hours. After two weeks of work, a set of plans was approved for the area to include filling and burying eight sets of 7-foot HESCOs to be used as a barrier and support for the roadway. The nature of any emergency response project is a rapid reactionary effort following loose planning considerations and a commander's intent. The 15th EN Co. was able to solve both hasty planning and resourcing through Kuwaiti government assistance and efficient HESCO placement along the roadway. Kuwaiti engineers aided in the delivery of more than 1,000 LCY of fill in the area and provided police support for overnight security of the equipment. With the Kuwaiti engineers' assistance, the 15th EN Co. was able to mass enough equipment and fill on site to begin the project.

The project was not projected to be completed according to the original timeline because of consistent equipment breakdowns. Initially, operators reacted to equipment failure by ensuring additional time was taken to PMCS vehicles before and after each work day, blowing out filters and

checking fluids at least twice a day. Upon further review, we discovered that the state of the Theater Provided Equipment (TPE) was severely degraded and the availability of replacement parts was limited. This regular maintenance problem was one of the greatest impediments for the company, plaguing our operations for the entire deployment. The 15th EN Co. had to quickly adopt innovative and unconventional techniques in order to efficiently complete multiple projects in a timely manner. The approach to projects was a well-coordinated effort between all the line platoons and the maintenance team to locate mission-capable equipment at the highest priority projects. When a piece of equipment broke down, the equipment would be brought to a maintenance team and soon be replaced by a piece of working equipment from another platoon's jobsite. Once the equipment was repaired, it would replace the loaned equipment. This cycle was a daily balancing act that required the steady patience and diligence of everyone involved.

Many challenges were quickly overcome within the first month on ground. The majority of the fourteen phases was surveyed and planned out by the time the company had completed their first phase of the Mubarak Road project. Consequently, most of the fourteen phases were completed before the mission was handed over to Kuwaiti engineers in January 2014. Altogether, the 15th EN Co. moved over 5,000 LCY of sand, getch, and gravel to complete the roadway. The company completed phases quickly with no outstanding issues because of partnerships, platoon co-

hesion, a skillful maintenance crew, and soldiers' attention to the degraded equipment. The completion of these phases allowed for reinforced roads and pathways to be built that will prevent future structural collapses.

The November flood not only had an impact on the roads and structures outside the installation but severely damaged Camp Arifjan itself. These damages occurred across the installation, but the consequences were felt the most in Zone 6, the primary living area for more than 2,400 soldiers. This was due to the topography on post, creating a bowl in the center of the installation with no drainage system in place to allow water to exit the 25-foot tall force protection berm. After the storm, culverts were emplaced in two locations within the surrounding Zone 6 force protection berm, allowing an avenue of drainage for future flooding. This solution, however, would not have prevented the costly repairs needed after the storm. It was determined that an area designed to hold large amounts of water within a relatively short amount of time needed to be created. Zone 6 was equipped with an existing retention pond; however, because of the volume of water, it overflowed and flooded surrounding buildings, causing millions of dollars in damage. The 19th EN BN developed plans to expand the existing retention pond to mitigate flood damage from future storms. 15th EN Co. was tasked to create a larger retention pond in what would become the battalion's largest project.

This expansion created a massive retention pond 650 feet long, 250 feet wide, and 15 feet deep with 4:1 slopes

capable of holding 12 million gallons of water. The new retention pond was more than five times larger than the original by volume and was shaped to allow multiple entry points for water. The intent of this expansion was to provide a water holding area for the entire Zone 6 drainage system. Other projects were created to direct water from Zone 6 to the retention pond area. Rip-rap was used at the two main entrance points in order to dramatically decelerate large amounts of water and prevent damage to the side slopes. The remaining slope walls were compacted to prevent erosion from rainfall. The work area was surrounded by jersey barriers spaced three feet apart to avert civilian and other military traffic access. Once the new area was secured and cleared of concertina wire, pickets, and other spoil, the platoon began excavating material.

Plans called for the extraction of more than 70,000 LCY of material to create the new retention pond. While unearthing material for the expansion, the platoon was able to excavate 6,000 CY of getch material. Getch, similar to caliche, is a material used almost exclusively in the Middle East as a binding agent to hold together gravel, sand, or clay. This material was later used to support several other projects including road construction and route repair, saving ASG-Kuwait \$27,000 in material costs.

More than 20,000 CY of material was used to build up the force protection berm surrounding Zone 6, and the remainder was spread evenly off post. During the course of this 11-week project, the platoon expended more than 5,000 soldier hours and was able to

save ASG-Kuwait more than \$230,000 in construction costs.

While completing the retention pond, the platoon had between 25–30 soldiers, five dump trucks, five scrapers, six dozers, and a hydraulic excavator working daily in a relatively small area. This increased the risk of damage to equipment and injury to soldiers working around multiple pieces of heavy equipment. The 621B scraper was the primary tool used in the removal of spoil. Its struck capacity is 14 CY; however, it has the potential of a 20 cubic yard heaping capacity. The only way to achieve this with the material being excavated was by using the D7 and D9 dozers to push load the scrapers. This process took additional time and ground guides, but the reward far exceeded the alternative. Once in synchronization, each scraper had a turnaround time of 20 minutes. Between push loading scrapers, the dozers created a stockpile for the HYEX to load 10- and 20-ton dump trucks to increase efficiency. By using these methods, the platoon was able to remove up to 4,000 CY each day.

NCOICs and safety NCOs were placed in three different locations to ensure the safety of all personnel involved with the

project. The first location was overseeing dozer and scraper operations located at the bottom of the retention pond. This location was deemed the most critical because the scrapers were responsible for removing 80% of the material. The second oversaw HYEX and dump operations, focusing on personnel and equipment safety while overhead loading. The third NCOIC and safety NCO focused on traffic maneuvering on and off site, to include vehicle speed, gate access, and material placement. There were limited avenues of travel to extract existing spoil because of the size of equipment used and traffic occupying other routes. There was only one access gate to dispose of the spoil, making traffic control paramount.


The magnitude of this project and the condensed timeline forced the platoon to have equipment and soldiers on site and working 72 hours per week. Soldiers were required to perform the proper before, during, and after preventative maintenance checks and services on all equipment. Each piece of equipment was fully inspected every Friday by both operators and mechanics in order to prevent future breakdowns. This gave inex-

perienced operators a chance to become more familiar with their equipment. Soldiers had many opportunities to improve their operational skills. After learning the capabilities of each piece of equipment, the platoon was able to reduce equipment faults. However, maintenance issues inevitably occurred with equipment breakdowns because of the work environment and number of equipment hours.

Organization and coordination were essential to completing this expansion. The platoon leader and platoon sergeant briefed daily plans to narrow the soldiers' focus. Squads were broken down to smaller teams and tasked with individual missions to keep a high operational tempo and accomplish more in a shorter amount of time. On a daily basis, squad leaders, the platoon sergeant, and the platoon leader held a progress meeting to discuss the project status, any issues affecting mission completion, and soldier welfare in order to have precise oversight and understanding of the team. Maintenance teams were coordinated to have mechanics and contact trucks on site weekly to ensure equipment was properly maintained and functional throughout the mission. The

19th EN BN's own FSC provided fuel support on a daily basis, at times fueling more than 700 gallons in a matter of two hours. In total, the retention pond expansion consumed more than 10,000 gallons of fuel. Surveying teams provided constant support to ensure that the mission's intent was met according to the original plans.

This mission was not without its share of mistakes and challenges. Lessons were learned and plans for further training were developed after recognizing shortfalls. However, because of the hard work and dedication of the entire platoon, the project was completed on time. The platoon's success did not go unnoticed as they established a reputation on Camp Arifjan for completing large projects with minimal oversight. The Zone 6 Retention Pond Expansion Mission proved that proper planning, clear guidance, consistent follow-up, and proper coordination will lead to mission success.

Most importantly, the best practices and lessons learned have been passed on to the 528th EN BN which replaced the 19th as the new USARCENT Rotational EN BN in August 2014. 

1LT LESLIE A. MARTELL graduated from the United States Military in 2012 with a bachelor's



degree in basic science. She served as a vertical platoon leader for 12 months with 3rd Platoon, 76th EN Co. and is currently the 15th EN Co. XO.



1LT BRIAN BERGEMAN graduated from Metropolitan State University in Denver, CO, in 2012 with a bachelor's degree in marketing. After enlisting in the Army, he was selected for OCS and commissioned in April 2013. He graduated from EOBC, earning the Sapper Spirit Award. He served as the platoon leader for 3rd Platoon, 15th EN Co. during its deployment to Kuwait.



1LT FOLEY ROVELLO graduated with a bachelor of arts degree in psychology from the University of Texas at Arlington in 2012. She served as a horizontal engineer platoon leader for the 15th EN Co. during its deployment to Kuwait. She is currently a vertical engineer platoon leader. She is attending the University of Louisville in pursuit of her master's in social work.

PARTNERSHIP

by CPT ANTHONY OSMAN

PARTNERSHIP WITH THE KUWAITI ARMY was a new initiative for a USARCENT rotational engineer battalion. Brigade- and battalion-level leaders from both nations identified an opportunity to create a mutually beneficial partnership between the Kuwaiti Land Forces (KLF) EN BDE and the 19th EN BN. Previous partnership efforts between the rotational HBCT and Kuwaiti Army engineer units, while successful, were limited due to manpower limitations and dissimilar mission requirements. The HBCT's engineer expertise was comprised of one sapper company consisting of between 5 and 8 engineer officers. The HBCT's engineer core tasks are primarily offensive operations, focusing on breaching and force projection; this is incongruent with the Kuwaiti Army's defense-oriented mission. The 19th EN BN's six companies and two detachments contain a wider spectrum of engineering capability and create a similarly sized unit to partner with Kuwaiti Army engineers.

The execution of the partnership LOE began with a request from the KLF's 15th Armored Brigade to assist in repairing an installation access road within the Kuwaiti Army base. This prompted the first KLE between U.S. and Kuwaiti engineers. The engagement occurred on 27 November and marked the beginning of 19th EN BN partnership efforts. LTC Lloyd brought officers from our CMS to assess the damage to the road and assist in creating a recommendation for the KLF EN BDE Brigade commander, COL Bassil. The social portion of the KLE facilitated a conversation in which LTC Lloyd was able to lay out the 19th's mission in Kuwait and describe his intent of creating an enduring, mutually beneficial relationship. The initial engagement and assessment went well and opened the lines of communication between the two neighboring units.

The 15th BDE's direct-support engineer company proved to be a great partner with whom to work. The Kuwaiti Armored 15th BDE's (15th KAB) EN Co. provided input and insight into the construction plans to repair the washed-out access road. The plans called for a joint-effort between the two units, each contributing equipment and soldier manpower. Due to legal requirements, the Kuwaitis were required to purchase the materials needed to

restore the road. Government procurement of construction materials in Kuwait, much like in the U.S., can be a tedious process that requires a long lead time. The project was put on hold until the materials became available. The lack of procurement, however, did not halt partnership activities.

The 19th and the 15th KAB identified a mutually beneficial project that required no materials to execute: improvements to a security berm that

work which proved to be valuable later in the deployment during the KU 94th BDE's Range Project. The KU 15th BDE was a gracious host to our soldiers and afforded all our service members the opportunity to enjoy breakfast and lunch at their officer dining facility. Finally, during the subsequent KLEs and while the security berm project was being completed, the KU 15th BDE allowed the 19th to utilize their small-arms range. Camp Arifjan lacks range facilities and the partnership between the 19th EN BN and the KU 15th BDE allowed U.S. soldiers, Marines, and contractors to utilize the adjacent range in lieu of traveling to facilities more than 90 minutes away.

At the time of the first engagement, there was limited knowledge and understanding of the Kuwaiti Ministry of Defense task-organization. This would be identified as a key lesson learned as the battalion was unaware that the primary unit it was tasked to partner with was the KLF Engineer Brigade. The Kuwaiti Land Forces Engineer Brigade is the primary engineer unit under the Kuwaiti Ministry of Defense. During the first KLE, the 19th presumed that the engineer company was organic to the 15th KAB. However, the KLF EN BDE's 11th EN BN provides direct-support engineer companies to KLF maneuver BDEs. Once this was realized, the 19th reoriented its partnership efforts toward the KLF EN BDE and adopted a top-down approach instead of working directly with the EN BDE's subordinate companies.



▲ HHC CDR, CPT Matthew McDaniel, explains and demonstrates the M68 Close Combat Optic to 1LT Nouh Alosaimi. PHOTO BY CPT ANTHONY OSMAN

offered protection for both installations. The project was executed using D7 and D9 dozers from each unit. In addition to the interoperability and security improvements, the project provided a frame-

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The transition to partnering with the KLF EN BDE was made possible through weekly SLEs between the KLF EN BDE operations officer, LTC Mohammad Khammas, and the 19th EN BN operations officer, MAJ John Beck. These weekly SLEs allowed for an efficient medium for each organization to learn about the other and served as a precursor for a commander-to-commander KLE. During the SLEs, the long-term partnership was drafted while intermediate interoperability events and joint projects were executed. The first interoperability event focused on medical operations. Five 19th EN BN medical personnel conducted the event as a joint seminar with 42 soldiers from the KU 11th, 12th, and EOD EN BNs. The event demonstrated proper use of medical equipment, including talon litters and tourniquets, and explained the U.S. Army's doctrine of tactical combat care. The Kuwaiti engineer soldiers briefed their medical training methods and described the Kuwaiti Army's medical support system. One of the highest priority projects during the deployment was a partnership construction project to restore the 94th Kuwait Mechanized BDE's (KMB) small arms range. The range had been flooded for seven months because of improper drainage. This hindered our ally's ability to train on their installation. The 19th agreed to remove the water from the range. After successfully working with the 15th KAB EN Co. in the recent past, the 15th EN C. was tasked to assist in making improvements to the range at 94th KMB.

Repairs were not easy; the 26-foot perimeter walls created a giant soup bowl effect on top of the fine sand in the cen-

ter. The volume of water and the duration that it had occupied the area created a surface with two to three feet of mud. Moving heavy equipment in this area proved extremely difficult and complicated shaping and molding efforts to create the desired grade. In order to absorb the remaining moisture and soft mud, 3rd Platoon, 15th EN Co., mixed in existing material from the surrounding berm. They used up to five dozers simultaneously to create 12-foot berms, 100 meters long, which divided the lanes, thus separating the M16/M4 range from the handgun/pistol range. An additional 4-foot berm, 100 meters long, was fashioned at the far side of the range for the Kuwaiti Army to train on individual movement techniques (IMT). As 3rd Platoon developed the berms, they used two graders to slope the surface of the range in order to direct future rainfall away from the firing points and facilitate proper drainage on the range. This should prevent the soup bowl effect from returning following significant rainfall in the future.

3rd Platoon also relocated a range tower from ground level to the top of the Eastern perimeter wall. At its previous location, the base of the tower had been consumed by 6 feet of mud. The platoon used a hydraulic excavator to dig around the range tower, and then used a 22-ton crane to remove the tower before setting and transporting it on a M870A1 trailer. Its new location overlooks the entire range, creating better command and control for range officers. The platoon then created a drainage ditch extending 150 meters parallel to the western perimeter berm and behind the target line. The drainage ditch was planned as

a V-ditch no deeper than two feet. However, after working with the fine sands in that area, leaders determined that the 130G grader could not complete the task. The platoon used the hydraulic excavator to create the ditch due to its ability to straddle both sides of the ditch without pushing the fine sands back into it. A 6-foot platform was created on both sides of the ditch with a gentle slope leading toward it so that material would not fall directly in during the next rainfall. The final destination of this ditch is the newly emplaced retention pond. The platoon emplaced this retention pond capable of holding one million gallons. The pond was originally designed to be 50 meters long, 30 meters wide, and almost 4 meters deep. Provisions were made in order to keep the surrounding perimeter berm from collapsing into the pond by ditching two shelves into the side of the berm. With the additional work that the platoon completed in closing off the range to outside rainfall, the capacity of this new retention pond exceeded the requirements of the initial design.

During the process of completing the range, 3rd Platoon flattened two different grader tires at different areas on the range. After further investigation, the platoon noticed an abundance of metal debris just beneath the soil surface and on the surrounding perimeter berm. A squad-sized section unearthed more than 40 tons of metal spoil. The flattened tires proved to be a significant issue because of the location of our closest maintenance support team. The 94th KMB's small arms range, located just outside of Camp Arifjan, created an hour-long turnaround time for maintenance and fuel

support. The platoon leader and platoon sergeant anticipated this issue and coordinated for a contact truck to stay on site for minor issues and services. However, the contact truck did not carry tires. In turn, critical pieces of equipment were left inoperable until additional support arrived. The final week of the project coincided with Ramadan; the Muslim practice of fasting during daylight hours made it difficult for soldiers to keep hydrated and fed in 120-degree heat. It was important to show sensitivity toward the country's culture and Islamic faith. The 19th EN BN soldiers demonstrated this by eating and drinking inside a curtained bus and staying out of sight.

The horizontal engineering efforts provided by the platoon were successful and emplacing targets was the final step in making the 94th KMB small arms range fully functional. Suggestions have been made for slight improvements to the range in order to maximize its potential. One such idea was to use a soil stabilizer in and around the range. Providing getch and gravel would prove to be too expensive for an area of that magnitude since the materials are imported into the country. Other recommendations included pictures and plans from some of the best practices on how to take advantage of the newly created IMT lane. It was important for 3rd Platoon and the 19th EN BN to set the 94th KMB up for success and continue to build upon our strategic partnership.

The intent was met; 3rd PLT contributed more than 2,000 soldier-hours during the completion of this six-week project. The 94th KMB small arms range now has the capacity for 20 M16/M4 firing positions,




▲ COL Bassil, CDR of the KU Army's 26th Mechanized BDE, presents a possible joint construction project at the 26th BDE's small-arms range. PHOTO BY CPT ANTHONY OSMAN

double its previous capability. The surrounding walls were expanded and the entry road was crowned in order to prevent water from the surrounding area flooding the range site in the future. A new lane was created for training on IMT, and ideas were exchanged on how the lane could best be utilized for future training. The ground surface was sloped toward a newly emplaced ditch and retention pond so that rainfall will not pond or inhibit future training. 3rd Platoon, 15th EN Co., provided a solid footprint for a small arms range with future growth potential to accommodate the needs of the 94th KMB. Their efforts have strengthened the relationship between U.S. and Kuwaiti forces and resulted in an invitation to use the improved range for

future training and qualifications.

Partnership efforts continued to broaden during the deployment and new opportunities were identified. One of these new opportunities was the Kuwait Land Forces Institute (LFI), whose garrison houses the KLF EN BDE HQs, and who are responsible for training the majority of the Kuwaiti Army. The LFI was introduced to the 19th in spring 2014 by LTC Mohammad, and it was mutually agreed upon that the battalion would begin partnering with the LFI's engineer schoolhouse. The LFI engineer schoolhouse is responsible for training all Kuwaiti engineer soldiers, NCOs, and officers. A wide range of courses are offered, from basic, AIT, NCOES, and PME classes to equipment

specific instruction for cranes, dozers, and EOD operations. The 19th has coordinated with the incoming USARCENT rotational EN BN to conduct three interoperability events in support of the LFI engineer schoolhouse's FY15 courses.

The 19th EN BN's partnership efforts began in November and quickly expanded into what the BN CDR had intended, a mutually beneficial partnership among engineers. Through weekly KLEs, interoperability events, and joint construction projects, the conditions are set for the incoming USARCENT Rotational EN BN to broaden, refine, and improve the already beneficial relationship. 



CPT ANTHONY OSMAN graduated from Wright State University in Dayton, OH, with a bachelor's of science in economics and also commissioned from university's ROTC program. He served during the deployment as the Battalion Intelligence Officer and as the Commander of Headquarters and Headquarters Company.

MAINTAINING TACTICAL SKILLS

by **SSG (P) BRENT EDGETT**

4

AS A MODULAR engineer battalion, the 19th EN BN prides itself as being ready for any mission at a moment's notice. In keeping with that spirit, the Warrior Stakes competition was designed to train and evaluate soldiers on warrior tasks and battle drills while dealing with real-world scenarios. Warrior Stakes IV saw 43 squads consisting of seven to nine soldiers, each from the 19th EN BN, participate in the comprehensive training event located at Udairi Range near Camp Buehring, Kuwait. The competition took place during one of the hottest times of the year over a three-day period from 24-26 June 2014. Daily highs exceeded 116 degrees Fahrenheit and stronger-than-normal wind speeds blew sand and dust throughout the competition.

More than 400 soldiers and NCOs took part in the event which consisted of assembly, disassembly, and functions check for seven weapon systems, including the M9 pistol, M16/M4 rifle, M249 squad automatic weapon (SAW), M240B machine gun, M2 machine gun, M203/M320 grenade launcher, and the MK-19 grenade machine gun. Each soldier had the chance to fire all weapon systems during the competition. Squads were graded based on accuracy and number of targets engaged. A stress shoot comprising the three smaller caliber weapons tested each soldier's ability to overcome a rapidly increasing heart rate and body tempera-

ture; they performed three to five second rushes and both low/high crawls to transition from M9 pistol, to M16/M4, and finally to the M249 SAW. The live-fire range portion of Warrior Stakes IV also continued into the night as soldiers had to engage targets that were lit by chemical lights.

The Warrior Stakes competition also included a broad, scenario-driven lane that tested each squad's ability to shoot, move, and communicate as a team. The training area, centered around Joint Service Station (JSS) Gerber, was reorganized into twelve nearly identical lanes consisting of both natural and man-made roads, small villages of one- and two-storey buildings, various debris, and sand dunes. These realistic obstacles helped guide each squad through both mounted and dismounted operations. Squad leaders were issued Multiple Integrated Laser Engagement System (MILES) gear, complete Joint Service Lightweight Integrated Suit Technology (JSLIST), a full combat load of blank ammunition for each soldier, and smoke grenades to better simulate real combat conditions. Squads then had to plan their route to the objective and, before rolling out, conduct mission rehearsals with pre-combat checks and inspections. Along the way to their objective of setting up a line of sight omni-directional antenna (OE-254), the squads were challenged with several tasks. These included reacting to unexploded ordnance (UXO) while mounted, surviving an improvised explosive device (IED) detonation, reacting to both far and near ambushes with small arms fire or sniper fire, moving under fire, reacting to a chemical at-

tack while donning complete Mission Orientated Protective Posture (MOPP) 4, reacting to indirect fire (IDF), performing care under fire, and setting up a landing zone (LZ) for MEDEVAC. Proper radio communication was imperative as squads were graded on SPOT/SALUTE reports, call for fire missions, CBRN 1 reports, and 9-line MEDEVAC requests.


CSM Ethan Dunbar briefed his staff NCOs on his vision and left the ball in their court to develop, plan, and organize the event. The NCOs responsible for planning Warrior Stakes IV war-gamed several ideas using different approaches to accomplish the CSM's intent. Two and a half weeks later, after following the 10-step training model and utilizing the Military Decision Making Process (MDMP), a base order was published and briefed to the six companies that would take part in the event. From there, company first sergeants modified their Sergeant's Time Training (STT) events to make sure their soldiers had time to focus on the specific warrior tasks and battle drills which would be executed during the event. Although each company was briefed on a list of possible training events, the complete plan was concealed to help the battalion CSM discern which companies were fully engaging in proper training.

Platoon sergeants, consisting of select staff sergeants and sergeants first class, served as observer controllers (OC) for the event and were required to complete all events prior to the training plan being certified by the CSM. These OCs were instrumental in making sure each and every one of the 43 squads had the same realistic combat training experience. They served as the squads'

higher headquarters, support elements, and evaluators, while ensuring that no soldier suffered a heat-related injury or committed an unsafe act. They controlled every aspect of the lane to include when an IED or IDF attack would occur and how violently the OPFOR would engage the squads. The OCs also were responsible for resetting the lanes prior to the next training iteration.

Squad leaders received grades based on how efficiently they managed their soldiers. The grades combined both the range and lane portions to determine how well the leaders prepared their soldiers to complete each task to standard. One variation to the plan provided a genuine opportunity to assess of each squad leader's ability to lead soldiers. The night prior to the start of Warrior Stakes IV, all squad leaders were removed from their squad and put in charge of a squad from a different company. This surprise change tested not only the squad leaders' knowledge and leadership ability, but also challenged the soldiers' ability to adapt to a new leadership style. The change put more onus at the team leader level as they were forced to step up and make sure that their soldiers adjusted accordingly. When the dust finally settled and the Warrior Stakes IV training event concluded, every soldier came away with the knowledge that they had taken part in one of the largest, most physically and mentally challenging, 100% NCO-led, training events that the 19th EN BN had ever completed. The event also served as a validation exercise for two companies being deployed forward to Afghanistan in support of the Over-the-Horizon (OTH)

engineer support mission.

Maintaining tactical soldier skills ensured that the 19th EN BN had a successful deployment. Focus and violent execution allowed the battalion's accomplishments to surpass the expectations of ASG-Kuwait and USARCENT. Most importantly, the best practices and lessons learned from the event were passed on to the 528th EN BN. 



SSG (P) BRENT EDGETT served as the Battalion S-2 NCOIC for the duration of the battalion's deployment to Kuwait. He is a graduate of the Advanced Leaders Course and has served in the Army for nine years as a Military Intelligence Analyst. SSG Edgett has completed three overseas tours and has held leadership positions at battalion, brigade, and division levels.

◀ SPC Wrig, from the 304th Vertical Engineer Company, pulls security with her M249 Squad Automatic Weapon (SAW) machine gun as another member of her squad locates their objective during the lane portion of Warrior Stakes IV. PHOTO BY 304TH EN CO.

OVER-THE-HORIZON ENGINEER SUPPORT

by CPT BRENDAN KANE

5

DURING THIS deployment, the 19th EN BN deployed various elements throughout the CENTCOM AOR.

The requested force size for these missions ranged from two-soldier teams to multiple companies of more than a hundred soldiers. As CENTCOM's sole engineer asset in Kuwait, the 19th EN BN was prepared to deploy soldiers and equipment to adjacent theaters within days of receiving orders from USARCENT.

The first battalion mission from USARCENT ordered three route clearance subject matter experts to travel to Tajikistan in support of a theater security cooperation information exchange.

After coordinating with USARCENT G37 MAJ John Beck, CPT Tim Rhodes and 1SG Robert Lake traveled to Tajikistan in March 2014 as part of a small CENTCOM team. The primary goal of this operation was to teach and demonstrate

common U.S. Army route clearance tactics, techniques, and procedures to select Tajik military leadership, specifically Combined Arms Route Clearance Operations (CARCO). The seminar focused on the planning and execution facets of route clearance missions, as well as the integration of route clearance assets and enablers. The 19th EN BN team successfully built a relationship with the Tajik leadership and provided their military with a better understanding of the U.S. Army's route clearance doctrine, organization, and planning process. The military's long-term expectation is that missions such as this one will increase the interoperability capabilities of Tajik engineers with U.S. and NATO forces.

In late April 2014, USARCENT required the 19th EN BN to provide two interior electricians (12R MOS) in support of Task Force Safe, also known as Task Force Power, in Jordan. SGT Jonathan Gilbert and SPC

James Tucker of the 76th EN Co. (Vertical) were handpicked by their company commander for this mission and flew into Marka within days of receiving their amended orders.

Their primary objective in support of CENTCOM Forward-Jordan (CF-J) was to augment a USARCENT facility inspection team in country. SGT Gilbert and SPC Tucker assisted the team with finalizing safety assessment reports at various locations across Jordan.

Over a span of just two months, our electricians identified more than 70 major life safety deficiencies as a result of these assessments.

They inspected all CF-J sections inside the Combined Operations Intelligence Center (COIC) as well as Joint Training Center (JTC) Eager Lion in an effort to identify and correct potential safety hazards. In addition to making numerous electrical repairs, SGT Gilbert and SPC Tucker projected ad-

ditional electrical requirements for expansion projects and edited Statements of Work as required. The CF-J Chief of Staff, COL Hester, expressed his appreciation for the team's efforts after touring the COIC. SPC Tucker was nominated for the CF-J "Hero of the Week" multiple times over the course of two months and both soldiers received awards for their efforts. This mission was handed over to electricians from the 304th EN Co. in July 2014.

Shortly after deploying soldiers to Jordan, the battalion deployed a 30-soldier vertical engineer platoon to Bagram Airfield (BAF) in order to repurpose furniture from an outlying FOB into a U.S. Forces-Afghanistan (USFOR-A) Combined Operations and Intelligence Center (COIC). These forces, also from the 76th EN Co., were requested to support retrograde construction and deconstruction requirements within the CJOA-A.

Although their primary mission was to unload 51 containers and repurpose the contents, the platoon often completed this work faster than the containers could be delivered. The 133rd EN BN



◀ CW2 Enrique Rios—through the use of an interpreter—consults his local Tajiki guide regarding the local purchase of BOM to resource construction repair missions of local schools and medical clinics. PHOTO BY CPT ANTONIO PAZOS

was prepared for the delays and kept our engineer force engaged with several “side projects” and facility repairs on BAF. The 30-soldier platoon was commended for their carpentry skill in constructing 60 wooden barracks lockers.

Additional construction included supply shelving, concertina wire installation, a guard shack, multiple water sheds, and countless smaller projects. Once the platoon had unloaded their 40th container, the estimated arrival dates became more unreliable and several shipments were clearly vandalized prior to receipt. Nevertheless, the team was able to complete their primary mission, installing all reclaimed property into the COIC, prior to redeployment. This operation allowed other engineer forces operating at full utilization in the CJOA-A to complete their existing missions without interruption. The salvage of existing and unused property from an outlying FOB furnished the COIC at BAF while saving the government more than \$4 million.

Shortly after arriving in Kuwait, the 19th EN BN was planning contingencies to deploy two companies to execute construction and deconstruction in support of retrograde operations on BAF and Kandahar Airfield (KAF) in order to set conditions for Operation Resolute Support. After conducting a PDSS in April 2014, 19th EN BN leaders discerned that a shortage of available engineer equipment and a lack of urgency for OTH engineer forces would likely push this mission to incoming units from the Ohio Army Reserve. The 304th EN Co. (Vertical) and 961st EN Co. (Horizontal) arrived in Kuwait at the end of

May. Within days, the companies were executing theater-entry training requirements for Afghanistan and the battalion was preparing a culminating training exercise to validate the units. The modified request for assistance called for both companies and a robust 19th EN BN TAC to deploy to BAF in support of 2nd EN BDE or JTF Trailblazer. A continued shortage of engineer equipment on BAF necessitated that only one platoon from the horizontal company deploy in early July under the mission command of the 304th EN Co. Commander, CPT Timothy Welbaum.

The TAC, led by the S-3 OIC and S-3 NCOIC, had OPCON of the 663rd EN Co. (Horizontal) and 284th EN Co. (Vertical) that were already in theater as well as the 304th EN Co. (+) within one week on ground. After processing RFI, establishing accounts and cross-leveling equipment, the OTH force of more than 400 engineer soldiers began construction and deconstruction missions on BAF. These initial projects consisted of B-hut demolition, RLB relocation, and T-wall removal. The 304th EN Co. (+) also assisted the theater Expeditionary Civil Engineer Group in deconstructing tension fabric structures on BAF. The 528th EN BN assumed control of the TAC as well as mission command of subordinate OTH forces in late July as 19th EN BN forces returned to Kuwait for redeployment. The OTH mission in Afghanistan allowed the theater engineer brigade’s limited engineer units to focus on ANA force development and outlying retrograde missions.

Less than a month before redeployment, the 19th EN BN was tasked to provide two


Construction Management Subject Matter Experts (SME) to support the 57th Civil Affairs Detachment in Tajikistan. LTC Eric Lanpher, the USARCENT Civil Affairs Operations Officer, required engineer assistance in writing Statements of Work for ten projects, to include technical drawings and sketches, over a period of 16 days. The battalion selected CPT Antonio Pazos, a Professional Engineer (PE), and CW2 Enrique Rios to support this mission. They arrived in Dushanbe, Tajikistan, in mid-July.

Before Statements of Work could be completed, the team had to conduct engineer site assessments of numerous Tajik clinics and elementary schools, and visit a local BOM yard to estimate potential Class IV material costs. The key challenge for CPT Pazos and CW2 Rios throughout the operation was revealing economical solutions to major structural repairs which could save funds for other facility improvements. For instance, the determination that a school gymnasium’s concrete roof system required resealing as opposed to rebuilding freed up money to repaint the interior of the gym. CPT Pazos was especially resourceful in analyzing the capacity of a well-traveled bridge, utilizing USACE reachback for expert feedback from a structural engineer. As the team wrote Statements of Work for each assessment, CW2 Rios submitted sketches of the project sites to the 19th EN BN’s survey and design detachment in Kuwait for reproduction as AutoCAD drawings. All products were then submitted to LTC Lanpher for approval. The potential projects in Tajikistan included steel roof replacements, concrete floor systems, plastering walls, con-

struction of a reinforced-concrete bridge, and construction of two small water distribution systems.

The 19th EN BN effectively demonstrated the full breadth of engineer capabilities while executing OTH engineer support missions in Tajikistan, Jordan, and Afghanistan. Operational readiness, technical expertise, and violent execution allowed the battalion’s accomplishments to surpass the expectations of ASG-Kuwait and USARCENT.

Most importantly, the finished products and insights from each OTH mission were passed on to the 528th EN BN, which replaced the 19th EN BN as the USARCENT rotational engineer unit in August 2014.

The 528th EN BN will likely assume responsibility for some of the construction missions planned for Tajikistan. 



CPT BRENDAN KANE graduated from Villanova University in 2009 with a bachelor’s in history and a commission through the university’s ROTC program. He is a graduate of the Air Assault School and the Sapper Leader Course. CPT Kane served as the battalion’s Assistant S-3 Operations Officer for the duration of the deployment.