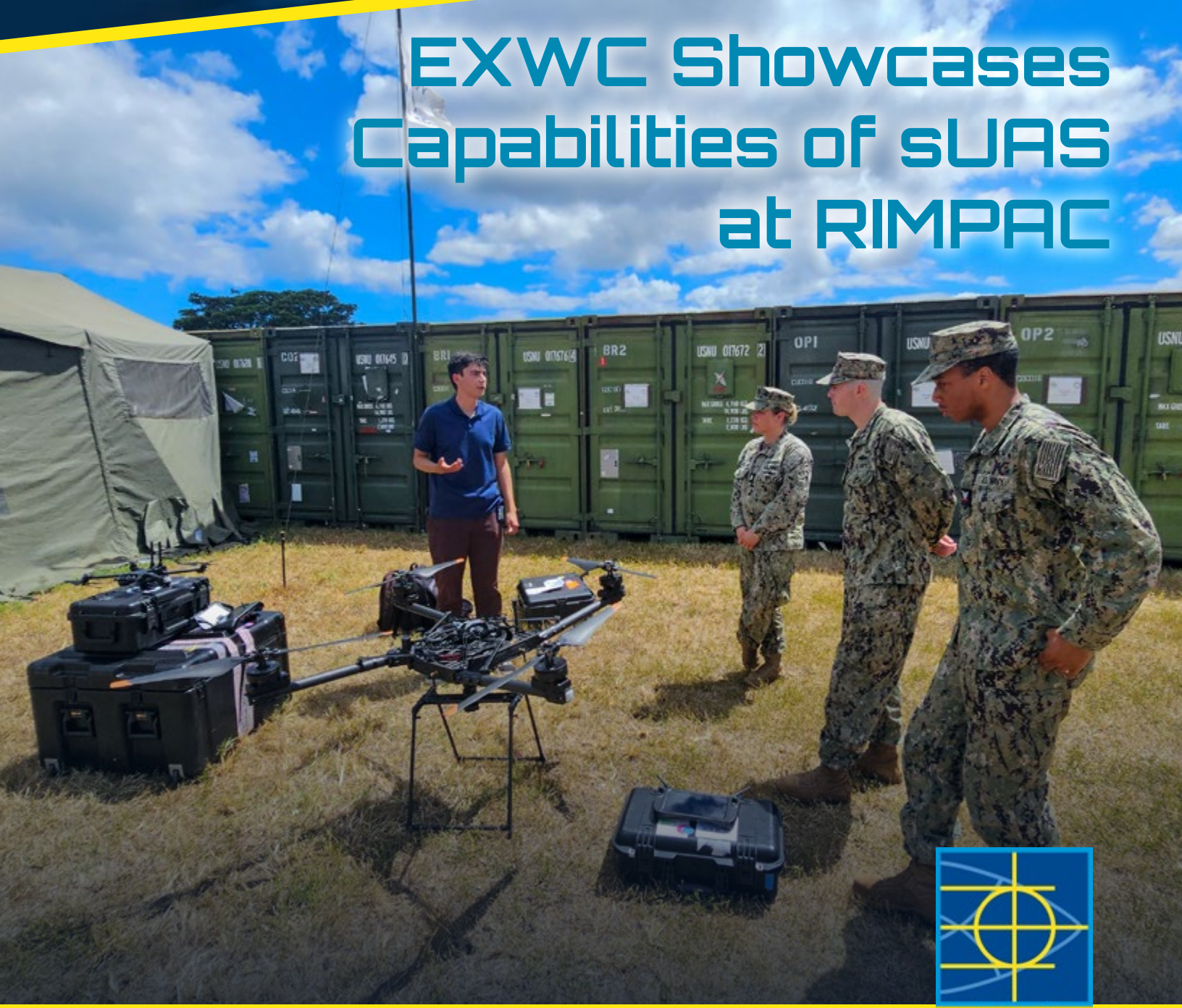
EXWC
EDGE
eMagazine

FALL / WINTER 2024

EXWC Showcases Capabilities of sUAS at RIMPAC



ANTICIPATE - INNOVATE - ACCELERATE

NAVFAC EXWC

ISSUE #0008

INSIDE this issue

Captain Dean E. Allen
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ACCELERATE INNOVATION TO ENABLE FLEET LETHALITY AT SEA AND ASHORE

A Message from Captain Dean E. Allen

COMMANDING OFFICER, NAVAL FACILITIES ENGINEERING AND EXPEDITIONARY WARFARE CENTER

Welcome to the Fall/Winter 2024 edition of the EXWC Edge!

It has been more than three years since we last published this magazine, but stay tuned because we intend to issue it regularly now. Many thanks to EXWC's Public Affairs team and all who contributed to the efforts to reenergize this publication! I ask you all to consider contributing to its content soon – there are many great stories to tell at EXWC in words and pictures. The abundant achievements we observe at this command as well as daily items of interest should be enough to fill volumes!

Now that Fiscal Year 2024 is in the books I want to applaud everyone at EXWC for an extraordinary year… the list of accomplishments is too long to catalog on this page, but you can be certain that we exceeded mission requirements across our shore, oceans, and expeditionary domains. Moreover, our contracting professionals, financial managers, technology and innovation leaders, information systems administrators, human resources specialists, and myriad administrative support superstars who keep our ship upright and sailing swiftly on course were indispensable to EXWC's success. I couldn't be prouder of all you have done to support the warfighter with your brilliant, innovative, and remarkable solutions; I am humbled and honored to serve as your Commanding Officer.

As we enter the holidays, I send my warmest regards to you and your loved ones for a safe and enjoyable season – with 2025 to be our best year yet! We at EXWC wish you and yours the very best.

Please enjoy this reinstated issue of the EXWC Edge. I look forward to reading your contributions in future editions – a terrific way to tell our story across EXWC, and to the larger NAVFAC Systems Command and the world!

With deepest gratitude for all you do,

V/R,

Capt. Dean E. Allen
Commanding Officer

Madeleine White shares how EXWC is leading research, technical evaluation and demonstration of innovative materials and technologies

Resilience Innovation

EXWC Highlights Innovation and Environmental Commitment at Climate Week NYC

Madeleine White, NAVFAC EXWC resilience innovation research portfolio manager, took part in Climate Week NYC, sharing how EXWC is leading research, technical evaluation and demonstration of innovative materials and technologies.

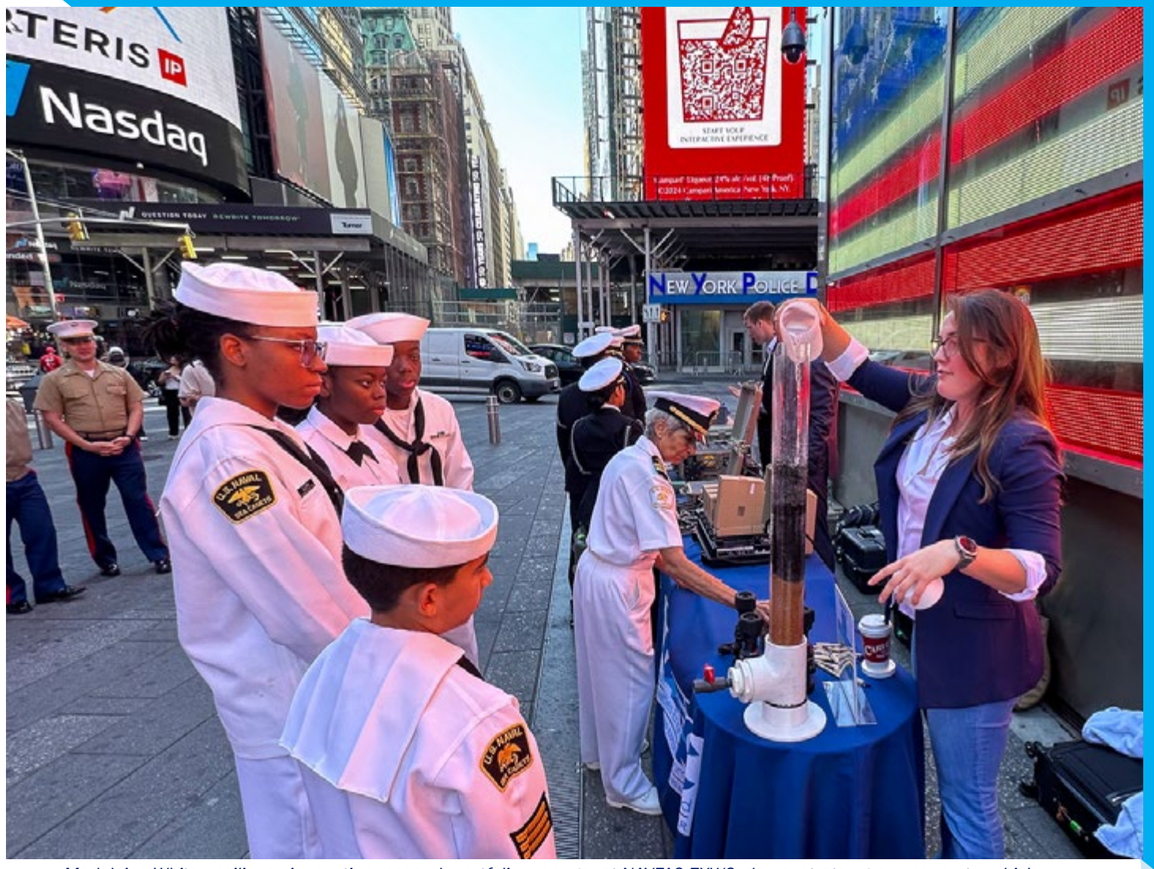
> **“Having these young Sea Cadets and NJROTC cadets – the future of our nation – learn about our climate and energy technologies was a fantastic way for the Department of the Navy to kick off its participation in Climate Week NYC.”**

At the event at the U.S. Armed Forces Recruiting Station in bustling Times Square, White demonstrated examples of “green concrete,” wildland firefighting nozzles, and an atmospheric water extractor, to Sea Cadets and Naval Junior Reserve Officer Training Corps cadets.

“Working on this as it is as an engineer has been great, but being able to show it to the individuals who are one day going to use it or be involved with it makes my job all worthwhile,” said White. “And doing [the event] out in a space like this and having these engineer technologies out in such a public space for people to see is such a fun environment to be in.”

Green concrete uses sustainable materials to reduce traditional concrete’s environmental impact and has benefits such as lowering the carbon footprint of construction, increasing stormwater permeability, decreasing logistics burden, or lowering the heat island effect, said White.

The wildland firefighting nozzles can help firefighters save up to 50% water use by significantly improving water cohesion and delivery, said White.



Madeleine White, resilience innovation research portfolio manager at NAVFAC EXWC, demonstrates green concrete, which uses sustainable materials to reduce the environmental impact of traditional concrete, to Sea Cadets and Naval Junior Reserve Officer Training Corps cadets, during Climate Week NYC, Sept. 22, 2024.

The atmospheric water extractor can provide alternative water sources in austere environments by collecting moisture in the air to create potable drinking water, explained White.

White highlighted these innovations are made possible because of the incredible collaboration across the Department of Defense and with academia and private partners.

Assistant Secretary of the Navy for Energy, Installations, and Environment Meredith Berger hosted the climate and energy technology demonstration event Sept. 22 as part of the Department of the Navy’s participation in Climate Week NYC.

Department of Navy researchers and engineers from various commands showcased other technologies such as hydrogen-powered fuel cells and small unit power systems, to educate the students about the Department’s commitment to climate action and inspire them about Department of Navy careers in climate- and energy-focused roles.

“Having these young Sea Cadets and NJROTC cadets – the future of our nation – learn about our climate and energy technologies was a fantastic way for the Department of the Navy to kick off its participation in Climate Week NYC,” said Berger. “They understand firsthand how climate change is impacting our world today, and we were able to help make the connection for them of how climate readiness is mission readiness for our Sailors and Marines.”

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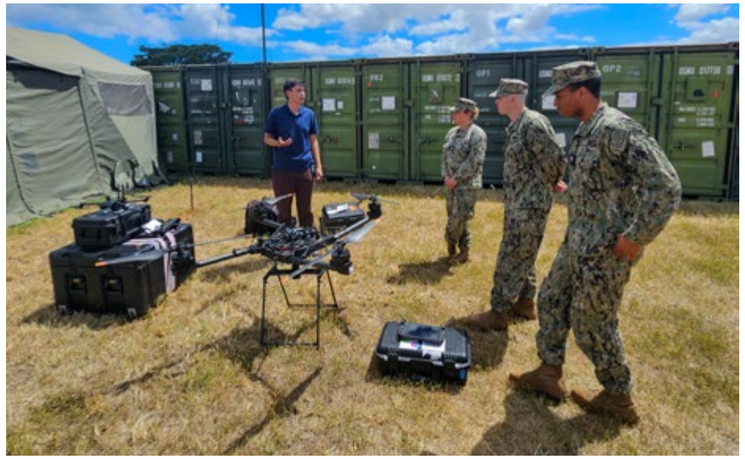
EXWC participates in the Humanitarian Assistance and Disaster Relief (HADR) military cooperation exercise

Technology Research

‘Exciting Opportunity’

EXWC Showcases Capabilities of sUAS at RIMPAC



EXWC Mechanical Engineer Dylan Lomas explains sUAS systems and technical capabilities to sailors with the Navy’s First Naval Construction Regiment.

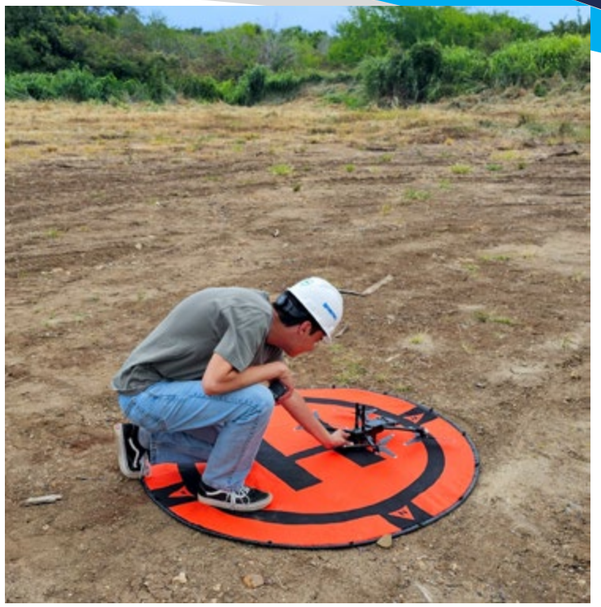
EXWC Mechanical Engineers Dylan Lomas and Kevin Vargas demonstrated a small unmanned aircraft system, sUAS, during a humanitarian assistance exercise of the Rim of the Pacific (RIMPAC) 2024 multinational joint exercise.

The Navy’s First Naval Construction Regiment (1 NCR) invited the EXWC Expeditionary Department to participate in the Humanitarian Assistance and Disaster Relief (HADR) military cooperation exercise, which was held in Hawaii in July.

“We’re here to showcase the technology to 1 NCR and show how it can be incorporated into operations, particularly for HADR,” said Vargas.

The EXWC team highlighted the technical capabilities of the system and how it could be used for humanitarian and disaster relief to quickly provide visual data to enhance agile decision-making during emergency situations. They used the system to create high resolution ortho-mosaic maps and provide new perspectives for points of interest.

“This was an important event to engage with personnel and demonstrate technologies that EXWC has researched to provide solutions to challenges they face,” said Lomas.



> “This was an important event to engage with personnel and demonstrate technologies that EXWC has researched to provide solutions to challenges they face.”

At Ford Island at Pearl Harbor, the team highlighted capabilities to 1 NCR and representatives of Japan and Peru. Throughout the demonstration, the team completed UAS imagery collection at project sites at Joint Base Pearl Harbor-Hickam, Marine Corps Base Hawaii, and Marine Corps Training Area Bellows. The team completed rapid data processing to get the maps back into the hands of 1 NCR and provide daily situational awareness for the exercise.

“This was a very exciting opportunity to represent EXWC and showcase a part of the wide breadth of work EXWC completes,” said Lomas.

HADR is a military cooperation that aims to save lives, reduce suffering, and resolve emergencies during natural disasters. The exercise showcased enhanced integration and effective crisis response capabilities between allies and partners in the Indo-Pacific region.

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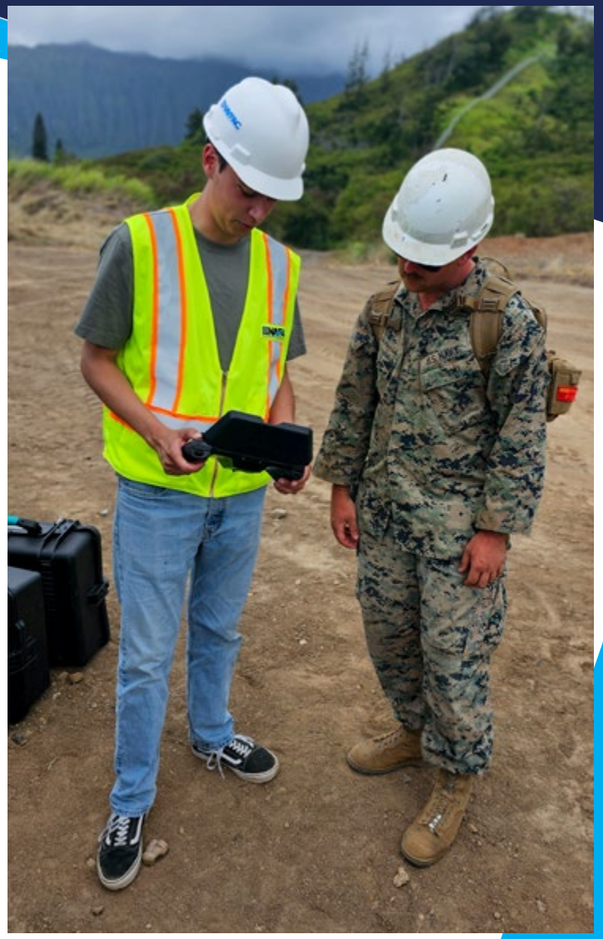
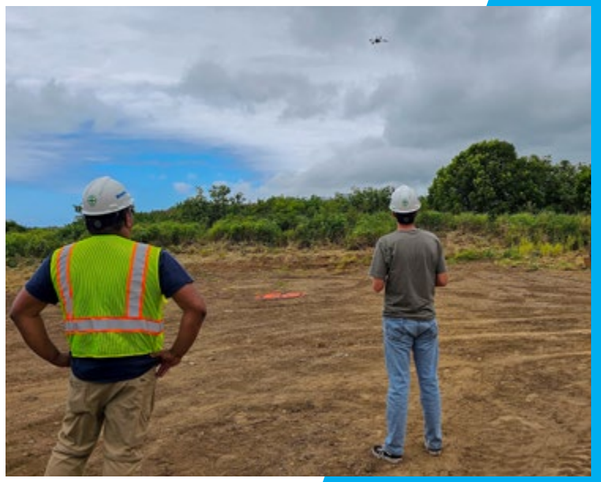


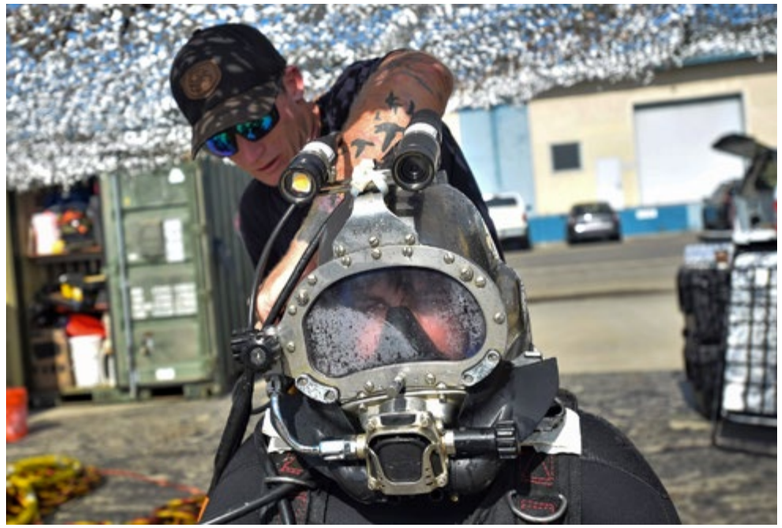


Divers from the EXWC Dive Locker and the Underwater Construction Team Two (UCT2) successfully comple testing and evaluation of a new expeditionary underwater dredge system

Test and Evaluation

Mission Success with EXWC and UCT Divers in

Expeditionary Underwater Dredge System



EXWC Diver and Steelworker 1st Class Kenneth Lancaster conducts pre-dive equipment checks and prepares to enter the water.

Divers from the EXWC Dive Locker and the Underwater Construction Team Two (UCT2) successfully completed testing and evaluation of a new expeditionary underwater dredge system.

EXWC is in the process of integrating this system to allow Seabees engaged in port damage repair missions to restore, improve and create channels and mooring areas, enabling greater vessel access to ports and harbors.

“Overall this operation was a success. The team completed 15 dives over the course of a week. We are grateful for the collaboration with the Underwater Construction Team Two that was integral to this mission,” said Lt. Cdr. Igor Vladimirov, NAVFAC EXWC OC5 OIC Command Diving Officer.

NAVFAC EXWC Dive Locker, with UCT2’s support, assembled the system, conducted function checks and measured flow rates at different GPM settings.

This 4-Inch HD 4000 Hydraulic Diver Operated dredge system is capable of up to 1,200 Gallons Per Minute (GPM) flow rates and production rates of 100 cubic yards of material per hour.

“We are excited for the integration of this technology that will benefit the broader the community and support a faster recovery of ports,” added Vladimirov.

This system is planned to be integrated into the Naval Construction Force’s table of allowance.

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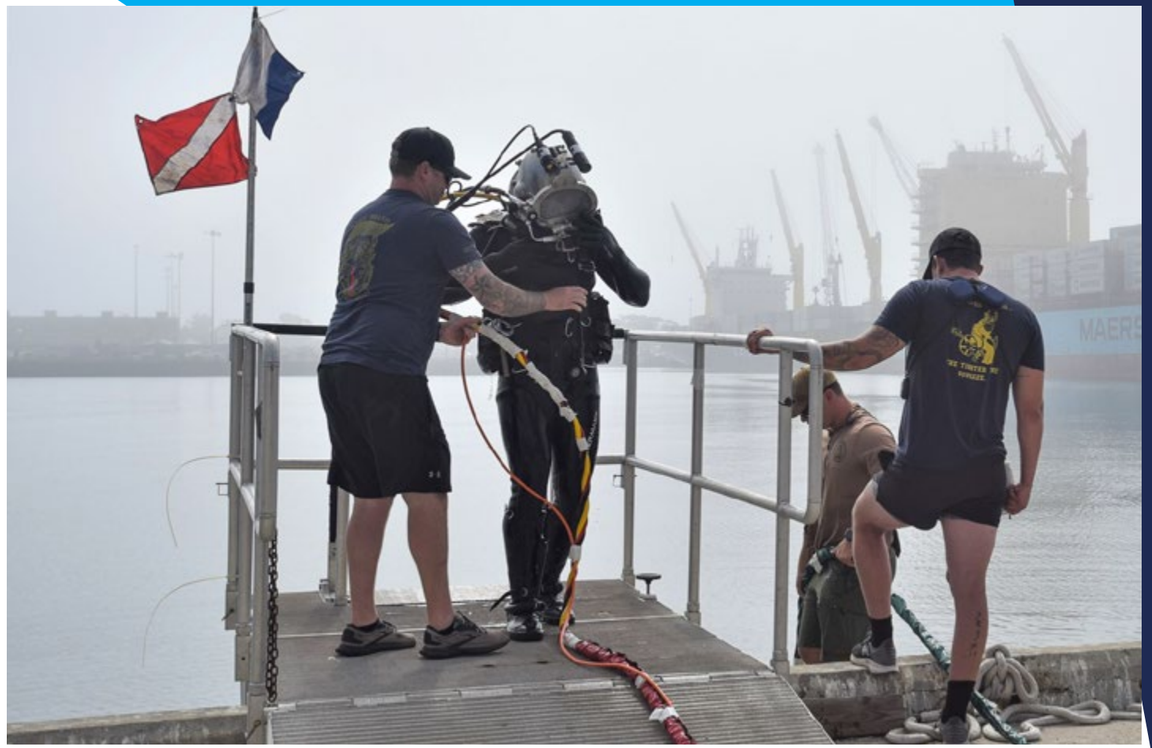

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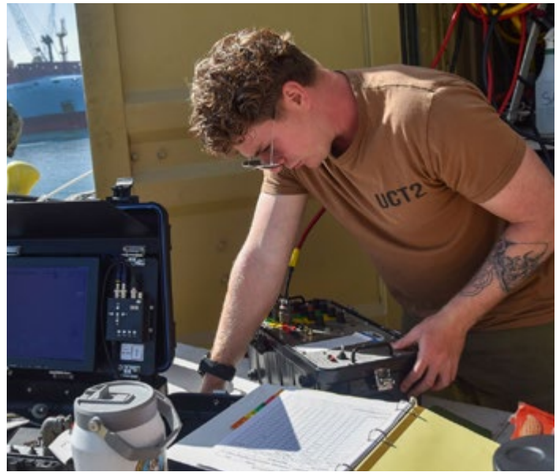
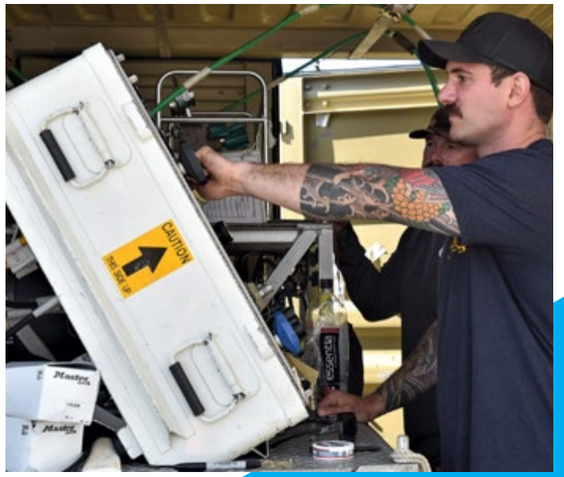
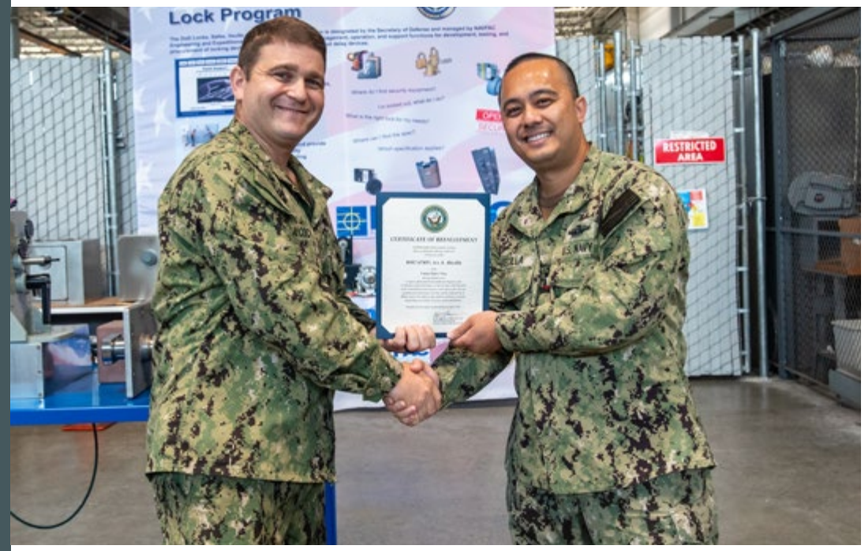




San Diego Native Reenlists to Return to Active Service with the U.S. Navy

Petty Officer 2nd Class Ace Abecilla reenlists as an active-duty sailor in the U.S. Navy after spending time in the Navy Reserve



Hospital Corpsman 2nd Class Ace Abecilla, right,receives a certificate of reenlistment during the ceremony in August.

Return to Active Service

By Ashley Craig, Navy Office of Community Outreach

Petty Officer 2nd Class Ace Abecilla, from San Diego, California, recently reenlisted as an active-duty sailor in the U.S. Navy after spending time in the Navy Reserve.

Abecilla, a 2010 graduate of Mira Mesa High School, earned a degree in accounting from San Diego State University in December 2019.

Abecilla served on active duty in the Navy for nine years before leaving military service briefly. Abecilla decided to join the Navy Reserve to maintain health benefits after losing his civilian job due to the impact of the COVID-19 pandemic.

As a reservist, Abecilla took active duty orders as a lock technician in the Department of Defense Lock Program at the Naval Facilities Engineering and Expeditionary Warfare Center (NAVFAC EXWC), headquartered at Naval Base Ventura County, California. Abecilla reenlisted in August at the Lock Program display at NAVFAC EXWC and returned to active duty.

"My wife and I welcomed our firstborn, a beautiful baby girl, earlier this year," said Abecilla. "With our new family dynamic, I decided to return to active duty. This decision allows my wife to take time off from work and dedicate herself to being at home with our daughter during those crucial early years. My wife is also pursuing a master's in public health, using GI Bill benefits I transferred to her."

The DoD Lock Program is designated as the DoD technical authority for locks, safes, vaults, seals, and containers used to protect national security information (NSI) and arms, ammunitions, and explosives

Established in 2012, NAVFAC EXWC is a command of approximately 1,300 dedicated federal civilian employees, contractors and military personnel providing research, development, test and evaluation, and in-service engineering to deliver specialized facility and expeditionary solutions to the warfighter, according to Navy officials.

As NAVFAC's only warfare center, its engineers, scientists, analysts, logisticians, contract specialists and other professional personnel provide technology and unique, agile solutions for the warfighter that specifically focus on expeditionary, oceans and shore needs from enduring bases to forward-deployed expeditionary locations.

> "America is truly beautiful in every sense of the word, and serving in the military is my way of expressing my gratitude."

With 90% of global commerce traveling by sea and access to the internet relying on the security of undersea fiber optic cables, Navy officials continue to emphasize that the prosperity of the United States is directly linked to recruiting and retaining talented people from across the rich fabric of America.

Abecilla serves a Navy that operates far forward, around the world and around the clock, promoting the nation's prosperity and security.

"We will earn and reinforce the trust and confidence of the American people every day," said Adm. Lisa Franchetti, chief of naval operations. "Together we will deliver the Navy the nation needs."

Abecilla has many opportunities to achieve great things during during military service. Abecilla earned a Navy and Marine Corps Achievement Medal and a NATO Medal for service during Operation Iraqi Freedom/Operation Enduring Freedom.

As Abecilla and other sailors continue to train and perform missions, they take pride in serving their country in the U.S. Navy.

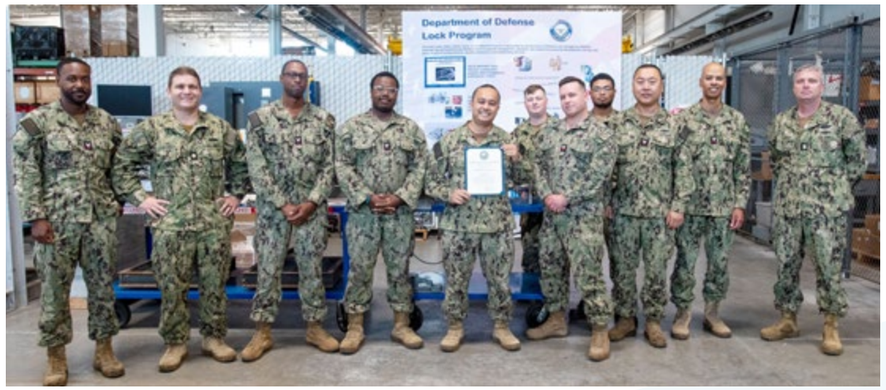
"As an immigrant who moved to America from the Philippines with my mother and older sister, I have always felt deeply grateful to the country that welcomed us and provided so much," said Abecilla. "America is truly beautiful in every sense of the word, and serving in the military is my way of expressing my gratitude. I am immensely proud of my military achievements; they symbolize my steadfast commitment to giving back to the country that embraced us."

Abecilla is grateful to others for helping make a Navy career possible.

"I want to express my heartfelt gratitude to my wife for supporting my ambitious plan in this exciting new chapter in my Navy career," said Abecilla. "Your willingness to embark on this adventurous journey with me means the world, and I deeply appreciate your support and partnership as we navigate this next phase together."

Abecilla, a hospital corpsman, has since transferred from EXWC, and now serves at Naval Medical Center Fort Sam Houston, Texas. He continues to look forward to all he would like to accomplish, during his time in the Navy and beyond.

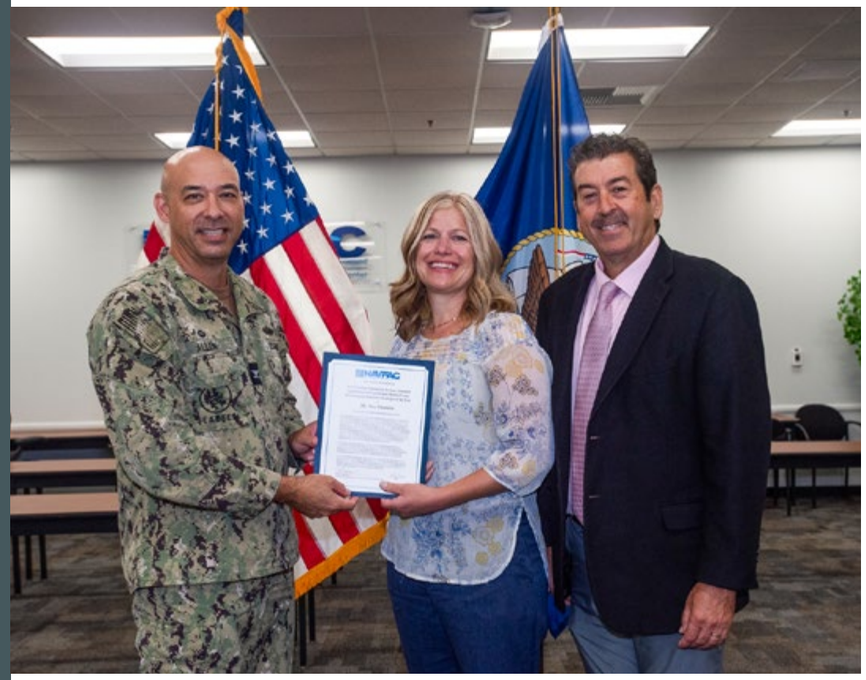
"After my wife finishes her degree, I plan to utilize the Navy's Tuition Assistance Program to further my own education goals, specifically pursuing a master's in communication," said Abecilla. "With less than 10 years remaining until I reach military retirement, I view this as a significant career goal and an important part of my long-term professional trajectory." ◆



The recognition reflects the notable work Hawkins did on high-priority NAVFAC restoration efforts in FY23

Environmental

EXWC Environmental Restoration
Employee of the Year:
Amy Hawkins



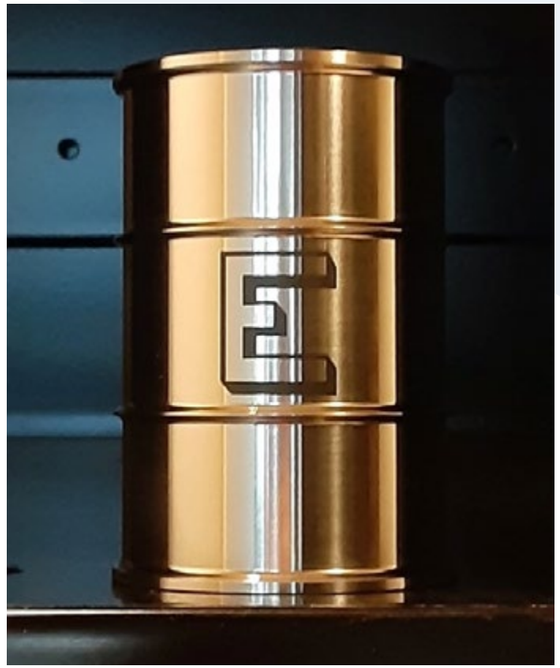
EXWC Commanding Officer Capt. Dean Allen and Technical Director Kail Macias honor Amy Hawkins as the NAVFAC EXWC Environmental Restoration Employee of the Year for Fiscal Year 2023, at EXWC Headquarters, Naval Base Ventura County, Calif., Aug. 7, 2024.

NAVFAC EXWC Biologist Amy Hawkins, in the Shore Department, has been honored as the NAVFAC EXWC Environmental Restoration Employee of the Year for Fiscal Year 2023.

The recognition reflects the notable work Hawkins did on high-priority NAVFAC restoration efforts in FY23. Hawkins, who grew up in Ridgecrest, California, and has worked at EXWC for 24 years, received the coveted "Drum E" award for employees with the greatest contribution toward cleaning up and closing sites in an efficient, effective, and sustainable manner.

Hawkins, who works in the Environmental Restoration Technology Transfer and Central Programs, received the award during the August All-Hands from Commanding Officer Capt. Dean E. Allen and EXWC Technical Director Kail Macias.

"There were a few items listed on the award, but to me the most meaningful is the SH322 support to the NAVFAC Environmental Restoration program in its audit readiness efforts," said Hawkins. "As a key control for NAVFAC Environmental Liabilities we support the FECs [facilities engineering commands] by completing checklist reviews of individual cost-to-complete estimates for each planned activity in an environmental cleanup."



The "Drum E" award is patterned after the Navy's other "E" awards, such as the famous Battle E that signifies the overall readiness of a command to carry out its assigned wartime tasks.

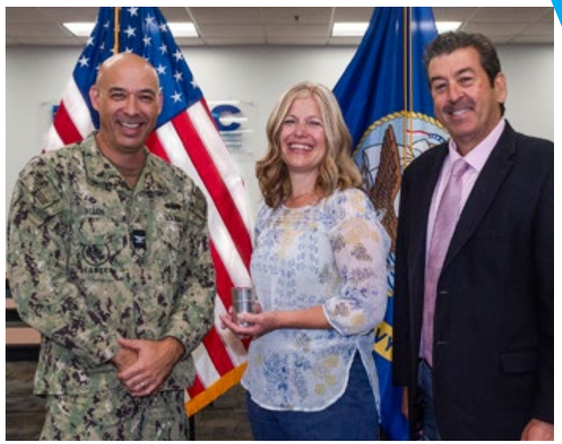
This review happens each year in a compressed timeframe, and during F23 the EXWC team competed more than 1,000 reviews in eight weeks, explained Hawkins.

The team was made up of 16 individuals, both contracted and in-house. In addition to leading the team, Hawkins personally completed more than 90 of the checklist reviews.

The burden of audit readiness on the Remedial Project Managers (RPMs) at the Facilities Engineering Commands has had a significant impact on execution, project progress, and morale, she said.

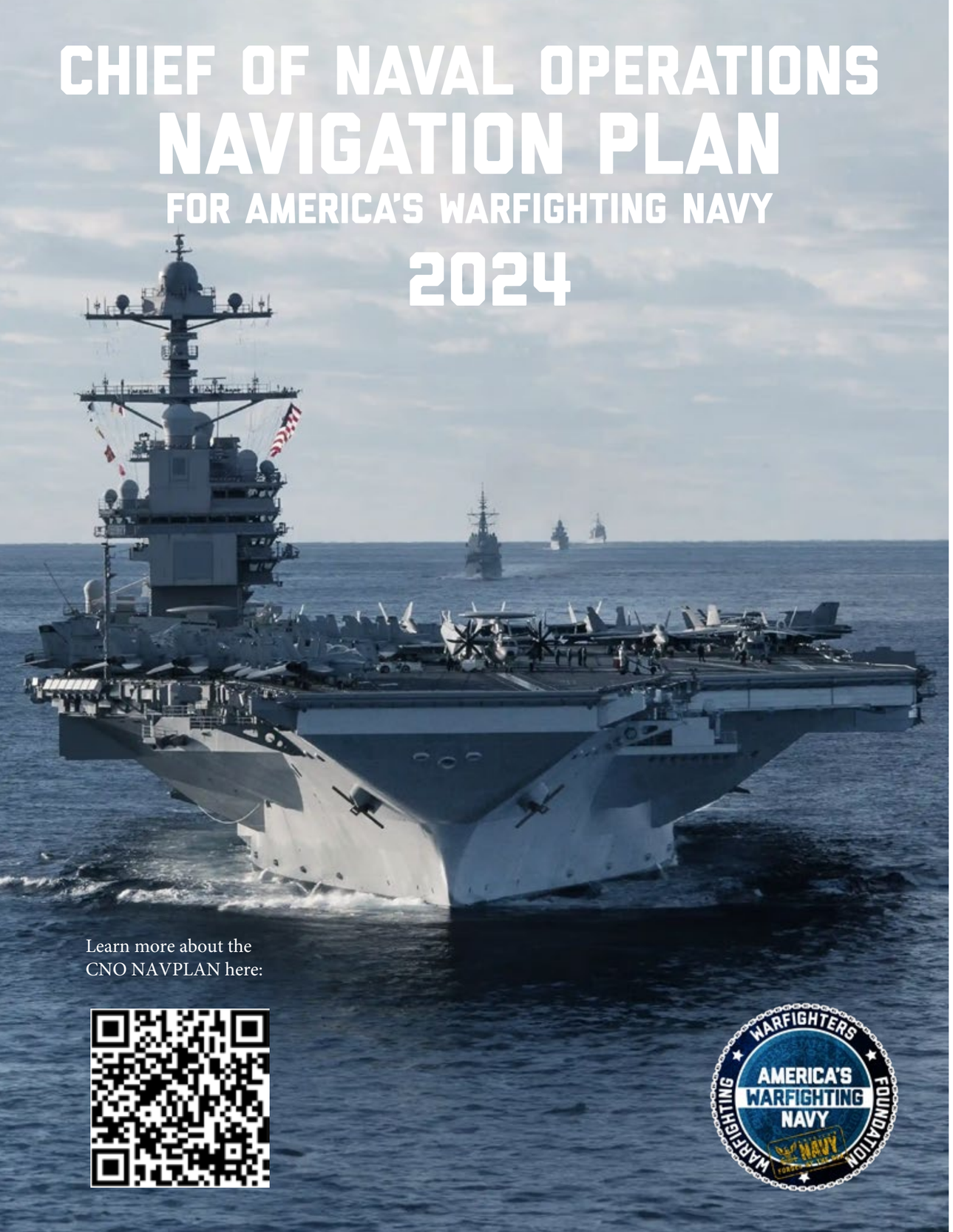
"This team has lifted thousands of hours of effort off of the RPMs and their managers by doing the reviews. It is a great feeling to know we are making a difference for our colleagues along with ensuring that we are ready for each year's audit, and I am grateful to have been honored with this award," said Hawkins.

> **"This team has lifted thousands of hours of effort off of the RPMs and their managers by doing the reviews. It is a great feeling to know we are making a difference for our colleagues along with ensuring that we are ready for each year's audit, and I am grateful to have been honored with this award."**



Biologist Amy Hawkins holds the "Drum E" award for employees with the greatest contribution toward cleaning up and closing sites in an efficient, effective, and sustainable manner.

The Navy established the Installation Restoration Program to reduce the risk to human health and the environment from past waste disposal operations and hazardous substance spills at Department of the Navy activities. The program goal is to provide for cost-effective and timely site assessment, planning, and remediation of identified releases consistent with Defense Environmental Restoration Program requirements.



Learn more about the CNO NAVPLAN here:

CHIEF OF NAVAL OPERATIONS
NAVIGATION PLAN
FOR AMERICA'S WARFIGHTING NAVY
2024

WHO: NAVY | **WHAT:** SEA CONTROL | **WHEN:** 2027 | **WHERE:** INDO-PACIFIC | **WHY:** READINESS FOR WAR | **HOW:** NAVPLAN

The 2024 NAVPLAN is the Navy's strategic guidance from the 33rd Chief of Naval Operations

The NAVPLAN focuses on *two strategic ends:* 1) Readiness for the possibility of war with the People's Republic of China by 2027, and 2) Enhancing long-term advantage

We pursue these ends through two mutually reinforcing ways: 1) Implement Project 33, and 2) Expand the Navy's contribution to the Joint warfighting ecosystem

By prioritizing seven Project 33 targets and continuing our work on several key capabilities and enablers, the Navy will permanently raise our baseline level of readiness to respond in competition, crisis, and conflict

IMPLEMENT PROJECT 33

Project 33 is how we make strategic gains in the fastest time with resources we influence.
By 2027, Navy will:

Ready our platforms: Achieve and sustain 80% combat surge ready ships, aircraft, and submarines
Operationalize robotic & autonomous systems: Move proven systems into the hands of the warfighters
Fight from the Maritime Operations Center: Resource our MOCs as the weapons systems they are
Recruit & retain talent: Man deployers to 95% of billets authorized, reach 100% rating fill (Active and Reserve)
Deliver Quality of Service: Eliminate waitlists and provide quality Unaccompanied Housing
Invest in Warfighter Competency: Improve Live, Virtual, and Constructive training
Restore critical infrastructure: Prioritize infrastructure directly supporting operational readiness in the Pacific

EXPAND THE WARFIGHTING ECOSYSTEM

Five key capabilities and four key enablers enhance the Navy's warfighting advantage into the future. They are:

5 Key capabilities:
1. Long-Range Fires—how we **shoot**
2. Non-Traditional Sea Denial—how we **deny**
3. Counter-C5ISRT—how we **maneuver**
4. Terminal Defense—how we **defend**
5. Contested Logistics—how we **sustain**

4 Key enablers:
1. Live, Virtual, and Constructive—how we **train**
2. Navy Operational Architecture—how we **communicate**
3. Artificial Intelligence—how we **outthink**
4. Robotic & Autonomous Systems—how we **scale**

GET MORE READY PLAYERS ON THE FIELD

- We will fight in a **Joint and Combined warfighting ecosystem** to defeat the adversary's own system of war
- We must **build readiness and capability now** as we partner to scale industrial capacity and expand budgets
- We will **grow the force:** ships, submarines, aircraft, people, munitions, logistics, and networks

CLARITY OF PURPOSE

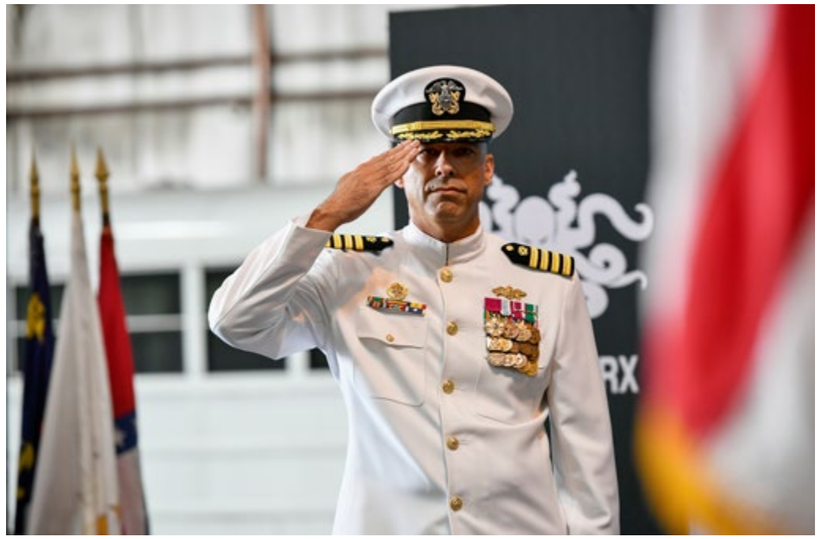
- We will **align the Navy Staff** to the needs of the **warfighters** and our **warfighting fleets**
- We do not need a radically new plan; **We need to move faster** with the plans we have
- To gain ground without losing speed, the Navy will execute the NAVPLAN **through existing processes**

OUR NORTH STAR: READINESS FOR SUSTAINED HIGH-END JOINT AND COMBINED COMBAT BY 2027

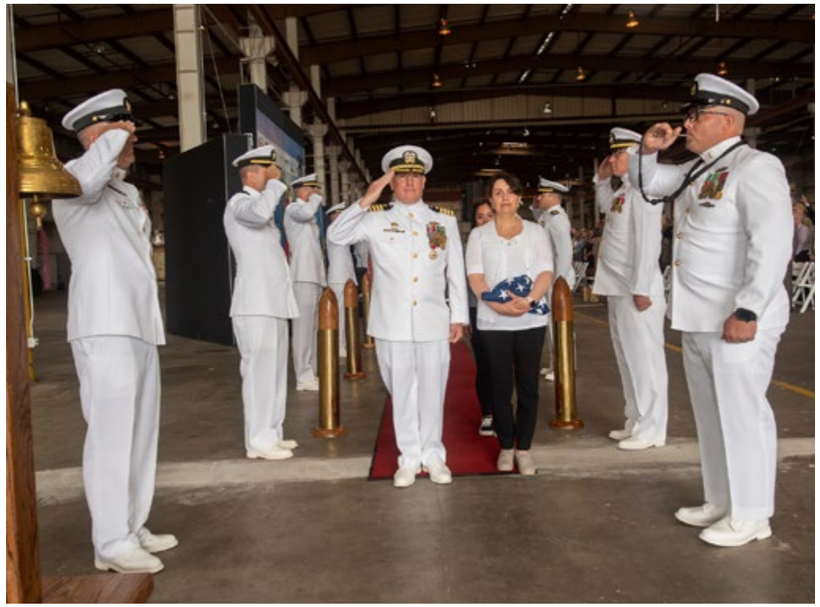
Capt. Dean E. Allen takes command of NAVFAC EXWC, July 19, 2024

Change of Command

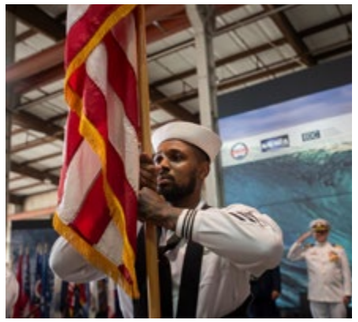
Welcome Aboard Commanding Officer Capt. Dean E. Allen!

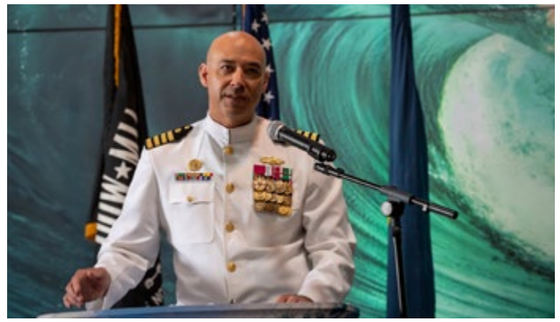


Capt. Dean E. Allen renders a hand salute after assuming command of NAVFAC EXWC.



Former NAVFAC EXWC Commanding Officer Capt. Scott P. Raymond is piped ashore following his retirement, concluding three decades of service.





Welcome Aboard Commanding Officer Capt. Dean E. Allen! In the time-honored tradition of a change of command, Allen became the new commanding officer of NAVFAC EXWC, July 19, 2024.

"For the first time in 25 years, I asked for a job — and it was to come here to the warfare center," Allen said after taking the helm from retiring Commanding Officer Capt. Scott P. Raymond. "I really wanted to come home to the cradle of innovation here for Naval facilities."

Allen, who was most recently the commander of the 30th Naval Construction Regiment, expressed his gratitude for the work of EXWC and the commitment of the 1,300-strong force. "I am absolutely amazed with what I've seen from afar as the previous commodore out in the Pacific," said Allen.

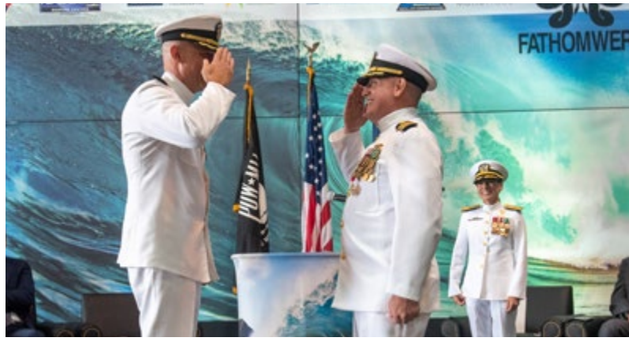
> **"For the first time in 25 years, I asked for a job — and it was to come here to the warfare center...I really wanted to come home to the cradle of innovation here for Naval facilities."**

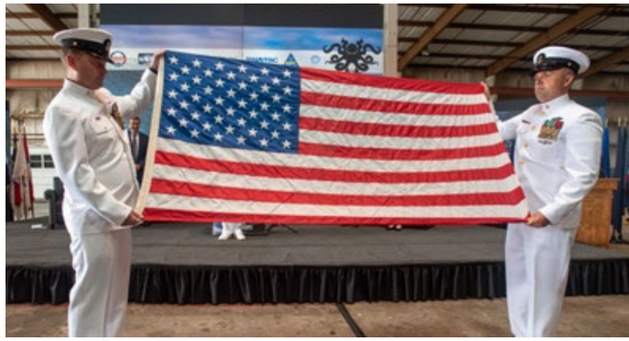
This dedication and extraordinary work, he noted, is for one reason: the warfighter. "I believe that every morning you should remind yourself that the best things we can possibly do today ultimately lead to enabling the warfighter with the tools they'll need tomorrow to project power that defends peace and freedom around the world," said Allen.

The change of command and retirement featured Rear Adm. Maria Lore Aguayo, commander of Naval Facilities Engineering Systems Command Atlantic, EXWC Technical Director Kail Macias, retired Rear Adm. Mark Handley and retired Rear Adm. Kate Gregory.

The change of command restates the continuity of command and is a formal ritual conducted before the assembled members of the command.

Held at the Fathomwerx tech-bridge laboratory at the Port of Hueneme, the event highlighted the crucial partnerships and cutting-edge innovation that keep EXWC on the forefront of providing technology and unique, agile solutions to the warfighter on expeditionary, oceans, and shore needs, from enduring bases to forward deployed expeditionary locations.





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Promotions

Congratulations to our newly frocked Chief Petty Officers!

CEC Luke Clemens

CEC Matthew Meals

CMC Jeremy Tatlock

CMC Aliaksandr Yeutukh

EXWC Commanding Officers

2024 JUL - PRESENT
Capt. Dean E. Allen

2021 JUL - 2024 JUL
Capt. Scott P. Raymond

2018 JUL - 2021 JUL
Capt. Michael R. Saum

2017 SEP - 2018 JUL
Capt. John J. Adametz

2015 JUL - 2017 SEP
Capt. Jay D. Mitchell

2013 JUL - 2015 JUL
Capt. Mark K. Edelson

2012 SEP - 2013 JUL
Capt. Brant D. Pickrell

Past and Present NAVFAC EXWC Commanding Officers

Established in 2012, the Naval Facilities Engineering and Expeditionary Warfare Center (NAVFAC EXWC), headquartered at Naval Base Ventura County, California, is a command of approximately 1,300 dedicated federal civilian employees, contractors, and military personnel providing research, development, test, and evaluation, and in-service engineering to deliver specialized facility and expeditionary solutions to the warfighter. As NAVFAC's only warfare center, our engineers, scientists, analysts, logisticians, contract specialists, and other professional personnel provide technology and unique, agile solutions for the warfighter that specifically focus on expeditionary, oceans, and shore needs from enduring bases to forward deployed expeditionary locations. In 2017, NAVFAC EXWC became a Defense Department Science and Technology Reinvention Laboratory.

MISSION

Provide research, development, testing and evaluation, in-service engineering, and life-cycle management for shore, oceans, and expeditionary domains.

VISION

Accelerate innovation to enable fleet lethality at sea and ashore.

MOTTO

ANTICIPATE • INNOVATE • ACCELERATE

Interested in contributing a story? Have a question or comment? Contact us!

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