

From the Chief Engineer Officer

USPHS Engineers,

As we approach the end of a momentous year, I want to take the opportunity to reflect on modernization – its implementation and ongoing process of change. Modernization is intended to accomplish the vision for a 21st Century Uniformed Service where: Mission Drives the Requirements; Requirements Drive the Force Structure. This effort is transforming the USPHS Commissioned Corps to strengthen it as an institution and ensure that it can meet daily and emergent public health needs, both foreign and domestic.

An important element of meeting mission requirements is force management. Several foundational policies have been implemented this year, and additional ones are forthcoming. An ongoing priority of mine is to provide information and resources on new policies to enable officers to make informed decisions and to work with CCHQ to address questions.

(Continued on page 2)



Emil P. Wang, J.D.
Rear Admiral, USPHS
Assistant Surgeon General

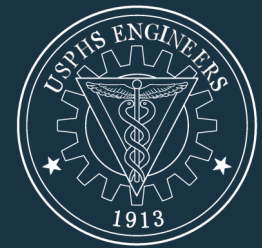
INSIDE THIS ISSUE:

- 3 [2022 EPAC Chair Update](#)
- 4 [EPAC Subcommittee Updates](#)
- 6 [2022 Engineer Category Day](#)
- 9 [Operation Allies Welcome Mission –Team Five](#)
- 11 [Disaster Response Engineer \(DRE\) Course Curriculum on EPAC Website](#)
- 12 [New Engineer Officers & Recent Retirements](#)



MACHINATORRES VITAE

ENGINEER COMMUNITY NEWSLETTER
FALL 2022



For promotions, note that the standardized Curriculum Vitae format is required for use by all 11 categories. Promotion year 2023 is the last year that an engineer-specific promotion board will convene. Starting in promotion year 2024, engineers will be evaluated by the Applied Public Health promotion category group, to include Engineers, Scientists (except psychologists), Veterinary, Environmental Health, Information Systems, Healthcare Administration, Public Health, Medical Technology, and Medical (Health) Record Administration. I encourage all engineer officers to engage in cross-cutting officership activities with these disciplines to increase your visibility and contributions with PHS groups and organizations. EPAC leadership and I are working with the CPO Board and Combined PAC Chairs Group, respectively, to initiate discussions and identify opportunities for collaboration with this new promotion category group.

A component of force management also includes the Ready Reserve Corps. I'm pleased to report that the first Ready Reserve engineer officers have been commissioned, and we should all welcome Ready Reserve officers and support them as essential members of our service.

Professional development is an integral part of assuring that officers are highly-trained, always-ready and fully-deployable national assets. Efforts to develop competency-based training are underway and will be implemented shortly.

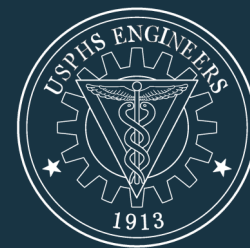
While there is anxiety and uncertainty amidst this transition, I am encouraged by our category's understanding of the purpose of modernization and willingness to contribute to this endeavor. Leadership recognizes that change management is dynamic and calls for continuous process improvement. Engineers are uniquely positioned, and I will draw upon your expertise, to apply engineering practices such as evaluating, analyzing, and interpreting information and data to measure the effects of change to enable Leadership to manage performance and make course adjustments.

EPAC and I are committed to support our category, advocate for the interests of our profession, and reinforce to Leadership that engineers are an integral, valued-added, and effective asset to the USPHS Commissioned Corps and vital to its future.

As Surgeon General VADM Vivek Murthy said, "With any sort of major change we need to make in our lives, it's much easier to do it with other people. We succeed and thrive best when we work together and support each other. When we struggle alone, that's when the struggle can seem impossible."

In Officio Salutis.

[Return to Top](#)



2022 EPAC Chair Update

CDR Praveen K.C.

Greetings Engineers,

What a year we have had so far, especially with the issuance of new Commissioned Corps Directives (CCD) as a part of the modernization of the USPHS. I also commend Commissioned Corps Headquarters (CCHQ) for their effort in improving communication through CCHQ Connect. It provided the opportunity to communicate directly with CCHQ. However, there is still quite a lot of work that needs to be done, and I am looking forward to it. Even though it has been a painful process, I do believe that our service is building a stronger foundation for the USPHS to protect, promote, and advance the health of our nation. I would also like to share that our category now has one Engineer Reserve officer (LTJG Nathan Barry), and that another is waiting for OBC to begin. Currently, the Combined Professional Advisory Committee (PAC) Chair Group is working with CCHQ to determine how to incorporate Reserve officers in PAC activities.



Our Chief Professional Officer's (CPO) term started later than expected, but the transition was very smooth. I am immensely thankful to RDML Wang for his leadership, guidance, and quick action on all category matters. It has also been good to hear from RDML Wang that CCHQ is interested in hiring more engineer officers. A multi-year effort was finally realized this year; EPAC was able to create an Engineer Strategic Plan (ESP), a framework for our category that incorporates CCHQ's vision for the USPHS. This document is currently at the Office of the Surgeon General (OSG) for review. I want to thank all of our reviewers for helping improve the document, especially CAPT Dieser, who spent a substantial amount of time on this effort. The intent is to release the document this year and the communication plan for the ESP the following year.

EPAC has recently submitted an EPAC challenge coin design to CCHQ to confirm compliance with the Commission Corps brand guidelines. There is a possibility that you all will be able to buy the coin in the near future!

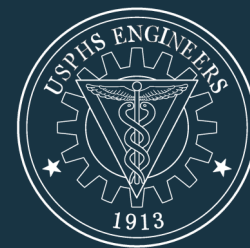
Thank you to the Events Subcommittee for successfully planning and executing the in-person Category Day event after having had two consecutive virtual events due to the pandemic. It was not easy amid uncertainty caused by the rise of COVID-19 cases around the country.

(Continued on page 4)



MACHINATORRES VITAE

ENGINEER COMMUNITY NEWSLETTER
FALL 2022



This year, we were able to establish Mentoring as a new standalone subcommittee. This provides an avenue for our junior officers to connect, learn, and build upon the experience of their seniors. I request our senior officers to engage and give back, since you have been through all of the ups and down that our Corps has been through in recent years, and your experience is very valuable to our junior officers.

A friendly reminder, the OSG has created an approval process to attend third-party events as a PHS officer. I highly recommend learning and following the process. I also want to thank Dr. Sweiss (our POC at OSG) for promptly completing all reviews that we requested throughout the year. Her support has been instrumental in our ability to successfully carry out several events this year.

I'd like to congratulate CDR Matthew Mergenthaler for his selection as the 2023 EPAC Chair-Elect. Thank you, Rules Subcommittee, for your effort in selecting the six new voting members. Thank you, LCDR Tim Martin for your outstanding service as Executive Secretary; only an EPAC Chair can tell how demanding your job is, and you were always available, up to the task and still smiling.

Lastly, time truly does fly fast. It feels like just yesterday that I had the opportunity to lead as the incoming EPAC Chair. And with a blink of an eye, it is almost the end of my term. However, I am not worried, as I am fully confident that EPAC will thrive in the trusted hands of CDR Michael Gifford, the 2023 EPAC Chair. He is an excellent communicator, a good friend, and a great officer.

[Return to Top](#)

EPAC Subcommittee Updates

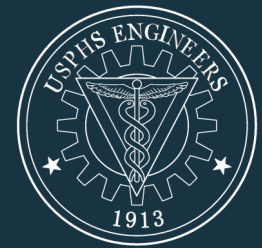
Mentoring – The Mentoring Subcommittee is dedicated to enabling junior and senior officers to grow in their leadership, officership, and career potential by fostering meaningful mentoring opportunities for Engineer officers. In 2022, the subcommittee, through support from the EPAC executive team and the Career Development Subcommittee, successfully converted from an ad-hoc to a permanent stand-alone subcommittee. The subcommittee also developed a database to manage existing mentoring partnerships. The mentoring database streamlined the process of capturing and responding to requests from the Mentoring Program. For the rest of 2022 and beyond, the Mentoring Subcommittee intends to continue improving the current web-based interface and collaborating with other subcommittees (such as amplifying Career Development Subcommittee tools related to online degree programs, licensure, resume development, etc.) to support officers in their career progression.

(Continued on page 5)



MACHINATORRES VITAE

ENGINEER COMMUNITY NEWSLETTER
FALL 2022



Awards – EPAC Fall 2022 Awards cycle nominations were due on November 1st, 2022. The subcommittee continues to develop training material for improved award write-ups that are in line with the scoring rubrics to encourage nominations that are highly competitive. The SOP and award forms have been updated. The Subcommittee also provides direct feedback to nominators on how to improve award write-ups in the future. The subcommittee held calls with nominators to provide guidance and encourage additional nominations for the many deserving engineers not selected.

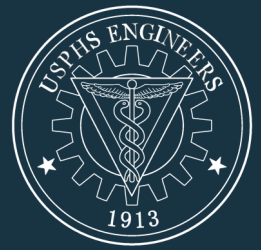
Career Development – The Career Development Subcommittee (CDS) is working closely with the EPAC leadership on a professional credentials document. Additionally, CDS had the first of two Senior Officer Panels with the CPO's Council of Captains in July on "Managing a Balanced PHS Career" and a second one on November 17, 2022, on "Maximizing the Deployment Experience." The CDS Data Analytics team provided promotion data survey results to the category and assisted the CPO with his August Townhall. The CDS continues to work on informational documents for the Agency Career Paths of USPHS Engineers, update the EPAC Welcome Package and finalize an engineer-specific fillable CV template that aligns with the standardized CV required for the 2023 promotion year. Finally, CDS has been meeting incoming USPHS Engineers at OBC Open House's. Please reach out to the Chair/Vice Chair if you'd like to join the team!

Readiness – The Readiness Subcommittee is moving forward on multiple initiatives, including the publication of a Disaster Response Engineer (DRE) training curriculum ([check out our webpage](#)); the development of a Disaster Response Engineer White Paper and cohort (we are pursuing the addition of specific DRE roles to our self-selected Deployment Roles); drafting Engineer Deployment Narratives; supporting the PHS Mental Wellbeing/Behavioral Health workgroup; and planning a Readiness Deployment Panel for 2022.

Recruitment & Retention – The R&R Subcommittee developed slides about recruitment and retention that were presented by the EPAC Chair on Category Day. The subcommittee is revamping its webpage layout to ensure that engineer officers have access to available recruitment tools. These tools include: identified recruitment points of contact (POCs) for engineer recruitment at each federal agency and an updated database of ABET-accredited colleges and universities with information about the timing of their job fairs and recruitment POCs. Vacancies for engineers at agencies hiring PHS officers continue to be distributed by email periodically. New members are always welcome – come join us in 2023!

Rules – The Rules Subcommittee convened a selection board for new EPAC Voting Members for the 2023-2025 term. New EPAC Voting Members have been selected and notified. The subcommittee continues to update EPAC By-laws to align with the EPAC Charter. A vote on various updates occurred in September. The team also developed and posted an EPAC Innovation Form that can easily capture innovative ideas for EPAC consideration. The Form is a tool that can help focus efforts, manage voting member time, and keep the category current.

(Continued on page 6)



Information – The Information Subcommittee would like to introduce two new editors to the Newsletter Workgroup: LCDR Jaison Eapen and LT Brian Julius. We also want to acknowledge CDR Matt Vojik for his longstanding efforts on the Newsletter team and wish him the best in his future endeavors in retirement. The EPAC Web team continues to update the EPAC webpages. We are excited that LCDR Adam Cooke, LCDR Stephen Fields, and LCDR Michael Tollon have joined as web content updaters and/or web designers.

Events – The Events Subcommittee organized USPHS Commissioned Officers' participation in the SAME JETC on May 9th – 12th and hosted the Engineering Category Day on May 25th during the COA USPHS Scientific & Training Symposium. On August 11, the Events Subcommittee held a Town Hall for RDML Wang to discuss "Promotions and PY2022 Results" and field questions from the engineering community.

Public Health Engineering Practice – The PHEP Subcommittee continues its work on several ongoing projects. The Climate Change Work Group has finished their white paper and poster presentation, "Effects of Wildfires on Drinking Water Supply." Look for it on the EPAC website soon. There is also collaboration between PHEP Engineers and a task force that was stood up from ASPR/BARDA/NIOSH for innovative PPE designs. One outcome of the task force is that the Engineer community could be used as a test bed for the PPE designs in the future. Lastly, stay tuned for an announcement about an upcoming PHEP webinar that will highlight these and other projects and count for continuing education credits.

[Return to Top](#)

2022 Engineer Category Day

LT Bijay Tamang

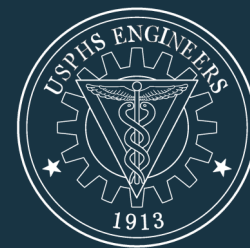
On May 25th, 2022, the Engineer Professional Advisory Committee (EPAC) hosted the Engineer Category Day at the USPHS Scientific & Training Symposium in sunny Glendale, Arizona. This was the first in-person Category Day after two years of having the event held virtually due to the COVID-19 Pandemic. Transitioning from a virtual to an in-person event proved to be more challenging than originally anticipated. The in-person event demanded greater logistical coordination, and the looming travel restrictions due to rising COVID-19 cases throughout the country made it difficult to commit the required resources. Fortunately, with some luck and several months of collaboration between EPAC leadership, the Events Subcommittee, the Category Day team and assistance from several volunteers, we were able to successfully plan and execute this year's event.

(Continued on page 7)



MACHINATORES VITAE

ENGINEER COMMUNITY NEWSLETTER
FALL 2022



2022 Category Day presenters, attendees, and awardees. Distinguished guests RADMs (ret.) Richard Rubendall, Sven Rodenbeck, and RDML Emil Wang

Some key highlights of the event included:

- Insightful State of the Category address from our Chief Professional Officer, RDML Emil Wang.
- Excellent and informative presentations that showcased our fellow engineer officers' accomplishments to advance and promote public health.
- Presentation of the 2022 Spring CPO awards to well-deserving Commission Corps and civilian engineers.
- Memorable opportunities building camaraderie and rapport through interactive "ice breaker" bingo and fellowship over great food and beverages during the engineer social event.

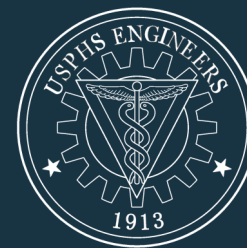
Presentation Title	Presenter(s)
Managing the Largest IHS Hospital at the Beginning of a Pandemic	CDR Barber Douglas
Public Health Engineering: How We Can Improve Outcomes in Communities	LT Kayla DeVault-Wendt
The Building 40A Vaccine Research Center Lab Expansion at the NIH	CAPT Gretchen Cowman
Implementing COVID-19 Wastewater Surveillance in Tribal Communities	CDR Ben Chadwick
USPHS Engineer Recruitment Education & Training / Working Lunch	CDR Praveen K.C.
ATSDR Health Assessment of Vapor Intrusion: Determining the Source of Indoor Vapors	LCDR Sandra Miller
USPHS Engineer Careers in the Indian Health Service and the National Park Service	LCDRs Travis Sorum, Garrett Chun
Healthcare Facilities Assessment Training	CDR Joseph Jones
Dynamic Leadership (Tips & Lessons about leadership & teamwork on deployment)	CDRs Tom Armitage, Matt Mergenthaler, LCDR Travis Sorum

(Continued on page 8)



MACHINATORRES VITAE

ENGINEER COMMUNITY NEWSLETTER
FALL 2022



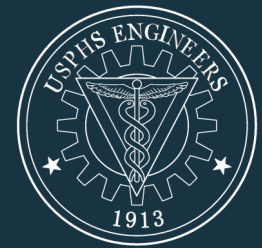
Planning team	
Events Leadership:	CAPT Greg Ault, CDR Roxanne Adeuya
Category Day Leads:	LT Bijay Tamang, LCDR Jaison Eapen, LT Maggie Ziols
Advisors:	LCDR Derrick Buck, CDR Kurt Kesteloot, LCDR Fred Kelly, CDR Rolanda Frank, CDR Praveen K.C.
Onsite Volunteers	
Moderators & Photographers:	LT Bryan Wimer, LT Tim Beck
Official Party POC/IT:	CDR Kurt Kesteloot
National Anthem:	CDR James Begeman, LT Kayla DeVault-Wendt



Thank you to the EPAC, the Events and Awards Subcommittees, and all the presenters and volunteers whose dedication and performance were instrumental to the successful planning, coordination, and execution of the event.

Please join us at the next Engineer Category Day to be held in Tulsa, Oklahoma in May 2023.

[Return to Top](#)



Operation Allies Welcome

Mission—Team Five

CDR Praveen K.C. and LT Jamla Rizek

The mission of Operation Allies Welcome (OAW) at the National Conference Center (NCC) was to temporarily host Afghan Guests (AGs) arriving in the United States from host nations such as the Netherlands and UAE, while awaiting resettlement in a host community. Upon arrival at the NCC, and weekly thereafter, Afghan Guests were tested for COVID-19. In the event of a positive COVID-19 result, PHS officers were coordinating and implementing Quarantine & Isolation (Q&I) activities for those AGs and their close contacts. This task was outside the original scope of medical coordination for PHS officers.



CDR K.C. attends to an Afghan guest's child during a medical escort to a local hospital



LT Jamla Rizek (Photo courtesy—LT Rizek)

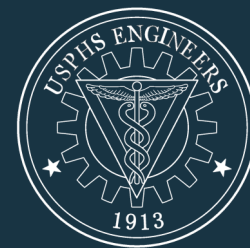
CDR K.C. and LT Rizek were deployed as members of Team Five, consisting of 25 PHS officers. Their initial responsibility was to serve as medical escorts and to support infection control efforts. CDR K.C. was the only engineer on the team and LT Rizek is a nursing officer. In response to Q&I staffing shortages CDR K.C. volunteered to join the Q&I team. Due to CDR K.C.'s experience in healthcare facilities and a previous COVID-19 deployment, CDR K.C. felt comfortable working in close contact with COVID-positive guests. CDR K.C.'s and LT Rizek's understanding and awareness of Afghan guest's culture proved to be very valuable in communicating with patients and their families.

(Continued on page 10)



MACHINATORRES VITAE

ENGINEER COMMUNITY NEWSLETTER
FALL 2022



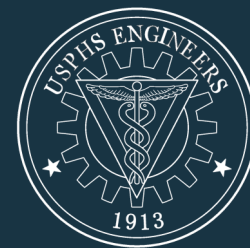
OAW Team Five offloaded four flights from the Netherlands and UAE from June 14th to July 18th, 2022, with 823 AGs. These flights included over 40 COVID-positive AGs (a significant increase over previous flights), resulting in over 100 AGs in Q&I. Team Five officers collaborated with the Department of Defense, the Department of Homeland Security (DHS) and NCC staff to move the positive AGs to a separate Q&I area and ensure food delivery. Team Five also created a new tracking database to streamline the Q&I process and efficiently identify Q&I release dates and close contacts. Team Five created a tracking process to address a bottleneck at the COVID testing station to facilitate the intake of AGs into the NCC. Additional Q&I procedures included contact tracing; orienting AGs and/or their families to Q&I policies and procedures; Helping AGs transfer their belongings to their Q&I room; communicating changes in AG's COVID status to response partners; ensuring facilitate wrap-around services such as meals, medical care and housekeeping; coordinating with response partners to ensure completion of all necessary medical testing and assessments; and at the conclusion of Q&I, communicating the AGs' final disposition to response partners.

In order to accommodate surging cases, Team Five, also coordinated with NCC and DHS to open three new wings of Q&I rooms (a 300% increase) at the NCC. The team conducted health, safety, and functionality (water, air conditioning, telephone, etc.) inspections of AG quarters. Due to Team Five's prompt, collaborative actions, the spread of COVID-19 among the AG population was minimized.



Team Five officers (Photo Courtesy—LT Rizek)

[Return to Top](#)



Would you like to further expand your potential to deploy while utilizing your unique and high-demand engineering skills? A new disaster response engineer (DRE) course curriculum is available on the [EPAC Website!](#)

Disaster Response Engineers (DRE) have always played an important role in disaster response and recovery. As disasters continue to become more devastating and frequent, the need for knowledgeable DREs cannot be understated. Under Emergency Support Function (ESF) #8, Department of Health and Human Services (DHHS) is the primary agency responsible for coordinating Public Health and Medical Services.¹ Part of these health and medical services requirements are to ensure healthcare facilities and shelters are operational in the aftermath of a disaster. Through the DHHS, technical assistance teams are deployed to evaluate the conditions of facilities to help bring them to operational or partial operational status as quickly as possible. This restoration to operations is when a DRE trained in facility response operations is needed. Furthermore, the public works and engineering ESF #3,² uses engineers to assess and restore critical public health infrastructure under the coordination of the U.S. Army Corps of Engineers. These response capabilities for healthcare facilities and critical infrastructure, like water and wastewater systems, are part of many U.S. Public Health Service (USPHS) Engineer Officers' daily assignment requirements, so DRE-focused courses go a long way to prepare them for these missions. The knowledge and experience that USPHS engineers bring to the table has been critical for response and recovery in several large disaster responses like Hurricanes Katrina (2005) and Maria (2017) and many other natural disasters through the years. These trainings are intended to offer guidance on areas where engineering officers may wish to help improve their capabilities for DRE deployments. We encourage anyone interested in DRE deployments to review the courses as they may be beneficial to you. The hope for the future is to develop a qualification process in which engineers would be able to demonstrate capability to deploy for these types of deployments, through an EPAC-issued "qualification" letter that could be uploaded in an officer's eOPF to support selecting DRE as a sub-specialty on the Readiness Deployment Branch website.

Remember that some courses are not going to be applicable to all deployments but there is a lot of information in the trainings to enhance skills for DRE deployments. The focus areas and links to the currently available courses are listed below.

Introduction: Engineer roles in disaster response missions can be diverse. The DRE training curriculum is intended to assist in preparing engineers for diverse deployment scenarios. Please visit the [Readiness webpage](#) for more detailed information concerning this new curriculum. The current curriculum developed totals 48 hours. Within the curriculum, there are two focus areas that these courses are intended to address:

- I. DRE focus for Healthcare Facility Response and Recovery Operations
- II. DRE focus for Public Health Infrastructure Response and Recovery Operations

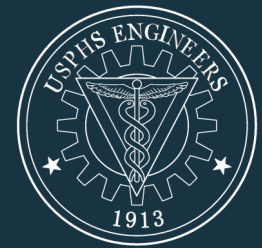
¹ <https://www.fema.gov/pdf/emergency/nrf/nrf-esf-08.pdf>

² <https://www.fema.gov/pdf/emergency/nrf/nrf-esf-03.pdf>



MACHINATORRES VITAE

ENGINEER COMMUNITY NEWSLETTER
FALL 2022



New Engineer Officers

The EPAC would like to acknowledge the following engineers who have recently become Commissioned Officers. The EPAC welcomes each of you and hopes you will enjoy a long and prosperous career in the PHS.

Rank	Name	OPDIV	City	State
LT	Andrew Colvin	IHS	Ashland	WI
LT	Corbyn Navas	IHS	Anchorage	AK
LTJG	Nathan Barry	Reserve	Philadelphia	PA
LTJG	Rahat Chowdhury	FDA	Jamaica	NY
LTJG	Magaly Mendoza	IHS	Rhineland	WI
LTJG	Elena Navas	IHS	Anchorage	AK
LTJG	Jullyanne De Pasion	IHS	Spokane	WA

Fair Winds and Following Seas

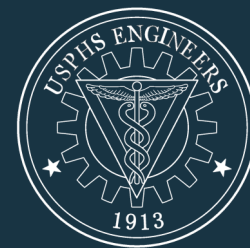
The EPAC would also like to recognize the engineer officers who have recently retired from Commissioned Corps service. The EPAC sincerely appreciates your leadership and dedication to the mission of PHS engineers.

Rank	Name	OPDIV
CAPT	Denman Ondelacy	IHS
CAPT	Steven McGovern	IHS
CAPT	Kenneth Sun	CMS
CAPT	Nelson Mix	EPA
CAPT	Charles Weir	OS
CAPT	Chucri Kardous	CDC
CAPT	Paul Gagliano	IHS
CAPT	Nicole Wolanski	FDA
CDR	Andrew Sallach	EPA
CDR	Jason Crownholm	NPS
CDR	James Earl	EPA
CDR	Steven Sauer	IHS
CDR	Matthew Vojik	IHS
CDR	Billy Porter	IHS
CDR	Griff Miller	EPA
LCDR	Julia Kane	NPS



MACHINATORES VITAE

ENGINEER COMMUNITY NEWSLETTER
FALL 2022



Dear Readers,

Machinatores Vitae (Engineering for Life) is a publication of the EPAC, but we need help in bringing you the information and stories that you want to read. Please consider submitting an article for an upcoming issue or let us know when you or a colleague have reached a milestone, been recognized for an accomplishment, or have an experience to share. If you are an accomplished writer, send something along that is already polished. If you don't feel like a Hemingway or Dickinson, just send enough detail so the writing team can take hold of it and build the story for you.

The writing staff can only see a bit of the big world that is public health engineering. There are numerous accomplishments even within our readership that remain unknown except in the relatively small circles around you. If you have not presented at a national meeting, the likelihood is that no one outside of your agency, or possibly even Office, ever heard about the project that you nearly exhausted yourself completing. Here is your chance to shine!

All ideas are welcomed. Remember that we do not have to solely focus on work going on within the PHS. Let us know if you hear of new technologies or applications, or just find an interesting story from the outside world. The rule of thumb is that if you as an engineer are interested in it, then others will be too!

Send your thoughts, suggestions, or a brief synopsis of a proposed article to the newsletter coordinator, CDR Jason Petersen at Jason.Petersen@ihs.gov.

Thank you,

The Newsletter Team
EPAC Information Subcommittee

Machinatores Vitae is published twice annually and posted on the USPHS Engineer Professional Advisory Committee website. The deadline for submitting articles for the **Spring 2023** edition is **February 28, 2023**.

This newsletter is for informational purposes only and does not reflect official views of the United States Public Health Service Commissioned Corps or USPHS leadership.

[Return to Top](#)