Summer 2023

Army Engineer

Magazine

CPT Joseph Palazini & CPT Matthew Cushing from the
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ARMY ENGINEER MAGAZINE

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Engineer 2030Force Design

Thanks to the Army Engineer Association for giving me the chance to talk about what Engineer 2030 Force (E30F) means for the talent in our Regiment. On a recent trip to Europe I had an opportunity to present Engineers there the "State of the Regiment" briefing. One of the hot topics continues to be the future state of Engineer force structure in the active component. Mid-grade leaders often ask, "Is there still a place for me in the Regiment?" My answer is always a firm and confident, "yes."

On May 25th the Vice Chief of Staff of the Army approved the E30F Force Design Update. His approval will set in motion the most significant rearrangement of active-duty Engineer force structure since the implementation of Brigade Engineer Battalions in 2014. The question I get most often from Engineers in the force is, "What does this mean to me?" In the coming paragrapsh I'll venture to answer that question and what senior leaders of the Regiment are doing to position it to capitalize on opportunities these changes present.

E30F is the culmination of over two years of iterative work to provide the active Army with the minimum combat credible Engineer capability. To accommodate contractions in end strength and the arrival of signature modernization efforts Army Senior Leaders directed the Engineer Regiment to generate options to return between 2,000 and 4,000 active Engineer spaces to the Army. The directed design requirements also included divestiture of Brigade Engineer Battalions in all Brigade Combat Teams, resourcing Engineer requirements in the Army's two Reinforced Armor Divisions, currently the 1st Cavalry Division and 1st Armored Division, and return approximately 3,000 spaces to the Army. The approved design meets those requirements and provides active component Engineers to all Divisions and retains a modicum of capability above the Division level. The most significant, and noticeable, reduction is the loss of 18 battalion headquarters and associated key and developmental positions that provide the professional development needed to grow future Engineer senior leaders for the Army. This is a significant change. Questioning whether there's a place for your in our Regiment is completely rational. So let me attempt to answer it for our varying grades.

Junior enlisted Soldiers won't see significant changes in their lives. Over half of the Engineer Regiment's reductions are covered by the reduction in Battalion HHC's and FSC's. If you are in a deactivating unit, expect to PCS to a new duty location and continue your mission.

Within our Non-Commissioned Officer ranks, again, the changes will not be particularly profound. E30F actually creates additional spaces at the Staff Sergeant and Sergeant First Class ranks. We do expect that the promotion rate to Master Sergeant will shrink, slightly, driven by the reduction in company guidons. Our requirements for Sergeants Major and Command Sergeant Major remain relatively steady. The new battalion headquarters design adds an Operations Sergeant Major within the S-3 section and the FDU adds one additional opportunity for Brigade level responsibility with the activation of the 7th Engineer Brigade in Europe.

COL JOSEPH C. "CLETE" GOETZ, II
COMMANDANT
U.S. ARMY ENGINEER SCHOOL

E30F

For our Warrant Officer Population, we assess that the overall reduction of eight CW2 positions is manageable and does not present significant challenges to the Regiment.

For Commissioned Officers the situation is more complex. Requirements for Colonels within the U.S. Army Corps of Engineers, and Colonels in general, remain constant. The pacing grade and skill to meet these requirements are Centrally Selected (CSL) Lieutenant Colonels, i.e. – battalion and district commanders. I assess that with the current array of key and developmental options that we will not be able to meet our CSL Colonel requirements at the end of this decade. We are taking action. There are opportunities here.

First, the Chief of Engineers made the decision to make the Commanders of the Trans Atlantic Expeditionary District (TAE), Huntsville Engineer Center, Engineer Research and Development Center (ERDC), and Humphreys Engineer Center Support Activity (HECSA) CSL Lieutenant Colonel Commands starting in Fiscal Year 2025.

Second, we are in the early stages of coordination to add Lieutenant Colonel commanders to the largest installation's Departments of Public Works. The Sustainment, Renovation, and Modernization (SRM) requirements at these installations is large and growing and the relationship between USACE and Installation Management Command in accomplishing this mission is self-evident. Further, adding an Engineer Commander frees up the Army Civilian Professionals to deliver the program with the continuity and experience it requires.

Third, I see an opportunity for further professionalization in our geospatial engineering core competency with Geospatial Planning Cell leadership provided by CSL Lieutenant Colonels in some of these billets.

I am exploring similar opportunities at the Captain and Majors levels on Forward Engineer Support Teams (FESTs), Brigade Engineers, and Deputy District Commanders, to be renamed "District Executive Officer" at Lieutenant Colonel level USACE districts.

If the above sounds like the shuffling of deck chairs, it is not. There is opportunity here. Whereas before success in the Engineer Regiment led only through experience and leadership in tactical units, this recasting of what is key and developmental creates pathways for a successful career that can capitalize on the knowledge, skills, and interests of officers with diverse interests. Further, officers leaving the Regiment frequently tell me that a dearth of opportunities to use their hard-earned technical skills is a reason they are leaving. Let me give you some examples.

For officers interested in facilities and construction there will be a path for a successful career in this area. Starting with Technical Engineer Development opportunities as young Lieutenants and Captains, through Deputy District Command as a Major, and culminating in District Command as a Lieutenant Colonel and Colonel. Similarly, our geospatially inclined officers can serve in geospatial related positions at the Captain, Major, Lieutenant Colonel, and Colonel levels. For those happy with the current career path that allows for diversity of experiences in tactical and USACE formations, that option remains. E30F gives us the opportunity align interest and skill with opportunities for successive growth and development in key areas of Engineering we have not had before.

The Engineer Regiment has served the Army and the nation since 1775. Change has been a constant since our foundation but our role as masters of terrain and construction has not and will not change. So, to answer your question of, "Is there a place for me in the Regiment?" the answer is clearly "yes." Continue to do your duty with the skill for which are known and there will always be a place for you. Thanks for all you're doing. You make me proud to be a part of the greatest Regiment in the Army.

Essayons…we will succeed.

Linda S. Mitchell, Editor
Army Engineer Magazine

Hello!

The Army Engineer Magazine's goal is to engage so we appreciate COL Joseph C. Goetz's insight into exciting changes that will shape the Engineer Regiment. In addition, this issue has highlights and awards from this April's Engineer Regimental Week in FLW, MO. Mr. Lawrence Nault and COL David Noble have a captivating feature related to a repatriation endeavor that is almost an eight decade aspiration. Dr. JoAnne Castagna gives us an example of how USACE supports the human experience. We have a teaser printed but the full article is in our digital magazine. We have an feature from 1LT Andrew Efaw that reminds us that being a Soldier is a confluence of Mind, Body, and Spirit. 1LT Christopher Ploch is our trusted guide to Saber Junction 22 training exercises held at the Hohenfels Training Area in Germany. MAJ William Allred shares with us the hands-on excellence of the 390th Engineer Vertical Construction Company, under the 412th TEC & 844th EN BN. LTC Dani Millien, MAJ Ben M. Cox, CPT Brent M. Stout, & Capt Paul A. Kantner have meticulously crafted a comprehensive overview of CONUS CBRN. Fall 2023 will have Part 2 of this article. 1LT Nathan Schmitt shines a spotlight on the 173rd Infantry Brigade Combat Team (Airborne) RSOI platoon as they embrace and support Soldiers and their families. MAJ Dan Gimm demonstrates how the Castle leaves its mark.

Lastly, congratulations to someone I call a dear friend and colleague, CSM Glenn Stines, USA Retired on a more than deserved Sapper Minor Award of Distinction.

Please continue to share your stories with us so we can share them with everyone.

Enjoy your summer!

Best,

Linda

In This Issue...

This photo: U.S. Marines assigned to a rescue team with the Chemical Biological Incident Response Force, carry a simulated casualty down a staircase while conducting search and rescue operations during Exercise Sudden Response at Fort Hood, TX 9 December 2022. Photo by SSgt Jacqueline A. Clifford, USMC.

Cover Photo: Courtesy of U.S. Army, Fort Leonard Wood.

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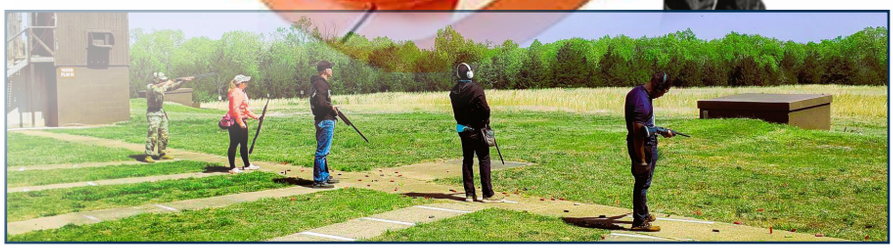
Trap Shoot

Team Competition
1st Place: AEA Sverdrup Chapter
2nd Place: 554th Engineer Battalion
3rd Place: TPO-GEO

Individual Competition
1st Place: MAJ Scott Darhower
2nd Place: MAJ Roland Prentice
3rd Place: Mr. Kevin Wiseman



AEA 1st Annual Trap Shoot Competition

CSM (Ret) Glenn A. Stines Received Sapper and Miner Award of Distinction

Mrs. Petra Stines joins MG (Ret) Bryan Watson and COL Joseph C. Goetz as they present the SMAD to CSM (Ret) Glenn Stines.

THIS YEAR, WE HONORED CSM (RET) GLENN A. STINES WITH A SAPPER AND MINER AWARD OF DISTINCTION, THE SECOND HIGHEST AWARD THAT THE ENGINEER REGIMENT BESTOWS UPON ONE OF ITS MEMBERS. CSM (RET) STINES IS AN ICON WITHIN OUR PROFESSION. HE SERVED 29 YEARS IN UNIFORM AND EARNED A REPUTATION AS AN EXPERT COMBAT ENGINEER, A SOLDIER'S SOLDIER, AND A LEADER WHO TRULY LOVED THE SOLDIERS HE SERVED.

UPON RETIREMENT, CSM (RET) STINES CONTINUED TO SERVE SOLDIERS AS LEADER IN THE ARMY ENGINEER ASSOCIATION FOR ANOTHER 24 YEARS WITH THE SAME PASSION FOR THE ENGINEER SOLDIER THAT HE HAD IN UNIFORM. HE DEVOTED 53 YEARS OF HIS PROFESSIONAL ADULT PROFESSION TO THE ENGINEER REGIMENT AND MADE AN INDELIBLE MARK ON OUR TRIBE! HE EPITOMIZES A SAPPER AND MINER OF DISTINCTION.

LAST YEAR MG MARK YENTER AND CSM IOAKIMO FALANIKO WERE AWARDED THIS POSTHUMOUSLY. COL (RET) PAUL CRANDALL AND COL (RET) RON DABBIERI JOIN CSM (RET) STINES AS THIS YEAR'S RECIPIENTS.

MG (Ret) Bryan Watson

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COL Samuel Volkman

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CW5 Thomas B. Black

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SGT Gabriel D. Chavez	C CO 169 EN BN
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SPC Sebastian Reyes	80th TC
PV2 Zolay Jimenez	D CO 554th EN BN
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CW2 Derik J. Liebenstein	554 EN BN
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PFC Dillon M. Smith	B CO 169 EN BN
SSG Rachelle M. Walters	1st BDE
PVT Noah K. Paon	D CO 554
SPC Zabalza M. Jose	80th TC
PVT Blaise M Wright	A CO 554 EN BN
SPC Diego A. Campana	B CO 169th EN BN
SSG Donald H. Martin	A 31st
2LT Delani L. Carter	B CO 554
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SGT Bryce R. Hankla	USAPPS
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PFC Noah Bielak 41st BDE EN BN

ACES

SSG Austin S. Parendo 84th EN BN

Geospatial Intelligence Assists in the Repatriation of Servicemembers Lost During World War II

By Mr. Lawrence Nault and COL David Noble

Photo by Grigory Bruev

During World War II, an estimated 350,000 American servicemembers were declared missing in action. While the majority of these Americans were recovered post-war, over 72,000 individuals remain unfound today. In 2015, the Secretary of Defense consolidated three agencies to form the Defense Prisoner of War / Missing In Action Accounting Agency (DPAA) charged with leading the nation's effort to account for missing DoD personnel from past conflicts DPAA and its predecessor organizations have recovered 1,447 remains aligned with World War II as the mission continues with the goal of recovering all of those that had fallen during the conflict since 1973.

DPAA's recovery operations in Europe include emphasis on battles that took place in the Hürtgen Forest of northwest Germany. These battles, which transpired from September to December 1944 between the more famous Operation Market Garden and the Battle of the Bulge, help provide DPAA with a broad geographical location as to where an estimated 200 U.S. Soldiers remain undiscovered who were directly involved in these battles. Recovery operations in the World War II era were in many ways inconsistent. Mishandling procedures affected deceased processing. This included 16 members of Company A, 295th Engineer Combat Battalion, whose remains were eventually recovered post-battle, albeit in a non-systemic manner. The DPAA was established in part to improve procedures while paying respect to the recovery mission. Dr. Ian Spurgeon, historian with the Europe-Mediterranean Directorate, DPAA, stated that "nearly 30 missing American soldiers were last seen during combat in the [German] villages of Kommerscheidt and Schmidt…in November 1944". DPAA works with the National Geospatial-Intelligence Agency's (NGA) Office of Geomatics (SFN) to leverage the sciences that deliver precision and accuracy within geospatial intelligence. Dr. Spurgeon further explained that "[DPAA] must use every historical and geographic resource we can to reconstruct the battle history and determine the most likely locations for such isolated graves".

NGA's capabilities within its SFN science domain includes its Coordinate Systems Analysis Team (CSAT), which provides datums, datum transformations, coordinates, coordinate systems, map projections, grid parameters, and grid data generation for geographic information systems (GIS) and other visualization and analysis tools. All of these forms of science go into the cartographic ability to navigate, target, and reference locations on the Earth accurately. These activities also require expert knowledge towards Geodetic Research to answer measurements on the surface of the planet to accurately determine positions on the Earth. DPAA leverages NGA's geodetic research capabilities and technical support to locate U.S. Servicemember's remains killed during the Hürtgen battle for identification and repatriation.

The Hürtgen Forest is the latest in NGA and DPAA's partnership. For this project, SFN used georeferencing, or the ability to relate a ground system of geographic coordinates to digital maps or aerial photos.

In previous support to DPAA, the CSAT leveraged this technique by matching features and coordinate system conversions from outdated local grid systems to systems on the currently-used and globally recognizable World Geodetic System 1984 (WGS 84) datum. WGS 84 is more commonly known in the U.S. for its standardization for cartography and satellite navigation including GPS. The Nord de Guerre (NdG) coordinate system, a grid system used and printed on maps of northern France and Germany during World War II, was the historical starting point for the CSAT investigatory process.

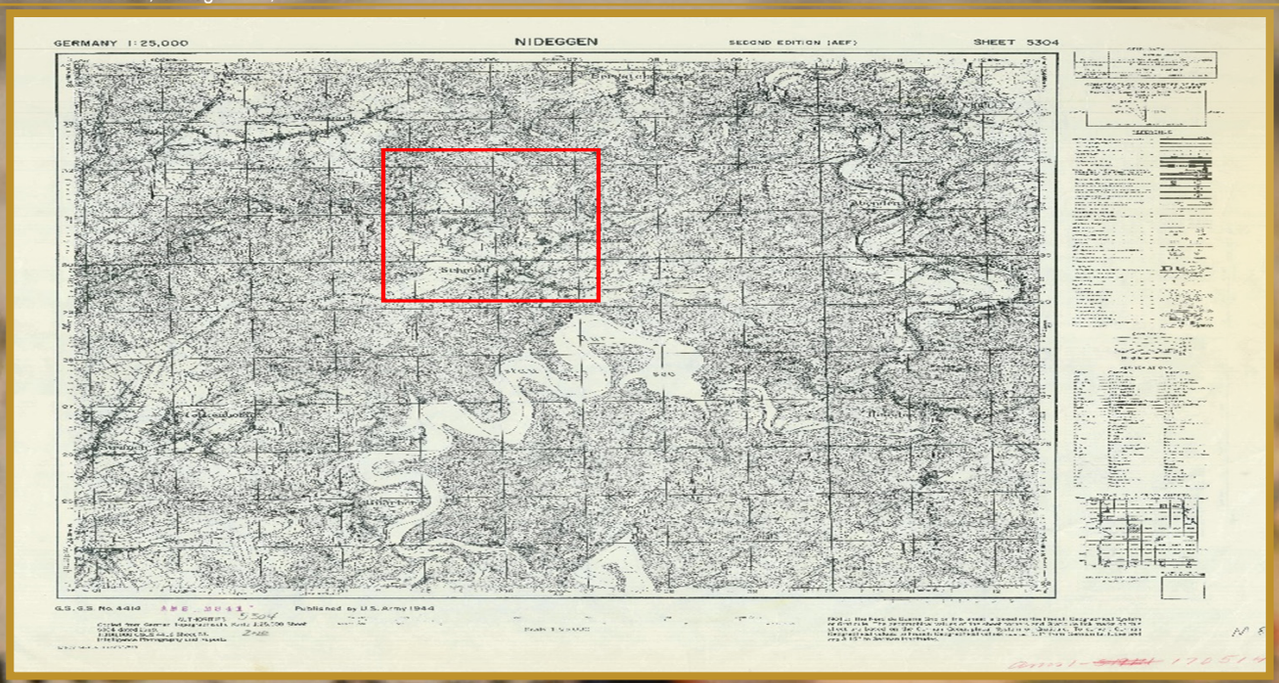
The DPAA provided a 1944 topographic map containing the NdG grid and several aerial reconnaissance photographs that covered the Hürtgen Forest battleground. The map contained geomatics information and grid metadata that gave clues on how to set up the projection and grid parameters in NGA's GIS software, allowing CSAT to generate the historical NdG grid in the modern-day GIS.

With the georeferencing of the Nideggen map and grid generation complete, analysis began on the World War II era aerial photographs. A process called rubber-sheeting or image warp was used to match identifiable features on the images with the same features on the map. The most prominent feature seen in this case were road networks where intersections, bends, switchbacks, and other features were used to geospatially match imagery to the map. The CSAT was able to compare portions of the Nideggen map to post-battle aerial photos to more precisely align data elements to create gridding effects. Dr. Spurgeon appreciated the effort, reflecting that "the digital overlays, which combined modern satellite imagery, historical aerial imagery, historical maps, the Nord de Guerre grid system, and various meter measurements, are among the most useful geographical tools we at DPAA have for our Hürtgen Forest Project".

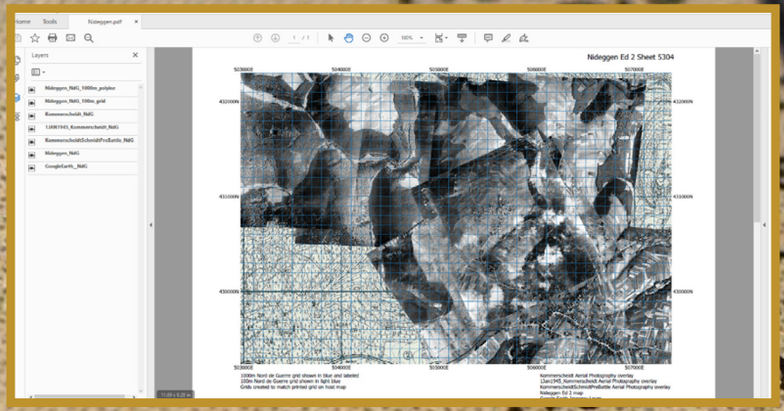
Using the GIS software, the CSAT was able to condense finished products as digital files for Adobe Acrobat Reader. These files allowed DPAA the flexibility to select individual layers, zoom in and out, and adjust display settings so that analysts could determine the raw NdG coordinate location within their 100-meter grid square. Image quality was partially sacrificed in favor of reducing file sizes, making electronic delivery optimal while still providing usable products. "I will also say that the digital rendering in the *pdf file*, is the most useful format for the historian's work. Being able to easily and instantly flip between layers allows the historian to locate a historical reference point and accurately assess its current appearance in a matter of moments."

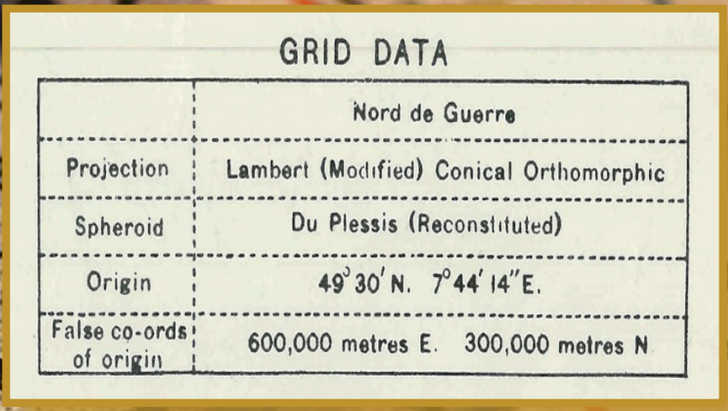
In 2021, DPAA partnered with the University of Osnabrück to conduct a geo-sensing survey of fields north of Kommerscheidt. That survey helped prepare a DPAA-led expedition in prioritizing their search parameters for investigatory trips to Germany. During a 2022 mission, the DPAA was able to repatriate Army PFC William Simon, who was killed in the battle of Hürtgen Forest. The DPAA team traveled again to the Hürtgen Forest in March 2023 for on-the-ground analysis of these highlighted areas, using the NGA digital overlays as critical tools in the support to repatriate more U.S. fallen servicemembers.

A World War II era map of Nideggen, Germany, containing the 1000-meter NdG grid and the Hürtgen Forest battleground as indicated in the red box. Graphic Courtesy of U.S. Army Map Service (AMS) map Sheet 5304, "Nideggen," 1:25,000, November 1944, Record Group 77:Records of the OCE, National Archives and Records Administration, College Park, MD.



Maps below : Courtesy of U.S. Army Map Service (AMS) map Sheet 5304, "Nideggen," 1:25,000, November 1944, Record Group 77: Records of the OCE, National Archives and Records Administration. Figure 4: 325th Photographic Reconnaissance Wing 8th Air Force and the 363rd Tactical Reconnaissance Group 9th Air Force, USAF, 1945, Nideggen road intersection, Düren District Government's Environmental office, Düren Geospatial Department, Umweltamt | Kreis Düren (kreis-dueren.de). Figure 5, Source: Kommerscheidt road intersection. Google Earth (Nault, LN. (2021). GE intersection.png. NGA, SFNAD, St. Louis, MO. www.google.com/earth/).





GRID DATA

	Nord de Guerre
Projection	Lambert (Modified) Conical Orthomorphic
Spheroid	Du Plessis (Reconstituted)
Origin	49° 30′ N. 7° 44′ 14″ E.
False co-ords of origin	600,000 metres E. 300,000 metres N

Figure 3: Triangle road intersection found on the Nideggen map

Figure 4: post-battle aerial photo of the triangle road intersections, Jan 1945

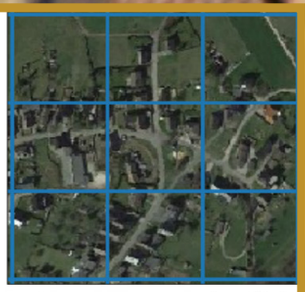


Figure 5: 100-meter NdG grid of triangle road intersection using

Mr. Lawrence Nault is a Geodetic Earth Scientist on the Coordinate Systems and Magnetics Branch in the NGA's Office of Geomatics, and was the lead scientist that supported DPAA activities in this article.

COL David Noble is the Military Deputy for the NGA Foundation GEOINT Group. COL Noble previously served as the Command Engineer, US Southern Command, and commanded the 40th Brigade Engineer Battalion, 1st Armor Division.

Coney Island Turns 100!

Preserving an Iconic Beach for Future Generations

By JoAnne Castagna, Ed.D.

It the late 19th Century, Coney Island was America's biggest and most visited seaside resort and amusement park destinations, boasting some of the largest and most luxurious hotels in the country, fancy fish houses and racetracks. It was so internationally famous that it was compared to the Eiffel Tower in Paris and the Pyramids of Egypt. Jetties are long, narrow structures that protect the shoreline of a body of water by acting as a barrier against erosion from currents, tides, and waves.

In the early 1990's the Army Corps began working on the beach in collaboration with the Parks Department and the NY State Department of Environmental Conservation. They started the Coney Island Shoreline Protection Project to restore the beach that was eroding and was putting the coastal community at risk. The Army Corps does this not just because the beach is historic, but more importantly because it plays a role in protecting the community from coastal flooding and sea level rise.

The Army Corps restored approximately 3-miles of the beach front with dredged sand, increasing its height and width and created dunes. Replenishing sand and creating dunes on a beach can help to reduce future coastal storm risks. A beach's size, shape and sand volume help determine how well the beach can reduce risk to a developed community during a storm. Sand and dunes act as a buffer between the waves and storm water levels and structures landward of the beach.

To slowdown future beach erosion, the Army Corps placed 600 tons of stone and approximately 35,000 cubic yards of sand adjacent to a groin located on the western portion of the Coney Island peninsula in Sea Gate. Groins are shoreline structures that are perpendicular to the beach that are designed to retain sediment from moving along the shore and help maintain the wide beaches by minimizing or slowing down erosion. Placing stone and sand adjacent to the groin will help prevent storm induced waves from reflecting off the sides of the groin sideways along the shore, causing the shore to erode further. In 2001, a stone revetment was constructed near this groin to further slowdown beach erosion. A stone revetment is a wall that protects against erosion caused by wave action, storm surge and currents.

However, just as things were picking up for the historic park, it faced a new challenge in October 2012 – Hurricane Sandy, a storm like no other. Sandy's intense winds created an unexpected storm surge that created 14-foot-high waves that pushed sand and water up and over the boardwalk, merging with water from Gravesend Bay and Coney Island Creek, inundating the entire peninsular from every direction. Almost every establishment was flooded with water and sand including the amusement park, aquarium, the subway system, the Coney Island Hospital, as well as many houses and high-rise apartment buildings.

Immediately after the storm, the Army Corps was on the ground responding, both through its own response authorities and providing disaster response assistance for the FEMA. The Army Corps received funding and authority to restore Coney Island with the Hurricane Sandy Disaster Relief Appropriations Act of 2013 or "Sandy Bill." Mr. Anthony Ciorra, Chief of Coastal Restoration & Special Projects Branch with the New York District, USACE and project manager for the Coney Island Shoreline Protection Project from 1995 to 2004 affirmed that, "The analysis showed that the communities located near beaches that had previously received beach nourishment and dune construction sustained less damages and saved billions of dollars in avoided damages." To repair damage approximately 580,000 cubic yards of sand was placed onto Coney Island Beach.

In 2016, the Army Corps performed additional measures in Sea Gate, to further reduce erosion. This work included constructing four stone groins and placing 75,000 cubic yards of dredged sand around them, as well as placing stone near an existing groin and an existing dike received additional stone armoring.

After Hurricane Sandy, Coney Island bounced back, and the parks were able to reopen the following year, making that year's annual Mermaid Parade and Nathan's Hot Dog Eating Contest, extra meaningful for visitors. However, the Army Corps' work has not ended. It wants to make sure that the area can better withstand the wrath of future Sandy-like storms and sea level rise, so it's created the NY and NJ Harbor and Tributaries Coastal Storm Risk Management Feasibility Study.

Read full article in Summer 2023 Digital Version.

Dr. JoAnne Castagna is a public affairs specialist and writer for the U.S. Army Corps of Engineers, New York District. She can be reached at joanne.castagna@usace.army.mil.

TOUGH

By 1LT Andrew Efaw

Paratroopers from 1st Platoon, Bastion Company hike through the snow in the Altopiano on the second day of their Tough In Spirit hike. Photos by CH (CPT) Snyder.

IN SPIRIT

Last December, my Platoon attended a 48-hour "Tough In Spirit" hike with our Battalion Chaplain, CH (CPT) Bert Snyder. I learned—and briefed my Paratroopers—that it would be a challenging experience that would give us an opportunity to learn about each other and form bonds.

After summiting a nearly 2300-meter peak and hiking 13 miles on the first day in 60-degree sunny weather, we camped at a refugio in Asiago and CH Snyder taught a block of instruction on the importance of spirituality as members of the profession of arms. The next morning, we awoke to four inches of fresh snow, with more accumulating at a rapid rate.

We hiked another eight miles through the cold, wet Asiago Dolomites that morning, experiencing a gritty exposure to the elements through one of the most beautiful landscapes on Earth.

Despite the conditions, the hike was easy because my Platoon endured it as a collective. As we lost elevation on our hike down the mountain, the snow transformed into frigid rain, magnifying the intensity of the cold. I noticed ones and twos—then suddenly the whole Platoon—began singing songs and cadences. We finished the hike drenched and freezing, but in a cheery mood. This is the essence of the Tough In Spirit mission—to put small units of Paratroopers through a tough experience, educate them on spirituality, and prepare them for combat.

FM 7-22 Holistic Health and Fitness recognizes Spiritual Readiness as one of the five pillars of the Soldier Readiness System. Just as we routinely plan and execute training for physical fitness and tactics, leaders must also prepare their Soldiers for the moral challenges they will encounter. But spirituality is a difficult component of readiness to train and it often gets overlooked. The more tangible physical and tactical competencies dominate training calendars. The end result is that Soldiers are less equipped to navigate the ethical challenges they encounter in life. "One of the big problems we saw was a high number of SIRs (Serious Incident Reports) throughout the Brigade. SHARP, domestic abuse, and DUIs happened frequently," CH Snyder said. "Something I saw a lot is that our Paratroopers are lacking a sense of purpose." In response, COL Michael Kloepper, Commander, 173rd Infantry Brigade Combat Team (Airborne), met with the Brigade's Chaplains and

brainstormed how to solve this crisis. They established a vision to inspire purpose within Sky Soldiers through shared hardship.

Working with the Brigade Staff, each Battalion Chaplain came up with a plan, putting his own spin on it. CH Snyder selected the Altopiano in northern Italy for his Tough In Spirit initiative. The mountainous Altopiano was the backdrop for much of World War I and today sustains an agricultural society. "Here we can introduce our Paratroopers to cuisine and wine and Grappa that they may not otherwise have been exposed to," CH Snyder said. "If they have a relationship with their food and can develop an awareness of what is out there, they can have a better understanding of what they are putting in their bodies and start enjoying the culture and make memories out of it rather than experiencing the continual numbness and monotony they experience on Del Din." The Altopiano also offers a vast array of austere terrain. To date, CH Snyder has led 14 Platoons through on movements of up to 30 miles over 48 hours.

The training is meant to be difficult. CH Snyder designed his hike to be challenging, but fairly short in duration. This way, Paratroopers can have an end in sight and persevere through the tough conditions and feel accomplished at the end. Meanwhile, he gives short blocks of instruction and facilitates conversation. CH Snyder believes his initiative can remedy many troubles our Paratroopers are enduring at the individual level. "The things we expose these Paratroopers to on the hike can give them purpose and inspire them to 'be all they can be' even in Garrison," he said. Our Paratroopers need to have purpose; we expect them to excel and progress with their physical fitness and military competence. We must also demand that they develop their spiritual readiness, which is the cornerstone of the intangible components underpinning a successful military—leadership, character, and morale. "Our Paratroopers must be ready to deploy, take life, and even give their own, without experiencing moral injury," said CH Snyder. "They cannot do that if we do not prepare them spiritually."

Tough in Spirit is a step in the right direction in developing our Paratroopers into leaders and warfighters of character. Gathering data from throughout the Brigade to include SIRs, physical fitness, retention, and more, the 173rd Brigade Surgeon has found that Paratroopers who have attended a Tough In Spirit initiative have a 70% risk reduction as it relates to their deployability when compared to peers who have not conducted a Tough In Spirit hike. Moving forward, CH Snyder hopes to improve the metric tracking for spiritual toughness and decreasing high risk behavior. Additionally, he is considering adding different types of stressors—like rappelling or an avalanche rescue scenario—to bolster the cohesion from the hike.

Above: Paratroopers from 1st Platoon, Bastion Company hike up a mountain in the Altopiano on the first day of their Tough In Spirit hike. Photo by 1LT Andrew Efaw. Photo below by CH (CPT) Snyder.

1LT Andrew Efaw serves as 1st Platoon Leader in Bastion Company, 54th Brigade Engineer Battalion (Airborne), 173rd Infantry Brigade Combat Team (Airborne) in Vicenza, Italy. He graduated from the United States Military Academy in 2021 with a B.S. in Mathematics.

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The Army must be prepared for conflict in a range of settings with complex strategic and operational variables. What investments in Leader Development and Modernization should Army Engineers prioritize now to ensure we are ready for the challenges of the Pacific and European theaters?

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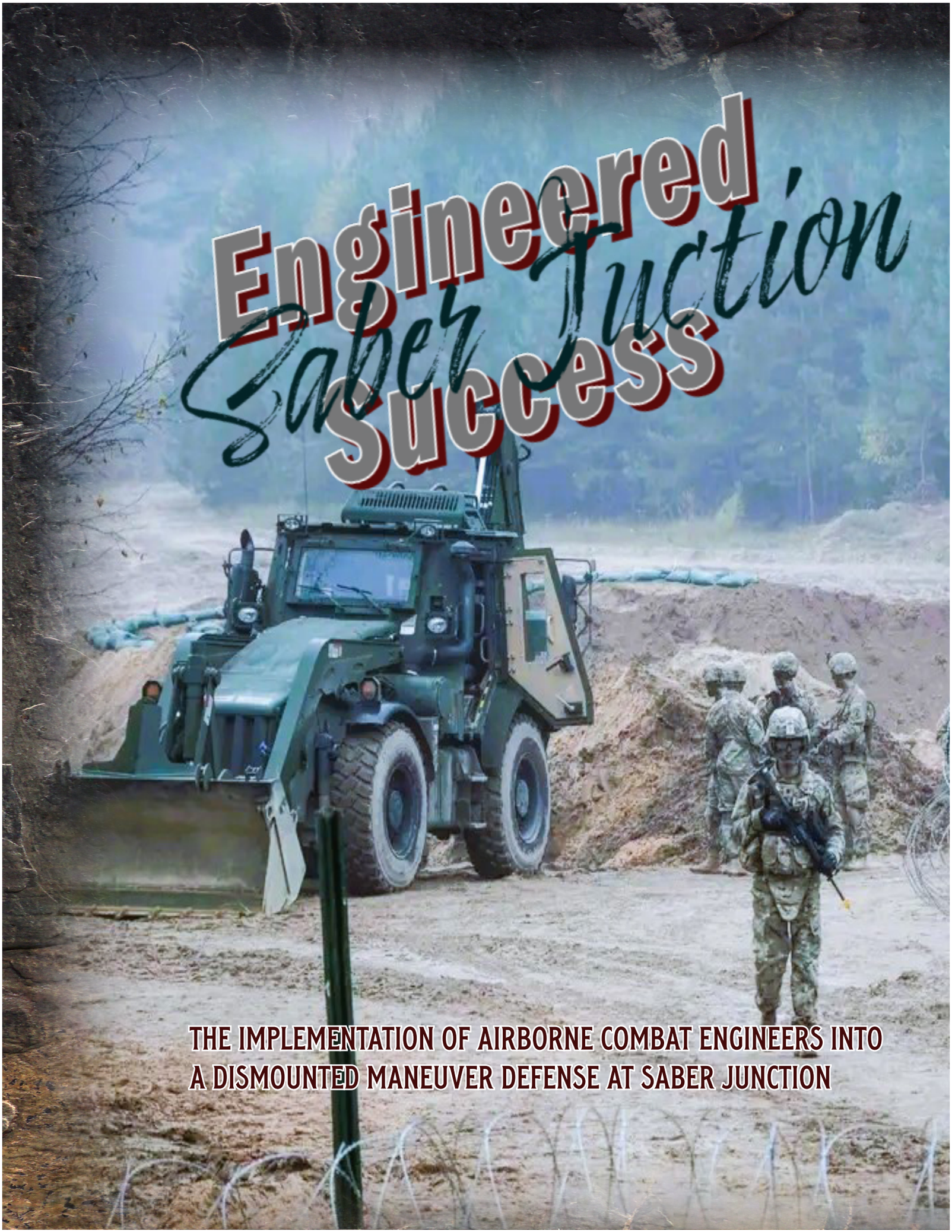
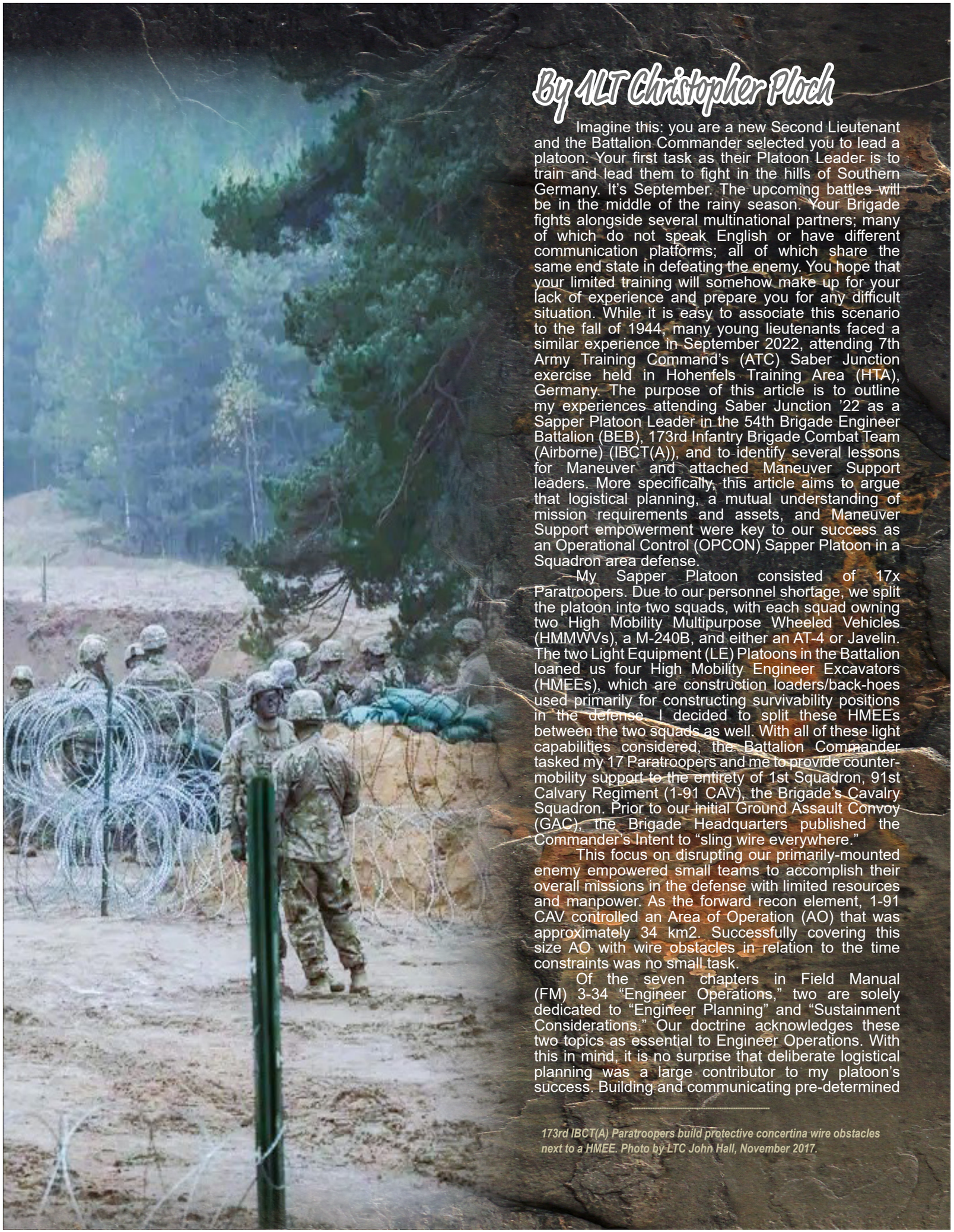

Engineered Success
Saber Junction
THE IMPLEMENTATION OF AIRBORNE COMBAT ENGINEERS INTO A DISMOUNTED MANEUVER DEFENSE AT SABER JUNCTION



By 1LT Christopher Ploch

Imagine this: you are a new Second Lieutenant and the Battalion Commander selected you to lead a platoon. Your first task as their Platoon Leader is to train and lead them to fight in the hills of Southern Germany. It's September. The upcoming battles will be in the middle of the rainy season. Your Brigade fights alongside several multinational partners; many of which do not speak English or have different communication platforms; all of which share the same end state in defeating the enemy. You hope that your limited training will somehow make up for your lack of experience and prepare you for any difficult situation. While it is easy to associate this scenario to the fall of 1944, many young lieutenants faced a similar experience in September 2022, attending 7th Army Training Command's (ATC) Saber Junction exercise held in Hohenfels Training Area (HTA), Germany. The purpose of this article is to outline my experiences attending Saber Junction '22 as a Sapper Platoon Leader in the 54th Brigade Engineer Battalion (BEB), 173rd Infantry Brigade Combat Team (Airborne) (IBCT(A)), and to identify several lessons for Maneuver and attached Maneuver Support leaders. More specifically, this article aims to argue that logistical planning, a mutual understanding of mission requirements and assets, and Maneuver Support empowerment were key to our success as an Operational Control (OPCON) Sapper Platoon in a Squadron area defense.

My Sapper Platoon consisted of 17x Paratroopers. Due to our personnel shortage, we split the platoon into two squads, with each squad owning two High Mobility Multipurpose Wheeled Vehicles (HMMWVs), a M-240B, and either an AT-4 or Javelin. The two Light Equipment (LE) Platoons in the Battalion loaned us four High Mobility Engineer Excavators (HMEEs), which are construction loaders/back-hoes used primarily for constructing survivability positions in the defense. I decided to split these HMEEs between the two squads as well. With all of these light capabilities considered, the Battalion Commander tasked my 17 Paratroopers and me to provide counter-mobility support to the entirety of 1st Squadron, 91st Calvary Regiment (1-91 CAV), the Brigade's Cavalry Squadron. Prior to our initial Ground Assault Convoy (GAC), the Brigade Headquarters published the Commander's Intent to "sling wire everywhere."

This focus on disrupting our primarily-mounted enemy empowered small teams to accomplish their overall missions in the defense with limited resources and manpower. As the forward recon element, 1-91 CAV controlled an Area of Operation (AO) that was approximately 34 km2. Successfully covering this size AO with wire obstacles in relation to the time constraints was no small task.

Of the seven chapters in Field Manual (FM) 3-34 "Engineer Operations," two are solely dedicated to "Engineer Planning" and "Sustainment Considerations." Our doctrine acknowledges these two topics as essential to Engineer Operations. With this in mind, it is no surprise that deliberate logistical planning was a large contributor to my platoon's success. Building and communicating pre-determined

173rd IBCT(A) Paratroopers build protective concertina wire obstacles next to a HMEE. Photo by LTC John Hall, November 2017.

Combat Configured Load (CCL) drop locations was essential to supplementing the limited amount of CLIV (construction materials) my platoon could carry in our HMMWVs and HMEEs. We planned these CCL drop locations to be in the treelined under overhead concealment and separated from key terrain features or intersections.

The overhead concealment prevented its identification by enemy Unmanned Aerial Surveillance (UAS) and its destruction by enemy Indirect Fire (IDF). This allowed the unit commanders to assume the risk of leaving the CCLs unattended. After creating these drop points, communication became the most essential piece to ensure logistical success. I communicated with the Squadron Logistics Officer (S4), Forward Support Troop (FST), and Troop Leadership to ensure all interested parties understood the CCL drop locations via a 10-digit grid location and a short description. These well-planned and well-understood logistical supply points offered the Squadron a more expedient method for my Sapper Platoon and for the Troops to resupply their CLIV. In an area defense with a detailed timeline, this convenience allowed my platoon to dedicate more of our time to obstacle emplacement. Without this convenience, we would otherwise use that time to coordinate a resupply from the FST and organically transport the CLIV Army Doctrine Publication (ADP) 6-0 "Mission Command" defines its namesake as "the Army's approach to command and control that enables unified land operations."

The doctrine then outlines shared understanding as one of the seven principles of Mission Command. With Bulldog Troop, 1-91 CAV, this concept was key to our success. During our initial meeting at their Company Command Post (CP), we first discussed Bulldog's common operating picture and mission. Second, we discussed the capabilities and assets my Sappers brought the fight. These two topics, albeit simple, provided the foundation for the successful implementation of a Maneuver Support element. As soon as we arrived, my Non-Commissioned Officers (NCOs) and I understood the Troop Commander's current disposition and his intent for the area defense. In turn, we ensured he understood how we could most effectively enable him to accomplish that intent.

To provide an example: the Troop Commander showed me a corridor on the map that represented a key weakness in his defensive plan. If the enemy penetrated that corridor, they would have had access to a multitude of side trails leading to each of his scouts' defensive positions. I outlined the resources and obstacles we had available to provide a blocking effect along that corridor, to include Selectable Lightweight Attack Munitions (SLAMs), Concertina Wire (C-Wire), and Anti-Vehicular Ditches (AVDs). I explained the specifics for their individual employment. SLAMs offer versatility through bottom-attack, side-attack, timed demolition, and command detonation options, as outlined in TM (Training Manual) 3-34.85, pages 7-16. They also offer seven self-destruct time selections ranging from 15 minutes to 24 hours. The C-Wire accomplishes different obstacle effects depending upon its emplacement. An Eleven-Row C-Wire obstacle can block a

Photo left: Paratroopers emplace the third strand of concertina wire on a Triple Standard Concertina wire (TSC) obstacle. Photo by LTC John Hall, November 2017. Photo right: Paratroopers prepare to unravel a strand of concertina wire in front of a HMEE. Photo by LTC John Hall, November 2017.

tank on its own, but requires a significant amount of C-Wire, pickets, and barbed wire.

Meanwhile, a Double Helix or Triple Standard C-Wire (TSC) obstacle can supplement a minefield or AVD to achieve a blocking effect and requires much less CLIV. The HMEE operators may construct triangular or rectangular AVDs in accordance with ATP (Army Training Publication) 3-90.8, pages C-2 and C-3. While rectangular AVDs are more effective as a blocking obstacle, they do require more time and fuel to emplace. After briefing the Troop Commander on these capabilities, I finished by offering my recommendation to emplace a SLAM bottom-attack minefield with a 24-hour self-destruct time supplemented by Double Helix C-Wire. In total, this conversation took 15 minutes, at a maximum, but its effects on a shared understanding and overall mission success were immense.

The last key to the successful implementation of my Sapper Platoon into 1-91 CAV was our empowerment by the Troop Commanders. To continue on the Bulldog Troop anecdote, our mutual understanding laid the foundation for this empowerment because of the confidence it built. At that point in time, my platoon understood the Troop Commander's detailed defensive plan, to include the planned obstacle effects throughout the AO. Simultaneously, the Commander understood our assets and capabilities and gained confidence in our expertise based on our recommendations.

From that point on, his standing orders were to generally emplace obstacles throughout the AO according to his intent; he delegated the specifics to us unless they required his support. Because of this empowerment, my Sappers and I were able to work uninterrupted on our obstacle emplacements and completed multiple obstacle belts before needing to return to the CP for a resupply or further guidance. By the end of the defensive phase of Saber Junction, 1-91 CAV had emplaced all available C-Wire, mostly because of the time saved by the Troop Commanders' trust in our abilities and our understanding of their mission plans. Our empowerment may have been relatively small in its intention, but it was enormous in its effect.

While one of my squads and I were working with Bulldog Troop, my other squad and Platoon Sergeant worked with Comanche Troop. Nevertheless, the same principles contributed to their measured success in Comanche's AO. The time afforded to them by the CCL drop locations, their understanding of the defensive plan, and their empowerment to achieve the intent produced results. Within this AO, the squad built a complex obstacle comprised of an AVD and TSC. This obstacle blocked a Battalion-sized enemy armored column attempting to move north. This block forced the column, consisting of over 30 tracked vehicles, to move southeast directly into 2nd Battalion, 503rd Infantry Regiment's (2-503 IN) primary engagement area. In this situation, the same conditions and principles yielded the same quantifiable results.

By the end of our time at Saber Junction, my Sapper Platoon had successfully implemented ourselves into 1-91 CAV's area defense. Through a detailed and well-communicated logistical plan, a shared understanding of mission plans and capabilities, and our empowerment by the Troop Commanders, 18 Airborne Sappers enabled the Calvary Squadron to accomplish their mission. Ultimately, we achieved the Brigade Commander's intent to "sling wire everywhere." My hope is that Maneuver and Maneuver Support leaders take these three key lessons and apply them to their next training rotation or field problem. Engineers and other Maneuver Support elements are combat multipliers for a reason; support them logistically, understand their capabilities, and empower them to maximize combat effectiveness.

1LT Christopher Ploch serves as a Sapper Platoon Leader in the 54th Brigade Engineer Battalion, 173rd Infantry Brigade Combat Team (Airborne), located in Vicenza, Italy. He holds a B.S. in Mathematical Sciences from the United States Military Academy.


Excellence Through Hands-on Work

Castle Upgrade

By MAJ William Allred

"Great to see Soldiers get in there and make a tangible difference," wrote LTG Jody Daniels, the Chief of the Army Reserve, via social media. "(Castle Upgrade) is a fantastic project, and I'm excited to see the results. Keep up the great work."

The 390th Engineer Vertical Construction Company (EVCC), under the 412th Theater Engineer Command (TEC) 844th Engineer Battalion, boosted their hands-on skills by improving Vicksburg's BG George A. Morris Army Reserve Center (MARC) via five high-impact engineering projects during Operation Castle Upgrade from 6-17 March. It is not every battle assembly that Army Reserve engineers get to perform their Military Occupational Specialty (MOS) – carpentry, heavy machinery operations, paving, and the like – versus standard Army Soldier tasks – Army Combat Fitness Tests, range operations, staff exercises, and the like. To remedy this, the 412th TEC created Operation Castle Upgrade centered around engineer Soldiers performing their jobs to improve the organization.

Castle Upgrade initially consisted of four tasks for the 55-member Army Reserve Engineer team – interior walls, the entry foyer, parking entrance, and a gazebo. While the team was at the MARC, they discovered a water pipe leaking countless gallons of water, creating a fifth task. The 390th EVCC divided into teams that work concurrently, finishing all five projects within nine days. 412th TEC Commanding General BG Todd Lazaroski stated that Castle Upgrade showed the "awesome work" Army Reserve Engineers can accomplish while honing their skills and that "This is why we are here as leaders. To ensure our Engineers get the proper training they need to do their jobs."

Left top: 390th EVCC Soldiers level concrete with 702nd Engineer Company personnel assisting at the BG George A. Morris Army Reserve Center parking entrance on 10 March 2023 in Vicksburg, MS. Photo by 2LT Jerry McQueen. Left Middle: 390th EVCC Soldier instructs others on wall-taping details inside the BG George A. Morris Army Reserve Center on 6 March during Operation Castle Upgrade in Vicksburg, MS. Photo by 2LT Jerry McQueen. Left bottom: 390th EVCC Soldiers tack roofing levels on an improved gazebo at the BG George A. Morris Army Center during Operation Castle Upgrade on 15 March in Vicksburg, MS. Photo by MAJ William C. Allred. Right top: 390th EVCC Soldiers tack roofing levels on an improved gazebo at the BG George A. Morris Army Center during Operation Castle Upgrade on in Vicksburg, MS. Photo by MAJ William C. Allred. Right bottom: 390th EVCC Soldiers confirm foundation measurements while building an improved gazebo outside the BG George A. Morris Army Reserve Center during Operation Castle Upgrade on 12 March in Vicksburg, MS. Photo by 2LT Jerry McQueen.

412th Theater Engineer Command Commanding General BG Todd Lazaroski poses in front of the 390th Engineer Vertical Construction Company Soldiers who worked Operation Castle Upgrade on 6 March 2023 in Vicksburg, MS. Photo by SGT Veroniecya Neal.

Interior Walls

No one currently working at the MARC (an over 30-year-old building) readily remembers when the last time the walls had been touched up, much less painted. At an estimated 92,000 square-foot, the walls' pale and rough condition showed years of use in need of repair and revitalization. 1LT Sara Decker, 390th EVCC Executive Officer, led all teams in these projects. She said that the painting did not bother her Soldiers. The 390th EVCC took to the project with dedication and proper motivation, even though they are not painters. "Part of being an Engineer is being able to learn new things – adapt and overcome. Since we had other projects that allowed our Soldiers to develop their MOS-related skills, we considered painting just 'part of the job,'" explained 1LT Decker. Within eight days, the designated Soldier team stripped, patched, sanded, and repainted the MARC's massive amount of wall space with primer and two coats of paint, leaving a renewed look.

Entry Foyer

The foyer area that every visitor would immediately see as they entered the 412th TEC headquarters bore off-white wallpaper. Time, sunlight, and use left the space due for a thorough cleaning, repair, and fresh coat of paint, instead of new wallpaper. Like the painting, this project did not fall into the normal arena of Army professions. However, the 390th EVCC Soldiers went about the wallpaper removal, glue (from the wallpaper) elimination, repairing all acquired holes, and then, priming and painting for a revitalized look. 1LT Decker revealed that "The drywall was a major concern. Removing wallpaper can damage the drywall significantly. Our test strips from our leader's recon came off smoothly, but we were worried that other parts would be more

difficult and cause delay in the project." To minimize any possible damage she sought expertise from her Soldiers who held helpful civilian occupations. "We brought two Soldiers from a sister company who drywall professionally with us (to Vicksburg) to ensure quality work," 1LT Decker continued that "They performed (quality assurance/quality compliance) and did the more difficult spots."

In total, the foyer project took all of Castle Upgrade's nine days, approximately 960 manhours, given the area's challenging architectural angles and spaces. Mr. Mark Gaworski, 412th TEC Facility Coordinator, expressed that other alternate means to refresh the area could have taken five-to-seven days longer and the 390th EVCC performed effectively. "The planning, negotiating and scheduling method for a project like this would easily delay the entire process," added Mr. Gaworski, "From start to finish, Castle Upgrade took about six months versus a year or more seeking outside help."

Parking Entrance

Potholes and slanted asphalt riddled the MARC parking lot's t-intersection entrance for years. As with anywhere else, potholes can damage and disrupt any vehicle driving over them, not to forget how unsightly they are. The 390th EVCC brought paving specialists from the 702nd Engineer Company to oversee this task. The 390th's paving team, joined by 702nd members, cut up the entrance area's asphalt, removed all old material, graded the ground appropriately for use and water drainage, surveyed all steps for accuracy, then repaved the area with concrete for longevity. The team used concrete as a stronger material given the amount of traffic at the parking entrance and praised the resulting slab. "The amount of expertise showed by the Soldiers

390th EVCC Soldiers with the assistance of 702nd Engineer Company experts pour concrete at the BG George A. Morris Army Reserve Center parking entrance on 10 March in Vicksburg, MS. Photo by SFC Tony L. Foster.

was great," Mr. Gaworski further express that "They pulled skills from their civilian careers into their military occupations, allowing a better overall product."

Gazebo

Outdoor elements, including weather, insects, wind, and sun, cause significant degradation to a structure. The MARC gazebo showed the ravages of an outside building with warped planks, nails rusting, and signs of rot – not good. Mr. Gaworski indicated that the 81st Readiness Division authorized the funding that allowed the 412th TEC leaders to plan a replacement, made by the hands of their Engineer Soldiers. 390th EVCC accepted the project as part of Castle Upgrade and delivered more than expected. According to 1LT Decker, SFC Raymond McIntyre, 390th EVCC Carpenter, shared his professional vision on how the gazebo would turn out, then led the assisting Soldiers in creating it. LTC Jeffrey M. Jones, 844th Engineer Battalion Commander, enjoyed the opportunity for his carpenters to display their skill, not just functionality as he declared, "I love to showcase the fact that our carpenters are actually craftsmen.

The quality of work on the gazebo is proof of this, placing the craftsmanship of our citizen Soldier carpenters front and center."

Overall, the 390th team tore down, cleared the debris, and constructed a new, improved gazebo using an estimated $3,500 within a week where other sources may charge three times that amount, Mr. Gaworski noted that "The 412th TEC General Engineer Officer section developed amazing blueprints for the new design. They spent time and effort on a design that looks as good as it functions. They added workmanship and pride versus just getting the job done."

Water Pipe Leak

The 412th TEC noted a small leak i n the form of "saturated earth" at the rear of the MARC around October 2021 and the situation was pending action at the time of Castle Upgrade, according to Mr. Gaworski. However, SSG Sydney Parks, 844th Engineer Battalion Survey Engineer, discovered the leak was much worse during a review of the MARC's back portion for a potential paving project. After 81st Readiness Division authorized exploratory digging, the 390th Engineers excavated, finding a defective pipe seal that erupted into much worse. 1LT Decker determined that they could not perform any construction in the area until the pipe was fixed and "When we got back there, we saw the plumbing job was poorly done. The pipe was not even glued correctly." LTC Jones held that identifying the major leak in the water supply line was part of the work and the result saved the Army Reserve future costs and that "This alone saved thousands of dollars a year (potentially), while conserving an important natural resource."

Mr. Gaworski recalled the leak creating a large geyser once exposed, sending water rushing across the back of the MARC.

The expertise of Army Reserve engineers proved ready to resolve the issue in a timely manner. "The 390th had plumbers on the civilian end," stated Mr. Gaworski. "They were up to their elbows in mud and diagnosed the leak flawlessly. I feel confident in the work they did." Replacing and properly resealing the pipe took the Soldiers about three days from the time it was revealed and included ordering the parts needed.

Overall

1LT Decker asserted that all Soldiers performed incredibly well regardless of task or challenge and that "We are proud of our work. And so are BG Lazaroski, the 81st Readiness Division, and the (Chief of Army Reserve) herself, so I'd say it was a great mission." LTC Jones concurred that users and end-clients were pleased with Castle Upgrade's quality and work quantity and that "Flexing (Soldiers') abilities and maximizing civilian-acquired skills is why the (U.S. Army Reserve) Engineer Corps is such a valuable asset to the Engineer Regiment. When adding the occupational training value, the cost/benefit for this event was off the charts. There is virtually no limit to the type of work our teams could do." The 702nd Engineer Company, 443rd Engineer Facilities Detachment, and 373rd Engineer Utilities Detachment also assisted with specialized Soldiers to guarantee mission success. The 412th TEC Commanding General and TEC Soldiers look forward to future construction events that benefit U.S. Army Reserve Engineers in maintaining their skill sets and building morale. For more on Castle Upgrade and its results, visit the official 412th Theater Engineer Command Facebook page.

MAJ William C. Allred, a Public Affairs and Adjutant General officer, is the 412th Theater Engineer Command Public Affairs Officer in Vicksburg, MS. With his Senior Enlisted, covering over 11,000 Soldiers worldwide, he captures events throughout the United States and across the world, creating articles and real stories to inform multiple audiences of the command's accomplishments.

THE RUGGED BRIGADE CONTINUES TO ANSWER THE CALL TO LEAD THE ALL-HAZARDS JOINT TASK FORCE

Engineer Relevance and History

Engineers have always been the problem solvers of the battlefield and remain the most versatile tool available across the spectrum of military application today, both in Large Scale Combat Operations (LSCO) as well as in Defense Support of Civil Authorities (DSCA) operations. Evidence of engineers' impact on warfare can be found throughout world history and dates back to the beginning of warfare itself. From the defensive fortifications and watch towers of the Iron Age, the sophisticated Greek catapults of the 3rd century BC, and innovative Roman fortresses of the 5th century AD, the history and impact of the military engineer is recognizable wherever you find advances in fortifications, armament, or terrain shaping techniques and technology. Famously, the French employed Sappers, or "trench diggers", during 17th century siege warfare, who dug trenches towards and underneath besieged forts to explosively breach enemy fortifications. Essentially, the military engineer has always answered the call to find and apply innovative solutions to the rising military challenges of every era.

By LTC Danielle Millien, MAJ Ben M. Cox, CPT Brent M. Stout & Capt Paul A. Kantner

Modern Engineer Versatility

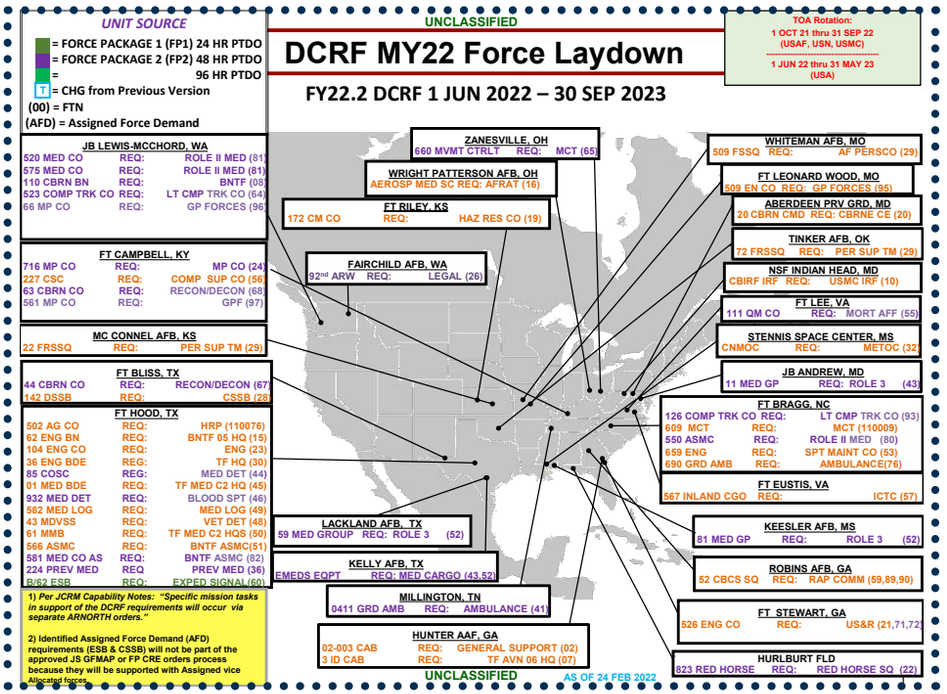
In the modern US Army, there are almost 20 engineer military occupational specialties that collectively comprise the versatile, problem-solving Engineer branch today. Each of the specialties contributes to shaping the operational environment and addressing relevant challenges. Notably, there are engineer divers, surveyors, firefighters, power production and distribution specialists, geospatial experts, electricians, plumbers, carpenters, masons, concrete and quarrying specialists, heavy equipment operators, and combat engineers, among numerous others. Whether the engineers are tasked to construct tactical obstacles, build infrastructure, fix airfields, destroy minefields, clear routes, make maps, or found West Point, each specialty enables the Engineer Branch to fill any job description and tackle any task. Fittingly, the motto, Essayons, translated from French as "Let Us Try", hints to the branch's versatile application and adaptable nature inherently needed on the quickly evolving battlefield of modern warfare.

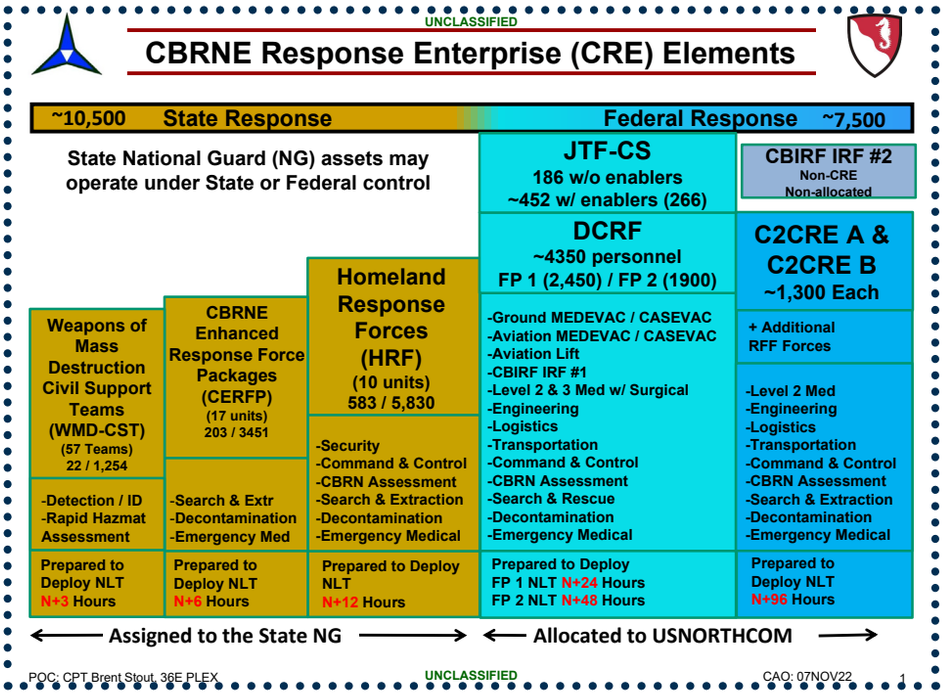
The Defense CBRNE Response Force

Today, one of the challenging missions required of the Army is to train, maintain, and employ a joint CONUS based all-hazards no-notice response force known as the Department of Defense Chemical, Biological, Radiological, Nuclear, and High-Explosive (CBRNE) Response Force (DCRF). The DCRF formation is one portion of the greater DoD CBRNE Response Enterprise (CRE), which comprises dedicated and allocated forces from the local, state, and federal levels to conduct emergency CBRNE response operations against CBRNE incidents within the U.S.. While the most likely response scenarios encompass chemical plant explosions or other emergencies potentially caused by large natural disasters like hurricanes, the most dangerous response scenario is the detonation of an improvised nuclear device in a major metropolitan city. Ultimately, DCRF aims to augment local and state efforts to save lives and minimize human suffering in the face of natural disasters or terrorist activity. The DCRF mission resides on the DSCA slide of military application and therefore requires thorough understanding of the legal implications of operating federal forces within the continental United States. Training, maintaining, and employing a joint all-hazards response force requires versatility and sufficient skill in a broad spectrum of specialties as opposed to the narrow application of a niche skillset. It is no wonder, then, why the Department of Defense continues to rely on US Army Engineer Brigades to command and control the tactical elements of this consequential joint response force.

Joint Taks Force Operations

Year after year, the Department of Defense tasks an active duty U.S. Army Engineer Brigade to command and control Joint Task Force Operations (JTF-OPS), the tactical core of the DCRF formation. DCRF falls under ARNORTH, who tasks Joint Task Force Civil Support (JTF-CS) to command and control the entire DCRF force, including four Brigade level task forces—Joint Task Force Operations (JTF-OPS), Task Force Logistics (TF-LOG), Task Force Aviation (TF-AVN), and Task Force Medical (TF-MED)—and various other specialty enablers that offer additional signal, human resources, legal, chemical, medical, and religious support capabilities. It is the responsibility of the JTF-OPS commander and staff to synchronize task force movement in and around the response area, receive guidance from JTF-CS, liaise with the Incident or Area Commander of the civilian emergency response infrastructure, and coordinate for aviation, logistic, and medical support from the other brigade task forces. The two-year DCRF assignment in JTF-OPS consists of training and equipping nearly 5,500 Soldiers during the first year and sustaining readiness in the second year, or "mission year". During the train up year, units receive special gear, conduct key leader conferences and tabletop exercises, validate technical training and command post operations, and execute internal staff exercises and leader



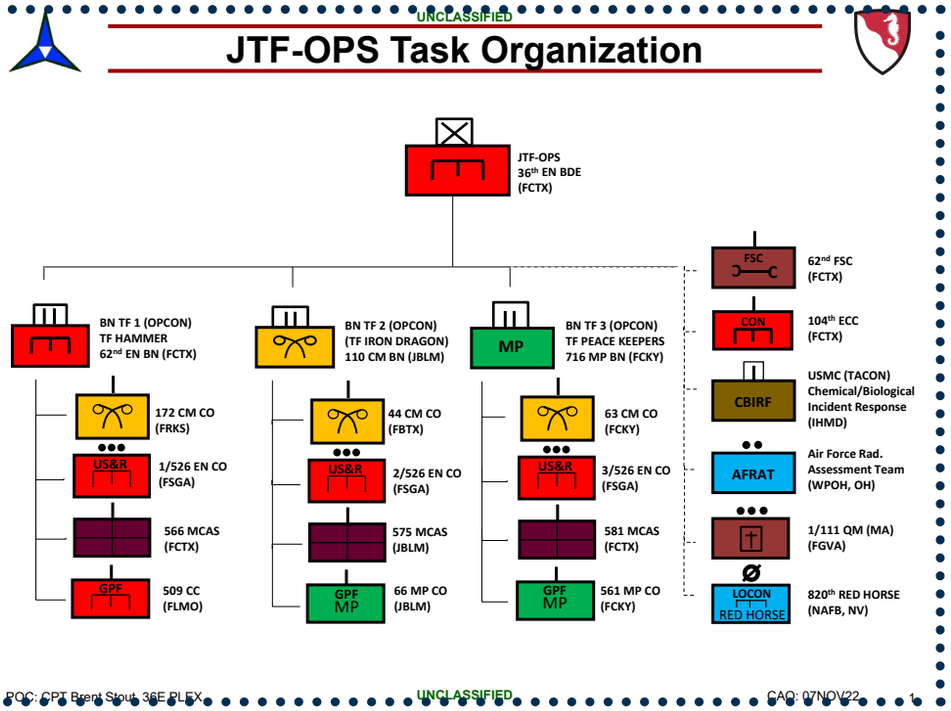


development courses. During the mission year, units receive a Prepare to Deploy Order (PTDO), requiring JTF-OPS units to be ready to deploy in 24 or 48 hours from a no-notice disaster event, depending on the force package to which the unit is assigned. Units continue to maintain readiness through regular task force status update briefs and by executing various joint sustainment exercises.

Previous page: A U.S. Marine with the hazardous materials response team assigned to the Marine Corps CBIRF, scans for chemical contamination. Above: U.S. Marines assigned to the CBIRF, Bravo Company, lift rubble with a forklift after a simulated structural collapse. Photos by SSgt Jacqueline A. Clifford, USMC.

The JTF OPS Formation

The JTF-OPS formation includes three Battalion Task Forces (BN TFs) and five distinct enabler units. Each of the BN TFs are identical in capability and purpose, but are led by either an Engineer, Chemical, or Military Police battalion. Each battalion has a chemical company, an Area Support Medical Company (MCAS), an Urban Search and Rescue (US&R) platoon, and a General Purpose Force (GPF) company. The US&R sourcing requirement is normally filled by an Engineer Construction Company and each GPF may comprise either an engineer company or a military police company. The enablers that fall under JTF-OPS are critical to overall DCRF mission success and create a joint force that consolidates the necessary specialized capabilities from the US Army, Air Force, and Marines under one command. Specifically, JTF-OPS enablers include the Marine Chemical Biological Incident Response Force (CBIRF), the Air Force Radiation Assessment Team (AFRAT), an Army Engineer Construction Company (ECC), an Army Mortuary Affairs Platoon, and the Air Force Rapid Engineer Deployable Heavy Operational Repair Squadron Engineers (RED HORSE). For some of the units in the JTF-OPS TASKORG, like the MCAS or Chemical Company, their assigned DCRF tasks align with their unit's organic Mission Essential Task List (METL). For others, like the Battalion Headquarters, the engineer construction company sourcing the US&R platoon, or the engineer or MP companies sourcing the GPF, the required DCRF tasks may have little resemblance to their unit's METL. Regardless, each BN TF must come together to provide six core capabilities as outlined in Operation Plan (OPLAN) 3500: Mission Command and Communications, CBRN Identification and Detection, Technical and Non-technical Search and Rescue, Mass Casualty and Non-Casualty Decontamination, Medical Triage and Stabilization, and Air and Ground Evacuation.



JTF OPS Joint Capabilities

The Battalion Task Forces

Each of the three JTF-OPS battalion task forces provides the core DCRF capabilities through four major operational lines of effort: Chemical Reconnaissance, Urban Search and Rescue (US&R), Mass Casualty Decontamination (MCD), and medical treatment and evacuation. When the full spectrum of DCRF capabilities is required of a battalion task force at a response site, the chemical company first sends their CBRNE reconnaissance section out front to identify and mark the radiological contour lines which distinguish "hot zones", or areas requiring special hazardous material suits, and "cold zones", or areas permitting a downgraded personal protective equipment posture. Once the distinct contours and zones are marked, the US&R platoon pushes forward to extricate trapped casualties from the rubble and debris. The US&R platoon transports patients back to a collection point where medical personnel triage patients and send them to be decontaminated. The primary focus of a battalion task force is the establishment, management, and throughput of a mass casualty decontamination line. The MCD line consists of multiple lanes that are dedicated to the decontamination of ambulatory patients, non-ambulatory patients, and responders as they come back from conducting operations in the "hot zone." The effectiveness of an MCD line is measured in patients per hour. Many variables will dictate a reasonable throughput quantity, however ARNORTH directs that 75 non-ambulatory, or

225 ambulatory patients is the standard to reach during full operations. After medical triage and the arrival of a patient to the MCD line, the mass casualty decontamination process consists of removing outer clothing, spraying the individual down with water, and measuring their radiological signature with CBRNE equipment. Meticulous effort goes into assessing and tracking patients as they pass through each step of the MCD process. The General Purpose Force (GPF) company aids with tasks in both the hot and the cold zones and normally consists of patient transportation, patient and crowd management, and equipment set up and tear down. Finally, at the exit of the MCD line, medical and non-medical evacuation teams are positioned and ready to transport patients to FEMA shelters or to higher levels of medical care.

CBIRF

The Chemical Biological Incident Response Force, or CBIRF, is the Marine contingent of JTF-OPS. CBIRF comprises two Incident Response Forces (IRFs) with one IRF on an alert status and the other on standby. CBIRF has the capacity and requisite capabilities to conduct operations as a fourth battalion task force when required, including the capability to provide chemical reconnaissance, technical search and rescue, technical and mass casualty decontamination, and patient evacuation. Uniquely, CBIRF is the only permanently dedicated JTF-OPS asset to the DCRF mission, as opposed to being allocated, or temporarily aligned. Due to their expeditionary nature, CBIRF can be expected to arrive to the response site ahead of the first JTF-OPS force package. Although they have different equipment and operating procedures, cross training between the US Army battalion task forces and CBIRF allows them to directly support one another with responders or equipment when needed, which gives the commander more options when deciding how to employ the entire JTF-OPS task force within the response area.

AFRAT

The Air Force Radiation Assessment Team, or AFRAT, provides expertise in radiological assessment of air, water, and soil through surveys, reconnaissance, and other detection techniques. AFRAT comprises a dosimetry team, liaison teams, surveillance teams, and a laboratory team. The dosimetry team distributes dosimeters to the JTF-OPS Soldiers going out on missions and consolidates the individual radiation dose data of each Soldier upon their return. Soldiers with radiation doses that cumulatively surpass certain thresholds will be pulled from the response mission, put on extended recovery, or potentially removed from the response force altogether, depending on the severity of their exposure. Prior to establishing response sites or staging areas, the AFRAT surveillance teams conduct area reconnaissance for radiological effects to identify the radiological contours and to ensure safe operating conditions for the responders. Because the rest of the JTF-OPS TASKORG has limited to no prior knowledge of radiological effects, planning considerations, or implications, the AFRAT liaison team to the JTF-OPS commander aids him or her in making critical decisions relating to radiological matters.

ECC

The Army Engineer Construction Company, or ECC, comprises two horizontal platoons and one vertical platoon. One of the greatest challenges during a response mission is being able

Above: USMC Lance Cpls. Nathan Guffie and Tyler Pinkley, both assigned to the CBIRF, prepare a simulated casualty for extraction and decontamination. Below: USMC Lance Cpl. Jacob Whitecomb, a decontamination Marine assigned to the CBIRF, scans a U.S. Army Soldier for notional radiation and chemical particulates during Exercise Sudden Response at Coryell Health Hospital, Gatesville, TX, Photos by SSgt Jacqueline A. Clifford, USMC.

Top: USMC Lance Cpl. Ethan Renteria, a decontamination Marine assigned to the CBIRF, Bravo Company, assists a U.S. Army soldier with the 172nd CBRN Company with providing emergency medical care to a simulated casualty. Middle: U.S. Marines assigned to the CBIRF, and U.S. Army Soldiers assigned to the 172nd CBRN Company, prepare a simulated casualty for decontamination. Bottom: USMC Sgt. Christopher Roberts, a rescue marine assigned to the CBIRF speaks to a U.S. Army soldier. Photos by SSgt Jacqueline A. Clifford, USMC.

to move in and around the response sites due to the excessive amounts of debris and rubble present. The horizontal platoons' main task consists of clearing the debris from roads, routes, and areas to open access in and around the response sites to support the movement of the greater response effort. During a response mission, there are simply too many tasks to complete and not enough time to address them all. The JTF-OPS Commander will assist the civilian Incident Commander in prioritizing which infrastructure to reinforce and in which areas to operate. The ECC supports the commander's decision-making process and helps establish the prioritization list through conducting damage assessments and engineer reconnaissance on bridges, routes, buildings, and staging areas. Besides opening lanes, the ECC can build or reinforce infrastructure like base camps, helicopter landing zones, traffic control points, medical facilities, water distribution and sewage systems, retaining walls, and resource storage facilities.

Mortuary Affairs

The Army Mortuary Affairs platoon allocates up to four Mortuary Affairs Collection Points (MACP) to the DCRF mission. Each MACP can process up to 20 contaminated human remains in a 24-hour period, with a refrigerated storage capacity of 64 human remains at any given time using their organic equipment. The primary mission of the Mortuary Affairs platoon is to process the human remains of those that passed away while in US military care, however, they will often be tasked to augment local civilian mortuary affairs efforts as well. There may be thousands of remains in any response site, so their efforts are carefully directed and efficiently employed.

RED HORSE

The Air Force Rapid Engineer Deployable Heavy Operational Repair Squadron Engineers, or RED HORSE, provides additional engineering assets to the JTF-OPS task force. RED HORSE comprises both vertical and horizontal engineering assets and is apt to provide specialized infrastructure repair to airfields, temporary housing facilities, and utilities infrastructure, including electrical distribution systems, gas and petroleum storage and distribution lines, and water and sewage structures. RED HORSE can conduct engineering assessments and damage reports as well as support in the route opening and site clearing missions. ***Part 2 of this article will be in the Fall 2023 Army Engineer Magazine.***

LTC Dani Millien currently serves as the Commander of the 62nd Engineer Battalion located at Fort Cavazos, TX. She served as the DCRF Battalion Task Force 1 Commander throughout Mission Year 2022 (01 June 2022 to 31 May 2023). LTC Millien has a degree in French from the USMA at West Point and holds an advanced degree in Organizational Leadership from Norwich University. She is currently earning an advanced degree in International Relations with the London School of Economics and is a graduate of the U.S. Army Command and General Staff College.

MAJ Ben M. Cox currently serves as the Brigade S3 in the 36th Engineer Brigade at Fort Cavazos, TX. He served as the Brigade Plans Chief during the DCRF train up year (01 June 2021 to 31 May 2022), and as the Battalion S3 in 62nd Engineer Battalion (DCRF BN TF 1) during DCRF Mission Year 2022 (01 June 2022 to 31 May 2023). MAJ Cox has a holds an advanced degree in Geological Engineering from Missouri University of Science and Technology. He is a graduate of the U.S. Army Command and General Staff College.

CPT Brent M. Stout currently serves as the Commander of the 104th Engineer Construction Company located at Fort Cavazos, TX. He served as the lead planner, lead trusted agent, and lead liaison for the 36th Engineer Brigade (TF-OPS) during the 2022 DCRF train up year (01 June 2021 to 31 May 2022), and as the 62nd Engineer Battalion (DCRF BN TF 1) Plans Chief during DCRF Mission Year 2022 (01 June 2022 to 31 May 2023). CPT Stout has a degree in Mechanical Engineering from the USMA at West Point and holds an advanced degree in Engineering Management from Missouri University of Science & Technology.

Capt Paul A. Kantner currently serves as the Bravo Company Commander of the Chemical Biological Incident Response Force (CBIRF) in the USMC located at the Naval Support Facility at Indian Head, MD. He holds a degree in Communications from the University of Pittsburgh and a Master's Degree in Business Administration from the Naval Postgraduate School and he is a graduate of the U.S. Marine Corps Expeditionary Warfare School.

Putting people first requires a focus on people from the start – as soon as they arrive to their units.

Derived from FM 100-17, Reception, Staging, Onward Movement, and Integration (RSOI) are key processes for any deploying unit or attachment to operate in new environments. In a similar manner, Permanent Change of Station (PCS) moves require the same level of attention for Soldiers and Families transitioning into a new garrison environment. A PCS is stressful on Soldiers and Families, and a PCS to a foreign country is even more so. Thus, the 173rd Infantry Brigade Combat Team (Airborne), headquartered in Vicenza, Italy, created the RSOI platoon to solve issues facing our first priority: our people. The RSOI Platoon is dedicated to helping Paratroopers as they transition to life in an airborne infantry unit in Italy and builds combat power by ensuring troop readiness from the start.

The 173rd RSOI Platoon is structured like any other Platoon, but with in-processing Soldiers as our Paratroopers. Since our founding in October 2021, over 1,200 Paratroopers and counting have come through our Platoon. Dedicated NCOs, specially selected to represent each battalion, serve as Squad Leaders of Paratroopers going to their respective Battalions. A dedicated operations section solves Paratrooper problems and serves as a bridge between the Brigade and external agencies. Doctrinally, each Brigade Engineer Battalion (BEB) is responsible for the RSOI of attachments to an Infantry Brigade Combat Team, thus, the 54th BEB provides ownership and accountability. The RSOI Platoon is directly accountable to the Brigade Commander and the Brigade as a whole – it serves as a flexible apparatus that can easily impact the entirety of the Brigade. Throughout our three-week RSOI program, we turn Paratroopers into Sky Soldiers as we receive, stage, move, and integrate them into our ranks.

Reception. Reception is not a passive task. RSOI Platoon Leadership are the first people that in-bound Paratroopers meet – they set the expectation of what an Airborne leader looks and acts like. We set the tone on arrival, with counseling, leader led PT, and a clear chain of command during in-processing. Before they arrive, RSOI works hand in hand with sponsors as we ensure communication throughout their move. As we receive them, we receive their issues, and we solve problems that affect morale the most: family and pay. We help Paratroopers navigate and conquer the complex and time-consuming Command Sponsorship process to reunite them with their families. We leverage garrison connections to ensure Paratroopers receive all of their entitlements in a timely manner. Because these issues are exponentially more complex in Italy than other duty stations, these cases are best handled by an experienced, knowledgeable, and dedicated RSOI Platoon.

Staging. By the time Paratroopers complete our three-week RSOI program, they are staged and ready for anything, even jumping into combat. While in the RSOI Platoon, we ensure Paratroopers not only draw equipment from the Central Issuing Facility, but we also ensure Paratroopers properly mark and set up their gear to the Brigade standard. Additionally, we rely on our units Jumpmasters to conduct Basic Airborne Refresher and our medics to provide Bayonet First Responder medical training. The RSOI Platoon also assesses in processing Paratroopers on unit fitness standards to include the ACFT and five-mile run. Furthermore, we ensure all standard in-processing tasks are complete – from garrison briefs, online training, GTCC applications, and medical in-processing.

We own them every step of the way and ensure every task is completed to standard. By consolidating repetitive readiness tasks to the Brigade level, we reduce manning requirements and the burden from Companies and Battalions and allow them to focus on operations.

Onward Movement. The goal of the RSOI Platoon is, ultimately, to facilitate PCS movement at every stage. We ensure Paratroopers are cared for at every step by housing them in our transient barracks, assisting in finding a home and moving their household goods, and providing local transportation for them and their families. We work with our Physical Therapy team to screen for injury risk and then provide tailored workouts to build stability and injury resistance. Once they complete the RSOI program, we ensure a seamless transition to their pinpointed unit within the Brigade. We deliberately handover Paratroopers to their Companies, communicating unique situations, deficiencies, and progress all the while. And just because they are at their units does not mean we abandon them – we continue to assist them and their Companies with Command Sponsorships and financial cases months after in-processing.

Integration. We instill pride in the 173rd Infantry Brigade Combat Team (Airborne) by teaching our history, our policies, and our standards. In-processing Paratroopers PT with their Battalion and Brigade Command teams, so they know, by face and name, who leads them, and they are officially welcomed

RSOI COL Kloepper Welcome Speech. Photo by SGT Mariah Gonzalez. 10 January 2023.

RECEPTION, STAGING, ONWARD MOVEMENT, AND INTEGRATION

A PEOPLE FIRST STRATEGY

By 1LT Nathan Schmitt

Unit leadership personally welcoming the newest Sky Soldiers to the Brigade following a 173rd Patching Ceremony. Photo by SSG John Yountz, 24 March 2022.

to the best Brigade in the Army in a unit patching ceremony. We integrate them into life in Italy, briefing them on unique opportunities available by living in Italy and in Europe. We are closely integrated with the Basic Opportunity for Single Soldiers (BOSS) program to ensure Paratroopers have a taste of what Italy has to offer, and Soldier Family Readiness Groups (SFRGs) to ensure spouses and families are cared for and have the best assignment of their career.

Conclusion. Soldiers are at their most vulnerable during a PCS move. Many issues that affect readiness are caused by what happens, and what does not happen, during in-processing. Many junior Paratroopers miss out on financial entitlements and opportunities to reunite with their loved ones simply because they do not know the process. The RSOI Platoon owns this population, and makes sure they are cared for, to the benefit of the entire Brigade. Taking care of people builds morale, morale builds cohesive units, and cohesive units are more combat effective and ready to fight, all because we treat each other like we would die for each other.

RSOI Squad Leader patching a new Sky Soldier during a 173rd Patching Ceremony. Photo by SGT Mariah Gonzalez, 10 January 2023.

1LT Nathan Schmitt serves as the Platoon Leader of the Reception, Staging, Onward Movement, and Integration (RSOI) Platoon for the 173rd Infantry Brigade Combat Team (Airborne), in Vicenza, Italy. He previously served as a Sapper Platoon Leader in Bastion Company, 54th Brigade Engineer Battalion (Airborne), 173rd Infantry Brigade Combat Team (Airborne). He holds a B.S. in Chemical Engineering from Texas A&M University.

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Preserving the Legacy of Central Coast Engineers

By MAJ Dan Gimm

Photo above: Improving the monument with a new sidewalk, 1989. Photo by Mr. Lee Glaesemann, 864th EN BN Veteran. Photo below Transporting precious cargo through the streets of San Francisco. Photo by MAJ Dan Gimm.

On a warm California day in April 2023, the mortar was beginning to set on a few bricks that had fallen out of place years before. Decades of weathered paint and dirt had been brushed off the monument and a battalion coin was firmly seated in the new concrete foundation. The castle was finished, marking the completion of a nearly four-year-long project 46 years in the making. The Army Reserve Center in Marina, CA is home to the 397th EN BN headquarters, but only since 2019. Before moving to California's Central Coast, the unit was headquartered in Eau Claire, WI, where it drew its lineage from the 2nd Battalion, 353rd Engineer Regiment. The "Bulldozers," as they were known, earned a battle streamer at Luzon during WW II, executing heavy construction operations in support of the Philippines campaign. Inactivated after the war and allotted to the Army Reserve, the battalion was redesignated the 397th EN BN and activated in Wisconsin on May 18th, 1959. Sixty years later, the unit found itself reorganized on the California coast. They were in a new land and in need of a new identity.

Leading the charge for this endeavor was the newly assigned Operations Officer, MAJ Doug Hayes. On a fateful day in October 2019, Hayes took a much-needed family vacation to visit the historic Presidio of San Francisco. There, in the shadow of the Golden Gate Bridge, was the old garrison of Fort Winfield Scott, once-proud Engineer castle that had deteriorated after decades of wear. Hayes knew there were plans to build a similar monument at his new headquarters, but he quickly realized the opportunity standing in front of him.

MAJ Hayes eagerly wrote to the Presidio Trust, caretakers of the historic property, inquiring about moving the castle to Marina to preserve the heritage of the Central Coast Engineers. After determining there would be no regulatory obstructions with the project, the Trust's Federal Preservation Officer, Mr. Rob Thomson, corresponded with the veterans of the Engineer unit once stationed at the Presidio. To gauge their support, Mr. Thomson contacted retired MAJ Tim Young, former commander and current leader of the D Company, 864th EN BN "Delta Dawgs" veterans' group. While awaiting a reply, the COVID-19 pandemic shut down the world and all momentum was lost.

MAJ Hayes received transfer orders and departed the 397th EN BN two years later. With a sense of optimism, he attempted to revive the mission and introduced the Trust to his replacement, MAJ Dan Gimm. He asked MAJ Gimm to carry the torch and see the mission through, lamenting the doubters and challenges of governmental agency coordination. Undaunted, MAJ Gimm accepted the challenge with a promise to send photographs when it was complete.

The first ray of hope arrived within hours of that introduction: MAJ Young's response voicing encouraging support from the veterans group. He also explained that the castle was constructed in 1977 by a Sergeant Baker who built it on his own time over a six-month period. Generations of Engineers at the Presidio maintained it throughout the years until the mid-1990s when the post was transferred to the National Park Service. It was time,

MAJ Gimm finishes the brick and mortar repairs. Photo by Derek LeBeouf.

The 801st Engineer Company places the new concrete foundation. Photo by MAJ Dan Gimm.

MAJ Young implored, for the castle to be back in the hands of Engineers.

MAJ Gimm began to put a plan together. With the assistance of Ms. Gabby Davila, Area Facility Operations Specialist, he first sought and acquired approval to install the monument from the 63rd Readiness Division, owners of the Marina facility. Concurrently, he solidified the Trust's partnership to remove the castle, and Mr. Greg Sychoff, Associate Director of Roads, Trails, and Signs, became head of the Trust contingent. Lastly, MAJ Gimm built a team representing each subordinate company on the Central Coast. The 374th Sapper Company from Concord and the battalion headquarters' Forward Support Company (FSC) would man the removal and transportation crew. The 801st Engineer Company out of Vallejo would provide the emplacement crew, while the battalion staff from Headquarters Company enabled the mission through orders production and supervision. The Central Coast Engineers were assembled and ready to work.

After three years of effort and coordination, the mission was set for September 2022. Equipment was staged, materials purchased, and orders were cut. The momentum seemed unstoppable – until a heartbreaking twist of fate: two critical personnel had emergencies that forced MAJ Gimm to call it off on the eve of execution. Down but not out, MAJ Gimm and his Engineers refused to quit and vowed the mission was only postponed.

Rescheduled for April 2023, and with the looming reassignment of MAJ Gimm, this became a no-fail mission. The team was mustered again with a renewed sense of focus, and the moment finally arrived. Mr. Sychoff and his Trust team lifted the monument with the forks of a front-end loader and placed it onto the FSC trailer under the supervision of SSG Justin Arenberg. Carefully driving through the streets of San Francisco, the Soldiers transported the castle 115 miles to the waiting emplacement crew. The stress was palpable as Corporal Benjamin Solis of the FSC delicately lifted the 4-ton castle from the trailer with a 10k forklift and placed it down on the prepared surface. After a tedious leveling effort, everyone breathed a sigh of relief when the bubbles were centered. The castle was home. SFC Darvin Negron and the 801st crew made quick work of the new concrete foundation and MAJ Gimm added the finishing touch of a battalion coin. A few brick and mortar repairs later and the mission was finally complete.

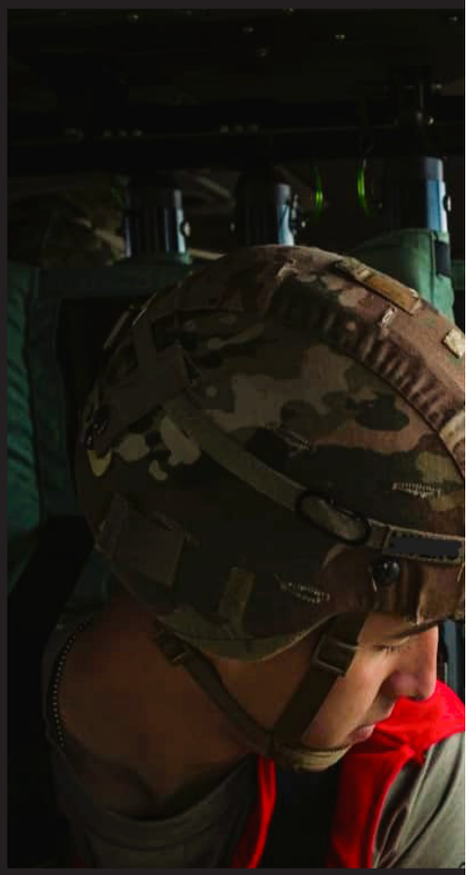
It took nearly four years, two significant roadblocks, coordination between three government agencies, every Army Engineer unit in central California, and the connections of old veterans to move four tons of brick and concrete. But this was about more than the monument. That sense of identity MAJ Gimm was trying to create? The 397th is now known as the Bulldog Battalion in honor of their organic Bulldozer lineage and the adopted heritage of the Delta Dawgs.

And the legacy of the Central Coast Engineers continues. Essayons!

The removal and transportation crew, relieved to have the castle on a trailer. From left to right: Ben Reich (Presidio Trust), SSG Justin Arenberg (374 EN CO), MAJ Dan Gimm, CPL Benjamin Solis (FSC), SPC Ryan Thayer (FSC), SPC Caleb McDermott (FSC), Mr.. Greg Sychoff (Presidio Trust), Mr. Eric Bostrom (Presidio Trust). Photo by Garrett Avina.

MAJ Dan Gimm is currently the Operations Officer for the 397th Engineer Battalion in Marina, California. He has spent 17 years supporting the Engineer Regiment, serving as a Platoon Leader, Company Executive Officer, Company Commander, Engineer Coordinator, and Engineer Branch Career Manager. He is a graduate of the Command and General Staff Officers' Course and holds a Master of Operational Studies degree from the Command and General Staff College.

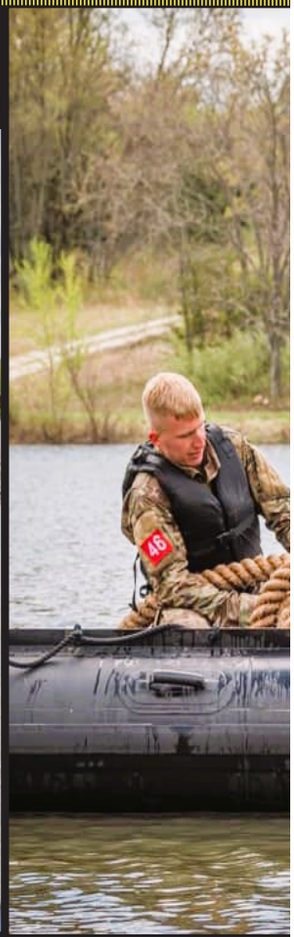
I'VE DONE MY TRAINING FOR THE TEAM
YOU CAN CALL ME AN ENGINEER SOLDIER



16TH LTG ROBERT FLOWERS BEST SAPPER COMPETITION

WE ARE DESTROYERS
JUST AS WELL

THERE'VE BEEN
DOUBTERS



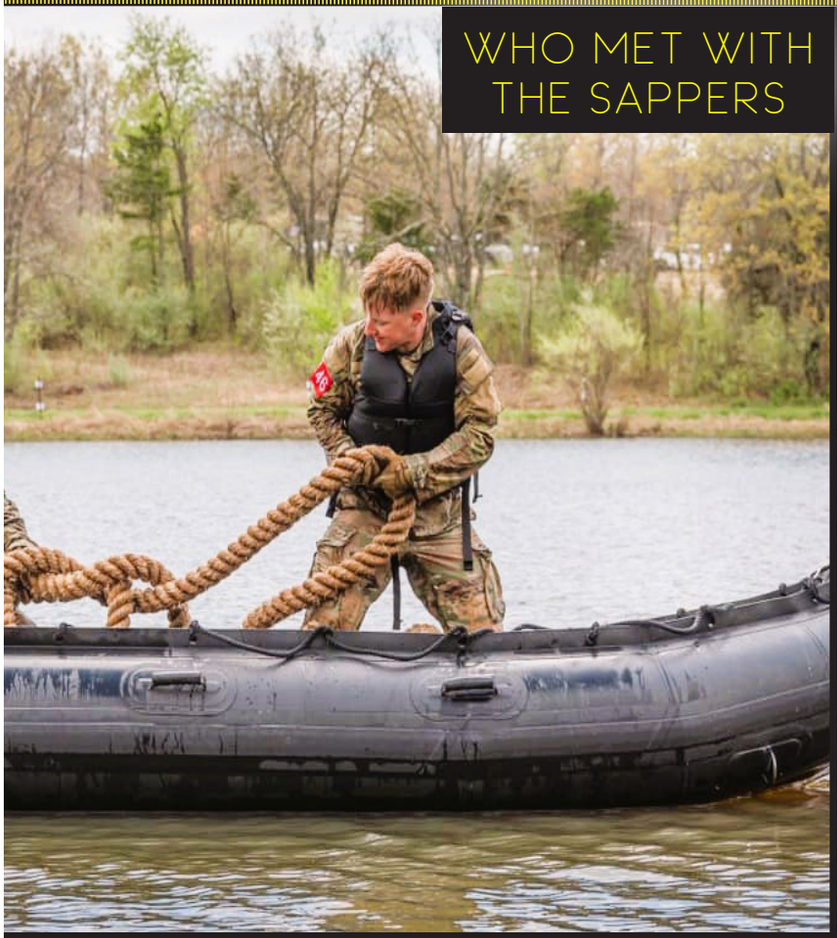
THE WARRIOR SPIRIT
HAS BEEN MY DREAM

WE ARE BUILDERS
WE ARE FIGHTERS

ENGINEER REGIMENTAL WEEK APRIL 22-30 2023 FLW

THE U.S. ARMY CORPS OF ENGINEERS BRANCH SONG "ESSAYONS". All photos are courtesy of U.S. Army, FLW, and USAES.

WHO MET WITH
THE SAPPERS



THEN WE BLEW
THEM ALL TO HELL

2022 United States

Lieutenant General Emerson C. Itschner Award
Bravo Company, 29th Brigade Engineer Battalion, 3rd Infantry Brigade Combat Team
Schofield Barracks, HI, Active Army

Lieutenant General Emerson C. Itschner Award
HHC 926th Engineer Brigade, 412th Theater Engineer Command
Montgomery, AL, U.S. Army Reserve

Lieutenant General Emerson C. Itschner Award
576th Engineer Utilities Detachment, 412th Theater Engineer Command
Virginia Beach, VA, Army National Guard

1LT William O. Munson Award
1LT Lauryn N. Westman
523rd Engineer Support Company, 84th Engineer Battalion, 130th Engineer Brigade
Schofield Barracks, HI, Active Army

1LT William O. Munson Award
1LT Trevor Shaffer
377th Engineer Company, 458 Engineer Battalion
Butler, PA, U.S. Army Reserve

1LT William O. Munson Award
1LT Jason D. Ball
2061st Multi-Role Bridge Company, 206th Engineer Battalion
Burlington, KY, Army National Guard

The Outstanding Engineer Warrant Officer Award
CW2 Uriel Reyes-Castanon
4th Power Station, Charlie Company, 249th Engineer Battalion
Fort Belvoir, VA, Active Army

The Outstanding Engineer Warrant Officer Award
CW2 Philip E. Abreght, II
340th Engineer Construction Company, 363rd Engineer Battalion
Camp Arifjan, KU, U.S. Army Reserve

The Outstanding Engineer Warrant Officer Award
WO1 Ted T. Schroeder
1436th Engineer Vertical Construction Company, 926th Engineer Brigade
Camp Arijan, KU, Army Nation Guard

Army Engineer Awards

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HHC 926th Engineer Brigade, 412th Theater Engineer Command

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Chief of Engineers LTG Scott Spellmon and leaders from USACE, FEMA, DOE and EPA conduct a site visit at the San Juan Power Plant in San Juan, PR on 1 December 2022. The site visit occurred as part of the Puerto Rico Power System Stabilization Task Force, which is focused on strategies to stabilize the electrical system due to damages incurred by Hurricane Fiona. Photo by MAJ Grace Geiger.