

Winter 2022

# Army Engineer Magazine



Louisiana National Guardsmen with the 2225<sup>th</sup> Multi-Role Bridge Company ferry emergency responders and equipment from Lafitte to Barataria.

ARMY ENGINEER ASSOCIATION

# Town Hall



*with*

**MG (Ret) Bryan Watson**  
**AEA President**

AEA IS EXCITING TO CONDUCT TOWN HALL MEETINGS  
TO HEAR FIRST-HAND YOUR UNIQUE CHALLENGES AND NEEDS  
13 JANUARY 1800 EST ◻ 14 JANUARY 1800 EST ◻ FEBRUARY TBD

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FROM THE EXECUTIVE DIRECTOR  
xd@armyengineer.com

Dear AEA Members,

I hope you had a great Holiday season and Happy New Year. With each passing year we lose some of the legends of the Engineer Regiment. In this issue, we highlight a few of these giants we lost in this past year.

We are excited to have our President MG (Ret) Bryan Watson as the host for our AEA Town Halls on zoom. We have two more AEA Town Halls scheduled in January, and we plan to schedule an additional two events in February 2022. On our homepage you will find more information to include the dates of these events and the sign-up link. In the course of sign-up, there is a section provided to ask questions or to make comments, so please feel free. As we have a diverse group of members, we have created a focus for each town hall that highlights a group of the AEA members with a common background. To find out more go to our website [www.armyengineer.com](http://www.armyengineer.com).



AEA is transitioning from a scholarship program to an educational support program model for members of the Engineer Regiment. While we have retained the HOBSON STEM Scholarship program, we have transitioned all the other scholarships into a general educational support program. Both are sponsored by Trimble, a leading provider of advanced positioning solutions and technology. You can learn on our webpage at Educational Support Program.

Wishing you the best in 2022!

Essayons,

*David Theisen*

COL (Ret) Dave Theisen, EN  
Army Engineer Association  
Executive Director

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## ARMY ENGINEER MAGAZINE

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### PUBLICATION:

Army Engineer Magazine is published four times a year. Its primary distribution to its member is digital to a preferred email address. Scotts Printing Company in Rolla, MO prints the magazine and provides production assistance.

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**EDUCATIONAL  
SUPPORT  
PROGRAM**

IF NOT NOW  
**When?**

**HAPPY NEW YEAR!!!** It is through sharing and learning that the engineer community grows and thrives, so we have information in this issue about the history of the de Fleury, AEA Town Halls, AEA's new Educational Support Program, AEA's Career Center, Regimental Award Recipients, and a 4ID Reunion. To that end, our in memoriam shares the story of some, not all, of the Soldiers that contributed to the fabric of the heritage and history of the Engineer Regiment who passed in 2021. The Louisiana National Guard and the 926th, U.S. Army Reserve Engineer Brigade, demonstrate how to conquer the element of water. The 249<sup>th</sup> show us how to rein in electrical power systems. This issue delves into the past and present of the MDD – Mine Detection Dog. Our article about 2D / 3D Grade Control Training Simulator shows how training can be optimized. The chronicles of Ms. Cheryle Hess reveal a life of service that has so many different connections with USACE, they cannot be counted on one hand. Liggett Wastewater Project, The Falconry Program, and the New West Point Elementary School highlights the Corps' commitment to our communities.

It will be great to have you join us for another year of the Army Engineer Magazine where we strive for the magazine to be a place where the regiment can express and explore things that matter.

*Linda S. Mitchell*

Linda S. Mitchell



#### **COVER PHOTO**

Louisiana National Guardsmen with the 2225<sup>th</sup> Multi-Role Bridge Company ferry emergency responders and equipment from Lafitte to Barataria to assist locals with recovery efforts, Jean Lafitte, LA., Sept. 4, 2021. The only bridge to Barataria was damaged during Hurricane Ida and was rendered inoperable. (U.S. Army National Guard photo by 1LT Steven McCoppin)

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 CPT Samantha L. Hadley  
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 SSG Jake A. Mauermann  
 SSG Nicholas J. Hawkey  
 SGT Alexander L. Templeton



DE FLEURY MEDAL  
 STEEL \* BRONZE  
 SILVER \* GOLD

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 LTC Tony A. Jones  
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 Mr. Gary W. Blohm  
 LTC John A. Padgett  
 MAJ James E. Jones  
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 1SG Gary D. Morrissey  
 CW3 Steven A. Warningsing  
 LTC John A. Padgett  
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 1SG Trevor W. Harlow  
 1SG Timothy Buzi  
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 SGM Dennis P. Ewing  
 MAJ McVay Chambers  
 LTC Roderick J. Forman  
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 Mr. Bryan D. Peterson  
 Mr. Bradley Call



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 RECOGNIZING  
 THE CONTRIBUTIONS OF  
 ARMY ENGINEER  
 SPOUSES

## Essays

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 Mrs. Jane L. Blohm  
 Mrs. Shelia Kelly  
 Mrs. Ashley Shetland  
 Mrs. Amanda Rondo  
 Mrs. Marylou Solorzano-Hernandez  
 Mrs. Tanya J. Dalton

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 CPT Daniel J. Bently  
 MAJ Christopher A. Brandt  
 MAJ Gary A. Renner  
 CPT Jon C. Head  
 MAJ Christian Johnson  
 MSG Benjamin J. Folczyk  
 CPT Jon C. Head

## Sapper Spirit

PFC Merlin G. Littles  
 PV2 Markus A. Record  
 PFC Noah W. Craddock  
 PFC Cole B. Schmidt  
 SGT Michael B. Russell  
 PFC Sebastian A. Borges  
 SSG Douglas L. Devore  
 PFC Shanique Lewis  
 PFC Gregory I. Moore  
 SPC Hali A. Taylor  
 PV2 Nathan C. Sornsen  
 SPC Bryan J. Tuft  
 PV2 James D. Murphy  
 PFC Jonah B. Lyle  
 PV2 Yoselyn L. Martinez  
 PFC Drake H. Miller  
 PFC Patrick C. Green

B CO 169 EN BN  
 D CO 169 EN BN  
 B CO 169 EN BN  
 B CO 169 EN BN  
 80TH TC  
 B CO 169 EN BN  
 EN SLC  
 A 554 EN BN  
 D CO 554 RN BN  
 C CO 169 EN BN  
 D CO 169 EN BN  
 412 EN CO  
 B CO 169 EN BN  
 C CO 169 EN BN  
 B CO 169 EN BN  
 D CO 35 EN BN  
 B CO 169 EN BN

PV2 Steven D. Harris  
 CW2 William J. Barnett  
 SGT Nicholas A. Russo  
 WO1 Daniel F. McGlone  
 SPC Zecheriah E. Musselman  
 WO1 Timothy M. Letson  
 PV2 Ethan C. Metz  
 PVT Alyssa M. Dameron  
 SSG Steven D. Diehl  
 PV2 Izacc A. Galindo  
 PFC Mong K. Her  
 PFC Caven A. O'Neal  
 PV2 Eric H. Yim  
 SGT Calvin R. Miller  
 SPC Colton R. Hurley  
 PFC Gavin D. Billings

B CO 169 EN BN  
 C CO 554 EN BN  
 ALC  
 C CO 554 EN BN  
 D CO 169 EN BN  
 C CO 554 EN BN  
 A CO 554 EN BN  
 C CO 35 EN BN  
 C CO 35 EN BN  
 B CO 169 EN BN  
 B CO 169 EN BN  
 D CO 554 EN BN  
 B CO 169 EN BN  
 EN ALC  
 1ST BDE 102 DIV  
 A 554 EN BN



# Educational Support Program

The Army Engineer Association is transitioning to an educational support program model for members of the Engineer Regiment. While we have retained the HOBSON STEM Scholarship program, we have transitioned all the other scholarships into a general educational support program. Both are sponsored by Trimble, a leading provider of advanced positioning solutions and technology.

Starting this year thru the AEA educational support program, we will review applications that support college education that leads towards a degree (for example traditional AS, BA, BS, etc). This program will also accept applications that are progress towards a certification or training in a technical skill or credentials. Applications will be reviewed by AEA committee on an annual basis each year to decide on which applications will be supported with a \$1000 award to be used only for tuition and/or book fees associated with courses taken at an accredited college, university, institution, or certification program. Applications for this program must be received NLT 30 June 2022 to Executive Director, AEA via mail or email. Please find the application at <https://armyengineer.com/wp-content/uploads/2022/01/AEA-Education-Support-Program-form-2022.pdf>.

The AEA Congressman David L. Hobson STEM Scholarship in the amount of \$3,000 each is awarded to up to three individuals annually. The scholarship is sponsored by Trimble, a leading provider of advanced positioning solutions that maximize productivity and enhance profitability. The scholarship is to honor Mr. Hobson's lifetime achievements in the advancement of military civil engineering, and to recognize Mr. Hobson for his commitment and dedication to improve the quality of life of our troops by improving facilities, housing, and opportunities for advanced education. This annual competition is open to qualified AEA members or family members of AEA members who are full-time undergraduate students pursuing a baccalaureate degree in Science, Technology, Engineering, and Math (STEM). The application deadline is 30 April and is at <https://armyengineer.com/wp-content/uploads/2022/01/Hobson-STEM-2022.pdf>.



**Recognize**  
*Excellence Within Our Ranks*

**Connect**  
*The Army Engineer Profession with Itself  
and Our Partners*

**Honor**  
*The Service and Sacrifice of Army Engineers*

**Preserve**  
*Our Shared History*

*Celebration of Life and Service*



**CSM (RET) IOAKIMO FALANIKO**  
**AUGUST 6, 1954 - OCTOBER 20, 2021**

Command Sergeant Major Ioakimo Falaniko, USA, Retired hails from the island of Samoa and entered the Army on 29 December 1976 and retired in December 2008. He received One Station Unit Training at Fort Leonard Wood, MO as a combat engineer. His stateside assignments include Fort Belvoir, VA; Three tours at Fort Leonard Wood, MO; Fort Bragg, NC; Fort Bliss, TX; and Fort Lewis, WA. His overseas tours include Hanau, West Berlin, Giessen, Germany; Camp Indian and Camp Howze, Korea and recently serve in Operation Iraqi Freedom, Iraq from 2003 to 2004.

CSM (Ret) Falaniko served in all key leadership positions in the field of combat engineers starting from Team Leader up to Command Sergeant Major. He was Command Sergeant Major for the 14th Engineer Battalion at Fort Lewis, WA; a former Command Sergeant Major of the 1st Armored Division, Engineer Brigade at Giessen, Germany; and a former Command Sergeant Major of the Engineer Brigade at Fort Leonard Wood, MO. He was the Senior Instructor for the Sapper Leader Course. Since retiring from military service, he was the Training Supervisor for the IED Division of Counter Explosive Hazards Center on Fort Leonard Wood and also worked as a consultant. His military education includes Bridgeman Primary Technical Course; Primary Leadership Course; Primary Noncommissioned Officer Course; Basic Noncommissioned Officer Course; Advanced Noncommissioned Officer Course; Drill Sergeant School; Master Fitness Trainer Course; Sapper Leader Course; Instructor Training Course; Instructor Supervisor Course; Airborne School; Ranger School; Air Assault School; Jumpmaster School; French Commando Course; and First Sergeant Course.

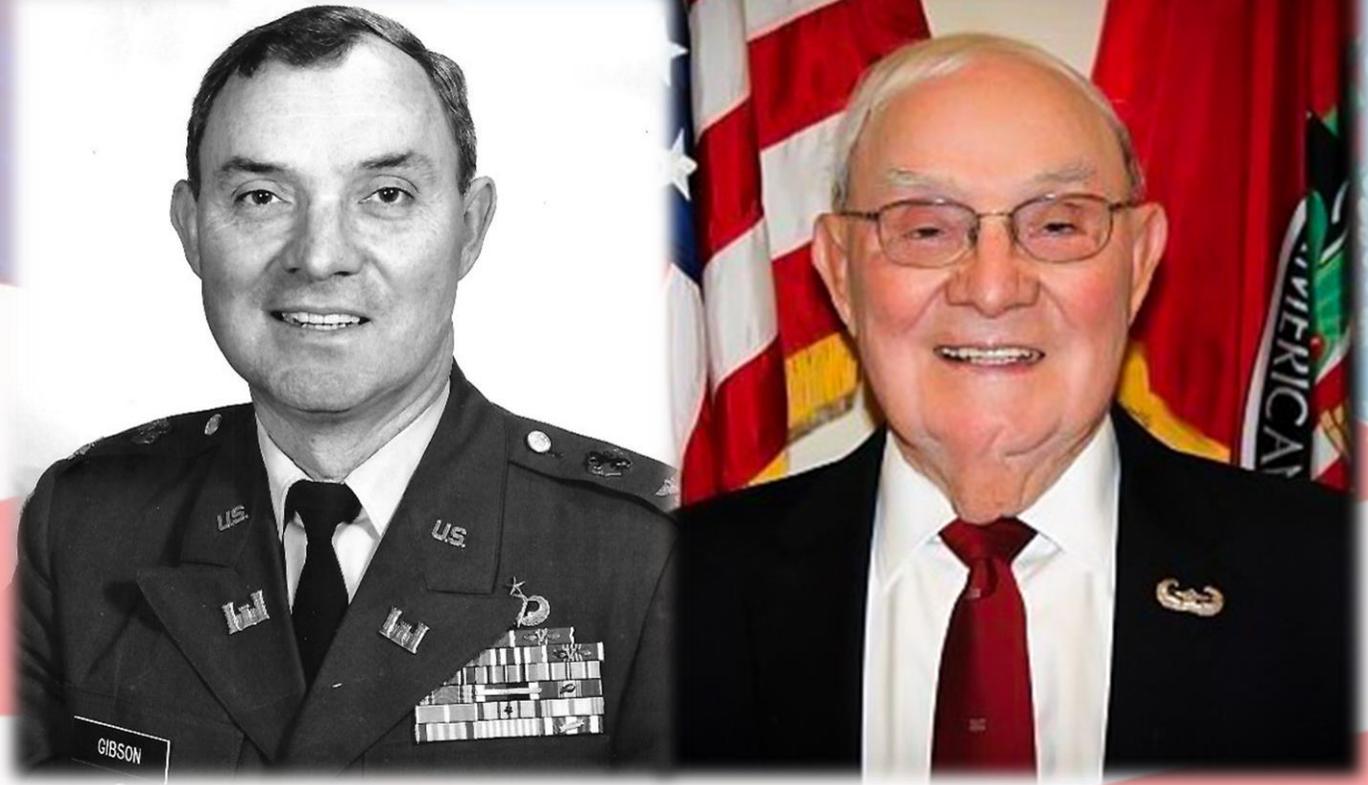
CSM (Ret) Falaniko is a graduate of Class-49 of the United States Army Sergeants Major Academy. Additionally, he holds an Associate Degree in General Studies from Central Texas College and a Bachelor of Science Degree in Business Administration with a Minor in Human Resource Management from Columbia College. His awards and decorations include: The Legion of Merit, (with 1 Oak Leaf Cluster) Bronze Star Medal (with 1 Oak Leaf Cluster); Meritorious Service Medal (with 3 Oak Leaf Clusters); Army Commendation Medal (with 3 Oak Leaf Cluster); Army Achievement Medal (with 5 Oak Leaf Clusters); Good Conduct Medal (10th Award); Army Occupation Medal; National Defense Service Medal; Global War on Terrorism Expeditionary Medal; Global War on Terrorism Service Medal; Korea Defense Service Medal; Military Outstanding Volunteer Service Medal; NCO Professional Development Ribbon (4); Overseas Service Ribbon (4); Army Service Ribbon; Ranger Tab; Sapper Tab; Master Parachutist Badge; Air Assault Badge; Drill Sergeant Badge; French Commando Badge; Canadian Parachutist Badge; and German Bronze Marksmanship Badge. He also was awarded the de Fleury Bronze and Silver Medal of the Army Corps of Engineer.

CSM (Ret) Falaniko is the winner of the military Meritorious Service Award presented by the Federal Asian Pacific American Council for his significant contributions to the advancement of Asian Pacific Americans and the promotion of equal employment opportunity in the Federal work force and APA community. CSM (Ret) Falaniko and his family are members of Gold Star Families.

CSM (Ret) Falaniko was a co-founder and a board member of the Sapper Association and also served in the position as Treasurer. He is survived by wife Maliana Afano Falaniko of St. Robert, MO, his son Niko Falaniko of Lakewood, WA, his daughter Adeline Fuata and her husband Walter Fuata of Waynesville, MO, and his daughter Otilia Falaniko of St. Robert, MO. He is preceded in death by his son Jonathan Falaniko, killed in action of Operation Iraqi Freedom in 2003; Niko and Maliana have six grandsons, Niko Jr., Jonathan, Mario, Julian, Randy, and Leikoi and one granddaughter, Ariana.



# Celebration of *Life* and Service



## **COL Edward C. Gibson, USA Retired JANUARY 1, 1926 – DECEMBER 26, 2021**

COL (Ret) Edward Gibson was a proud combat veteran of World War II, Korea, and Vietnam, and a dedicated civil servant, serving honorably and with distinction throughout nearly 50 years of public service. He began his military career in 1943, joining the U.S. Navy at the age of 17 and serving aboard the USS Augusta (CA-31) during the invasion of Southern France, and then the occupation of Japan. After World War II, COL (Ret) Gibson enlisted in the U.S. Army and upon graduating from Officer Candidate School (OCS) at Fort Riley, KS. he was commissioned as a second lieutenant in the U.S. Army Corps of Engineers.

His initial assignment was with the 307<sup>th</sup> Engineer Battalion (Airborne, Combat), 82<sup>nd</sup> Airborne Division, Fort Bragg, NC where he commanded Charlie Company and earned his Senior Parachutist Badge and was one of the last Soldiers to earn the Glider Badge. He then commanded Charlie Company, 65<sup>th</sup> Engineer Battalion (Combat), 25<sup>th</sup> Infantry Division in Korea during the Korean War.

COL (Ret) Gibson held a variety of combat Engineer command and staff positions including Deputy Chief of Military Personnel, Office of the Chief of Engineers, from 1966 to 1968. His first tour in Vietnam, from 1965 to 1966, he was an Engineer Maintenance Officer, Military Assistance Command-Vietnam (MACV). For his second Vietnam tour, COL (Ret) Gibson was selected to command the 65th Engineer Battalion (Combat), 25th Infantry Division, from December 1968 to December 1969. Although Vietnam battalion command tours were normally 6 months, he was retained in command for the entire year. He returned home to command the U.S. Army Engineer Center Brigade at Fort Belvoir for two years prior to his retirement in 1972 with 28 years of active duty. His numerous Military decorations included two awards of The Legion of Merit and three awards of the Bronze Star, one with "V."

Following his retirement from active duty, COL (Ret) Gibson was selected to be the Chief of Military Personnel, Headquarters, U.S. Army Corps of Engineers (USACE), a position he held for the next 20 years. It was in this position that he made many of his most significant contributions to the Corps of Engineers. COL (Ret) Gibson carefully managed the careers of the officers being groomed for the highest levels of Corps leadership making sure they received the assignments that prepared them for the most important Corps positions. He cultivated a close relationship with most of the engineer management and construction companies that do business with the Corps so that whenever they were looking for a separating Engineer Officer for a position, he was their first call. Because of that association, COL (Ret) Gibson placed hundreds of retiring Corps officers in their post retirement careers. It became common as part of the clearing process for separating Engineers to make sure they "gave a copy of their resume to COL (Ret) Gibson." Hundreds of retired Engineers can thank COL (Ret) Gibson for their post service employment. Upon his retirement from Federal Service, COL (Ret) Gibson was awarded the Exceptional Federal Civil Service Award and the Silver de Fleury Medal (Army Engineer Association award), for his outstanding and unflagging support and contribution to the profession of military engineers.

After leaving Federal Service, COL (Ret) Gibson established a non-profit company, 21 Delta Search, to help service members and public service personnel transitioning to the civilian work force. For nearly 30 years COL (Ret) Gibson mentored and placed hundreds of former service members in meaningful and satisfying employment. In 2004 he received Gold de Fleury Medal, the annual award to the individual whose contributions to the Army Engineer Regiment exemplify boldness, courage, and commitment to a strong national defense. COL (Ret) Gibson was clearly an outstanding model of those ideals.

The Society of American Military Engineers (SAME) Academy of Fellows also honored COL (Ret) Gibson with their 2000 Walter O. Bachus Gold Medal and their 2018 Golden Eagle Award for his decades of professional achievement and public service and his outstanding contributions to the engineering profession. The SAME also created the "Gibson Veteran Transition Medal" in his honor to recognize a SAME member annually for their superior efforts in assisting uniformed personnel in their transitions to the private sector. COL (Ret) Gibson leaves behind an enduring legacy and an unflinching devotion to his family and friends. He was a blessing and gift to us all, touching our lives daily with his warm smile, words of wisdom, and selfless acts of kindness and generosity. COL (Ret) Gibson is survived by his wife of 72 years Estelle; three children Beth (Greg) Parker, Jim (Kim) Gibson, and Clif (Monika) Gibson; six grandchildren, and nine great grandchildren.

# Celebration of *Life* and Service



CSM (Ret) LeRoy Mello enlisted in the U.S. Army in 1956 as a Combat Engineer. He served in numerous assignments to include Germany, Korea, and Vietnam. Among his assignments was being appointed the first enlisted Commandant of the Fort Leonard Drill Sergeant School followed by assignments as CSM 5<sup>th</sup> Battalion 3<sup>rd</sup> Brigade, CSM 194<sup>th</sup> Maintenance Battalion Korea, CSM 1<sup>st</sup> Battalion 2<sup>nd</sup> Brigade and then CSM 2<sup>nd</sup> Brigade, Fort Leonard Wood MO. In 1988 LeRoy continued serving his country as a civil service employee with the U.S. Army Engineering Center on Fort Leonard Wood. He retired in 2003 after 15 years of service. CSM (Ret) Mello was appointed and served as the Honorary Sergeant of the Engineer Regiment. He was married to Mrs. Hedwig Mello for 46 years and leaves to cherish his memory, his two sons: Eddie Mello of Waynesville, MO and Stefan Mello (Carol) of Avondale, AZ; daughter-in-law: Veena Mello of Memphis, TN; seven children: Maurice Robinson of Bowling Green, MO, Monika Mello of Memphis, TN, Cally Mello of Memphis, TN, Marquis Mello of Wichita, KS, Amy Martin (Colby) of Meta, MO, Elysia Mello of Avondale, AZ, and Kiarra Mello of Normal, IL; seven great grandchildren: Tyson and Dallas of Meta, MO, Ellamaye of Avondale, AZ, Kaidence of Wichita, KS, Ezekiel of Waynesville, MO and Christian and Asia of Memphis, TN; two brothers: Antone Mello (Mary ) of Detroit, MI, and Peter Mello of New Bedford, MA; two sisters: Estella Mello Sequeira of Milford, CT, and Frances Mello of Marion, MA; caregiver: Ora Taylor of Waynesville, MO; several other relatives and friends.

**CSM LeRoy Norman Mello, USA, Retired  
June 1, 1936 - October 31, 2021**

# **DID YOU SERVE WITH THE 4TH INFANTRY (IVY) DIVISION?**

**ALL UNITS FROM ALL CONFLICT ERAS SHOULD ATTEND THE**



## **104th National Convention July 26-29, 2022**

More details are posted on the 4IDA  
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# *Latest Combined Operations Require Innovative Preparation*

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All photos by MAJ William Allred*





*THE 926TH, AN U.S. ARMY RESERVE ENGINEER BRIGADE LOCATED IN MONTGOMERY, AL, ENDURED A RIGOROUS PLANNING PROCESS, WHICH ALL COMMANDS SHARE, TO INCORPORATE ARMY NATIONAL GUARD ELEMENTS IN A SUCCESSFUL WET GAP CROSSING AT FORT STEWART, GA IN JUNE 2021.*

*THE 926TH USED CREATIVE THINKING TO BRING TOGETHER THE 361ST AND 310TH MULTI-ROLE BRIDGE COMPANIES (MRBC) AND SOUTH CAROLINA NATIONAL GUARD'S 125TH MRBC IN A BREATHTAKING DISPLAY OF BRIDGE CREATION FOR LARGE MILITARY VEHICLES. OVERALL, THE OPERATION SOUNDS SIMPLE ENOUGH. ENGINEER SOLDIERS SECURE AND CONTROL AN AREA OF WATER, BE IT A LAKE OR RIVER, AND USE FLOATING PLATFORMS THAT WILL ALLOW BULKY FIGHTING AND TRANSPORT VEHICLES TO PASS. HOWEVER, TO INTEGRATE MULTIPLE COMPONENTS INTO SUCH A MANEUVER DEMANDS MONTHS OF COORDINATION AND CREATIVITY.*

*926<sup>th</sup> Engineer Brigade Soldiers guide collapsible raft into the water. Team detaches rigging from a raft truck while securing it to the boat for transport on 19 June. Soldiers have to constantly run boats to keep the river's current from taking the rafts.*



## EXTENSIVE PREPARATION

COMPREHENSIVE INTELLIGENCE OF THE ENEMY COMPOSITION AND DISPOSITION AND CROSSING AREA TERRAIN MUST BE DEVELOPED EARL SINCE PLANNING DEPENDS ON AN ACCURATE AND COMPLETE INTELLIGENCE PICTURE. SUPPORTING FORCES (SOME MAY NOT BE PRESENT IN HASTY GAP CROSSINGS) THAT TYPICALLY INCLUDE MRBCS, MOBILITY AUGMENTATION COMPANIES, AD MACS, AIR AND MISSILE DEFENSE AND ARTILLERY ELEMENTS, CBNR UNITS WITH OBSCURATION CAPABILITIES, AND MILITARY POLICE COMPANIES MUST LINK UP. THEY IMMEDIATELY BEGIN CROSSING PREPARATIONS AND ARE AVAILABLE TO TRAIN WITH THE CROSSING FORCE DURING REHEARSALS. FULL-SCALE REHEARSALS ARE ESSENTIAL TO CLARIFY ROLES AND PROCEDURES, TRAIN PERSONNEL, INSPECT EQUIPMENT, DEVELOP TEAMWORK, AND ENSURE UNITY OF EFFORT.



The latest version of Army Techniques Publication (ATP) 3-90.4, also known as Marine Corps Warfighting Publication (MCWP) 3-17.8, “Combined Arms Mobility” lays out the arduous process that requires many moving parts. July 2021’s operation was no different. On or about 21 July 2020, about a year prior to the event date, the 926<sup>th</sup> EN BDE began the process by producing a Warning Order to the 361<sup>st</sup> EN BN for its subordinate unit, the 361<sup>st</sup> MRBC. The company would conduct the Wet Gap Crossing operation at Fort Stewart. It would be multi-component with Active Duty and National Guard. From there, coordination began between the three services involving countless emails, teleconferences, and virtual meetings in accordance with and despite COVID-19 restrictions.

As with every military operation, there are tasks and standards each unit must accomplish to achieve mission success. Wet Gap Crossing operations require basic but vital steps called “fundamentals,” as detailed in chapter four of the regulation. The 926<sup>th</sup> and its units followed the second fundamental, Extensive Preparation, as their plans progressed throughout the year leading up to the event.

*Soldiers have to constantly run boats to keep the river’s current from taking the rafts.*

Coordination started by locating a National Guard unit willing to cooperate on the Wet Gap Crossing operation. An email led to a phone conference and became a steady In-Progress Review meeting on Microsoft Teams. After comprehensive conversations, South Carolina National Guard 125<sup>th</sup> MRBC joined the 361<sup>st</sup>’s effort in December 2020 and agreed to meet the unit in the middle, as they would manage building the far side of the bridge. The 361<sup>st</sup> thought to demonstrate the structure’s buoyancy with trucks, which another component would provide.

As a bilateral effort to the cooperative agreement with the 125<sup>th</sup>, the 926<sup>th</sup> opened a dialogue with Active-Duty Army to request a maneuver part to participate in the Wet Gap Crossing to supply large military vehicles. The 3<sup>rd</sup> Infantry Division (ID) answered the call with a small contingent of Bradley-style tanks, a fuel tanker, multiple M113 armored personnel carriers, and other transportation products. The heavy vehicles would be a true test for the raft bridge. Besides equipment preparation and management, only one planning element reminded - a workable location.

The 361<sup>st</sup> considered Fort Stewart’s Pineview Lake for the operation by ensuring priorities aligned with large-scale company movement and the bridging exercise. In December 2020, after the

## FLEXIBLE PLANNING

EVEN SUCCESSFUL CROSSINGS SELDOM GO ACCORDING TO PLAN. A FLEXIBLE PLAN ENABLES THE CROSSING FORCE TO ADAPT RAPIDLY TO CHANGES IN THE SITUATION DURING EXECUTION. IT ALLOWS THE FORCE TO SALVAGE THE LOSS OF A CROSSING SITE OR TO EXPLOIT A SUDDEN OPPORTUNITY. A FLEXIBLE PLAN FOR A GAP CROSSING IS THE RESULT OF THOROUGH STAFF PLANNING, NOT CHANCE. SUCH A PLAN FEATURE—

- MULTIPLE APPROACH ROUTES FROM ASSEMBLY AREAS TO CROSSING SITES.
- LATERAL ROUTES TO REDIRECT UNITS TO ALTERNATE CROSSING SITES.
- ALTERNATE CROSSING SITES AND STAGING AREAS TO ACTIVATE IF ENEMY ACTIONS CLOSES TO THE PRIMARIES.
- ALTERNATE GAP-CROSSING MEANS.
- CROSSING EQUIPMENT HELD IN RESERVE TO REPLACE LOSSES OR OPEN ALTERNATE SITES.
- MULTIPLE CROSSING MEANS OR METHODS.



926<sup>th</sup> selected a small pond at Fort Stewart for the operation, the 3<sup>rd</sup> ID requested a different location that would fall into a maneuver training exercise better. In response, the 361<sup>st</sup> Commander and staff conducted reconnaissance at alternate crossing locations to satisfy the request, gaining a larger working area for all involved.

The next problem forced all units to use Flexible Planning, another fundamental from the ATP, when the 361<sup>st</sup> reported personnel shortages, as bridging operations require many Soldiers as per ATP 3-90.4. The 926<sup>th</sup> asked 310<sup>th</sup> MRBC to augment the exercise, yet the 361<sup>st</sup> MRBC Plans section and Commander had to reach out to the National Guard and additional Reserve MRBCs to fill the roster completely.

With the analysis of the crossing sites complete, a crossing site chosen, and personnel shortages managed, the execution preparation began. The 361<sup>st</sup> MRBC and 361<sup>st</sup> EN BN drew up a concept that aligned the multiple components involved in the crossing. By the mid-planning conference in February 2021, the teams collected and refined initial plans in order to meet the Brigade's intent. Between the middle and final planning conference, the three MRBCs conducted planning calls bi-weekly via phone and Microsoft Teams to ensure that all coordination leading up to the exercise was consistent and complemented each other.

By the final planning conference in April 2021, all three MRBCs arrived at Fort Stewart to perform an on-ground assessment of the exercise execution and finalized details for the event.

When it came time to arrive for Extended Combat Training (ECT), rehearsals were of utmost importance. To resolve differences in individual Standard Operating Procedures (SOPs), the 926<sup>th</sup> observed the Organization fundamental in ATP 3-90.4 and brought each of the involved units under one set standard. When the three companies physically rehearsed, they identified and selected the most efficient approach for the culminating event. According to ATP 3-90, the Gap Crossing Planning requires months of coordination and numerous rehearsals prior to the exercise that improved the fluidity of co-operability. The groundwork of their efforts assisted in the success of that event and future multi-composition exercises as it streamlined the planning and coordination of combined operations.

Ultimately, the units executed the exercise flawlessly, leading to a maximized amount of training because of the meticulous planning process at the beginning and all the way to ECT.

# ORGANIZATION

COMMANDERS USE THE SAME ORGANIC COMMAND AND CONTROL NODES FOR GAP CROSSINGS AS THEY DO FOR OTHER MISSIONS. THESE NODES, HOWEVER, TAKE ON ADDITIONAL FUNCTION IN DELIBERATE GAP CROSSINGS. FOR THIS REASON, COMMANDERS SPECIFY WHICH NODES AND STAFF POSITIONS HAVE SPECIFIC PLANNING AND CONTROL DUTIES FOR THE CROSSING. DIVISION AND BCT/RCT COMMANDERS DESIGNATE A CAC, ENGINEER, AND HEADQUARTERS TO SPECIFICALLY FOCUS ON THE EFFORTS NEEDED TO CROSS THE GAP. ADDITIONAL ENGINEER OR MANEUVER ENHANCEMENT BRIGADE (MEB) HEADQUARTERS MAY ALSO PROVIDE COMMANDERS WITH ADDITIONAL COMMAND AND CONTROL NODES DEPENDING ON THE SIZE AND COMPLEXITY OF THE GAP CROSSING. THIS MAY REQUIRE SOME TEMPORARY COLLOCATION OF HEADQUARTERS CELLS (OR INDIVIDUAL AUGMENTATION) AND AN INCREASE IN COMMUNICATION MEANS. COMMANDERS CONDUCTING A DELIBERATE GAP CROSSING ORGANIZE THEIR UNITS INTO ASSAULT, ASSURED MOBILITY BRIDGEHEAD, AND BREAKOUT FORCES.



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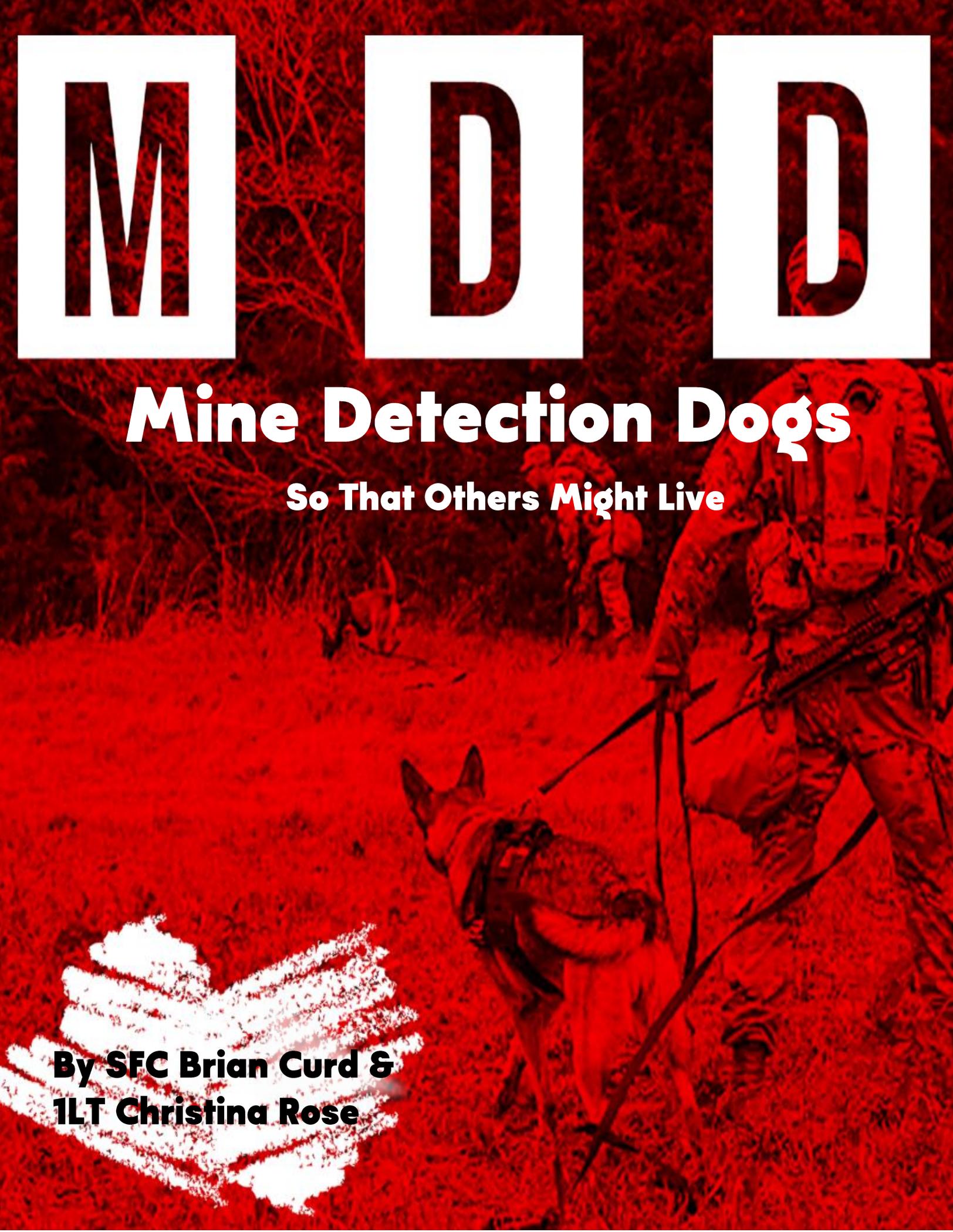
*1SG Justin J. Tranberg is the 926<sup>th</sup> Engineer Brigade S3 Operations Sergeant Major in Montgomery, AL where he ensures the details of all executable parts complete in accordance with regulation, safety standards and policy.*

# M D D D

## Mine Detection Dogs

So That Others Might Live

By SFC Brian Curd &  
1LT Christina Rose



**T**he utilization of Mine Detection Dogs dates back to the 1940s when the Royal Engineers trained a Dog Platoon to locate non-metallic mines during the invasion of Normandy. This was the quickest and most effective way of locating minefields thus creating what we know today as a Mine Detection Dog. Currently, the United States Army Engineer Corps has the only standing Mine Dog Detachment in the Army located at Fort Leonard Wood, MO. The 94<sup>th</sup> Engineer Detachment was first established under the Engineer Canine Company with two other Engineer Dog Detachments on October 17, 2005, creating a force multiplier. In 2015, the Canine Company disbanded and for the past ten years the 94<sup>th</sup> Engineer Detachment exercised their capabilities in finding explosive devices in Afghanistan, as well as clear an airfield in Mosul for the Iraq Army and conducted route clearance in Syria.

As the wars in Iraq and Afghanistan wind down and work becomes scarce, the Mine Dogs along with their handlers have been training for the next fight. There have been many misconceptions that Mine Dogs are only capable of finding buried landmines, however these dogs have the ability to find unexploded ordnance that have been left untouched for years.

They can provide support for route clearance, hasty or deliberate, open area searches, proofing, minefield searches and casualty extractions. In many cases the mine detection dog has proven to be faster than and just as effective as most explosive detection equipment.

Many of the current missions that have a need for Mine Dogs have increased within the Multi-Role Bridge Companies (MRBC) and clearance companies. Mine dogs have shown to be effective and useful to MRBCs when conducting wet gap crossings to clear possible road and slip improvement areas. The 94<sup>th</sup> Engineer dog teams recently integrated with 50<sup>th</sup> MRBC at Fort Riley, KS to provide detection assets in their wet gap crossing operations. Each platoon utilized a dog team when establishing their boat slips to ensure the area was clear from possible explosives on the near side of the area of operations. Due to the quickness and versatility of a mine dog team, not only were they able to clear the near side boat slip, but while the wet gap crossing operation were being initiated the dog teams traveled by rafts to clear a path on the far side to establish a secure landing point. This operation was the second time 94<sup>th</sup> Engineer Detachment intergraded with 50<sup>th</sup> MRBC to successfully complete a company exercise

Photo left: SPC Ayala with MDD Lizi and PFC Curlee with MDD Clau team up to clear 800 meters of open area. SGT Muckridge and Military Detection Dog (MDD) Bax captured while exiting a chinook to conduct helocast training. Photos by SGT Brendan Herrington.





PFC Thao with MDD Jesse create a safe and clear route in order to extract an immobile casualty. Photo right: SGT Hardcastle and SGT Burchett assist another handler in Rappel Operation in order to train in additional insertion methods. Photos by SGT Brendan Herrington.

evaluation. Given the positive feedback from these operations over the past two years, the detachment is set up to broaden their mission scope.

Additionally, to MRBCs, Mine Dogs have shown to be valuable to clearance companies by providing an additional dismount asset. By including Mine Dogs in a clearance package, the unit can gain an additional asset to assist in locating and identifying explosives on ground. In the first week of August 2021, the 94<sup>th</sup> Mine Dog Detachment aligned with 509<sup>th</sup> CC during their platoon live fire exercise. Three teams intergraded with each platoon to show case their capabilities as they conducted clearance missions along a route. During this operation platoons efficiently and effectively employed dog teams on a 200-meter route in which they cleared in ten minutes finding any and all explosives.

Aside from integrating with our sister units and expanding our capabilities, the 94<sup>th</sup> Engineer Detachment has continued to mold and perfect the skills they were taught to use. These dog teams can clear anything from an open area of any size to a route leading to a casualty. They can use many insertion methods such as rappelling, winching, hoisting, or boating thus proving to be just as versatile as any Soldier. With to integrate with all unit and most missions, the 94<sup>th</sup> Engineer Detachment can help the Army be successful in the next fight.

SFC Brian Curd is currently stationed at Fort Leonard Wood, MO with the 94<sup>th</sup> Engineer Detachment, 5<sup>th</sup> Engineer Battalion as the Kennel Master. With 7 years of dog training experience and a 12-month deployment as a dog handler, his current duties consist of ensuring the health and welfare of all K9s and the deployable readiness of all dog teams.

1LT Christina Rose is currently stationed at Fort Leonard Wood, MO with the 94<sup>th</sup> Engineer Detachment, 5<sup>th</sup> Engineer Battalion. Served as a Sapper Platoon Leader prior to taking the position of Detachment OIC, her current duties consist of ensuring all training events are supported and provide supervision of all activities within the Detachment.





# HISTORY OF THE DE FLEURY MEDAL

The U.S. Army Engineers have been around for over 240 years. By being in the Regiment you are already part of a brilliant living history. Why not be recognized for your significant contributions to Army Engineering? You are encouraged to pursue honors like the de Fleury Medal which is the highest award for professional excellence in the Engineer Regiment. The medal is named for a French Engineer Francois Louis Tesseidre de Fleury, a French engineer who served with the Americans during the American Revolutionary War. The Continental Congress appointed de Fleury a captain of engineers, and he quickly proved himself through courage under fire. There is a Gold, Silver, Bronze, and Steel Order of the de Fleury Medal.

To learn more about the de Fleury Medals please join the Chief of Engineers MG Scott A. Spellmon at <https://www.facebook.com/watch/?v=207461088204734> or <https://armyengineer.com/awards/> at Army Engineer Association for more details.



# VERSATILITY OF PRIME POWER

## 249<sup>th</sup> Engineer Battalion Makes Showing at 37<sup>th</sup> Annual International Lineman's Rodeo

By Ms. Reagan Zimmerman Photos by SGT Lucas Remillard





### **Journeyman Results Overall**

**26. U.S. Army 249th Engineer Battalion B Company**

**61. A Co., 249th EN BN (Prime Power) (702)**

**72. Delta Company 249th EN BN**

**105. A Co., 249th EN BN (Prime Power) (701)**

### **Apprentice Results Overall**

**34. HHC, 249th Engineer Battalion (1703)**

**35. C Co., 249th Engineer Battalion (Prime Power), USAC (1708)**

**40. HHC, 249th Engineer Battalion (1700)**

**49. C Co., 249th Engineer Battalion (Prime Power), USAC (1707)**

**76. C Co., 249th Engineer Battalion (Prime Power), USAC (1705)**

**86. C Co., 249th Engineer Battalion (Prime Power), USAC (1704)**

**93. HHC, 249th Engineer Battalion (1701)**

**135. D Co., 249th EN. BN. (1709)**

**163. C Co., 249th Engineer Battalion (Prime Power), USAC (1706)**

Soldiers from the 249<sup>th</sup> Engineer Battalion, Prime Power, combined their military and professional skills to compete in the 37th International Lineman's Rodeo at the National Agricultural Center and Hall of Fame in Bonner Springs, KS, on October 16, 2021. Teams and apprentices from all five companies within the battalion registered to compete: three active companies, Alpha Company, Bravo Company, Charlie Company and Higher Headquarters Company, and the battalion's reservists, Delta Company. "Each team consists of two journeyman climbers and one journeyman groundman," SSG Joseph Hak of Delta Company out of Cranston, R.I., continued, "Apprentices compete individually—they function as their own team—and compete in the entire pool of apprentices."

Journeymen linemen and groundmen are trained to build and maintain electrical power systems, whereas apprentices are there to practice their industry skills and one day become journeymen. The teams and apprentices participated in four different events: the hurt-man rescue, pole climb, hot-sticking challenge and an obstacle course. Each mission was designed to test different industry skills like climbing and agility, but the overall goal was safety.

SSG Hak indicated that "For this [competition] in particular, this is more of an event where we are really honing our skills... [but] you're also exercising safe and effective work measures while maximizing workers efficiency." He explained that this competition gives them a practical timeline to accomplish a realistic task that they will see in everyday operations, whether it's the civilian sector or the military sector. All three Soldiers on Delta Company's team work in the power industry as civilians. That experience helps them succeed as Army linemen. He stated that "I think one makes you better at the other. Like my civilian trade introduced me to a whole breadth of development as a lineman. As far as being a lineman in the Army, it's realistically the same thing but it also introduces the additional responsibilities of soldiering, warrior tasks and battle drill."

*SSG Joseph Hak & SSG Patrick Miller, assigned to the Delta Company, 249<sup>th</sup> EN BN, Prime Power are competing in the Journeyman Mystery Event 2 in the International Lineman's Rodeo alongside industry professionals. These event tests the Lineman's ability to perform the required tasks within a set time period. Photo by SGT Lucas Remillard, D Co. 249<sup>th</sup> EN BN, United States Army Reserve.*

*SFC Class Mathew Walker is assigned to Alpha Company, 249th EN BN, Prime Power, competes in the Journeyman Pole Climb Obstacle Course. Photo by Ms. Reagan Zimmerman, USACE.*

*A Soldier from the 249<sup>th</sup> EN BN, Prime Power, competes in the Apprentice Pole Climb Obstacle Course. Photo by Ms. Reagan Zimmerman, USACE.*

*SSG Patrick Miller, assigned to the Delta Company, 249<sup>th</sup> EN BN, Prime Power, is about to run the Journeyman Agility & Stability event. The event tests the Lineman's ability to traverse up and down the pole will being agile and nimble to prevent breaking an egg. Photo by SGT Lucas Remillard, D Co. 249<sup>th</sup> EN BN, United States Army Reserve.*



For the other teams from active companies, this competition served another purpose. This was their chance to get real-life industry experience. “We don’t do this every day. We probably had about two months to get ready for it,” SFC Mathew Walker of Alpha Company out of Schofield Barracks, HI stated. In their “normal jobs,” the active Soldiers have the 12P Military Occupation Specialty, Prime Power

Production Specialist, and work to generate and provide power for civilian and military customers at their respective stations. To become an Army lineman, they go through supplemental training and take on the U4 identifier, Power Line Distribution Specialist, under their MOS. Real world simulations like the rodeo are where they expand on their key skills. “These experiences are where we learn a lot as a Prime Power Soldier, not just a lineman... [This competition] helps the entire engineer regiment [because] we get that little bit of extra hands-on experience for when we have to travel and set up distribution and an actual electrical grid,” Walker revealed. The 249<sup>th</sup> active and reserve units also play an important part in disaster relief efforts, working alongside the U.S. Army Corps of Engineers. He continued that “We have the actual electrical engineers on the civilian [Corps of Engineers] side and they have the ‘on paper’ knowledge,” SFC Walker said. “When you pair us together with them, we have that hands on experience to say ‘yeah that works on paper but have you thought of it this way’, so pairing us together... it works beautifully.”

Some of the Soldiers mentioned that they have worked alongside Kansas City District, U.S. Army Corps of Engineers personnel and said they were great partners. According to SFC Walker, their battalion’s presence at the Lineman’s Rodeo was to practice for disaster relief and real-life scenarios, but he also hopes people witnessed their wide range of abilities. “[People] have heard of us but they don’t quite know what our capabilities are. They don’t know that we are so well versed in basically anything electrical because we can do anything from the 12R side, which is the interior work, to the mechanic side, which is the 91D side. We have that knowledge base so that we can pick up and just go,” expressed SFC Walker

SSG Hak spoke on behalf of the battalion to express appreciation for their versatility. Prime power Soldiers, active or reservist, are proud of what they do. “Those guys that take the extra time and energy to practice this profession and they take their U4 identifier very seriously is really appreciated from Delta Company and the rest of the battalion,” SSG Hak stated.

SFC Walker added that “I love this battalion—I’ve been in it just over 10 years now—and I am glad to stay and consider myself a Prime Power Soldier still today.”

*Ms. Reagan Zimmerman has spent the last four years in the communications industry while simultaneously earning her degree. Ms. Zimmerman is a recent graduate with a Bachelor Journalism Bachelor of Arts degree from the University of Wisconsin-Madison with an emphasis in reporting and strategic communication. During that time, she also chased her passion for telling the Army story through positions with Army Cadet Command and the UW-Madison Army ROTC Battalion.*

# ESSAYONS

JULY 2011-  
JUNE 2012

THE MILITARY: ASPECT OF  
SELFLESS SERVICE

CHALLENGES  
AS A CIVILIAN  
SUPERVISOR

HER BOOTS-ON-THE-GROUND  
EXPERIENCES

INTERVIEW

## CHERYLE IN KABUL

EXPERIENCES IN AFGHANISTAN

By CPT (Ret) Joan Grey

Cheryle and her husband have been our friends since we were stationed in Germany together in the early 80s. Given current events, I was curious about her boots-on-the-ground experiences from two deployments in Afghanistan. Her perspective is unique because she and her son, Tom, served at the same time during her first deployment.

### **But first some background**

Two things drew Cheryle to the military: the aspect of selfless service and the examples of her father, a World War II Navy veteran, and her grandfather, a World War I Army veteran. When she was a high school senior in 1973, Army Reserve Officers' Training Corps (ROTC) opened to women as part of the transition to an All-Volunteer Force. Cheryle chose the military, despite the post-Vietnam turmoil still roiling campuses. As one of the first women in Army ROTC at Michigan State, things did not always go smoothly. When it came time for uniform issue, the supply sergeant took a man's outfit to a local tailor for alterations, including having the pants converted into a skirt. That MacGyver solution worked until women's uniforms showed up in inventory a year later.

Cheryle was commissioned as a Quartermaster officer and served three years on active duty before joining the Army Reserves. She was a stay-at-home mother and a trailing spouse until her youngest started school. Then she became an Army civilian employee and rose through the ranks, eventually working at the Pentagon. She also continued in the Reserves, retiring as a lieutenant colonel in 2004.

Cheryle talked about some challenges as a civilian supervisor. Her office was having timecard fraud issues, which Cheryle resolved. Her boss wanted to let the problem slide. Cheryle took it as a compliment when she was counseled for

“having a clearly defined sense of right and wrong that she was willing to make obvious to others.” It also made her realize, it was time to do something else with different people, which led to her second deployment to Afghanistan.

### **So why Afghanistan?**

The first deployment was because her son called her bluff, but he did not realize -- Cheryle never bluffs. Cheryle found out that her son, Tom, had volunteered to go to Afghanistan. He had already spent 14 months in Iraq. While there, he survived being 20 meters from a rocket's impact -- luckily protected by a blast wall (T-wall) -- that killed soldiers in his unit. Cheryle told him: “If you do something that stupid, I'm going to Afghanistan too.” Tom went. And Cheryle followed through on the challenge. She found a job with the Corps of Engineers and showed up in country three months after her son. He was in Kandahar in the south and Cheryle was in Kabul to the north. She spent 12 months as the Chief of Operations and Maintenance for the Afghanistan Engineer District North (July 2011- June 2012). Her staff of Americans and Afghan contractors provided facility engineering and maintenance of US-designed and built facilities across northern Afghanistan until Afghans could be trained to take over. 4 months in Iraq

Cheryle volunteered for her second tour after her boss counseled her for her integrity. She spent nine months (September 2013-Jun 2014) in the Ministry of Defense Advisors (MoDA) Program as a Senior Advisor to the Afghan Director of Procurement in the Ministry of the Interior (a 2-star general). She redeployed early as she was selected to attend the U.S. Air Force's Air War College.



EXPERIENCES IN AFGHANISTAN

## Day to day

The workweek was a grind. Six days a week, Cheryle would work from “oh dark thirty” to whenever the job was done, normally 12 hours a day. The seventh day, Friday, was a half day, so only about 6-8 hours. Several times a week, she visited Afghan National Security Force (Army and National Police) compounds located across northern Afghanistan. During her first deployment, she was lucky to live in a shipping container (CHU -- Containerized Housing Unit) by herself. On her second tour, she shared a CHU with a roommate until that compound (Camp Eggers) closed and everyone moved to the NATO International Security Assistance Force (ISAF) compound. Then Cheryle lived in a brick building that provided more security, again with a roommate. Food was decent in the dining facilities. While there was steak and lobster every other week, they tended to be tough or rubbery. Cheryle reported on another food item: “Americans are passionate about their bacon. Soon after the move to ISAF, the dining facility served ‘bacon’ that was just uncured pork belly. The feedback was immediate and extremely emphatic. We got American-style bacon every day after that.”

## Funny & sad stories

“The Afghans really did not know things that we take for granted.” When Cheryle was in charge of the operations and maintenance, a secondary mission was to transition facility engineering to the Afghans. But, before that could happen, Cheryle and her staff had to teach fundamental literacy: “When we were training Afghans for electrical work or to do plumbing repairs or carpentry, we first had to teach them math to bring them up to the fourth-grade level, so that we could then teach them all these other skills.” Cheryle gave some examples of cultural incompatibilities.

*In one building, the circuit breaker box was installed inside the shower room. And the reason it was put inside the building is because if you put it outside, the components get stolen and sold on the black market. So, you put it inside for security. But when Afghan soldiers were hosing down the bathroom, they hosed down everything. The wall had scorch marks from where the circuit box got wet.*

When Cheryle was inspecting the bathroom, an Afghan in uniform knew he was being watched, so he did a really, really good job cleaning. “He hosed the light right out of that light fixture. It was going to be spotless when he got done with it. The light fixture was sparkling clean, but after getting drenched with water, the light no longer worked. There were many repair orders like that.” Engineers would make building designs for Afghan security compounds from offices back in the States for the Corps to build to US specs, without knowing what would work for clients.

*Facility designs were often based on our cultural perspective. For example, little sinks hanging on walls did not work. Afghans wanted troughs that support ablutions, the Muslim purification rituals. Sinks were constantly getting broken off the walls when Afghans tried to wash their feet before prayer.*



“Having been at war for three decades before the United States showed up, Afghanistan’s supply chain was pretty bad. On the hierarchy of needs, toilet paper is not common, so the Afghans use stones or water to clean themselves. They use pit toilets, ideally with short pieces of garden hose with water, which acts like a bidet.” Whereas we sit to sh!t, they squat to pot. “Flush toilets were constantly getting clogged with stones. And more infuriating, Corp of Engineer engineers never modified designs. They did it the way they always do it.”

Her first tour’s low point came when one of her employees was kidnapped, strangled, and run over. A member of their Personal Security Team (PST) was arrested as an accomplice in this apparent “murder for hire.” No rationale for the killing was ever clear, but investigation revealed it was a criminal act, not Taliban. This incident had a chilling effect. Cheryle said, “The security guy had been working with the staff for years. Everyone always thought he was one of the ‘good guys.’ And then, we are just really demoralized. Who do you trust?” It was a really difficult time but, to their credit, none of her Corps of Engineer employees requested redeployment - which civilian employees could have done.

### **The high point**

Though they overlapped for nine months, Cheryle got to see her son only once. Tom was going to Kandahar to get training at the same time Cheryle was there attending a conference on her program: “Thanksgiving was one of the five U.S. holidays that the Corps of Engineer employees observed in country. The conference ended on the Wednesday before Thanksgiving, but my boss said that I could come back on Friday. When my conference ended, I took a helicopter to Tom’s forward operating base (FOB) and got to spend Thanksgiving

with him. He actually had a seat in his MRAP (Mine-Resistant Ambush Protected vehicle) for me to ride along, but he automatically went with me going on a helicopter. I did not argue. Neither one of us said anything, but if that vehicle had run into an IED (improvised explosive device) and we were both killed, it would have been just too hard on the family, so we went separately.”

Was it worth it? Did you feel like you were contributing to peace on earth with the work that you were doing? Cheryle replied: “I can only speak for myself. No matter what has happened, I feel a sense of purpose from the time I spent in Afghanistan. Three things made a difference: First, the training that we did to help bring Afghans up to a fourth-grade education level. Education is basic, but essential.

Second, role modeling. I drove over to the Ministry of Interior headquarters, so the Afghans would see a woman driving. I attended and spoke at meetings with senior military and National Police Afghans. I explained to my Afghan counterparts that my children were grown, and my daughter was at home with her father, so I was free to come and try to help the Afghan people. That seemed to make sense to them. (My age helped.) I was an object of curiosity for the junior Afghan police, but they were always polite and curious in a friendly way. My presence served as a role model for women in non-traditional roles.

And third, I think we have planted seeds. And now, it is up to the Afghan people to decide what they want going forward after generations in a war-like situation. Education and communications are the tools they need to have the kind of government that they really want. Abolishing corruption isn’t easy but is key to having a government the people support.”

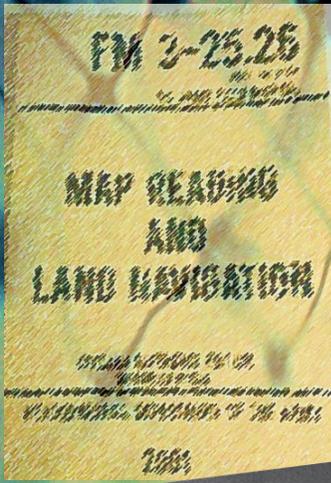
Cheryle added: “the average Afghan is just like us. Everyone wants stability. We want the ability to live without fear. And, we want our children to have a better life with opportunities to succeed.”

### **Cheryle’s message to the future**

“I’m proud that I got the opportunity to do the work I did in Afghanistan. And I am grateful that my family supported me, not only for one but for two tours. I think the American presence was worthwhile. We all need to realize the Afghans are not the enemy. Most people are just like we are. The enemy is just a tiny sub-section, which happens to be a very violent subsection.” *This essay is based on a Zoom conversation with Cheryle about her AFG experiences (8/25/2021). The interview has prompted her to gather materials to submit to the Veterans History Project (VHP) at the Library of Congress Veterans history project <https://www.loc.gov/vets/>.*



*CPT (Ret) Joan S. Grey graduated from West Point in 1980 as a member of the first class with women. She retired as a Captain after a parachute accident. As a military spouse, she had diverse jobs including hospital chaplain, environmental educator, and fundraiser. CPT (Ret) Grey earned graduate degrees from San Jose State in 1989 and from Harvard in 2019 and spent COVID adapting her Harvard thesis, *Awakening to Mortality*, into a book *Good Goodbyes: A Mortal’s Guide to Life*.*



## MACHINE CAB ENVIRONMENT



MILITARY

2D / 3D

GRADE

CONTROL

TRAINING

SIMULATOR

By Mr. Ron DeHays

Simulator





2D / 3D Grade Control Training Simulator Allows US Army Heavy Equipment Operators in ESC, ECC and BEB Units to train on 2D /3D Grade Control in the classroom without stepping foot on a machine. SST Brady A. Miller, Horizontal Construction Supervisor, B Co, 6th BEB (A) – “The 2D /3D Grade Control system is a game changer. Coupled with the simulator, we were able to train with a standard that increased operator proficiency by becoming more familiar with the control panel and machine joystick controls. The operators were also able to see in depth project specifications through a design created by the 12T survey team. It allowed an innate understanding that created an overall thorough strategy for project completion and design.”

*Recently fielded 2D /3D Grade Control Equipment to ESC, ECC and BEB Units*

The 2D / 3D Grade Control simulator is a Mission Driven grade control simulator for accelerated and cost-effective training of Army Heavy Equipment Operators with recently fielded 2D /3D Grade Control equipment received at many ESC, ECC, and BEB Units. The simulator enables Training Schools to deliver 2D / 3D Grade Control System training in a safe and realistic environment that resembles the machine cab environment without using valuable machine time and fuel on the construction site while reducing soldiers' exposure to hazardous risk. The simulator system not only trains soldiers to become technically proficient but also boosts their critical thinking skills. On average this training tool saves up to eight hours of machine operation time per student.

The 2D / 3D Grade Control Mission driven simulator features fully interactive joysticks, control panel emulator, and site simulator allowing Army operators of all experience levels to become 2D /3D grade control efficient. Units benefit from having skilled operators that can get to grade faster with less re-work.

Initially the equipment operator begins by practicing the exercises in the Field Reference Guide using the control panel emulator. The control panel can be viewed on the laptop or moved to a smaller 14' second monitor. Each system includes a 15' HDMI cable for connecting to a larger, remote monitor. To begin, the student selects a machine type and a jobsite from several pre-loaded sites and can begin using the simulator section of the system.

The system also allows changing views such as inside the cab, outside the machine, and different positions on the model/site. The 2D /3D Grade Control simulator helps operators become familiar with 3D design models and interact with the control panel just as they would in a machine cab on a real mission. The system allows an operator to load a real project into the 2D / 3D grade control simulator. With realistic virtual graphics, users can see their actual jobsite and the machine operation working together.

*Mr. Ron DeHays, Enterprise Account Manager, Trimble Government Solutions, Grade Control Products. With Trimble for 21 years selling, training, and supporting Trimble Grade Control Products for the Commercial Sector and for the last 4 years selling and supporting our Soldiers in all Military Branches.*

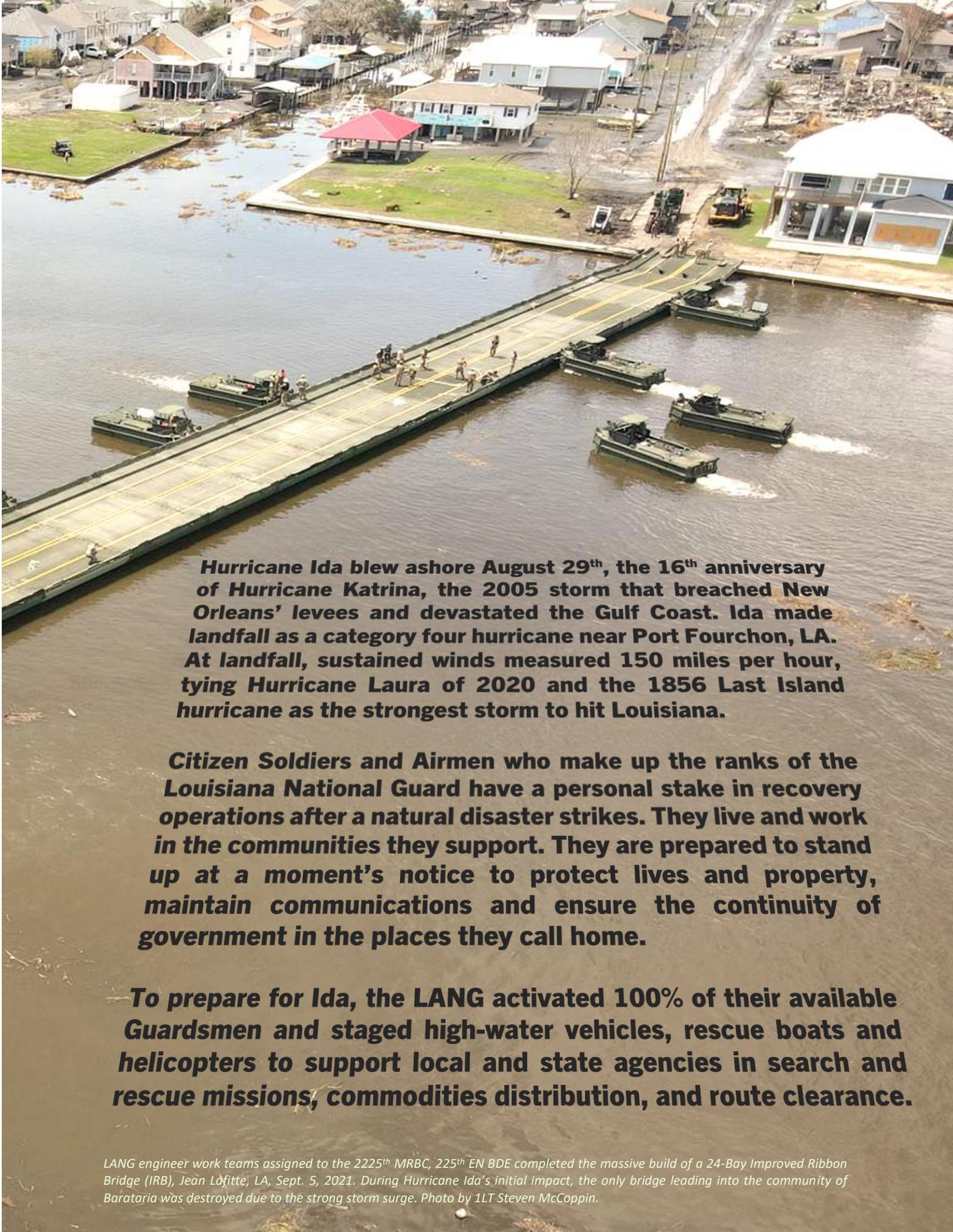




# LOUISIANA GUARD BUILDS BRIDGES CLEARS ROADS TO RECOVERY AFTER IDA

**By SGT Renee Seruntine**





**Hurricane Ida blew ashore August 29<sup>th</sup>, the 16<sup>th</sup> anniversary of Hurricane Katrina, the 2005 storm that breached New Orleans' levees and devastated the Gulf Coast. Ida made landfall as a category four hurricane near Port Fourchon, LA. At landfall, sustained winds measured 150 miles per hour, tying Hurricane Laura of 2020 and the 1856 Last Island hurricane as the strongest storm to hit Louisiana.**

**Citizen Soldiers and Airmen who make up the ranks of the Louisiana National Guard have a personal stake in recovery operations after a natural disaster strikes. They live and work in the communities they support. They are prepared to stand up at a moment's notice to protect lives and property, maintain communications and ensure the continuity of government in the places they call home.**

**To prepare for Ida, the LANG activated 100% of their available Guardsmen and staged high-water vehicles, rescue boats and helicopters to support local and state agencies in search and rescue missions, commodities distribution, and route clearance.**

*LANG engineer work teams assigned to the 2225<sup>th</sup> MRBC, 225<sup>th</sup> EN BDE completed the massive build of a 24-Bay Improved Ribbon Bridge (IRB), Jean Lafitte, LA, Sept. 5, 2021. During Hurricane Ida's initial impact, the only bridge leading into the community of Barataria was destroyed due to the strong storm surge. Photo by 1LT Steven McCoppin.*

Cars cross an IRB after Hurricane Ida in Jean Lafitte, LA., Sept. 8, 2021. Louisiana National Guardsmen assigned to the 2225<sup>th</sup> MRBC, 225<sup>th</sup> EN BDE constructed the temporary floating bridge after storm surge from Ida damaged the only bridge that connects to Barataria. Photo by SSG Josiah Pugh.



Louisiana and Mississippi without power. In order for contractors, emergency services, military, and local citizens to reach the affected areas safely for continued recovery efforts, the engineer brigade cleared more than 2,900 miles of road from mud, trees, and debris and more than 50,000 cubic yards of debris from municipal buildings. "Getting to see the Soldiers do their jobs and for it to be impactful has gone from something that we're doing to something with an actual purpose in mind," expressed

expressed CPT Kyle Schmidt, a resident of Baton Rouge, LA and commander of the 2225<sup>th</sup> Multi-Role Bridge Company (MRBC), a unique unit in Marrero and Slidell, is trained to deploy the Improved Ribbon Bridge (IRB), a portable, floating bridge used for military convoys to cross waterways. The 225<sup>th</sup> has found ways to implement the IRB during emergency response operations dating back to the Deepwater Horizon oil spill in 2010.

Currently, the bridge company is using the IRB to temporarily replace the only bridge that connects to the Barataria community in Jean Lafitte, La. that was taken out when two shrimp boats collided with it during the storm. "With the main bridge out in Lafitte, we have an isolated community of 400 people with no access to emergency services," said Schmidt. "It was the beginning of a bad situation, and it became critical to be able to get emergency services over to the other side."



The LANG's 225<sup>th</sup> Engineer Brigade typically conducts mobility, counter-mobility, survivability, and civil engineering support missions. After Ida they used those skills to support local and state officials in efforts including flood diversion, vehicle and boat search and rescue, logistics, waterway hazard recovery, route clearance and debris cleanup. "When a storm has passed, we need to get on the ground immediately to assess and clear routes for emergency access and for power

companies to start working," said COL Greg St. Romain, a resident of St. Francisville, LA, and commander of the 225<sup>th</sup>. "We're doing everything from route clearance to debris clean up." Ida created many challenging circumstances for the engineers from extensively damaged electrical equipment flooding, downed trees and power lines to a bridge that was rendered unusable by storm surge. "Working in the 225<sup>th</sup> during Hurricane Ida recovery has been quite the experience, especially

after coming off of a deployment," explained SPC Javacia Blunt, a resident of Winnsboro, LA. "It was an awesome experience to be able to work with the local officials to assist them on the road to recovery. Protecting what matters is what matters to me most." According to the Entergy Corporation, one of the region's largest electric power suppliers, Ida took out more poles than hurricanes Katrina, Ike, Delta, and Laura combined, and left more than one million homes and businesses in

Top: LANG assigned to the 225<sup>th</sup> EN BDE work to fill Super Sacks that assist in flooding blockade, Des Allemands, LA., September. 1, 2021. Photo by SSG Josiah Pugh. Middle: LANG with the 2225<sup>th</sup> MRBC ferry emergency responders and equipment from Lafitte to Barataria to assist locals with recovery efforts, Jean Lafitte, LA., September 4, 2021. The only bridge to Barataria was damaged during Ida and was rendered inoperable. Photo by 1LT Steven McCoppin. Bottom: Soldiers of the 1023<sup>rd</sup> Engineering Company, 225<sup>th</sup> EN BDE, assist in the removal of mud and debris from the main road after Ida in Grand Isle, LA in September. 5, 2021. Grand Isle was one of the hardest hit areas during Ida. Photo by SGT Renee Seruntine.



Before the temporary bridge was complete, the MRBC used sections of the IRB to ferry emergency response vehicles across the waterway. To date more than 10,000 vehicles have used the bridge. "It's hugely impactful. We've talked to some who have been so thankful because they did not know how they were going to get to their homes. It's been told to me that, 'It's a godsend that we're here' and that's how we look at it," said 1SG Johnny Hagan, a resident of Pineville, LA. "All the sweat, hot days, long days; it's all worth it knowing that this community can get back to their homes and continue trying to rebuild their lives."

SSG Jose Flores, the 2225th's supply sergeant, has been in the MRBC since 2010 and has supported every emergency response mission since then, including the Deepwater Horizon oil spill, flooding throughout the state in 2016, hurricanes Laura, Delta, and Zeta last year and now Ida. He is seen first-hand how the unit has used their ingenuity to implement the IRB and bridge erection boats to support Louisiana communities when they need it most. "We always stay ahead of the game and train by performing disaster response exercises annually with the local officials to stay prepared," stated SSG Flores, a resident of Marrero, LA. "In addition to our main mission of building bridges, we've found that our boats are extremely effective for search and rescue in areas where the current is too strong for smaller boats to navigate. We're very dynamic. We've become versatile, and we are adaptable to any mission that comes our way," said COL St. Romain. "I can't be more proud of the Soldiers within Task Force Castle and how they're operating. They continue to accomplish any mission and any task that comes their way."

SGT Renee Seruntine is a Public Affairs Specialist assigned to the 241<sup>st</sup> Military Public Affairs Detachment in the Louisiana National Guard. She is responsible for the research, preparation, writing, and photography for new releases and articles highlighting the Louisiana National Guard's efforts stateside and abroad.

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# FALCONRY



## *By Ms. Tiffany Natividad*

Mr. Greg Thompson, Tulsa District Knowledge Management Specialist and General Falconer, met with local Scouts BSA Troop 918 out of Central Church of the Nazarene, Tulsa, OK on September 27, 2021, for a Falconry presentation. Thompson and his Red-Tailed Hawk Shuri put on a presentation for the Scouts to educate them on the purpose and process of becoming a falconer.

Falconry is one of the oldest hunting sports with depictions dating as far back as 13th Century BCE but became widely popular in the late 1700s. Today the sport serves as a conservation tool for the birds. One out of four juvenile hawks do not survive beyond their first year due to injury and predation. By capturing the



birds and training with them in the sport, it helps increase the raptor population. Mr. Thompson explained that "In order to become a licensed falconer, you have to apply through the state Wildlife Department and pass a 100-question test. Once this is accomplished you become an Apprentice falconer."

During a span of two to three years, the apprentice goes out with their sponsor during the October through March hunting season to work with their bird. A sponsor must be a General Falconer that is willing to take on an apprentice and supervise them and their bird for two years. An apprentice is only allowed to possess one bird. After completing the

apprenticeship, the Falconer can apply to be a General Falconer and then, after five years, a Master Falconer. A General and Master Falconer no longer need a sponsor and can possess two and up to four birds, respectively.

Mr. Thompson has been in the sport for 20 years and is a General Falconer. At this level he is allowed to own up to two birds. Thompson noted that these birds are hunters and not pets. After one or two hunting seasons with these birds, they are released back in to the wild and a new bird is captured to work with. Mr. Thompson revealed that "Which bird you choose is a personal preference. Red-Tailed Hawks and Kestrels are the most common, but more falconers are now choosing Harris Hawks. On rare occasions, Master Falconers can have a Golden Eagle."

When Falconers are out hunting and training with the raptors the birds are tethered to a lead that is attached to the Falconer's glove so that the bird can be recalled. According to the North American Falconers Association, the birds are recalled with different whistles or sounds that they have learned in the course of their training. During these outings, the birds are expected to follow commands from their falconer and assist in hunting.

Troop Leader COL Scott Preston, Tulsa District U.S. Army Corps of Engineers commander, was able to interact with the raptor and demonstrate a hunting exercise. Equipped with all the safety gear, he held the food out in his gloved hand and

called the hawk from 20 yards away with a whistle. "It was really cool to see someone else besides the Falconer work with the hawk and getting to see the hawk in action," stated 14-year-old Eagle Scout Taryn Yahn.

The scouts and scout leaders remained engaged throughout the entire presentation and were excited about the information they were given throughout the evening and gave some great feedback. "Seeing the Falconry in person was really cool, I have seen YouTube videos of it before but not in person. Learning about the different licenses and levels was very interesting," said Bailey Preston. "I liked seeing the size of the bird! Compared to my parakeets it's gigantic," said Sofia Angulo." "I really enjoyed Greg's presentation about falconry. It was fascinating to learn and appreciate the time and training required for someone to get into the sport of falconry said Preston. "Greg's demonstration not only kept the scouts engaged, but also the parents and adult leaders."

*Ms. Tiffany Natividad is a natural resource specialist at Fort Gibson Lake in Oklahoma. She received her degree in biology and fisheries and wildlife from Northeastern State University. As part of her training program, Natividad completed a thirty-day developmental assignment with Tulsa District Public Affairs Office where she learned about writing and photography as those skill pertain to our district missions.*



*COL Scott Preston, Tulsa District commander and leader of Scouts BSA troop 918 from Central Church of the Nazarene in Tulsa Oklahoma joined Greg Thompson, Tulsa District Knowledge Management specialist and general falconer during his presentation to the all-girl scout troop. Thompson his red-tailed hawk put on a presentation for the scouts to educate them on the process and purpose of becoming a falconer.*

*Tulsa District Corps of Engineer knowledge management specialist and general falconer, Greg Thompson met with a Tulsa BSA all-girl troop 918 this week to share the art of falconry. The group of scouts was treated to a presentation by Mr. Thompson and his red-tailed hawk and was also joined by Tulsa District commander, COL Scott Preston who is a scout leader for the troop.*

*Tulsa District Corps of Engineer knowledge management specialist and general falconer, Greg Thompson met with a Tulsa BSA all-girl troop 918 this week to share the art of falconry. The group of scouts was treated to a presentation by Thompson and his red-tailed hawk and was also joined by Tulsa District commander, COL Scott Preston who is a scout leader for the troop. ---Photos by Mr. Stacey Reese.*



# NEW WEST POINT ELEMENTARY SCHOOL

By JoAnne Castagna, Ed.D.



Recently, COL Matthew Posner, MD spoke at the ribbon cutting ceremony for a new state of the art elementary school at the U.S. Military Academy at West Point, New York, a school he attended as a child. “Mr. Tom Robinson or Mr. R as he was known was one of my teachers. He without a doubt, taught me all that I really needed to know for a future in my current profession. He taught, he disciplined, he coached, he nurtured, he cared. He set high standards for us, academically and spiritually,” said COL Posner who is a USMA graduate and an Orthopedic Surgeon at Keller Hospital. He continued, “One time our class spent a week at Lake Frederick under Mr. R’s care. We had outdoor classes, competed in field events, and took survival training courses. Why do I mention Mr. Robinson so prominently? To remind us of the most important link in the education chain: our teachers, especially our elementary school teachers who take on our kiddos as relatively blank canvases and help create masterpieces.” Mr. R was invited to the ceremony and was in the audience.

COL Posner’s fourth grade daughter, Sarah-Jane attends the same elementary school. He said, “I hope my daughter can look back at her elementary school days with the same fondness of her teachers and experiences as I do. The new school gives our teachers a whole new set of tools to educate our kids with.” This is likely to happen. The U.S. Army Corps of Engineers, New York District completed constructed on the school that is providing teachers the tools they need to teach students about STEAM or science, technology, engineering, art, and mathematics to prepare them for the 21st Century.

The Army Corps has constructed many of the structures on the historic 200-year-old military academy. Now it is created a new school for the children of Army Soldiers and Department of Defense civilians who live at the academy. Teachers at the school are providing students a STEAM education. To do this, they are using a myriad of technological tools and the school is designed to be flexible and adaptable to provide different kinds of learners the environments they need to succeed. COL Posner said, “STEAM gets a bad rap, as many adults and kids are easily intimidated by math, science, and engineering. Many folks believe that rocket science is capable of being understood by just few super intellectual kids. Making STEAM education available at young ages enables our children to see just how fascinating these disciplines really are and knocks down any perceived barriers that

STEAM is too complex for the average child.” He added, “The world has transformed into a technology-based economy. Our children must be comfortable on computers. They must be well-versed in science and engineering. In a way, the recent COVID-19 Pandemic has turned many folks into pseudo scientists, epidemiologists, geneticists, and pharmacists. STEAM is important in our everyday lives and it’s incredibly important to have the background in the basics of these disciplines.”

The new West Point Elementary School is providing this. It replaced an outdated structure that was built in the 1960’s. The school serves 509 students from pre-kindergarten to fifth grade and is located near the campus’s middle school and gym. The multi-story, 95,552 square foot school was built into the side of a mountain and has beautiful views of the Hudson River, the river valley, and the surrounding forests. Its design embraces this beauty to educate students about their region and the local culture. To bring the vibrancy of the region into the building, large windows were installed throughout the school and floors and ceilings are painted with a wide variety of colored paints. What also does this are the interior structures. Mr. Timothy Pillsworth, Project Engineer, New York District, U.S. Army Corps of Engineers said, “For example, instead of having utilitarian staircases, the stairwells are painted with pleasing colors for a pastoral feel.” Speaking of utilitarian, instead of having corridors with classrooms to the left and right, students are learning in flexible learning spaces called Learning Neighborhoods. The school has five Learning Neighborhoods. Inside each neighborhood there are six learning studios, a teacher collaboration room, and a kitchenette that surround a central learning Hub.

The studios can be used for large or small groups and one-on-one instruction. They are flexible spaces that provide teachers an opportunity to be more collaborative in their teaching and they will be able to group students with like interests, needs, and learning goals. Another benefit of these spaces is that it makes the best use of time during a day. Instead of students leaving their neighborhoods to see different instructors, the instructors come to them in the neighborhoods. The center Hub area serves as a seating and learning area and has a variety of different chairs and tables for students including couches, beanbags, and pillows. COL Posner said that the center Hubs are his favorite aspect of the

Ribbon Cutting Ceremony for the new West Point Elementary School. Photo courtesy of: West Point Elementary School. Photos left: The fully stocked library with tall ceilings and large windows. Photo by: Dr. JoAnne Castagna. The Owl Neighborhood - Students are welcomed by a large graphic of the animal mascot that represents their Learning Neighborhood. Photo by: Dr. JoAnne Castagna. Signage in the school educates students about how their school operates and adds to their STEAM education. Photo by: Dr. JoAnne Castagna. The school’s interior is designed to be open and airy and to bring in the vibrance of the region. Photo by: Dr. JoAnne Castagna. Front exterior of the new West Point Elementary School. Photo by Mr. Timothy Pillsworth.



new school because he feels students should learn about collaboration. He said, "It's not an innate behavior to work effectively with others in small or large groups. The school is designed to promote this collaboration at the lower grades and really builds on this concept as they advance in grades."

When training to become a doctor, he realized the importance of collaboration. "Medicine is all about collaboration and life-long learning. I remember the first thing that my anatomy professor told us on our first day of medical school. He said, 'Everything you get taught over the next 4 years is already out dated.' This really hit home for me.

Learning never ends, no matter the profession you choose. And didactic-style learning is not an efficient or even a realistic way to learn as an adult. Exposing our children to collaborative learning and learning through multiple platforms is, in effect, getting them ready to be adult learners." Sarah-Jane, agrees. She said she enjoys sitting in the collaboration spaces where the students do science experiments and read books. Each Learning Neighborhood is equipped with the latest educational tools and the students are embracing them. Fifth grader, Daisy said, "I like the new school's technology. It is high tech, and it is easy to work with."

As you walk through the school there is an area you cannot help but notice - the library. From the hallway, students can peer down through windows into this high-ceilinged room that is fully stocked with books and well-lit from its large windows. Fifth grader, Alyssa thinks this is the best part of the new school. She said, "It is a very quiet and a calm place to read and concentrate." Throughout the entire school there are interior soundproof windows, water bottle filling stations and partition walls that open and close like accordions, allowing the teachers to expand or limit the areas where they give their lessons.

The school not only teaches STEAM but applies it to save the school energy. Throughout the school, there are LED

light fixtures (Light-emitting diode). These lights have sensors that turn off or dim the lights depending on the amount of natural light entering the large windows and if there are people occupying the room. However, natural light from the large windows is being used to the fullest. Light wells are also throughout the school to let in natural light. Besides sufficient light, adequate heat is also important, especially in this region. To efficiently regulate the room temperature, a special pump system is being used. Instead of having one big boiler for the entire school, the building will have three smaller ones. If heat is needed, one of the boilers will run up to 30-40 percent of its capacity. If additional heat is needed, the second one turns on

and so on. They will ramp up or down depending on the need. "Smaller boilers work more efficiently when they don't run at their full capacity and they last longer," said Mr. Pillsworth.

The boilers are part of a radiant heating system. Radiant heating systems supply heat directly to the floor or to panels in the wall or ceiling of a structure. In the school, heated water circulates through plastic tubing within the floors. Mr. Pillsworth said, "When students sit on the floors in the wintertime, the floor is warm." During the warmer months, the students have air conditioning – something they never had before – provided by an efficient central chiller plant.

Some of the building's energy is generated from solar panels and a wind turbine on the roof of the

building. Outside there are playgrounds for the different age groups, an outdoor patio for art classes and an amphitheater for instruction, gatherings, and performances. Sarah-Jane said, "We really like the playground and all of the space. We could not eat in the cafeteria last year, but we could eat outside that is so big." Daisy agreed, "The playground is fun to play on after all of the classes." The Army Corp also constructing an enclosure that connects the new school to an existing



*Students in a learning studio in one of the Learning Neighborhoods.  
Photo by: Dr. JoAnne Castagna.*



gymnasium, so the students will not have to walk outside to get to their physical education classes. Most recently, the old elementary school was demolished, and the space used to create space for a main access drive, bus drop-off, parent drop-off, and 123 parking spaces. While all these school features were being constructed, the Army Corps got the students involved, as a way for them to learn about STEAM careers.

Since before the Army Corps even broke ground on the project, the students have been highly anticipating their new school and playing an active role in its creation. Throughout the construction, students looked out their windows at the construction and made daily entries in journals about the changes they observed week to week. One thing they observed in the beginning, were trees being removed to make space for the new school. The students were concerned that this would harm wildlife. The teachers saw this as a real-life learning opportunity and arranged for a wildlife expert to speak with them. Together they came up with solutions to safeguard wildlife. Not only did the students interact with wildlife specialists, but also with Army Corps engineers and architects who performed studies with them and showed them maps and print outs of the project. This experience has made many students extremely interested in architecture and planning.

The Army Corps also arranged to have speakers for the students. Civil engineers, architects and environmentalist specialist spoke with the students and explained what is involved with planning and constructing a new school. One of the speakers explained how soil is removed to prepare for the building. From this the students learned about slopes and the differences between different soils and terrains. As construction progressed on the project and the school's interior was being worked on, the students wanted to play a role in the designing of their Learning Neighborhoods. They selected the color schemes, the furniture for the center Hub area, and they voted on an animal mascot to represent each Learning Neighborhood. They chose animals indigenous to this region including the Snow Owl, turtle, Black Bear, and raccoon. When students enter their Learning Neighborhood, they see a mural of their mascot displayed at the entrance. Now that the school is completed, it continues to educate the students about STEAM careers.

When students enter the building, the floor in the main foyer displays the granite that was removed to make way for their new school and to show them what was there before. Eight thousand cubic yards of granite was blasted, excavated, and recycled. Some of the rock was used as fill in the construction and some was used by the academy. As they continue to walk throughout the building, students see colored concrete on the floor with contoured lines, showing them the original foundations or grades. "Students will be able to use these grades to create topographical maps," said Mr.



*The center "Hub" area of one of the Learning Neighborhoods. Photo by Dr. JoAnne Castagna.*

Pillsworth. In the hallways, the students will be able to see and learn about the building's internal operating systems. "There are glass windows on the hallway walls, displaying the guts of the building, such as the heating pipes inside the walls," said Mr. Pillsworth. On the hallway ceiling, students can look inside a 20-foot-long window, exposing the school's internal mechanical piping, wiring, and cabling systems at work. "There are signs stating, 'This is your chill water pipe where your air conditioning comes from' and 'This is a fire sprinkler pipe for fire protection,'" said Mr. Pillsworth. On the roof, where additional energy is being generated from solar panels and a wind turbine, the students can monitor the weather and learn about renewable energy. "The students have an energy dashboard that tells them, 'Hey today is a sunny day or a windy day. We will be generating this much electrical power,'" said Mr. Pillsworth. Outside, there is a walking path around a storm-water detention pond. Mr. Pillsworth said, "Classes can walk around this system and see the vegetation and animals, and how the system works to protect the environment. It's also a way for students to see how local plants and grasses can be integrated into construction projects."

Just as the students were involved during the construction of their new school, they were just as involved in the ribbon cutting. Students attended the ceremony from their Learning Neighborhoods using their new video conferencing system as a COVID-19 safety precaution. Besides Posner's speech, Sarah-Jane and other students spoke to the audience and took groups on tours of the Learning Neighborhoods. Their involvement in their school will continue because of the tools it provides that will prepare them for the 21st Century. It already has for Sarah-Jane. The new school already has her thinking of the future. She said, "I want to be a marine biologist when I grow up. I see my dad taking care of people every day. I want to do the same thing, expect with animals that live in the ocean. The science classes and labs in the new school are fun. We are just starting to use them!"

*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](mailto:joanne.castagna@usace.army.mil)*

# U.S. Army Corps of Engineers Awards Fort Hunter Liggett Wastewater Project

By Ms. Ashley Bradford



The United States Corps of Engineers Sacramento District has awarded a \$10.8 million contract for a secondary wastewater treatment facility at Fort Hunter Liggett. The project is one of many supporting the installation's holistic resilience strategy to ensure Soldiers can maintain the mission during times of utility disruption. MX Construction, Inc. of Nipomo, California, will break ground on the project in May 2022 with an estimated completion date of September 2022.

The project will consist of installing a prefabricated wastewater treatment facility, upgrading a water tank, and adding a purple pipe distribution main across the installation. The project falls under the Energy Resilience and Conservation Investment Program, designed to fund projects that improve energy resilience, contribute to mission assurance, save energy, and reduce the Department of Defense's energy costs.

"Right now, we are already facing climate challenges," explained Col. Lisa Lamb, Fort Hunter Liggett Garrison Commander. "California is prone to wildfire and drought. While our aquifers may be healthy now, we must plan for the future and the possibility that they may run dry. The construction of a secondary wastewater treatment plant will enable us to collect and treat wastewater on the installation and reuse it in many applications. This will enable us to reduce water waste and increase efficiency – all while enhancing our readiness."

With the help of the new secondary wastewater treatment facility, Fort Hunter Liggett will be able to divert wastewater from existing treatment lagoons to an advanced treatment plant. "Processed water will be distributed around the installation for use in toilet flushing for properly configured buildings and for irrigating the sports and recreation field,"

explained contractor Jarrod Ross, Resource Efficiency Manager. "Additionally, it will provide water to the evaporative pre-cooling systems that make the installation's HVAC systems more efficient – which will use less energy from our electric microgrid resources during islanded operations. This enables us to focus power to our critical facilities if the local power grid goes down."

Leading the way across the Army in energy and water resilience, Fort Hunter Liggett is truly a demonstration installation. Their innovative solutions and out-of-the-box ideas led to the installation representing the Army in a sustainability showcase in July 2021 with the Federal Chief Sustainability Officer at the White House Council for Environmental Quality. More recently, Lamb served as a guest panel member in November at the Installation Innovation Forum, hosted by the Association for Defense Communities, in San Antonio, Texas. The forum provided an excellent opportunity to share success stories and lessons learned about Fort Hunter Liggett's energy and water projects.

While utilities can be fragile in the state of California from wildfires and earthquakes to public power safety shutoffs, Fort Hunter Liggett is ensuring the right solutions are in place to support the Joint Force. "As a Total Force Training Center with 165,000 acres, we host all U.S. military components and those of allied nations," shared Lamb. "Whether we have trainees in a classroom, down range, or conducting a large-scale joint exercise, our energy and water projects will ensure we sustain the mission now and in the future."

*Ms. Ashley Bradford provides contract support as the strategic communicator for the Sustainment and Resiliency Division, Army Reserve Installation Management Directorate at the Office of the Chief, Army Reserve.*

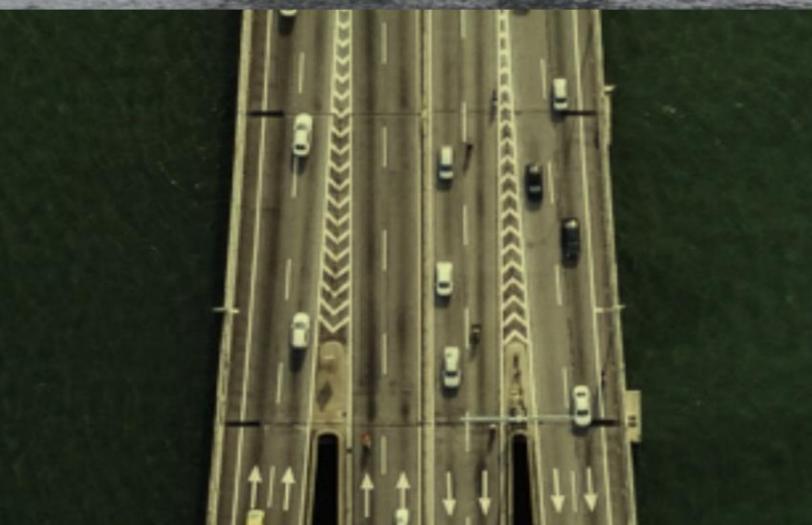


# Engineers' Creed

*As a Professional Engineer, I dedicate my professional knowledge and skill to the advancement and betterment of human welfare.*

*I pledge:*

- To give the utmost of performance;*
- To participate in none but honest enterprise;*
- To live and work according to the laws of man and the highest standards of professional conduct;*
- To place service before profit, the honor and standing of the profession before personal advantage, and the public welfare above all other considerations.*
- In humility and with need for Divine Guidance, I make this pledge.*





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