

# ALL HANDS

*Celebrating One Hundred Years*

MAGAZINE OF THE U.S. NAVY

JULY 2023





## A NOTE FROM THE EDITOR AND STAFF

Every month, we focus on the Navy's mission-focused people and technologies. As we survey how our naval forces continue to train, fight and equip the world's toughest Sailors, we look at our advantage at sea and the capabilities of Sailors deployed around the world.

It is our mission to reach Sailors, so please share this issue, scan the QR codes, and follow our social media channels for the latest information for Sailors by Sailors.



## ALL HANDS MAGAZINE

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# U.S. PREVENTS IRAN FROM SEIZING MERCHANT TANKERS

From U.S. Naval Forces Central Command Public Affairs



On July 5, U.S. forces prevented two attempted commercial tanker seizures by the Iranian Navy after the Iranians had opened fire in one of the incidents near the coast of Oman.

At 1 a.m. local time, one Iranian naval vessel approached the Marshall Islands-flagged oil tanker TRF Moss in international waters in the Gulf of Oman. The Iranian vessel departed the scene when U.S. Navy guided-missile destroyer USS McFaul (DDG 74) arrived on station. Additionally, the U.S. Navy deployed surveillance assets, including MQ-9 Reaper and P-8 Poseidon maritime patrol aircraft.

Approximately three hours later, the U.S. Navy received a distress call from Bahamian-flagged oil tanker Richmond Voyager while the ship was more than 20 miles off the coast of Muscat, Oman, and transiting international waters toward the Arabian Sea. Another Iranian naval vessel had closed within one mile of Richmond Voyager while hailing the commercial tanker to stop.

McFaul directed course toward Richmond Voyager at maximum speed as the merchant tanker continued its transit. Prior to McFaul's arrival on scene, Iranian personnel fired multiple, long bursts from both small arms and

crew-served weapons. Richmond Voyager sustained no casualties or significant damage. However, several rounds hit the ship's hull near crew living spaces. The Iranian navy vessel departed when McFaul arrived.

In May, the United States increased the rotation of ships and aircraft patrolling the Strait of Hormuz with partners following an uptick in Iranian merchant vessel seizures. The increased force presence supports multinational efforts under the International Maritime Security Construct and bilaterally with partner nations to deter threats to commercial shipping and reassure regional mariners.

"I couldn't be prouder of the entire [U.S. Naval Forces Central Command] team, especially the exceptional effort by the McFaul crew, for immediately responding and preventing another seizure," said Vice Adm. Brad Cooper, commander of U.S. Naval Forces Central Command, U.S. 5th Fleet and Combined Maritime Forces. "We remain vigilant and ready to protect navigational rights in these critical waters."

Since 2021, Iran has harassed, attacked or seized nearly 20 internationally flagged merchant vessels, presenting a clear threat to regional maritime security and the global economy.

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Office of the Deputy Under Secretary of the Navy  
for Intelligence & Security, Security Directorate



**KEEP  
WHAT  
YOU'VE  
EARNED**



# WHIDBEY SAR CONDUCTS RESCUES OVER HOLIDAY WEEKEND

From NASWI PAO



A Search and Rescue (SAR) team from Naval Air Station Whidbey Island performed two rescues over the Independence Day holiday weekend.

The rescues included a hiker who had fallen down a slope on Silver Star Mountain and a search and subsequent rescue of a speed-flyer who had disappeared near Church Mountain 48 hours earlier.

On Sunday morning, July 2, 2023, the SAR team was called to rescue a 35-year-old woman who had fallen down a slope and been injured on Silver Star Mountain northwest of Winthrop, Wash. The SAR team launched at 9:35 a.m. and arrived on scene about 10:10 a.m.

After a search of the area, the SAR team found the party of hikers with the injured hiker and inserted two SAR team members via hoist. The injured hiker was soon hoisted onto the SAR helicopter and delivered to St. Joseph Hospital in Bellingham, Wash. by approximately 11:20 a.m.

The next morning, July 3, 2023, a SAR team was called to search for a speed-flyer who had gone missing at some point on July 1 near the peak of Church Mountain, northeast of Glacier, Wash.

Speed-flying is a form of paragliding where the speed-flyer launches with a chute from a slope and glides down, relatively close to the ground and at fairly high speeds, rather than soaring like a paraglider.

The SAR team launched at 5:10 a.m. July 3 to conduct the search in the area where the paraglider was suspected to have been flying.

After an initial sweep the SAR team conducted a low-level, slow search and eventually found a chute of the same description as the paraglider's chute. A SAR team member

was inserted to the spot to search for the paraglider where he found footprints heading off into the bush away from the chute. A SAR team member in the aircraft noticed an off-colored patch of green about 80 meters away in small creek amongst fallen trees and, using binoculars, saw the paraglider waving one arm trying to signal the helicopter.

With the paraglider located, the SAR team member on the ground was recovered, then two SAR team members were inserted to the patient's location via hoist. By 6:35 a.m. the patient was hoisted aboard the SAR helicopter with significant injuries and was flown to Harborview Medical Center in Seattle where he was dropped off just after 7 a.m.

Naval Air Station Whidbey Island SAR has conducted 18 missions this calendar year, which includes 1 MEDEVAC, 3 searches and 14 rescues.

The Navy SAR unit operates three MH-60S helicopters from NAS Whidbey Island as search and rescue/medical evacuation (SAR/MEDEVAC) platforms for the EA-18G aircraft as well as other squadrons and personnel assigned to the installation. Pursuant to the National SAR Plan of the United States, the unit may also be used for civil SAR/MEDEVAC needs to the fullest extent practicable on a non-interference basis with primary military duties according to applicable national directives, plans, guidelines and agreements; specifically, the unit may launch in response to tasking by the Air Force Rescue Coordination Center (based on a Washington State Memorandum of Understanding) for inland missions, and/or tasking by the United States Coast Guard for all other aeronautical and maritime regions, when other assets are unavailable.



# NCG 2 WELCOMES ITS FIRST WOMAN COMMANDER IN COC

From Reannon Capuria, Naval Construction Group 2 Public Affairs



Capt. Constance Solina relieved Capt. Jeff Deviney as commander, Naval Construction Group (NCG) 2, during a change of command ceremony held on board Naval Construction Battalion Center Gulfport, July 7. Solina's assumption of command marks the first time a woman has commanded an NCG and all Atlantic-based Seabees.

Deviney, from Freer, Texas, led 4,500 personnel over the course of two years and oversaw their manning, training, and equipment readiness needs to ensure they deployed on time to five separate combatant commands. During his departing remarks, Deviney expressed gratitude for his crew and reiterated Solina's ability to continue the unit's success during her tenure.

"You know exactly what needs to be done to get the Seabees ready for the next fight," said Deviney. "With you in the lead, I know we have the right team in place going forward."

Deviney also shared his thoughts on the people he had the opportunity to lead. He said, "I want to say a special thanks to the troops and civilians of NCG 2 who work hard every day to ensure we have the best trained military engineers in the business and to the Atlantic Seabee units for upholding our historic "Can Do" legacy."

Rear Adm. Brad Andros, commander, Navy Expeditionary Combat Command, served as the keynote speaker for the ceremony. He discussed the importance of NCG 2's mission and thanked Capt. Deviney for his accomplishments during his tour.

"While successful operations and exercises matter, I am most impressed by your commitment to your people and the development of the force," said Andros. "You should be proud to know the tangible impact you had on preparing disciplined Sailors for future operations."

Solina is from McLean, Virginia, and most recently served as the Chief Engineer, Logistics Directorate for U.S. European Command before reporting to NCG 2.

"I am humbled, privileged and honored to assume command of NCG 2 and continue the tradition of Seabees providing a capability like no other to our Combatant Commanders," said Solina. "I look forward to continuing the Seabee legacy, drawing on our rich history and traditions while adapting to the changing strategic environment to answer the call when our Nation needs Seabees and the 'Can-Do' spirit."

Solina's assumption of command marks another milestone of women in the Seabees and civil engineer corps. Since Ens. Kathleen F. Lux, became the first women to become a civil engineer corps officer in 1942, Seabee women have risen through both the officer and enlisted ranks. Constructionman Carmella Jones became the first enlisted woman Seabee when she cross-rated into the community as an equipment operator during the summer of 1972 following former Chief of Naval Operations Admiral Elmo Zumwalt, Jr.'s issuance of Z-gram 116 which authorized limited entry of women into all enlisted ratings.

Rear Adm. (ret.) Katherine Gregory was the first woman to command a battalion when she assumed command of Naval Mobile Construction Battalion 133 in 1999. Gregory later rose to the rank of rear admiral before she retired as Naval Facilities Engineering Command and the chief of civil engineers in 2015.

Navy Expeditionary Combat Command's Naval Construction Force provides military construction and advanced general engineering support to military commanders globally. Read more about the Naval Construction Force on our [webpage](#).

Tips for PCSing your pet are just the beginning.

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# 101 CRITICAL DAYS OF SUMMER 2023

THE 101 CRITICAL DAYS OF SUMMER IS THE LONGEST VACATION PERIOD OF THE YEAR FOR MILITARY MEMBERS, BEGINNING MEMORIAL DAY WEEKEND AND ENDING LABOR DAY WEEKEND. SUMMER ALSO INCLUDES FOUR HOLIDAYS, WHICH ARE FREQUENTLY APPROVED AS LONG WEEKENDS FOR UNIFORMED PERSONNEL. DURING THE 101 CRITICAL DAYS OF SUMMER IN 2022, THE DEPARTMENT OF THE NAVY LOST 29 SAILORS AND MARINES TO PREVENTABLE OFF-DUTY MISHAPS. MOTOR VEHICLE AND MOTORCYCLE MISHAPS WERE THE LEADING CAUSES.

## Adult swimming safety

- Don't swim alone. Always swim with a partner.
- Never swim under the influence of alcohol, drugs or medication.

## Boating safety

- Be weather-wise. Always check local, route and destination weather and water conditions before departure and ensure it is safe to go out.
- Have life jackets on hand. Assign and fit each passenger and crew member with a life jacket before departure.



## Mixing sun and alcohol

- The sun causes your body to sweat to stay cool and if those fluids aren't replaced, your body will undergo adverse reactions. You may feel extremely thirsty, dizzy or fatigued.
- The physical exertion of swimming on a hot day paired with alcohol consumption can lead to overheating - a risk factor for heat syncope (fainting), which can have deadly consequences.

## Heat-related illness

- Limit sun exposure during midday hours and in places of potential severe exposure, such as beaches.
- Drink plenty of nonalcoholic fluids and replace the body's salts and minerals, which sweating can release. Do not take salt tablets unless under medical supervision.

## Sun safety

- Use broad spectrum sunscreen with sun protection factor (SPF) 15 or higher before you go outside, even on slightly cloudy or cool days. Don't forget to put a thick layer on all parts of exposed skin. Get help for hard-to-reach places like your back. And remember, sunscreen works best when combined with other options to prevent UV damage.
- Reapply. Sunscreen wears off if you stay out in the sun for more than two hours and after swimming, sweating or toweling off.



## ATV and ROV safety

- Always wear an approved helmet.
- Never ride alone, and always tell someone where you are going and when you will return.

## Grilling safety

- Use grill outside only, away from siding, deck rails and overhanging branches.
- Never use gasoline or any flammable liquids other than starter fluid.



# SAILOR TO SAILOR

THE OFFICIAL NEWSLETTER OF MYNAVY HR

JUNE 2023

If you or someone you know is in crisis, call the Veterans Crisis Line.



## EVENT DATES:

Feb. 1 to Nov. 1: [CY 23 PRT cycle window](#)

July 31 to Aug. 4: [NNOA Annual Leadership, Professional Development and Training Symposium: San Diego, CA](#)

Aug. 31: [HOF Survey closes](#)

Sept. 10 - 15 (Week 1) and Sept. 17 - 22 (Week 2): [USS Constitution Chief Petty Officer Heritage Training](#)

## AWARDS AND APPLICATIONS DEADLINES:

July 31: [Medical ISPP applications](#)  
[Naval Intelligence Awards submissions](#)

Sept. 1: [Academic Year 2024-2025 Strategist and National Security Fellowships and Graduate Education Scholarship applications](#)  
[Nurse Corps MECP applications](#)

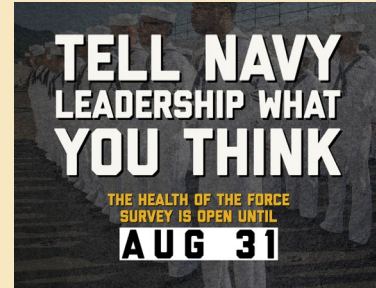
**CHIEF OF NAVAL PERSONNEL:**  
VADM Richard J. Cheeseman Jr.

**FLEET MASTER CHIEF OF PERSONNEL, MANPOWER AND TRAINING:**  
FLTCM Delbert Terrell Jr.

## 2023 HEALTH OF THE FORCE SURVEY NAVADMIN 141/23 - FACT SHEET

Open to all Sailors currently on Active Duty, the annual Health of the Force survey gives Navy leadership a better understanding of how programs and policies influence Sailors' personal and professional lives. It takes about 20 minutes to complete.

Take the survey on your phone or computer (work or personal):  
[usnavy.gov1.qualtrics.com/jfe/form/SV\\_3mk65UxsLQgMMjI](https://usnavy.gov1.qualtrics.com/jfe/form/SV_3mk65UxsLQgMMjI)



## FY-22 NAVY SAILORS OF THE YEAR NAVADMIN 142/23

This NAVADMIN announced the fiscal year 2022 Sailors of the Year who will advance to Chief Petty Officer the week of Sept. 24, 2023.

## REVISIONS TO COMMAND CLIMATE ASSESSMENTS NAVADMIN 139/23 - FACT SHEET

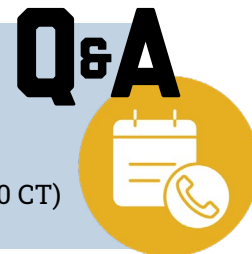
NAVADMIN 139/23 details revisions to the annual Command Climate Assessments (CCA) timeline and process, and information about Change of Command CCAs. The annual CCA, along with the DEOCS, will now occur in a CCA fielding window from Aug. 1 through Nov. 30. MyNavy HR will be hosting CCA Town Halls to answer any questions. All Command Climate Specialists, Command Resilience Teams, and Command Triads are encouraged to dial into their region session:

### EUROPE/AFRICA/MIDDLE EAST REGION

July 5 @ 1500 Naples/1600 Bahrain (0800 CT)  
Dial 1-410-874-6751 | 407661444#

### JAPAN/KOREA/MARIANAS REGION

July 7 @ 0700 Japan/0800 Guam (July 6 @ 1700 CT)  
Dial 1-410-874-6751 | 138696323#



## FALL 2023 SELECTED RESERVE E-4 THROUGH E-6 ADVANCEMENT (CYCLE 113)

### NAVADMIN 131/23

Announced guidance regarding the Fall 2023 (cycle 113) Navywide Advancement Examination for SELRES and Prior Service Reenlistment Eligibility Reserve Sailors.



NAVADMINS CONT'D

## 2023 CAPT JOY BRIGHT HANCOCK AND MASTER CHIEF ANNA DER-VARTANIAN LEADERSHIP AWARDS ANNOUNCEMENT

### NAVADMIN 145/23

This NAVADMIN announces the 2023 recipients of the Captain Joy Bright Hancock and Master Chief Anna Der-Vartanian Leadership Awards. **Congratulations** to the following recipients selected for their inspirational leadership, both on and off-duty:

**Senior Officer:** CDR Cheryl A. Griswold, Naval Survival Training Center Miramar

**Junior Officer:** LT Andrea R. Howard, PCU NEW JERSEY (SSN 796)

**LDO/CWO:** CWO3 Lureatha Harvey, U.S. Fleet Cyber Command/U.S. TENTH FLEET

**Senior Enlisted:** HMCM(SS/SW/EXW/AW) Amanda L. McDevitt, Commander, Submarine Force Atlantic

**Junior Enlisted:** HM1(FMF/SW/AW) Katy Jones, Navy Medicine Readiness and Training Command Beaufort

## ESTABLISHMENT OF MARITIME CYBER WARFARE OFFICER DESIGNATOR 188X

### NAVADMIN 143/23 - FACT SHEET

This NAVADMIN announces the establishment of the Maritime Cyber Warfare Officer designator (188X) within the Information Warfare community. Officers from the IW community will be the first group eligible for redesignation into the new designator.

## ESTABLISHMENT OF THE CYBER WARFARE TECHNICIAN (CWT) RATING

### NAVADMIN 147/23

This NAVADMIN announces the establishment of the Cyber Warfare Technician (CWT) rating and the disestablishment of the Cryptologic Technician-Networks (CTN) rating. The CWT rating will incorporate all members of the CTN rating in the short term and then evolve from there.

## ARE YOU READY TO JOIN THE WHITE HOUSE COMMUNICATIONS AGENCY?

Job opportunities are open for the below officer and enlisted classifications.

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# PHOTOS FROM THE FLEET

The Naval Service—forward deployed and capable of both rapid response and sustained operations globally—remains America's most persistent and versatile instrument of military influence.



RS2 Daniel Kinch  
[@CARNEYWARRIORS](#)



CMC Angela Quackenbush  
[@USSOscarAustin](#)



CW2 Ernest De La Cruz  
[@StatusEtPugno](#)



ABF3 Timothy Andrews  
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HM3 Joshua Roland  
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FCA3 Jacob Kauthen  
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OS2 Christopher Ignacio  
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# NAVY MICROBIOLOGIST JOINS NASA

From Naval Medical Research Command Public Affairs

**"IT'S AN INCREDIBLE PRIVILEGE TO SERVE. YOU WAKE UP EVERY DAY WITH THE DESIRE TO BENEFIT THE OTHER HUMANS THAT SURROUND YOU, YOUR COUNTRY, YOUR PLANET AND ALL LIFE IN THE UNIVERSE. I CAN'T TELL YOU HOW GRATEFUL I AM TO THE NAVY FOR MAKING ME THE SORT OF PERSON WHO IS ABLE TO SERVE TO SUCH A HIGHER PURPOSE."**

**LT. ANCA SELARIU  
NAVAL MEDICAL RESEARCH UNIT**

Lt. Anca Selariu, a microbiologist with Naval Medical Research Unit (NAMRU) INDO-PACIFIC, along with three other volunteers, began a simulated Mars mission on June 25 at NASA's Johnson Space Center.

The mission, part of NASA's Crew Health and Performance Exploration Analog (CHAPEA) Mars surface simulation program, will last 378 days.

Selariu's role in CHAPEA is the latest chapter in Navy Medicine's 64-year history with NASA.

One of the greatest strengths in Navy Medicine is its diversity. Navy Medicine is comprised of people who provide expertise, know-how, and perspective shaped by their own personal journeys.

Selariu, a native of Romania, brings expertise in vaccines, prion transmission, gene therapy and infectious disease research to the CHAPEA mission. Her fellow volunteers include experts in engineering and medicine. Alongside her fellow volunteers, Selariu will conduct research to inform future expeditions to the surface of Mars.

The team will work in conditions closely replicating conditions on Mars and the facility and communication limitations the location would entail.

"We have very little information on how human life can adapt to such an exotic environment," Selariu said. "There's so much we still need to learn, so it's incredibly important that we do this mission and get more data and information to the NASA scientists."

Selariu expressed a deep gratitude to the Navy, both for facilitating her participation in the CHAPEA mission, and for the growth experiences it has provided over four years of service.

"It's an incredible privilege to serve," Selariu said. "You wake up every day with the desire to benefit the other humans that surround you, your country, your planet and all life in the universe. I can't tell you how grateful I am to the Navy for making me the sort of person who is able to serve to such a higher purpose."

"To contribute to the ultimate stage of discovery for humankind as a result of all of these accumulated experiences is just extraordinary," Selariu added. "I hope this mission will be the steppingstone for the first humans on Mars someday."

This mission is the first of three planned CHAPEA Mars simulations. Researchers will simulate the challenges of a human mission to Mars, including resource limitations, equipment failures, communication delays and other environmental stressors.



AN INSIDE LOOK AT ONE OF THE TOUGHEST  
TRAINING PIPELINES IN THE U.S. MILITARY





# A GOLDEN OPPORTUNITY FOR VETERANS: THE WOUNDED WARRIOR PROJECT

From Mass Communication Specialist 2nd Class Jaimar Carson Bondurant/All Hands Magazine



The Wounded Warrior Games is an adaptive sports event where service members and veterans compete in a total of 12 sports and activities including volleyball, archery, and powerlifting. With days lasting up to 12 hours and packed with events, the participants are put to the test in a crucible that would challenge even the most athletic service members.

Don Calero, cancer survivor and active-duty hospital corpsman, is a three-time Wounded Warrior Games participant. Calero was midway through a deployment when his divisional officer sent him to Yokosuka, Japan, for a CT scan on his abdomen, which confirmed his cancer status.

At first, Calero was unsure if the Navy Wounded Warrior program was right for him. He wasn't an amputee since he didn't wear his battle with cancer in the form of an external injury. But the program is intended for service members and veterans suffering from wounds, illnesses, and injuries of all kinds. Calero found the Wounded Warrior Games to be an outlet for much relief and camaraderie during a very new period in his life.

"With it being my third time [in the Wounded Warrior Games], I've expressed that it's almost like an act of redemption in a way," said Calero. "Beating cancer and then having to go to the first camp... it was like a sense of gaining something back to me, when cancer felt like it took something away."



"Service members in general, we suck at asking for help," said Johnathan Paige, a first-time participant in the Wounded Warrior Games. "Coming here, I've learned that it's okay. It's okay to ask for help. It's okay to say, 'I need to take a knee,' and no one here's judged me for that."

Paige is a native of Waterboro, Maine, and a survivor of a traumatic brain injury. He was reluctant to be part of the Wounded Warrior Games at first, still processing the changes in his life and how he might navigate the transition of living with his new injury, but Paige has found great solace through participating in the games, specifically with archery.

"It's helped push my own narrative of redefining my mental and physical health," said Paige. "I can tell myself in my head like, 'I really want to quit,' but I'm not going to because that would degrade everything that has gotten me to this point."

For Calero and Paige, the Wounded Warrior Games has been an integral part of recovering from injury while staying active and building camaraderie with a community of service members in similar circumstances. Such is the aim of the games, to celebrate resiliency and enhance the recovery and rehabilitation of wounded warriors.

"Just the program itself has been amazing," said Calero. "There's a reason why their symbol is a lighthouse. It's a beacon of hope."

# U.S. NAVAL OCEANOGRAPHY: PATHFINDERS OF THE MILITARY

From Ed Darack



The modern U.S. Navy operates some of the most technologically advanced systems ever created. These include much heralded programs such as the USS Gerald R. Ford aircraft carrier, the F-35C Lightning II fifth-generation multirole combat jet, and Virginia-class attack submarines. Icons of national power and the culmination of decades of innovation, rigorous testing, and trials by fire, these and other key American military assets can only function to their full capabilities with the backing of myriad support elements.

One of the most important of these is the Naval Meteorology and Oceanography Command, COMNAVMETOCOM, typically shortened to METOC, pronounced "me-tock." It is referenced throughout the Navy and the Department of Defense by its umbrella term "Naval Oceanography."

The command, headquartered at NASA's John C. Stennis Space Center in Mississippi just inland of the Gulf of Mexico, began humbly as a small navigation implement repository and maintenance facility in Washington D.C.

Through the decades, as the U.S. military has expanded its range of capabilities, Naval Oceanography has become the Department of Defense's premier environmental situational awareness provider. It produces a wide range of meteorological, oceanographic, and navigational products, directly supporting Navy and U.S. military conventional and special operations missions, globally.

From a technical military standpoint, the best way to describe METOC's overarching function is that it "optimizes environmental situational awareness in all physical warfighting domains at the tactical, operational,

and the strategic levels for the country's warfighters and those of its allies." Optimizing environmental situational awareness means providing the most accurate, timely, and relevant information about dynamic physical surroundings of friendly forces to a degree greater than that which any adversary could possibly attain.

Physical warfighting domains are land, sea, air, and space. Conceptual warfighting levels range from the tactical (smallest), to the most expansive, the strategic. Tactical engagements and actions can occur in an area as small as a half-acre (or even smaller). Operational represents the aggregate of the tactical, and is typically as physically expansive as a few miles to a few tens of miles. Strategic describes national-level actions and outcomes that typically have historic implications—like a nuclear strike, launched from a U.S. Navy Ohio Class ballistic missile submarine. METOC plays critical roles throughout this warfighting spectrum on a constant basis, whether at war or not. Its state-of-the-art systems, processes, and above all, highly specialized personnel, have built this command into what is arguably the most advanced atmospheric and oceanographic systems dynamics entity in history. National defense not only relies on this level of capability, it demands it.

"Naval Oceanography operates simultaneously at the strategic, operational and tactical levels of warfare in every theater around the globe," explained Rear Admiral Ron Piret, commander of Naval Oceanography and the Oceanographer and Navigator of the U.S. Navy. "We pride ourselves in our ability to characterize the battle space and then predict changes in the environment over time."





# "NAVAL OCEANOGRAPHY OPERATES SIMULTANEOUSLY AT THE STRATEGIC, OPERATIONAL AND TACTICAL LEVELS OF WARFARE IN EVERY THEATER AROUND THE GLOBE. WE PRIDE OURSELVES IN OUR ABILITY TO CHARACTERIZE THE BATTLE SPACE AND THEN PREDICT CHANGES IN THE ENVIRONMENT OVER TIME."

**REAR ADM. RON PIERET**  
**COMMANDER OF NAVAL OCEANOGRAPHY AND THE OCEANOGRAPHER AND NAVIGATOR OF THE U.S. NAVY**

History provides countless examples where knowledge of the environment has provided a critical advantage over an enemy—and where oversight of such details has led to disaster. Furthermore, some of Naval Oceanography's information supports not just the U.S. military, but a tremendous range of vital private and commercial activities throughout the globe, activities that would grind to a halt without METOC's continuous support.

## Naval Meteorology, a History

The history of the Naval Meteorology and Oceanography Command stretches back nearly two centuries. On December 6, 1830, then Secretary of the Navy, John Branch, directed 25-year-old Navy Lieutenant Louis M. Goldsborough to establish a facility to maintain, update, and log performance data for all of the Navy's navigation equipment. This included chronometers, necessary for mariners to compute longitude. Established on a budget of \$330 (plus his salary), Goldsborough opened the Depot of Charts and Instruments in early 1831 in Washington D.C., near the White House. The overarching goal of the depot was to ensure that the Navy would always maintain the highest degree of precision in navigation on the high seas as was possible, the most basic form of environmental situational awareness. The Depot worked to give Navy personnel the best tools and information for this end, with an emphasis on calibrating their chronometers.

Shortly after opening the depot, the Navy recognized the need for a detailed understanding and observation of celestial bodies, integral to gauging both time and position. In 1834, under the directorship of Navy Lieutenant Charles Wilkes, the Depot moved to a location just north of the Capitol, a part of Washington, D.C., much better situated for viewing the heavens. After expanding their repertoire with the inclusion of astronomy, the Depot undertook its first hydrographic survey. Led by Wilkes, members of the Depot explored Georges Bank, an elevated swath of seafloor of the North Atlantic Ocean east of Cape Cod, Massachusetts.

In November of 1838, just after the Georges Bank survey, the Depot began regimented meteorological observations. Working under a broad directive of the Secretary of the Navy that mandated an ever greater degree of environmental understanding, then officer in charge of the Depot, Lieutenant James Melville Gilliss, had the Depot take and record key atmospheric data.

These included weather type (clear, rain, cloudy); wind force (calm, light, moderate, heavy); wind direction; temperature, both in the sun and in the shade; dew point; atmospheric pressure; 24-hour precipitation; diurnal maximum and minimum temperatures; and evaporative potential. Depot personnel made these measurements four times per 24-hour period: 3 a.m., 9 a.m., 3 p.m., and 9 p.m. In less than a decade, the Naval Depot of Charts and Instruments established itself as an exploratory body



of the sea, the stars, and the sky. In the years to come, this work would continue to accelerate in scope and breadth, due in great measure to the superintendent who took charge of the command in 1842, Navy Lieutenant Matthew Fontaine Maury.

Born January 14, 1806, Maury was fascinated by the heavens, the world's oceans, and the sky from a young age. At 19, he became a midshipman, a U.S. Naval officer in training, and served initially on the frigate USS Brandywine. As his naval career progressed, Maury both taught himself and pioneered the disciplines of meteorology, oceanography, astronomy, cartography, and geography. He focused on the interaction of winds, latitudes, and ocean currents, forging a synthesized view of the sky and the ocean. He was a member of a number of ship crews during his total of nine years at sea, including on the USS Vincennes when it made the first circumnavigation of the world by an American warship. He published a number of books, including *On the Navigation of Cape Horn*, *Plan of an Instrument for Finding the True Lunar Distance*, and *A New Theoretical and Practical Treatise on Navigation*. The latter, first scientific book written and published by a U.S. Naval officer, proved a tremendous success, with a copy placed on every ship in the Navy in 1837. His work made him famous, and he became known as the "Father of Modern Oceanography," the "Father of Naval Meteorology," and most enduringly, "Pathfinder of the Seas."

After nearly a decade on the world's oceans, his seafaring career came to an abrupt end in 1839. While travelling to the New York Naval Yard after a visit with his parents, the stagecoach on which he was a passenger overturned, breaking his right femur. The injury rendered him permanently unfit for sea duty. After a long recovery, he took the job of superintendent of the Depot of Charts

and Instruments, reporting for duty on July 4, 1842. During his tenure at the command, Maury took what had been accomplished in the fields of meteorology, oceanography, and astronomy and combined it with his work and the outlook that he had forged while on the seas. Under his directorship, the Depot became the premier scientific institution in the country, pioneering the disciplines of hydrography and atmospheric science. Among Maury's many accomplishments, the installation produced a series of influential navigation charts that revolutionized maritime travel for both the Navy and commercial shipping.

The decades that followed saw the Navy change the name of the command a number of times, move it to its current location, and enhance its capabilities through a number of the nation's most grueling, and important, conflicts. With each war, and with each advancement in military, meteorological, astronomical, and oceanographic technology, the knowledge base grew. As the nature of warfare evolved—with the advent of air power, changes in sea power to include submarine warfare, and with the introduction of space systems—Navy meteorology, oceanography, and navigational capabilities expanded, adapted, and evolved, always maintaining a place at the edge of innovation, often pioneering it. The command has been responsible for a number of discoveries and important experiments, including discovering the moons of Mars and verifying the effects of Albert Einstein's general and special theories of relativity. Maury's tenure, which combined the foundational work of the Depot with his own outlook, burgeoned over the decades to form the modern Naval Meteorological and Oceanography Command. Today, rooted in the spirit of Maury, members of the command are the modern pathfinders of the Navy and the American military.





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