



# COASTAL COMPASS

*The force behind the fleet*

July/August 2023  
Vol. 11 Issue 4

## LIFT OF OPPORTUNITY

NSWC Panama City Division  
*Ensuring Warfighting Dominance in the Littoral Battlespace*



July/August 2023  
Vol. 11 Issue 4

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The *Coastal Compass* is published bimonthly by the Naval Surface Warfare Center Panama City Division (NSWC PCD) and is an authorized medium for news of general interest about employees of NSWC PCD and their work.

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# VIEW FROM THE BRIDGE

Capt. David Back, USN  
Commanding Officer



Team PCD,

The past couple of months have been filled with achievements and firsts for the Navy Lab. Programs have achieved significant milestones, we've signed collaborative research agreements with academic and private sector partners, and we've held several command-wide Lab Showcases to highlight the important work that you do in support of the warfighter. Needless to say, it's been busy.

As we near the end of this fiscal year and refine our strategic plan for next year, it's important to find the fuel to keep the momentum going. It's essential for us to cross the finish line focused, together and strong.

As the force behind the fleet, wartime readiness demands that we give our best to ensure that the military force is ready to fight, able to meet the demands of both deterrence and combat operations, and is supported to complete their tasks at any time and for any length of time. When military members are not currently deployed, they are constantly training and preparing to do so. It comes with the territory and we must share that same mindset of readiness and proficiency to support them.



Demonstrating technical expertise, having the ability to understand the warfighter's needs & rapidly deliver solutions connects our relevancy to the fleet.



Dr. Peter Adair, SES  
Technical Director

Innovation, responsible risk-taking, and collaboration are also vital to our ability to support the Navy in a rapidly changing strategic environment. Understanding the warfighter's needs and rapidly delivering solutions to meet those needs connects us to the fleet and makes what we do relevant. It is why we are here and what the Navy needs from us.

All of this—the ability to equip, replenish, modernize, innovate, and train as a command—relies on you. When we care for each other and operate as a unified team, we will be best suited to deliver the services and capabilities that our Navy needs today and in the future, while ensuring our relevance as a Navy Lab.

Thank you for all you do in support of the warfighter, our Navy and our nation. **Dominate the Littorals.**

It is why we are here and what  
the Navy needs from us.



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# CIVILIAN LENGTH OF SERVICE

JULY/AUGUST 2023

Name	Years
BRENDA MCNAIR	35
CHRISTOPHER SERMARINI	35
DAMON DAVIS	25
EBONI DITIMUS	25
VALERIE PARRY	25
GERALD SORRELL	25
MICHAEL CONN	20
MICHAEL DRUMHELLER	20
OCSAR FLOREZ	20
MAYRA HALL	20
JESSE MILES	20
ROBERT MOORE	20
JOHN NICOLASI	20
JOSE PINA, JR	20
GORDON REECE	20
EDWIN RODRIGUEZ	20
ASHER SHERKOW	20
CHRISTOPHER SMITH	20
DARSHAN BRYNER	15
JONATHAN DAVIS	15
BOBBY DIXON, JR	15
STEVEN DUNAWAY	15
FORREST FERRELL	15

Name	Years
KRISTIN GOOCH	15
JEREMY GREENE	15
DONALD GRINER	15
KATRINA HELM	15
CHRISTINE INGRAM	15
JOSHUA JORDAN	15
DANIELLE KINKADE	15
SEAN MACRI	15
JEREMIAH MADNELLO	15
STEVEN OSTERTAG	15
JUSTIN RICE	15
ALEXIS ACEVEDO-SANCHEZ	10
SUSAN BRAY	10
TARA HOWARD	10
TEAL WHEELER	10
PATRICK AMY	5
TYLER BALDING	5
JOE BATES	5
KIMBERLY BOWDEN	5
LISA BROADWATER	5
EMILY DEMPSEY	5
RUSSEL DORR	5
JOSHUA EVERETT	5

Name	Years
JUSTIN GREEN	5
CATHY HAYNES	5
RICHARD HAYWARD	5
ROBERT HESTER, JR	5
JONAS HUDSON	5
WILLIAM JONES	5
DENISE LASSITER	5
EMILY LITTLE	5
CONNOR MCCOY-MICKELSON	5
JOESPH PAPCIAK	5
CORTERRIS RICHMOND	5
LUKE RIDLEY	5
SHELBY SCOTESE	5
JOSHUA SIMMONS	5
ERIC SOTO	5
JADE STANLEY	5
CLARENCE STEWART	5
SAMUEL TATE	5
EVERETT TYNDALL	5
AARON VU	5
JARED WAMPLER	5
MARK WILLIAMS	5

## WELCOME ABOARD!



Name	Code
CECILIE BELLEVILLE	0131
MEGAN FERNANDEZ	1071
MICAH GOMEZ	1043
LISA TRAWICK	104
JAIYI AN	A14
ALAIN ANDRE	A14
JARED FERMIN HERNANDEZ	A32
MOHAMMED KABIR	A14
NATHAN PAERSCHKE-O'BRIEN	A16
ANGELA PRIMM	A31
CHASE REECE	A34
TIA SHARPE	A43

Name	Code
SEAN SMITH	A11
ABIGAIL STUTZ	A12
RYAN TRACY	A13
SGT. MAJ. JEREMY BENTON	E55
FRANKLYN BROGNANO	E24
NOAH GRENIER	E23
LUKE HAYES	E23
ETHAN HUNT	E12
ANITA MCCONNELL	E53
ANTOANETA MUTAFCHIEVA	E31
JOSHUA MUTTO	E41
JOSE SANTIAGO	E24

Name	Code
JANICE SAUNDERS	E56
DYLAN SMITH	E12
ZACHARY BRADSHAW	X23
JAMES BRITTON	X13
ABBY EARNEST	X22
ROCIO KREBS	X21
MARGARITE LABORDE	X11
GUSTAVO MALDONADO	X15
ALEXAN MARCHESE-DONATE	X12
KELLY QUAN	X23
ANTONIO ROSALES	X21
DAVIS WHITFIELD	X21

# DIVISION SPOTLIGHT



Elaine Hill

*NSWC PCD Employee  
Services Division Travel  
Administrative Assistant*

Code 013  
Employee Services  
Division/Travel

## How long have you worked at NSWC PCD?

I began working at NSWC PCD in June 1984, more than 39 years ago. What I enjoy most is assisting our employees with their government travel charge cards and official passports.

## What do you do in your job? What is the impact?

I am the primary agency program coordinator for the Government Travel Charge Card (GTCC) Program and we have more than 1300 employees here who have a GTCC. It is my responsibility to process GTCC applications, process temporary credit limit increases for our employees going on travel for official business and monitor the GTCC for monthly delinquency and misuse/abuse issues. I am also the primary official passport agent here. In that role, I process official passport applications/VISAs for Department of Defense employees who will be going on temporary duty (TDY)/permanent change of station (PCS) on official business to a country that requires them to have an official passport.

## What does your Division do?

The NSWC PCD Employee Services Division is responsible for supporting all command functions related to Official Travel and Civilian Payroll. I work in the travel branch and we monitor and manage all official Defense Travel System travel orders for TDY, PCS, temporary change of station, and long-term TDY assignments for 364 days or less. We support the Navy by supporting the force behind the fleet.

## What is an interesting fact about you?

I enjoy traveling to the mountains of Tennessee. When I retire this October, I should be able to travel there more.



## NSWC PCD DAWIA

*Defense Acquisition Workforce  
Improvement Act*

Congratulations to our employees for completing their DAWIA requirements this period!

**TERRY FOSTER  
MARC MACKAY  
SIMON MARCHETTI  
JAMES MCGINLEY  
JUSTIN OYLER  
PEDRO PEREZ  
MARY ANN RODRIGUEZ  
QUEZADA  
AMANDA SMALL  
VALERIE YUEN-HUNG**



# AWARD NEWS

## *Congratulations Awardees!*

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### *Department of Navy Awards*



NAVY CIVILIAN SERVICE  
COMMENDATION MEDAL  
STEFANIE BARRON



WOMEN OF COLOR TECHNOLOGY  
RISING STAR AWARD  
LARRIEL HESTER

### *Meritorious Awards*

NAVY CIVILIAN SERVICE  
MERITORIOUS AWARDS  
MICHAEL TAFT  
(NOT PICTURED)



JOHN LINK



IVAN LUGO

### *2023 Quarterly Awards*



OUTSTANDING NEW  
EMPLOYEE AWARD  
CASEY BRENNAN



THE EXCEPTIONAL TEAM AWARD  
THE INFORMATION TECHNOLOGY  
INCIDENT RESPONSE TEAM: JULIA  
LEWIS (NOT PICTURED), KEITH  
FARNEY AND CHRISTIAN VAZQUEZ

# 40 years of dedicated federal service

DONALD LANCASTER (NOT  
PICTURED)



CARMEN FERRER



JOHN HOLLOWAY



RICHARD JERMYN, JR.

## Upcoming Awards

- 1 SEPTEMBER AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) FREEMAN SCHOLAR  
BEYA SCIENCE-SPECTRUM TRAILBLAZER  
BEYA MODERN DAY TECHNOLOGY LEADERS
- 5 SEPTEMBER EXCELLENCE IN PARTNERSHIP AWARDS
- 15 SEPTEMBER CHEMICAL AND BIOLOGICAL DEFENSE AWARDS  
FEDERAL LABORATORY CONSORTIUM  
DIRECTOR OF THE YEAR  
INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) PROFESSIONALISM/TECHNICAL ACHIEVEMENT/LITERARY AWARDS  
FEDERAL LABORATORY CONSORTIUM  
NATIONAL AWARDS
- 21 SEPTEMBER ACT-AIC INDUSTRY EXECUTIVE LEADERSHIP AWARD
- 27 SEPTEMBER ARTHUR S. FLEMMING
- 13 OCTOBER NAVSEA TESTER IN THE SPOTLIGHT (QUARTERLY)  
PROGRAM EXECUTIVE OFFICE INTEGRATED WARFARE SYSTEMS EXCELLENCE AWARD
- 15 OCTOBER SOCIETY OF INDUSTRIAL AND APPLIED MATHEMATICS (POLYA/DIPRIMA/REID PRIZE)
- 18 OCTOBER DoD DEFENSE STANDARDIZATION PROGRAM ACHIEVEMENT AWARDS  
ONR AWARDS (SIX DIFFERENT ONES)
- 23 OCTOBER JERLOV AWARD
- 25 OCTOBER NAVSEA EXCELLENCE  
(DUE DATE SUBJECT TO CHANGE)
- 31 OCTOBER FEDERAL ENGINEER OF THE YEAR AWARD

Dates provided are due dates for completed package(s) to be received.

Upcoming awards are regularly updated on:  
<https://wiki.navsea.navy.mil/display/PCD103/Awards>

\*Non-government agency award submissions now require approved public release documentation.



Any comments or knowledge you have about this story, you are welcome to share with NSWC PCD Command Historian, Shauna Love-vonKnoblauch:

[shauna.r.love-vonknoblauch.civ@us.navy.mil](mailto:shauna.r.love-vonknoblauch.civ@us.navy.mil)

## Scientist in the Sea

In September 1970, an extensive course for graduate students entitled "Scientist in the Sea" was underway. The Scientist in the Sea program, only one of its kind in the nation, was a unique graduate level course in scientific diving offered to students of the State University System.

The course would be 10 weeks long with 12 credit hours toward a Masters or a PhD in some form of ocean sciences degree. The student scientists would receive classroom lectures, laboratory demonstrations, and swimming and diving instructions.

The students training program included night diving, exposure to saturation diving technology, diving medicine, underwater communications, navigation, search and recovery methods, advanced umbilical diving techniques, engineering science, and underwater

photography. In the closing days, the divers were involved in the deployment and utilization of underwater habitats, which can enable scientists to exist in the sea for extended periods of time, and a cruise to and diving over the Gulf middle grounds region. The latter is a commercially-rich area of Gulf midway between Cape San Blas and St. Petersburg.

Heavily involved in the program was Captain George F. Bond of the Navy's man-in-the-sea fame, who is known as the "father of saturation diving."

By October 1970, ten state university system students, including two women, were participating in the college credit course as part of the University Center program at the laboratory.

In December of 1971, representatives of the Florida State University System, the U.S. Navy,

National Oceanic and Atmospheric Administration, and the community of Panama City began preliminary planning for the second Scientist in the Sea program.

The second group of students began the course June 14, 1972, hoping to become effective "scientists in the sea." Deputy Undersecretary of the Navy Joseph A. Grimes, Jr. delivered the keynote address at graduation ceremonies Thursday Aug. 17, 1972, for 15 graduate level students completing the Scientist in the Sea Program at Naval Coastal Systems Laboratory. Eleven men and four women, all graduate students, received their diplomas during the ceremony.

By the program's fourth year, SITS had graduated 41 participants, in addition to the latest graduating class of 19 participants in 1974.



Aug. 17, 1972  
Graduating Class



Aug. 25, 1972  
Joseph A. Grimes

State, Navy, Community Discuss Scientist in the Sea

*The Underseer* Dec. 30, 1971



Cooperation was the theme of a gathering here of representatives of the Florida State University System, the U.S. Navy, National Oceanic and Atmospheric Administration, and the community of Panama City who began preliminary planning for the second Scientist in the Sea Program. The Scientist in the Sea program, only one of its kind in the nation, is a unique graduate level course in scientific diving offered to students of the State University System. The two-day gathering at the Laboratory also included informal discussions of various aspects of ocean technology. Some of the participants (left) exchange information. Left to right are Dr. James Miller, Commander Robert Nevin, and Dr. Robert Dill, all of NOAA; Captain George Bond, of the Navy Laboratory; Dr. Robert Smith, Director, State University System of Florida Institute of Oceanography; and Commander E. Fischer Coil, of the U.S. Navy's Office of Submarine and Diving Medicine. The group was privileged to see progress on the construction of the Ocean Simulation Facility (left) where they witness work being done on the gas field where the various breathing gases are stored. The conference concluded with curriculum working sessions and a visit to one of the Laboratory's offshore research platforms in the Gulf.



*The Underseer* Aug, 31, 1973

Sixteen university graduates enrolled in the unique Scientist-in-the-Sea program at the Naval Coastal Systems Laboratory were presented their diplomas last Friday in ceremonies at the Holiday Lodge Marine Room. The students completed 10 weeks of advanced diving technology and are now full-fledged diving scientists. The program is a joint effort of the National Oceanic and Atmospheric Administration, the University System of Florida and the Laboratory. Fourteen men and two women completed the rugged and demanding course. In the photo Tony Llewellyn, of the Univ. of South Florida coordinator for SITS '73, congratulates the students. To the right is: Wilbur Eaton, of NCSL, diving supervisor. Seated are (left to right) Captain L. O.G. Whaley, commanding officer of NCSL; Dr. Tucker; and CVR Robert Nevin, of the National Oceanic and Atmospheric Administration.



*The Underseer* Aug. 2, 1974

SITS STUDENTS OFF ON CRUISE - Midway through their training syllabus, 18 graduate students enrolled in the Scientist in the Sea program here board a vessel for their trip to the Bahamas where they will continue their training. In Freeport in the Bahamas, the students will be involved in more saturation diving and specific projects for science, while operating out of underwater habitats. SITS is the joint effort of NCSL, the State of Florida University System and the National Oceanic and Atmospheric Administration.



*The Underseer* Aug. 30, 1974

SITS GRADUATES - Graduates of the fourth Scientist-in-the-Sea program, SITS 74, are shown here with the SITS staff. First row (left to right) are Carroll Bernier, Albert S. Walton, Greg Stanton, Ian Workman, James Brooks, Michael Muirhead, Arnold Stollar and Dean Vidal. Middle row, Doug Rau, James Hicks, Dennis Hubbard, Ed Conklin, Chris Smith, Barbara Carr, Robert O'Bryan, Lewis Bullock, and Susan Cooley. Back row are staff members Captain George Bond, NCSL; Wilbur Eaton, NCSL; Bill Martin, University System of Florida; Dr. Tom Hopkins, Univ. of West Florida; Dr. William Herunkind, University of Florida; Chris Combs, Univ. System; Jack McDonald, Univ. of West Florida; Robin Morhouse, Univ. of Florida; and Dr. Tony Llewellyn, Univ. of South Florida.

# SEAP INTERNSHIP

Summer high school interns from the 2023 Naval Surface Warfare Center Panama City Division (NSWC PCD) Science and Engineering Apprenticeship Program (SEAP) participated in an engineering design sprint led by the Andrew Bouchard, NSWC PCD Center for Innovation manager, June 15. The students were challenged to present innovative designs/hands-on activities that could inspire students to consider careers in science, technology, engineering and math (STEM) during STEM outreach opportunities. (U.S. Navy photos by Eddie Green)



**Award duration** is a continuous 8 weeks during the summer.

SEAP offers a competitive **stipend** for its interns.

- New participant: \$4,000
- Returning participant: \$4,500

**Eligibility**

- Rising 10th through 12th graders
- 16 years of age by the internship start date
- U.S. citizenship; some participating laboratories will consider permanent residents



For internship details visit:  
**NAVALSTEMINTERNS.US**

Contact Us: [seap@saxmanone.com](mailto:seap@saxmanone.com) / (703) 530-9523 Ext. 7

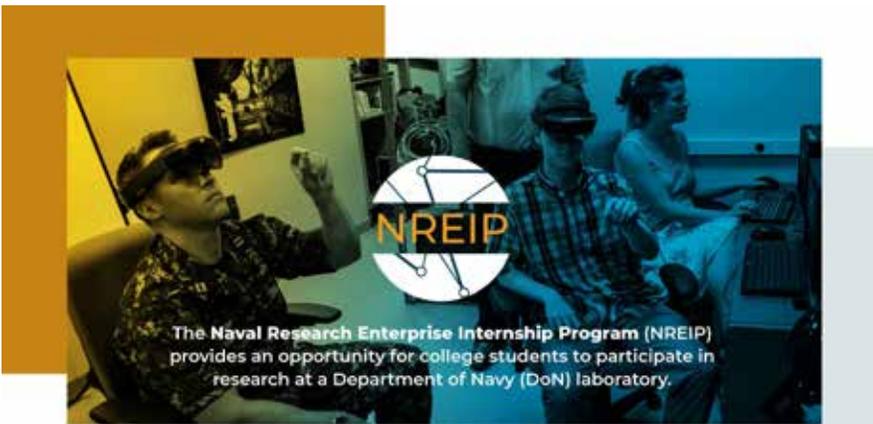




# NREIP

## INTERNSHIP

The Naval Surface Warfare Center Panama City Division (NSWC PCD) Naval Research Enterprise Internship Program and Science, Mathematics, and Research for Transformation (SMART) groups toured the Navy Lab, July 12. These college-level interns spent more than eight weeks over the summer with NSWC PCD. (U.S. Navy photo by Sgt. Alex Morgan)



The Naval Research Enterprise Internship Program (NREIP) provides an opportunity for college students to participate in research at a Department of Navy (DoN) laboratory.

### Eligibility

- Enrolled at a four-year U.S. college or university accredited by the U.S. Department of Education; students attending two-year colleges who meet the credit hour requirements may be eligible at the laboratory's discretion
- University sophomores, juniors, seniors or graduate students; freshmen who have reached the credit level of a sophomore before starting the internship are also eligible
- Applicants should have demonstrated interest in subjects of study that are relevant to the research conducted by one or more of the laboratories in the program
- U.S. citizenship; some participating laboratories will consider permanent residents

### NREIP Participating Labs Across the Country

**Award duration** is a continuous 10 weeks.  
**NREIP offers a competitive stipend** for its interns.

- New undergraduate student participants: \$7,500
- Returning undergraduate students (students **MUST** have completed a full 10-week program in a prior year to receive this level): \$9,000
- Graduate students (students must currently be in graduate school and taking graduate school courses to receive this level): \$11,500

For internship details visit:  
**NAVALSTEMINTERNS.US**

Contact Us: [nreip@saxmanone.com](mailto:nreip@saxmanone.com) / (703) 530-9523 Ext. 7



APPLICATION  
 WINDOW  
 FOR BOTH  
 PROGRAMS  
 CLOSE  
**NOV. 1, 2023**



## AT NSWC PCD, DESIGN THINKING AIMS TO DELIVER TANGIBLE SOLUTIONS

By Shauna Love-vonKnoblauch, NSWC PCD Public Affairs

VIRGINIA BEACH, Va. – Personnel from Naval Surface Warfare Center Panama City Division (NSWC PCD) align themselves with one of Naval Sea Systems Command's (NAVSEA) goals-Right Culture/Values-by strengthening NAVSEA Warfare Centers One Team collaborative culture workshop at the annual 2023 Warrior East Conference, June 21-22.

Five of the NavalX Tech Bridges and the Office of Naval Research Global (ONRG) Tech Solutions hosted the warfighter-centered, decision-making workshop. The event's goals were to: teach innovative problem solving techniques to the warfighter; and source warfighter problems and submit them for consideration in the ONRG Tech Solutions program. The Tech Solutions program is a rapid-response science and technology program focused on rapidly bringing warfighter ideas to the field. Selected projects will deliver a demonstration or prototype

solution within 12-18 months, which result in making the warfighter's job safer, more effective, and more efficient. Holly Gardner, NSWC PCD director of strategic engagement and director, NavalX Gulf Coast Tech Bridge, served as part of the planning team.

"This event directly supports our mission as we dominate the littorals. Our involvement demonstrates our commitment to the warfighter, through designing novel solutions to warfighting needs and delivering operationally relevant solutions to deter and defeat the nation's adversaries," Gardner said. "The workshop also helped us increase our understanding of the nation's threats and our mission areas. Both events improve our technical acumen, through teaching our workforce cutting-edge tools to increase efficiency and effectiveness."

The workshop team, supported by the NSWC PCD Center for Innovation, included the Mid-Atlantic, Capital, Liberty,

and Gulf Coast Tech Bridge(s). The NavalX Gulf Coast Tech Bridge is led by NSWC PCD, with Naval Meteorology and Oceanography Command and Naval Research Laboratory Ocean Sciences Division as collaborative partners.

In addition to rapidly delivering solutions, this workshop supports NAVSEA's goal of delivering technical innovation and excellence by expanding and enhancing relationships with partners. Since 2018, NavalX has facilitated communication among industry, academia, and the Department of Navy as a means of expediting the transition of necessary and relevant technology to our sailors and marines. Simultaneously, the Tech Bridge Network was established as the mechanism to achieve throughput of necessary and relevant technology.

Part of NavalX's role in the greater Navy innovation ecosystem is to connect the Navy workforce and provide access to



critical resources. This includes knowledge, innovation, problem-solving, collaboration, and communication best practices.

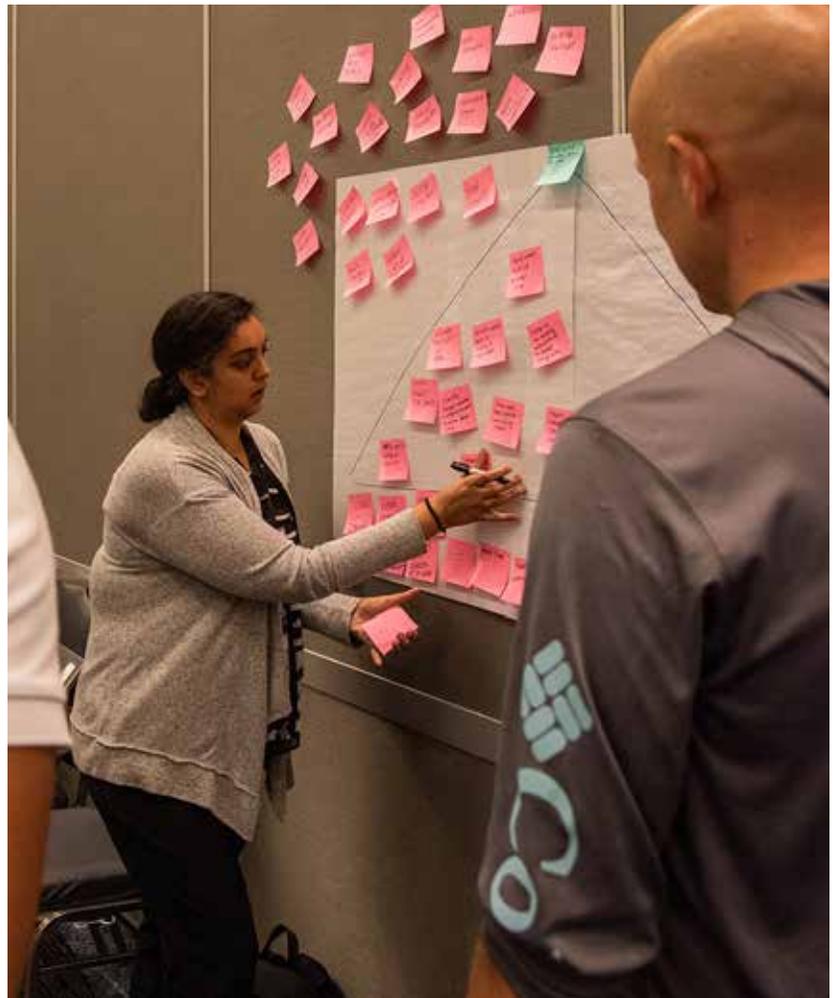
Andrew Bouchard, NSWC PCD Center for Innovation manager/autonomy research engineer, supported the event as a facilitator.

“In coordination with the Naval Tech Bridges, we used design thinking exercises to guide small teams of warfighters to identify high-priority problems based on their expertise and to generate potential solutions,” Bouchard said. “From the longer term perspective, the event gave the facilitators a better window into the warfighter’s perspective and increased warfighter agency to know where to direct problems and solutions in the future.”

Follow on events will occur at NSWC PCD at the end of the month, which will focus on teaching processes to rapidly deliver solutions in a variety of business and technical applications. The NSWC PCD Center for Innovation will be working with representatives of NavalX and NSWC Carderock to offer design sprint training to the command. The PCD event will be a 4-day training in design sprint methodologies.

“Based on the philosophy of design thinking and using proven techniques from industry and government, this workshop will teach attendees both the overall structure of our local four-day sprint process for rapid idea development,” Gardner explained, “and also focuses on a variety of exercises for brainstorming, prioritization, and decision-making that can be used independently.”

The end goal of the design thinking sprints is to make innovation processes as a whole more available across the command, enabling participants to apply what they’ve learned to rapidly deliver technical and business solutions to meet warfighter needs.



NSWC PCD Center for Innovation, NavalX and NSWC Carderock Division guide small teams of warfighters to identify high-priority problems at the annual 2023 Warrior East Conference. Design thinking sprints make innovation processes, as a whole, more available across the command and Naval Sea Systems Command. (U.S. Navy photos by Lauren Hanyok)

# NSWC PCD'S COLLABORATION WITH SAGETECH ELEVATES NAVY TO NEW UNMANNED AIRCRAFT SYSTEMS HEIGHTS

By Jeremy Roman, NSWC PCD Public Affairs

PANAMA CITY, Fla.—Naval Surface Warfare Center Panama City Division (NSWC PCD) continues its pursuit to be a collaborator of choice who expands naval superiority in its latest partnership with Sagatech Avionics, Inc. The two organizations held a Cooperative Research and Development Agreement (CRADA) signing ceremony, July 27.

This CRADA, entitled the Unmanned Aircraft Systems (UAS) Collaborative Research Effort, aims to combine technology and reimagined design within this dynamic field using Identification Friend or Foe (IFF) capabilities. Gavin Taylor, NSWC PCD Expeditionary Systems Division engineer, highlights some of the benefits from this collaboration.

“This CRADA will afford us the opportunity to integrate UAS with unique technologies developed by Sagatech Avionics, Inc. This integration would add immediate value to any systems [we] would provide to the warfighter through IFF capabilities not usually included in small form-factor UAS’s,” said Taylor.

NSWC PCD is developing a low-cost expendable UAS with a novel deployment method. One of the targets is to provide an effective platform to support U.S. Navy objectives to expand the advantage.

“If this CRADA achieves its goals, any UAS, which NSWC PCD develops, will have a leg up on the competition by allowing us to present a value-added solution to the warfighter,” said Taylor. “The technology Sagatech is working on is a critical component of the fight—Today and Tomorrow. Having the knowledge and expertise to integrate this into our future UAS systems will give NSWC PCD a greater capacity to serve the warfighter.”

Another target is to continue to develop

the technical capabilities of the engineers and developers.

“This specialized technical work is what attracts the best and the brightest. Establishing this CRADA signals that our science and technology efforts are alive and well and that interesting work doesn’t have to be relegated to a contractor, but can be performed here at NSWC PCD,” said Taylor. “In addition, our engineers will have the opportunity to gain experience by working alongside Sagatech engineers through the integration process on both the hardware and software.”

A final target is helping the Navy Lab achieve one of its goals—Shaping Future Littoral Battlespace Operations—through responsible resource stewardship and

information sharing with collaborative partners.

“Any projects stemming from this CRADA will have the benefit of cutting-edge technology not commercially available, allowing the government to maintain intellectual capital rather than having to go outside the fence for specialized support,” said Taylor. “Growing this knowledge at NSWC PCD will further establish our position as a Navy lab as we continue to push the boundaries of technology in support of the warfighter.”

Sagatech works with the U.S. military, as well as North Atlantic Treaty Organization partners, and allies to ensure programs fly safer missions. Their vision is to deliver certified solutions that enable safe airspace



Tom Furey, Sagatech Avionics, Inc. chief executive officer, signs a Cooperative Research and Development Agreement (CRADA) during a signing ceremony held July 27. This CRADA, entitled the Unmanned Aircraft Systems Collaborative Research Effort, aims to combine technology and reimagined design within this dynamic field using Identification Friend or Foe capabilities. (U.S. Navy photo by Jeremy Roman)



Capt. David Back, NSWC PCD commanding officer, signs a Cooperative Research and Development Agreement (CRADA) during a signing ceremony held July 27. NSWC PCD is developing a low-cost expendable UAS with a novel deployment method that will continue to develop the technical capabilities of the engineers and developers through responsible resource stewardship and information sharing with collaborative partners. (U.S. Navy photo by Jeremy Roman)



integration for any aircraft and strive to serve the missions of tomorrow.

“Sagatech has a history of working with all branches of the military to ensure that manned and unmanned aircraft can fly safely and integrate effectively into both commercial airspace and the joint military battlespace,” stated Tom Furey, chief executive officer of Sagatech Avionics. “We are excited to work with NSWC PCD as they develop unique small UAS, combining both organizations’ areas of expertise to integrate IFF, collision avoidance and combat identification capabilities into advanced military UAS technology. As a small business, PCD has made it easy to collaborate and advance both dual-use and military specific technology for the benefit of the warfighter.”

This is the first-ever signing of a CRADA between NSWC PCD and Sagatech Avionics and was put together in support of a Naval Innovative Science and Engineering

(NISE) effort in UAS. NISE is the Navy’s implementation of the Congressionally authorized and Department of Defense established funding source with a specific, targeted intent of ensuring the Defense Laboratory can fund this type of innovative basic and applied research, conducted in-house in support of military missions.

“The NISE program allows the laboratory to explore the latest science and technology through funded basic and applied research. These NISE funded efforts help push the needle forward in transitioning Navy-developed capabilities to the fleet,” said Paige George, NSWC PCD Technology Transfer manager. “Collaboration plays an important role in the NISE program, and CRADAs are the easiest method for that collaboration. CRADAs open up the aperture for collaborative work with industry and academia, while protecting the intellectual property of both collaborators, as well as safeguarding information.”

NSWC PCD and Sagatech Avionics, Inc., enter into a Cooperative Research and Development Agreement (CRADA) during a signing ceremony, July 27. (left to right) Lt. Rich Morales, NSWC PCD acting executive officer, Wes Shover, Sagatech Sales and Channel director, Paige George, NSWC PCD Technology Transfer manager, Tom Furey, Sagatech CEO, Capt. David Back, NSWC PCD commanding officer, Ryan Kendall, NSWC PCD Test and Evaluation and Prototype Fabrication Division mechanical engineer, Gavin Taylor NSWC PCD electrical engineer, and Dr. Kerry Commander, NSWC PCD chief technology officer. (U.S. Navy photo by Ronnie Newsome)



# LCAC 105-107

## RECEIVE LIFT OF OPPORTUNITY ABOARD USS GUNSTON HALL

By Team Ships Public Affairs

U.S. Navy photos by Eddie Green/courtesy photo



WASHINGTON NAVY YARD – Ship to Shore Connector (SSC), Landing Craft, Air Cushions (LCAC) 105-107 received a lift of opportunity (LOO) aboard USS Gunston Hall (LSD 44), July 14.

LCAC 105-107 have been at Naval Surface Warfare Center Panama City Division for post-delivery test and trials following their delivery to the Navy by Textron Systems.

The leadership on the USS Gunston Hall worked with Program Executive Office (PEO) Ships, Naval Surface Warfare Center Panama City Division, and Assault Craft Unit FOUR (ACU 4) as LCAC 105-107 entered the well deck for transport.

“SSC LCACs are in serial production and actively providing much-needed agility and speed to our fleet,” said Capt. Jason

Grabelle, program manager, Amphibious Assault and Connectors Programs, PEO Ships. “The flexibility of LCACs, combined with their technology, provide our Navy and Marine Corps team with capability for today and the future fight.”

Later this month, the Gunston Hall team will offload these three crafts to their new home at ACU 4 in Little Creek, Va. ACU 4 is the parent unit for LCACs on the east coast. LCACs 101-104 arrived at ACU 4 in February 2022.

SSCLCACs are built with configurations, dimensions, and clearances similar to the legacy LCACs they replace – ensuring that this latest air cushion vehicle is fully compatible with existing, well deck-equipped amphibious ships, the Expeditionary Sea Base, and the Expeditionary Transfer Dock.



Courtesy Photo

“ We’ve got a very good group of people here—a large group of technicians and engineers—who cohesively work together. It’s not just the electricians or mechanics, it’s our software people, our cyber personnel and engineers who meld and work together to form a cohesive team. [They] get these crafts where they need to be to make sure the wafighter has a good piece of equipment to operate with. ”

*John Brooks,*  
NSWC PCD operations task lead,  
LCAC Support Services Group

LCACs are capable of carrying a 74-ton payload. They primarily transport weapon systems, equipment, cargo, and assault element personnel through a wide range of conditions, including over-the-beach.

As one of the Defense Department’s largest acquisition organizations, PEO Ships is responsible for executing the development and procurement of all destroyers, amphibious ships, special mission and support ships, boats, and craft.

Landing Craft Air Cushion (LCAC) 107 arrived at Naval Surface Warfare Center Panama City Division, June 28. LCAC 107 is one of the Next Generation LCACs that will be added to the fleet in the near future. Its delivery follows the completion of Acceptance Trials with the Navy’s Board of Inspection and Survey to test the readiness and capability of the craft and to validate requirements.



# LAB SHOWCASES

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## HYDROSPACE LABORATORY

Naval Surface Warfare Center Panama City Division Hydrospace Laboratory highlights its impact to the command's workforce during a lab showcase, Aug. 11. Hydrospace is a hyperbaric development and test facility that supports all branches of the military, other government agencies outside the Department of Defense, and commercial entities that have partnered with Department of Defense interests. (U.S. Navy photo by Eddie Green)



## MINE SYSTEMS & MINE IN-SERVICE ENGINEERING AGENT

The Naval Surface Warfare Center Panama City Division Mine Systems and Mine In-Service Engineering Agent (ISEA) Branches hosted a lab showcase, July 14. These missions are relevant because it develops and sustains Maritime Mining systems for fleet use. Currently, maritime mines are deployed by either aircraft (Air Force & Navy) or submarine. Future mine systems currently under development will utilize Unmanned Underwater Vehicles (UUVs), surface craft(s), submarines and aircrafts for deployment. (U.S. Navy photo by Shauna Love-vonKnoblauch)



# FLAGPOLE FRIDAY

U.S. Navy photo by Eddie Green

Friday, May 19th was the Command's first Flagpole Friday, beginning an intentional effort to come together once a week to stand together as a unified team to observe morning colors.

This initiative stemmed from responses within to the Defense Organizational Climate Survey and other comments made by personnel within the organization. We hope this will bring the workforce together to ultimately remember why we all do what we do every day, to honor those who have come before us, those who are currently serving, and our nation.

Personnel are encouraged (not required) to wear RED (Remember Everyone Deployed), colors/shirts from units military branches they/their family currently serve or has served in, or PCD gear.

This will take place every Friday morning at Bldg. 110. But if you can't make it to the site, just note that you can see the flag from almost every location on base just step outside your building, face the flagpole and be part of honoring together from where you are....and grab a friend (or a few) on your way out the door.

# WELCOME NSWC PCD VISITORS



## ED&I COMMUNITY OF PRACTICE

NSWC PCD hosted the Naval Sea Systems Command Warfare Centers Equal Employment Opportunity, Diversity and Inclusion ED&I Community of Practice (COP) Face-to-Face visit, June 27. Their visit included a tour of the Navy Lab's capabilities and also focused on strategic planning and the collaboration of new innovative initiatives to ensure the enterprise has the most dynamic and unified organizations. (U.S. Navy photo by Ronnie Newsome)



## JAPAN MINISTRY OF DEFENSE

Members from NSWC PCD's Science & Technology Department welcomed Japan Ministry of Defense researchers from the Acquisition, Technology and Logistics Agency and Naval Systems Research Center, July 27. The U.S. and Japanese teams participated in a workshop for cooperative research on unmanned systems. (U.S. Navy photo by Ronnie Newsome)



## MATTHEW SERMON, SES, PROGRAM EXECUTIVE STRATEGIC SUBMARINE EXECUTIVE DIRECTOR

(left to right) NSWC PCD Expeditionary and Maritime Systems Department (E Dept.) Head Stephen Hunt, Dr. Michelle Kincer, NSWC PCD E Dept. chief strategist, Capt. David Back, NSWC PCD commanding officer, Dr. Peter Adair, SES, NSWC PCD technical director and Mr. Matthew Sermon, SES, Program Executive Office Strategic Submarines executive director, July 20. (U.S. Navy photo by Eddie Green)



## INTERNSHIP TOURS

The NSWC PCD Naval Research Enterprise Internship Program (NREIP) and Science, Mathematics, and Research for Transformation (SMART) groups toured the Navy Lab, July 12. These college-level interns spent more than eight weeks over the summer with NSWC PCD. (U.S. Navy photo by Sgt. Alex Morgan)

# HYDRATE FOR HEALTH



Whether you are a service member, beneficiary, or government civilian, your main source of hydration should be water.<sup>1</sup> As a nutrient, water is essential to life.<sup>2,3</sup> You can survive for weeks without food, but you can only live for days without water.<sup>2,3</sup> It helps replenish fluid loss, regulate temperature, protect organs, keep joints moving, transport other nutrients throughout your body, and eliminate waste.<sup>2,3</sup>

## HYDRATION

The amount of water that your body needs is based on a variety of factors, two of which are body weight and physical activity.<sup>3</sup> You must meet your hydration needs daily, because your body loses water through regular activities, such as sweating, urinating, and breathing.<sup>3</sup> Use the table below to identify your recommended daily hydration needs based on your bodyweight.<sup>1</sup>

Body-Weight	Water per Day
250 lbs	125 oz
225 lbs	115 oz
200 lbs	100 oz
175 lbs	90 oz
150 lbs	75 oz
120 lbs	60 oz

## DEHYDRATION

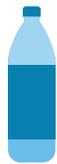
It is important to note that if you are thirsty, your body is already dehydrated.<sup>1</sup> The best way to determine your hydration status is to evaluate your urine.<sup>1</sup> Use the chart below to check the color of your urine and gauge your hydration needs.<sup>1</sup> You may need to consume more fluids if your urine is approaching or in the dehydrated color ranges. Consult with a health care provider if you have concerns or are extremely dehydrated.



## PHYSICAL ACTIVITY

If you engage in high-intensity physical activity, you may need additional water to offset your fluid loss.<sup>3</sup> Follow these helpful hints to ensure proper hydration before, during, and after physical activity<sup>5</sup>:

oz of water	time in relation to activity
17-20 oz	2-3 hours before
7-10 oz	every 10-20 minutes during
16-24 oz	per lb lost after



Nutrition Facts	
Serving size	1 cup (8oz)
Per serving	
Sodium	110 mg
Potassium	30 mg



Water is the best option for replacing fluids; however, sports drinks can help replenish electrolytes, such as sodium and potassium.<sup>5</sup> Only opt for sports drinks before, during, or after high-intensity physical activity exceeding 45-60 minutes:<sup>6</sup>

- Drinks with 110 milligrams (mg) sodium and 30 mg potassium per 8 oz
- Consider 200 mg sodium per 8 oz and added electrolytes if you are an excessively salty sweater (you can see or feel salt on your skin when your sweat dries)

## TIPS FOR HYDRATING

You can get water from fruits and vegetables such as oranges and celery, but you get most of it from the fluids that you drink.<sup>2,3</sup> To help meet your daily hydration needs, follow these tips<sup>1</sup>:

- **Make hydrating a priority** – carry a water bottle to drink on the go
- **Choose water** over sugar-sweetened, caffeinated, or alcoholic beverages
- **Add lemon, lime, or cucumber** to your water to enhance the taste



Proper hydration can improve your health, enhance your performance, and replace fluid loss following physical exertion. It is important to meet your hydration needs by drinking water throughout the day. Once you have identified your needs based on the information above, pour yourself a glass of water and start drinking!

### References

- <sup>1</sup>Hydrate. Fitness, Sports and Deployed Forces Support. Commander Navy Installations Command. [http://www.navyfitness.org/nutrition/noffs\\_fueling\\_series/hydrate/](http://www.navyfitness.org/nutrition/noffs_fueling_series/hydrate/). Accessed February 2015.
- <sup>2</sup>Water in diet. MedlinePlus. U.S. National Library of Medicine. U.S. Department of Health and Human Services. National Institutes of Health. <http://www.nlm.nih.gov/medlineplus/ency/article/002471.htm>. Updated 19 August 2013. Accessed February 2015.
- <sup>3</sup>Nutrition for Everyone. Water: Meeting Your Daily Fluid Needs. Division of Nutrition, Physical Activity, and Obesity. National Center for Chronic Disease Prevention and Health Promotion. Centers for Disease Control and Prevention. <http://www.cdc.gov/nutrition/everyone/basics/water.html>. Updated 10 October 2012. Accessed February 2015.
- <sup>4</sup>Dietary Reference Intakes for Water, Potassium, Sodium, Chloride, and Sulfate. Food and Nutrition Board, Institute of Medicine, National Academies. [http://www.nal.usda.gov/fnic/DRI/DRI\\_Tables/electrolytes\\_water.pdf](http://www.nal.usda.gov/fnic/DRI/DRI_Tables/electrolytes_water.pdf). Updated 2005. Accessed February 2015.
- <sup>5</sup>FitFacts. Healthy Hydration. American Council on Exercise. [http://www.acefitness.org/fitfacts/pdfs/fitfacts/itemid\\_173.pdf](http://www.acefitness.org/fitfacts/pdfs/fitfacts/itemid_173.pdf). Updated 2008. Accessed February 2015.
- <sup>6</sup>Hydrate. Fitness, Sports and Deployed Forces Support. Commander Navy Installations Command. [http://www.navyfitness.org/nutrition/noffs\\_fueling\\_series/hydrate/](http://www.navyfitness.org/nutrition/noffs_fueling_series/hydrate/). Accessed February 2015.

## TRANSPORTATION OF THINGS (TOT) SHIPMENT PROCESS

During the review, analysis, and cleanup of dormant shipping (DD1149) purchase orders (POs) it was discovered that approximately 90% of shipping POs that were created in NAVY ERP for the purpose of tracking movement of item(s)/material(s) from **point A** to **point B** were created with an incorrect/inappropriate Shipment Type. Shipment Type is used to determine if there will be costs (if NSW C PCD will be billed) for the movement/transport of the item(s)/material(s). However, it appears that in most cases users have been selecting the Shipment Type based on the mode of transportation, which has resulted in an extremely large population of dormant shipping obligations for which NSW C PCD has not received a bill.

Correcting this problem and reducing the overall population of dormant shipping obligations warrants a few changes to our current business process.

### SELECTING THE CORRECT SHIPMENT TYPE

Will NSW C PCD receive a bill for transporting the item(s)/material(s)?

NO

Select Shipment Type **ZNCS DD 1 1 49-No Cost**

These are created for the sole purpose of tracking movement of item(s)/material(s) from point A to point B.

*Note: NSW C PCD will not receive a bill for items shipped through the Official Mail Center, therefore Shipment Type ZNCS DD1149-No Cost should be selected for shipping POs created to track movement of these items.*

YES

Select the most appropriate Shipment Type:

ZHDC DD 1 1 49-Hand Carry	transported by Hand Carry
ZNVT DD 1 1 49-Navy Truck	transported by Navy Truck
ZSTD DD 1 1 49-Standard FTM	transported by a third party vendor (other than Hand Carry or Navy Truck)

## STANDARDIZING OF “NO COST” SHIPMENT OBLIGATION AMOUNT.

All **ZNCS DD 1149-No Cost** Shipment POs obligation amount is:  
**\$.01 (one cent)**

Historically, “No Cost” shipment POs have been created with obligations ranging from \$.01 (one cent) to \$50.00 (fifty dollars). Standardization and consistency of the obligation amount for “No Cost” shipment POs will allow Funds Holders and Financial Managers to quickly identify obligations that will not be liquidated and expedite the release of these obligations so that the funds can be returned to the project.

*For a desk guide providing step-by-step guidance on creating Shipment POs please visit the [DAR/DARQ SharePoint site](#).  
[NSWC PCD Comptroller External - How To & QRs - All Documents \(sharepoint-mil.us\)](#)*

## REQUESTING RELEASE OF SHIPPING UNLIQUIDATED OBLIGATIONS (ULOS) NO LONGER REQUIRED.

Upon receipt of knowledge that a **ZNCS DD1149-Hand, ZNVT DD1149-Navy Truck, or ZSTD DD1149-Standard FTM** shipping obligations will not be liquidated, a de-obligation request should be emailed to the Managerial Accounting Inbox to expedite release of the obligation. Historically, these obligations have been decreased to \$.01 (one cent), which leaves the shipping PO open within NAVY ERP.

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Incorporating the above, and minor, but extremely important changes, will be a huge step towards decreasing the overall population of dormant shipping obligations in ERP. These actions will increase the Command’s buying power, reducing carryover, improve the integrity of the Command’s Financial Statements, and increase stewardship of taxpayers’ dollars.

## INFORMATION FOR FISCAL YEAR (FY) 2023 YEAR-END CLOSING AND FY 2024 START-UP

FY23 year-end closing and FY24 start-up procedures and schedules are needed to support a smooth transition of financial operations. Your support in the execution of these procedures and adherence to the schedule is vital to meet NSW C PCD’s financial management goals for FY23 and to ensure a successful start in FY24.

### September

MON	TUES	WED	THUR
4	5	6	7
11 Begins daily approval of undistributed labor and labor cost transfer timecard corrections.	12	13	14
18 Begins <b>mandatory daily entry and approval of time</b> to allow daily posting of labor charges to projects and timely correction of undistributed labor. Time must be entered and approved daily by 1700 CST.	19	20	21
25	26	27	28

September

FRI	SAT	SUN
1	2	3
8 Undistributed Labor, CJ45, and Overhead (OH) errors with work dates prior to Sunday, 27 August must be corrected.	9	10
15	16	17
22 Time & attendance for pay period ending Saturday, 23 September 2023 must be entered and approved by 1200 CST.	23	24
29 FY23 DTS travel documents must be entered and approved for funds to obligate (authorizations) and expense (vouchers) in FY23.	30 All outstanding undistributed labor with work dates prior to 30 September 2023 must be corrected within the employees' ERP timecard.	October 1 Undistributed labor with work dates prior to 01 October must be corrected within the employees' ERP timecard by 1000 CST.

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