

**MINUTES OF THE USSVI NORTHERN VIRGINIA BASE
MEETING HELD ON SATURDAY, SEPTEMBER 9, 2017**

The Base CDR, Chuck Martin, called the meeting to order at 1103 on September 9, 2017, at the American Legion Post 162, Lorton, VA. and welcomed all members.

MEMBERS AND GUESTS IN ATTENDANCE

Brian Haller, Steve Jaeger, Darlene Jaeger, Chuck Martin, Mike Naughton, Mary Lou Naughton, Tim Oliver, Pete Petruy, Mike Varone, Penny Wallace, George Wallace, and Woody Woodworth. (12 total)

■ Holland Club Member

■ Associate Member

■ Guest

The COB, Mike Varone, led all hands in the Pledge of Allegiance.

The Base Chaplain, Steve Jaeger, delivered the Invocation.

After a moment of silence, the CDR read the list of boats lost in the month of September. These were:

USS S-5 (SS-110)	Sept 1, 1920
USS Grayling (SS-209)	Sept 9, 1943
USS Pompano (SS-181)	Sept 17 – Oct 5, 1942
USS S-51 (SS-162)	Sept 25, 1925
USS Cisco (SS-290)	Sept 28, 1943

The Ship's Bell was rung twice for the twenty-two (22) USSVI NOVA Base members on Eternal Patrol.

IN MEMORIAM: Submarine sailors recently departed on Eternal Patrol are: Alice Gray, wife of Captain Myron "Mike" P. Gray, USN, Ret.; Susan Theresa Malisek Reardon, wife of Captain Kevin J. Reardon, USN, Ret.; and Captain Glenn Neal Arthur, Jr., USN, Ret.

SUBMARINE HISTORY

Base Member Woody Woodworth read an article on CDR Howard Walter Gilmore, who was posthumously awarded the Medal of Honor and the second submariner to be so decorated. CDR Gilmore has been memorialized with his legendary phrase of "Take her down!"

CDR Howard Gilmore's Medal of Honor citation reads:

For distinguished gallantry and valor above and beyond the call of duty as commanding officer of the U.S.S. Growler during her Fourth War Patrol in the Southwest Pacific from 10 January to 7 February 1943. Boldly striking at the enemy in spite of continuous hostile air and antisubmarine patrols, Comdr. Gilmore sank one Japanese freighter and damaged another by torpedo fire, successfully evading severe depth charges following each attack. In the darkness of night on 7 February, an enemy gunboat closed range and prepared to ram the Growler. Comdr. Gilmore daringly maneuvered to avoid the crash and rammed the attacker instead, ripping into her port side at 11 knots and bursting wide her plates. In the terrific fire of the sinking gunboat's heavy machineguns, Comdr. Gilmore calmly gave the order to clear the bridge, and refusing safety for himself, remained on deck while his men

preceded him below. Struck down by the fusillade of bullets and having done his utmost against the enemy, in his final living moments, Comdr. Gilmore gave his last order to the officer of the deck, "Take her down". The Growler dived; seriously damaged but under control, she was brought safely to port by her well-trained crew inspired by the courageous fighting spirit of their dead captain.

SPECIAL K4K PRESENTATION

Base member Woody Woodworth accepted on behalf of his grandson, Max, the Honorary Submariner certificate from Mike Varone, the K4K patch from Mike Naughton, and Penny Wallace showed everyone the K4K coloring book for older kids. Max was given a K4K coloring book and a ball cap for his great grandson during the August Base meeting.

MEETING MINUTES

The minutes of the August meeting were distributed by e-mail. The August minutes were accepted.

TREASURER'S REPORT

The Treasurer, Steve Jaeger, presented the following:

Starting balance: \$ 9,528.98

Receipts \$ 1,430.41

Expenditures \$ 1,496.25

Ending balance: \$ 9,463.14, as of September 9, 2017

Some of these funds (**\$ 1,960.59**) were specifically funded by, and are restricted for use by, our Base's Kap(SS) 4 Kid(SS) program, as a result of our Walmart stores' Community Fund Donations. Subtracting these fenced funds yields:

Grand Total (discretionary) \$ 7,502.55

COMMITTEE REPORTS

EXECUTIVE BOARD

CDR: Board of Directors meeting was held August 30th and discussed:

- Membership
- Committee reports
- Plans for upcoming meetings and events
- K4K status and plans
- Updates to the website
- USSVI National Convention, and
- Eagle Scout program

VCDR: George Wallace reported:

- The 2017 USSVI National Convention was held September 1-6, 2017 with a low attendance. Attendee notes on the convention are being compiled and will be shared with the BASE at a future date.
- The 2018 USSVI National Convention will be a Western Caribbean Cruise aboard the Holland America cruiseline ship ms Nieuw Amsterdam. The cruise dates will be October 21-28, 2018. Price starts at \$669/pp for double occupancy.

CHIEF OF THE BOAT: Mike Varone reported: the Base is requesting the MCPON as the guest speaker for the 2018 Holland Club luncheon

MEMBERSHIP REPORT: Steve Jaeger reported:

- 82 Members
- 40 Holland Club Members with 3 WW II Members
- 32 Regular Members
- 10 Associate Members

PAO: Mike Varone reported:

- USS Barb presentation article is published on page 40 in *American Submariner*, Vol 2017 3rd Qtr
- He is continuing pursuit of the USSVI Highway naming initiative with Prince William County. The Prince Williams County Supervisors are revisiting our request after the 2017 elections.
- He is researching the Adopt-A-Highway program requirements and application process.

HISTORIAN: Chuck Martin announced that the Base is seeking a volunteer to fill the vacant position.

SK: On behalf of Howard Chatham, Chuck Martin reported:

- Howard Chatham, Base SK, placed an pre-order for 2018 USSVI calendars and that he is accepting orders for calendars to place the second order for calendars on or about September 30, 2017. Contact Howard if you would like to order a calendar.
- The 2018 USSVI calendars are being sold by the Base for \$10 apiece.
- Base patches and stickers of several types are available.

K4K: On behalf of Steve Bishop, Chuck Martin reported:

- Our recent visit was to Walter Reed National Medical Center in Bethesda, MD on Thursday, August 17th.
- Our next visits are to:
 - o UVA in Charlottesville, VA on Tuesday, September 26th at 1 PM
- For planning purposes, the National K4K Chair, John Riley, and the official USSVI Artist, Tom Denton, will both be joining us in November for our Walter Reed visit. This is the K4K visit when we plan to roll out our second K4K coloring book, which is aimed at the older children we visit.
- The Commander congratulated Steve Bishop, Penny Wallace, Cathy Chatham, Howard Chatham, George Wallace, Mike Varone, and Tom Denton in developing an outstanding coloring book that reflects great pride on the K4K program, USSVI NOVA, and the K4K Team!

CHAPLAIN: Steve Jaeger reported that Richard Lowry's Eternal Patrol notice is published on page 19 in *American Submariner*, Vol 2017 3rd Qtr.

SCOUTING COORDINATOR: Chuck Martin reported:

- Upcoming Eagle Scout Courts of Honors are:

- Eagle Scout Collin Warner of Troop 2011 Court of Honor is being held at St Francis de Sales Catholic Church in Purcellville, VA on Sunday September 10, 2017 at 3:30 pm.
- Eagle Scouts Cameron McQuillan's Court of Honor is being held at Brass Cannon Restaurant in Gainesville, VA on Sunday September 17, 2017 at 3:00 pm.
- Anyone wishing to participate should contact Chuck Martin

SUBLEAGUE: Tim Oliver reported:

- His thanks for the USSVI NOVA Base members that voluntarily manned the NSL booth at the USSVI convention in Orlando.
- That NSL has a new website.
- Other upcoming NSL Events are:
 - 2017 History Seminar October 31st – “The Hunt for Red October: Fact and Fiction” a panel discussion comparing a real Cold War submarine mission (which has been declassified) and the movie. This will be held at the United States Navy Memorial in Washington, DC
 - Tickets for the event will cost \$10
 - 35th Annual Symposium will be held November 1st – 2nd at The Hyatt Regency in Crystal City, VA
 - Registration will open in early September.
 - Here is the link to the hotel in order to receive the NSL's Group Rate:
<https://aws.passkey.com/event/15793309/owner/10336/landing?gtid=aaae1634772cc122dfe4d3336c5b84c3>

OLD BUSINESS

- USSVI National Convention was held September 1-6
- 2018 USSVI NOVA Base Officers Election
 - 2018 Base Officer Nomination Committee members are Brian Haller (Lead), Paul Nelson and Woody Woodworth
 - 2018 Base Officer Positions are Base Commander, Vice Commander, Treasurer, and Secretary.
 - If you are able and desire to volunteer see any of the nomination committee members. As seen recently, USSVI National has had to disband some Bases when no one was willing to be an officer.
- Go Fund Me website for USS Ling (SS-297), a World War II-era submarine owned by the Submarine Memorial Association
- 2017-2018 North Eastern Region District Commanders are: Peter Koester (D1), Mike Bost (D2), Huey Dietrich (D3), Ronny Olson (D4), and Jim Irwin (D5).

NEW BUSINESS

- 2017 WWII SubVet Memorial Service in Kings Bay, GA.
 - The event is from November 1-5, 2017 with the WWII Submarine Veteran Memorial Service being held on Friday November 3, 2017
 - Information and Registration package was emailed to members.

- USS Scorpion (SSN 589) 50th Anniversary Memorial
 - May 25 - 27, 2018 in Norfolk, Va.
 - CNO, Admiral John M. Richardson as keynote speaker for the memorial service.
 - USSVI requests each USSVI Base donate \$99.00 in honor of the 99 crewmembers lost on SCORPION on May 22, 1968.
 - EXCOM voted to place a donation of \$99 in the 2018 Base Budget.
- Military & Veteran Legal Resource Guide By Virginia Office of the Attorney General
 - Released in July 2017
 - Outstanding resource for Military & Veterans
 - The web address is: <https://www.oag.state.va.us/VAMilGuide/index.html>
- Joint USSVI National and Groton Base statement
 - On Monday, August 21st the leadership of USSVI and the leadership of Groton Base met jointly with their respective attorneys. Various tax issues and issues involving the operation of the Clubhouse and Bar were discussed, along with possible resolutions.
 - Both groups have come to an understanding that no laws were knowingly violated by either group, that the Groton Base has been compliant, and while all issues have not yet been resolved, an agreement was reached to proceed jointly to resolve the remaining issues in a manner that will allow us to proceed together in the best interests of both USSVI and the Groton Base.
- The 2018 USSVI National Proposed Budget has been posted on the USSVI National website under the “Organization” section of “Documents”
 - The proposed budget was voted and accepted during the 2017 USSVI National Convention Annual Business Meeting.
- USSVI Membership Policy for 2018 Calendar Year
 - Any Armed Services Active Duty member is eligible to join USSVI as a regular or associate member
 - Membership dues for first calendar year are waived.
 - Restrictions
 - An application must be sent into the National Office.
 - Membership card will not be issued until their first renewal in December of 2018.
 - Member will receive only the electronic version of the American Submariner during 2018.
- News from the Fleet and previous information emailed this month will be included in the minutes

BINNACLE LIST

“PLEASE KEEP THE FOLLOWING IN YOUR PRAYERS.”

Al Anceravage, Linda Clement, Barbara Harmody, Steve & Darlene Jaeger for Darlene’s mom, Tony Poblete, Anita Varone, and Ray Stone.

FOR THE GOOD OF THE ORDER

The 50/50 raffle was won by Brian Haller; his winnings were \$37 and the Base received \$38.

BIRTHDAYS FOR THE MONTHS OF SEPTEMBER ARE: Howard Chatham, Woodie Woodworth, Chuck Martin, Dave Oliver and the words that became the National Anthem written in 1814.

USSVI SCHOLARSHIP PROGRAM DONATIONS: Base received a \$20 donation for the USSVI Scholarship program.

THE NEXT REGULARLY SCHEDULED MEETING WILL BE ON OCTOBER 14TH AT AMERICAN LEGION POST WITH JOHN VLATTAS, CDR USN (ret.), Program Manager, SEA073, AS OUR GUEST SPEAKER.

The Benediction was delivered by the Chaplain.

The CDR adjourned the meeting at 12:11 PM .

The Base held our Annual Member Appreciation Luncheon at Dixie Bones BBQ. We all enjoyed socializing with each other as we shared a great meal together. Base members attending were: Steve Jaeger, Chuck Martin, Mike Naughton, Pete Petruy, Mary Lou Naughton, Tim Oliver, Mike Varone, Penny Wallace, Darlene Jaeger, George Wallace, and Woody Woodworth.

At the recent USSVI Annual Convention in Orlando, FL, NOVA Base member Bob Frick was the keynote speaker at the Awards Banquet.



Joyce and our North East Regional Director Les Altschuler

(All photos courtesy of Bob Bissonette, South West Regional Director)

Meeting Minutes Respectfully Submitted by
Stephen C Bishop
Secretary, USSVI Northern Virginia Base

USSVI News

=====
NEWS-01: 2018 Proposed Budget
Submitted by: Wayne Standerfer on 8/29/2017

The USSVI 2018 Proposed Budget has been posted on our Website. It can be found under "Documents/Organization/2018 USSVI Proposed Budget. It will be presented to the members attending the 2017 Convention Annual Business Meeting in Orlando for approval.

Wayne Standerfer

=====
NEWS-01: CORRECTED COPY
JOINT STATEMENT REGARDING GROTON ISSUES
Submitted by: John E. Markiewicz on 8/30/2017

On Monday, August 21st the leadership of USSVI and the leadership of Groton Base met jointly with their respective attorneys. Various tax issues and issues involving the operation of the Clubhouse and Bar were discussed, along with possible resolutions.

Both groups have come to an understanding that no laws were knowingly violated by either group, that the Groton Base has been compliant, and while all issues have not yet been resolved, an agreement was reached to proceed jointly to resolve the remaining in a manner that will allow us to proceed together in the best interests of both USSVI and of Groton Base.

John Markiewicz, USSVI National Commander
and
Jeff Walsh, Groton Base Commander

=====
Sue Reardon Interment
Submitted by: Brad Kratovil, President, NSL Capitol Chapter, on 9/8/2017

Kevin Reardon's (CAPT, USN (ret)) wife Sue recently passed away (<http://www.legacy.com/obituaries/washingtonpost/obituary.aspx?pid=186412177>). In addition to being a "Submarine Wife", Sue was very active in various Submarine Officers Wives Clubs and the Dolphin Scholarship Foundation. She was an ardent supporter of our Submarine Family. Sue's interment at Arlington National Cemetery is scheduled for 3 PM on Tuesday, September 26. Those planning to attend should arrive at the cemetery's main entrance at the end of Memorial Avenue around 2:15 PM. A guard will direct attendees to the Administration Building where family and friends gather before the graveside service. From that location, there will be an automobile procession to the gravesite.

Selected News From the Fleet

&

Other Sources

MILITARY & VETERAN LEGAL RESOURCE GUIDE

Virginia Office of the Attorney General July 1

Attorney General Mark R. Herring has created the Virginia Military and Veteran Legal Resource Guide, a new tool to help Virginia servicemembers, military families, and veterans understand the unique legal protections, rights, and resources available to them under the law. Volunteer attorneys from the Office of Attorney General spent more than a year developing the new guide, which will be distributed in hard copy and electronically in conjunction with the Virginia Department of Veterans Services, veterans' service organizations, and more.

URL: <http://www.oag.state.va.us/programs-initiatives/veterans-assistance-resources/military-and-veteran-legal-resource-guide>

Solving The Mystery Of What Killed A Civil War Submarine Crew

Michael Nedelman, CNN, August 23

The dead submarine crew hadn't moved from their stations for nearly 150 years when the vessel was raised from the ocean in 2000. Whatever killed them happened so suddenly that they never made a run for the escape hatch. What's more, they had no obvious physical injuries.

There was no major damage to the hull that could be definitively traced back to the day the H.L. Hunley, a 40-foot-long Confederate submarine, sank to the ocean floor off Charleston, South Carolina, on February 17, 1864.

Researchers had unsealed the crew compartment of the submarine, but they have yet to find conclusive evidence of how the eight men aboard died.

A number of theories have tried to explain the mystery of the Hunley: Maybe the crew went too deep, misjudged their oxygen supply and got trapped by the current. Maybe a nearby ship collided with the sub, throwing it off balance into chaotic waters. Maybe a bullet made through a porthole, killing the captain and leaving a beleaguered crew adrift at sea.

But in research published Wednesday in the journal Plos One, one group of scientists thinks they've finally cracked the case of what killed the crew so swiftly.

The Hunley became the first sub to sink an enemy ship in battle: the USS Housatonic. But sometime after, it went down, too.

It sank the enemy ship with a 135-pound torpedo, which was filled with black powder and attached to a pole 16 feet from the ship's hull. The study authors say the torpedo is the key -- but many have wondered how an explosion could've killed the entire crew without leaving a trace.

To answer this question, biomechanist Rachel Lance designed a model of the Hunley, one-sixth the length of the 40-foot-long submarine. The model, built by Durham-based sculptor Tripp Jarvis, was christened the CSS Tiny.

Lance, then a graduate student at Duke University and an engineer with the Naval Surface Warfare Center, decided she would set off test explosions next to the model submarine. So she found an eight-acre pond on a family-run farm in St. Louis, North Carolina. Bert Pitt of Pitt Family Farms agreed to let Lance use the pond to conduct her experiments.

"Initially, when she was talking about blasting, I was a little concerned," said Pitt, 65, a sixth-generation family farmer, whose grandchildren now make eight generations.

Pitt recalled the wires snaking into the lake and the charges that detonated beneath the surface, splashing water into the air like a large firecracker, he said. One of his grandkids got to press the button. "It had a little geyser to it," he said. "It was neat to see."

Pitt, a self-proclaimed history buff, had always been interested in the Civil War. He has ancestors who

were in the North Carolina Regiments, and at least one of them is buried in their own family graveyard. The house he lives in was built in 1830, before the Hunley sank.

He keenly eyed reports about the Hunley on the History Channel and the National Geographic Channel.

"They were sitting perfectly still in that submarine," Pitt said. "I think people would like to know what did happen to the crew. Everything about the story is intriguing."

Suspended inside the CSS Tiny was a small pressure gauge, which revealed how the sub's own torpedo blast could have killed the Hunley crew without leaving a lasting mark: the shock wave created by the blast.

The shock wave hit the Hunley's hull, which was less than an inch thick, said Lance, lead author of the new study. The metal bent ever so slightly but fast enough to transfer the blast wave to the inside of the cabin.

That wave then traveled through the cabin, hitting each of the eight crewmembers, traveling through their bodies. But the real damage, Lance said, probably occurred when the pressure wave reached their lungs.

"The issue is when it's passing through (the tissues) and it suddenly hits air," she said.

Shock waves, like sound waves, travel quickly in water and solids but not air. The wave slows as it hits the lung, Lance said, and "that energy has to transmit somewhere."

The end result: The blood vessels in the lungs can rupture, known as a pulmonary hemorrhage.

"It was ... noted that men could be killed or disabled at considerable distance" from an explosive, Dr. Thomas Chiffelle, a pathologist from Albuquerque, New Mexico, wrote in a 1966 report for the US Department of Defense. "The man or animal may be killed outright, without external signs of injury, but often with blood-tinged froth or frank blood appearing in the nose and mouth."

It is possible to survive a blast wave from far enough, according to Chiffelle's accounts. Witness accounts from the night of the Hunley's sinking claimed that there was a blue light coming from the ocean. Some speculated that it was the Hunley crew signaling that they'd accomplished their mission.

But Lance, who is working on a book about the Hunley, said that she has doubts about inconsistencies in these testimonies.

It is virtually impossible to know how powerful the Hunley's torpedo blast was, even with the amount of black powder used. The blast can also change with how tightly the powder is packed and how fine the grains are, according to the Naval History and Heritage Command. Replicating the black powder explosion, Lance said, was the trickiest part of the experiment.

So Lance lowballed it, testing several blasts in the process. She concluded that the shock wave would have instantly killed those aboard the Hunley, based on her calculations and a wealth of prior air blast experiments on large animals.

"Any explosive we've seen in the field ... would definitely create a lethal wave," Lance said.

"These types of injuries are not subtle," she added. "The damage is immediate."

There was another piece of evidence that stood in her favor: a gold pocket watch that belonged to the Hunley's captain, Lt. George Dixon.

The watch had stopped at 8:23, about the time of the Hunley's attack, historians believe.

"Most importantly, it appears it didn't wind down naturally," according to a 2007 update by a research partnership known as the Hunley Project. "Something traumatic -- perhaps water, a shock wave, or some other intervening force -- caused it to stop at that precise time."

Friends of the Hunley -- part of the Hunley Project, which was not involved in the new research -- declined to comment on the research. The organization maintains and researches the original submarine.

Prior naval research has concluded that "neither phase of the explosion was severe enough ... to have significantly impacted Hunley."

"We had a lot of submariners survive being depth-charged at very close quarters during WWII," said Paul Taylor, a spokesman at Naval History and Heritage Command. "You sort of wonder how they did OK, but supposedly the folks in the Hunley didn't."

The Navy researchers who have been examining the Hunley for over a decade declined to comment on Lance's study while their own research on the crew deaths is ongoing.

But Lance, for one, said she feels like this part of the mystery has been solved.

"This project was originally intended to be a side project, and then it spiraled out of control when we realized we could do actually do it," she said.

[Navy Testing Wireless Charging Stations For Undersea Drones](#) [Stephen Carlson, UPI, August 28](#)

The Navy announced Monday it is developing technology for the wireless underwater recharging of unmanned undersea vehicles at the Space and Naval Warfare Systems Center Pacific.

Current UUVs used for reconnaissance, mine hunting, and other tasks need to be recharged manually at either port or ship. Underwater charging stations would allow the craft to stay on station for much longer periods of time.

"Unmanned and autonomous systems are used extensively for Navy missions and will continue to play a large role in future Navy and joint scenarios," advanced integrated circuit technology chief Dr. Alex Phipps said in a press release.

"While most of these systems are able to perform their mission without human interaction, limitations in the amount of power that can be stored place a limit on the overall system autonomy."

The technology is similar to wireless charging pads currently available for smartphones and other devices. The proof-of-concept for the Navy's underwater version was demonstrated with a cellphone in a plastic bag underwater. The technology has since been advanced significantly.

"This type of technology is going to widen the array of missions the Navy can use UUVs for," SPAWAR project engineer Dr. Graham said.

"Having a UUV that can travel long distances gathering intel from ports and areas of the world our surface ships and underwater craft typically can't go is going to increase the effectiveness of them."

"It's a safer, more cost-effective option that we're really excited about."

[Department of the Navy Mission, Vision, and Priorities](#) [Richard V. Spencer, SECNAV, August 29](#)

Sailors, Marines, and Civilian Teammates,

As I stated in my confirmation hearing, I have discussed priorities that must be at the forefront of every action. Our mission, vision, and priorities for the Department of the Navy are listed below. I call upon you to make every effort count and to align your goals with our priorities. I look forward to making progress alongside you in these areas.

Mission: The Department of the Navy will recruit, train, equip, and organize to deliver combat ready Naval forces to win conflicts and wars while maintaining security and deterrence through sustained forward presence.

Vision: We are an integrated Naval force that will provide maritime dominance for the Nation. To accomplish this in the face of current and emerging challenges, we must renew our sense of urgency and speed of execution throughout the entire organization. Our core values and accountability at the individual and organizational levels will shape our culture and guide our actions.

Priorities: Our priorities center on People, Capabilities, and Processes, and will be achieved by our focus on speed, value, results, and partnerships. Readiness, lethality, and modernization are the requirements driving these priorities.

People - Our military and civilian workforce is our greatest resource.

- We will enhance the performance of our force by improving policies, programs, and training.
- The organization will capitalize on its best talent today, retain that talent over the long term, and find ways to continue to recruit the best people for the mission of the future.
- Our military and civilian team will be measured against the highest ethical standards for every task and mission.

Capabilities - We will be capable of providing maritime dominance and power projection required by the Nation.

- The organization will focus on training, modernization, and maintenance in order to achieve a high state of readiness and enhanced lethality, now and in the future.

Processes- We must improve our processes in order for our people to meet future challenges.

- We will drive efficiency, adopt and implement new ideas, and leverage leading practices from industry and academia to positively impact and support acquisition, manpower, research, and operational processes.

Our actions across these priorities will ensure mission success today and in the future.

USS Mississippi Awarded Arleigh Burke Fleet Trophy

MC2 Shaun Griffin, DVIDS Hub, August 30

JOINT BASE PEARL HARBOR, Hawaii – The Virginia-class fast-attack submarine USS Mississippi (SSN 782) was named the Pacific Fleet's recipient of the Arleigh Burke Fleet Trophy for 2016.

Adm. Scott Swift, commander of U.S. Pacific Fleet, presented the trophy alongside Rear Adm. Frederick J. Roegge, commander, Submarine Force, U.S. Pacific Fleet, on behalf of the Chief of Naval Operations to the crew during a pier side ceremony at Joint Base Pearl Harbor-Hickam, Aug. 30.

Swift congratulated the crew for their accomplishments. Swift specifically called out their ability to turn the resources they were provided into readiness, and then proving their readiness by conducting operations to fulfill their missions.

"On one side of the readiness coin is the ability to generate readiness," said Swift. "That is the training phase, the basic phase, the advanced phase and all the training you have gone through the last 12 months."

"The other side of the coin is your ability to consume readiness, and our job is to make sure those are balanced, and I congratulate you on your ability to generate that readiness in that 12-month cycle."

Swift pointed out that the broad scope of the award, and said it signaled the crew's performance was so impressive that it stood out among units from all communities in the Navy, including surface and aviation units.

The Arleigh Burke Fleet Trophy is presented annually to the ship or aviation squadron in both the Atlantic and Pacific Fleets that has achieved the greatest improvement during the previous year based on the Battle Efficiency (Battle "E") Competition.

The competition is conducted annually to strengthen individual command performance, improve overall force readiness, and recognize outstanding performance.

Cmdr. Eric Rozek, Mississippi's commanding officer, was very proud of the enthusiasm, hard work and dedication of the crew.

"We are very honored to have received this award," said Rozek. "The crew worked very hard and being recognized with this award makes me proud. Our goal is to be ready to win the fight with dignity and respect and the crew has taken that vision to the next level."

"Ultimately it is not about awards it is about people and being ready when a combatant command calls on us to execute a mission."

USS Mississippi is the fourth and newest Virginia-class fast attack submarine to be homeported in Pearl Harbor. The submarine is 377-feet long, displaces 7,800 tons, and is equipped to carry torpedoes and Tomahawk missiles. It possesses the capacity to insert special operations forces into a multitude of environments and battlefield scenarios.

For more news from the Pacific Submarine Force, visit www.csp.navy.mil.

Navy Upgrades Attack Submarine Weapons Controls, Sensors

Kris Osborn, Scout Warrior, September 4

Sensors, sonar, weapons control, quieting technologies, undersea drones and communications systems provide the vital arenas through which the US Navy will seek to sustain and build upon its advantage beneath the surface of the ocean.

With this in mind, the Navy's Virginia-Class Attack Submarines are being upgraded with a new Tactical Control System (TCS) technology to provide weapons control, improved network subsystems, and faster component modernization, a Pentagon announcement said.

The idea with fast evolving TCS and other undersea controls and networking technologies is to engineer a circumstance wherein U.S. submarines can operate undetected in or near enemy waters or coastline, conduct reconnaissance or attack missions and sense any movement or enemy activities at farther ranges than adversaries can.

Along these lines, Navy leaders say the service is making progress developing new acoustics, sensors and quieting technologies to ensure the U.S. retains its technological edge in the undersea domain – as countries like China and Russia continue rapid military modernization and construction of new submarines.

A key element of improving TCS for the submarines includes ongoing Navy efforts to expedite integration of emerging commercial hardware and software.

The current pace of technological changes, including miniaturized components, faster processing speed, new undersea communications possibilities and developing quieting technologies requires submarine operators to quickly integrate the newest innovations as they emerge.

TCS integrates sensor inputs to provide a common operational picture and enhance information assurance for attack and guided missile submarines, according to statements from General Dynamics Mission Systems.

Hardening security and solidifying information assurance between sensors, electronics and data systems is a crucial component of the technical improvements being sought after for TCS. A more secure, interoperable technological system, General Dynamics Mission Systems says, “exploits the power of sonar, electronic support measures, radar, navigation, periscopes and communication.”

A key reason for integrating COTS into the Virginia class submarines is because the newer submarines rely heavily on computer technology, automation and advanced sensors.

According to the Navy, TCS makes use of advanced equipment through commercial-off-the-shelf (COTS) technology and upgrades it with a practice called Acoustic Rapid COTS Insertion.

“By adapting off-the-shelf technology to upgrading Virginia class, the Navy and its contractors are able to exploit the latest commercial advances while saving money. The commercial sector typically leads the military in fielding cutting-edge electronics, so it makes sense to leverage what's available in the marketplace in support of naval needs,” Loren Thompson, Chief Operating Officer at Lexington Institute, told Scout Warrior.

The Navy will continue to work with GD over a period of more than eight years to sustain the initiative to integrate COTS technologies into the submarine fleet. The most recent deal included a \$36 million modification to the arrangement.

Commercially developed software and information are provided openly and freely to the TCS development community of contractors, laboratories, and universities as well as other DOD organizations and partners.

Throughout each development and integration cycle, which takes place on a biennial schedule, the software and system design information is provided at set increments.

This is designed to allow for frequent evaluation and testing by the end user, GD said.

In today’s increasingly contested undersea domain, attack submarines are increasingly performing ISR missions since they are able to reach areas closer to enemy coastline than some surface ships.

Compared to older Navy attack subs like the Los Angeles class, the Virginia class submarines are engineered to bring vastly improved littoral warfare, surveillance and open ocean capabilities, service officials said.

The Virginia-class submarines are designed with this “Fly-by-Wire” capability which allows the ship to quietly linger in shallow waters without having to surface or have each small move controlled by a human operator.

With this technology, a human operator will order depth and speed, allowing software to direct the movement of the planes and rudder to maintain course and depth.

The Block III Virginia class submarines also have a Large Aperture Bow conformal array sonar system that is designed to send out an acoustic ping, analyze the return signal, and provide the location and possible contours of enemy ships, submarines and other threats.

Recent innovations, many details of which are secret and not available, include quieting technologies for the engine room to make the submarine harder to detect, a new large vertical array and additional coating materials for the hull, Navy officials and developers have explained.

Acoustic sensor technology works by using underwater submarine sensors to detect sound “pings” in order to determine the contours, speed and range of an enemy ship, submarine or approaching weapon. Much like

radar analyzes the return electromagnetic signal bounced off an object, acoustics works by using “sound” in a similar fashion. Most of the undersea acoustic technology is “passive,” meaning it is engineered to receive pings and “listen” without sending out a signal which might reveal their undersea presence or location to an enemy, experts have said.

Described as a technology insertion, the improvements will be integrated on board both Virginia-Class submarines and the now-in-development next-generation nuclear-armed boats called the Columbia-Class. .

The Navy’s acoustic technological advancement effort is immersed in performing tactical assessments as well as due diligence from an academic standpoint to make sure the service looks at all the threat vectors – whether that be hydrodynamics, acoustics, lasers, among others.

The emerging technologies, however, are heavily focused upon sensitive, passive acoustic sensors able to detect movement and objects of potential adversary boats and ships at much further ranges and with a higher-degree of fidelity.

While high-frequency, fast two-way communication is currently difficult to sustain from the undersea domain, submarines are able to use a Very Low Frequency radio to communicate while at various depths beneath the surface.

Senior Navy officials have explained that the innovations brought to fruition with these recent efforts do, at least in part, help address an issue raised by a report more than a year ago by the Center for Strategic and Budgetary Assessments.

The report, titled “The Emerging Era in Undersea Warfare,” says the technological margin of difference separating the U.S from potential rivals is expected to get much smaller. This is requiring the U.S. to re-think the role of manned submarines and prioritize innovation in the realm of undersea warfare, the study says.

“America’s superiority in undersea warfare results from decades of research and development, operations, and training. It is, however, far from assured. U.S. submarines are the world’s quietest, but new detection techniques are emerging that don’t rely on the noise a submarine makes, and may make traditional manned submarine operations far more risky in the future. America’s competitors are likely pursuing these technologies even while expanding their own undersea forces,” writes the report’s author Bryan Clark.

In the report, Clark details some increasingly available technologies expected to change the equation regarding U.S. undersea technological supremacy. They include increased use of lower frequency active sonar and non-acoustic methods of detecting submarine wakes at short ranges. In particular, Clark cites a technique of bouncing laser light or light-emitting-diodes off of a submarine hull to detect its presence.

“The physics behind most of these alternative techniques has been known for decades, but was not exploited because computer processors were too slow to run the detailed models needed to see small changes in the environment caused by a quiet submarine. Today, “big dat” processing enables advanced navies to run sophisticated oceanographic models in real time to exploit these detection techniques,” Clark writes.

A Congressional report from several years ago states that Chinese modernization plans call for a sharp increase in attack submarines and nuclear-armed submarines or SSBNs. Chinese SSBNs are now able to patrol with nuclear-armed JL-2 missiles able to strike targets more than 4,500 nautical miles.

The Chinese are currently working on a new, modernized SSBN platform as well as a long-range missile, the JL-3, Congressional information says.

[The Grey Ghost: Examining the Future of USS Clamagore](#) **[Megan Schuller, All Hands Magazine, August 30](#)**

An American flag flies above the charcoal, Cold-War era submarine, USS Clamagore (SS-343). The sub idly sits, sun-faded in the Charleston, South Carolina harbor as saltwater eats at it, causing orange rust and corrosion.

Inside the narrow steel haven, Patriot's Point Naval & Maritime Museum volunteer and Navy veteran Sid Busch stands as the captain of this retired vessel. The Clamagore is, for Busch, more than a giant steel tube. Inside a time capsule of days past, memories drift on his mind like a cool breeze as waves lap on a humid afternoon against the submarine in the harbor. More than a longtime friend, she is among the only family Busch has left. He even goes in early to pick up trash before the tourists show up to view the Clamagore - named after the blue parrot fish, found on coral reefs in shallow water.

"Sometimes I'll be sitting on the battery and have flashbacks to 50 years ago," Busch said, reflecting on his

service days. He is 70 years old with a chiseled jaw, a retired Navy senior chief and an experienced runner who has run more than 200 marathons.

Busch served on the Clamagore from 1969 to 1972 as a sonar technician. He's been volunteering at Patriots Point, near downtown Charleston, for the past 10 years, giving tours of the boat he first boarded when he was 19. These days, he often incorporates personal stories into his detailed and impassioned tours. But Busch's days aboard his beloved Clamagore could be numbered.

The 320-foot submarine, which has called Patriots Point home since 1979, could become an artificial reef off the Florida coast. To remain a floating museum, she needs an expensive restoration, one that could cost about \$6 million, according to Chris Hauff, a Patriots Point spokesman, and the lack of financial resources to fix the Clamagore may one day sink the vessel.

Two Navy ships at the maritime museum, USS Yorktown (CV 10) and USS Laffey (DD 724), also require repairs and maintenance that are deemed a higher priority. Museum officials are looking into the possibility of reefing - in other words, sinking - the Clamagore so that she becomes a permanent underwater museum, Hauff said.

"With our budget of a couple million, we can't do all three of the ships. The USS Yorktown needs \$40 million worth of work and for us - that's what people come to see," Hauff said. "It comes down to a business decision: Where do we put money when we have it?"

Although Clamagore is registered as a national historic landmark, even that can't save her. According to documents from a Palm Beach County Commissioners meeting in January 2016, the submarine can receive approval to become scuttled (deliberately sunk) as an artificial reef by the Naval Sea Systems Command through the Section 106 historical review process, which requires federal agencies to consider the effects of their actions on historic properties. It further dictates that documentation, such as war diaries, deck logs and operation reports, be taken off an historic vessel like the Clamagore. These records would then be transferred to the National Archives and Records Administration.

Recent reports suggest the Clamagore will wait in the harbor for at least a year while the Navy decides if it will approve the plans.

The Grey Ghost

The diesel-powered Clamagore was commissioned following World War II to patrol the Caribbean and North Atlantic during the Cold War. Nicknamed the "Grey Ghost" of the Florida coast during her service, she is now the last submarine with the Balao-class GUPPY III upgrade. This improved the submerged speed, maneuverability, battery capacity and overall performance of the Clamagore.

After decommissioning the submarine in 1975, the Navy donated her to the state of South Carolina, and Patriot's Point was given the responsibility for the Grey Ghost's maintenance and upkeep. Those costs are now unsustainable.

According to Hauff, Patriots Point contracted Artificial Reefs International, a Miami-based firm that creates reefs for economic development and environmental benefits by sinking ships, to find a reef suitable for the Clamagore. Palm Beach County, Florida, officials agreed to the project and put aside a million dollars toward reefing the Clamagore off the coast of Jupiter, Florida.

"People could enjoy the history of the ship, just from a different way," Hauff said.

Reefed submarines and ships serve as underwater tourist attractions, allowing experienced scuba divers and tourists to dive and explore with guides.

If the Clamagore is reefed, sponges, coral and barnacles will attach themselves and colonize the vessel over time, and an array of fish species will take over not long after it sinks. Joe Weatherby, senior project manager of Artificial Reefs International-USS Clamagore said reefed vessels provide marine life with protection from predators, breeding opportunities and food sources while also offering economic opportunities for scuba diving and fishing industries.

Bill Cogar, executive director of the Historic Naval Ships Association, a nonprofit that helps preserve and market historic ships across the world, supports a responsible and accountable way to reef the Clamagore. He contended that the submarine, having run her life's course, would remain a functional object, and noted that the equipment removed from the submarine could be distributed to other vessels of Clamagore's class.

Fate, Hope & Clarity

For Busch, the Clamagore is still worth saving, however: "These submarines had personalities. I guess it's because when you came on a submarine, you had to learn it backwards and forwards. ... Each submarine developed their own unique personality. The synchronicity to how they rode on the surface - they started to be

more like a living entity than just a metal tube."

He's not the only one who wants to see her restored rather than reefed. The main hope appears to lie within the USS Clamagore SS-343 Restoration and Maintenance Association, which has been working to relocate the submarine to a land berth. That way, it could still serve as a submarine museum and memorial for future generations, according to Rick Wise, secretary of CRAMA and retired Navy senior chief.

"We are not trying to do anything that has not been done before," Wise said. "It reduces the maintenance cost quite a bit."

He explained that CRAMA is trying to get a letter of intent from the South Carolina state legislature. Between that and a number of corporations interested in saving the Clamagore, he believes CRAMA could raise enough capital to store the submarine in a shipyard temporarily. Then the team would evaluate the damage, make the necessary preservation repairs and purchase land to permanently house the Clamagore.

"We're not giving up," Wise said optimistically. "We're submarine Sailors, we don't give up until we're on the bottom and we've blown all the air we can."

Still, the Clamagore's fate and the destiny of two lifelong friends remain uncertain. If and when she leaves Patriot's Point, Busch plans to stop volunteering at the maritime museum. He feels he would no longer be needed and that it would be too difficult to return once she is gone.

"I always tell people, she kept me safe, she got me home. It's my turn to save her, and, unfortunately, I couldn't do a good enough job at it," Busch said, his words rinsed with emotion. "It's going to be a dark day for me when she finally leaves. I plan to show up just to see her towed out."

For now, the Clamagore rests at a secluded far end of Patriots Point's concrete dock - perhaps spending her final months in South Carolina as museum ship before the Grey Ghost of the Florida coast permanently returns to the waters she once patrolled.

[Submarine Group Ten Changes of Command](#)

[Lt. Joe Painter, CSG 10 Public Affairs, September 7](#)

KINGS BAY, Ga. - Commander, Submarine Group Ten held a change-of-command ceremony at Naval Submarine Base Kings Bay, September 7.

Rear Adm. Randy Crites was relieved by Rear Adm. Michael Holland as the Submarine Group Ten commander.

Vice Adm. Joseph Tofalo, Commander, Submarine Forces, was the guest speaker for the ceremony and commended Crites and his team for their outstanding performance.

"Under your leadership over the past two years, your team has been responsible for eight of the most capable and most powerful naval platforms the world has ever known," said Tofalo. "Strategic deterrence has arguably prevented major power war for over 70 years, and you and the entire Kings Bay team make that happen."

Crites, a native of Lima, Ohio, was awarded the Legion of Merit during the ceremony and credited the personnel at Kings Bay for his successful tour as Group Ten's commander.

"As a commander, I've been blessed with an amazing team, not just my staff here at Group Ten, but across the various commands on this critically important base," said Crites. "The collective team at Kings Bay has performed at a remarkable level and was frequently recognized by outside organizations and Navy senior leadership for their sustained superior performance."

Crites commanded Group Ten for over two years and said Holland will be inheriting one the best teams he's worked with throughout his career.

"Our submarines are mission ready, our crews are trained and ready—I couldn't be prouder of the men and women assigned here," said Crites.

Crites leaves the southern Georgia coast to move to Washington, D.C., taking his position as director of the assessment division in the Office of the Chief of Naval Operations.

Holland, a native of Great Falls, Montana, previously served as the director of maritime headquarters on the staff of Commander, U.S. Pacific Fleet. He becomes the 17th commander of Group Ten, which exercises administrative control over Submarine Squadron 16 and 20 and their assigned ballistic and guided-cruise missile submarines.

"I could see the great dedication and professionalism as soon as I arrived, that has earned this waterfront

one of the top reputations,” said Holland. “I’m incredibly excited to take over this position and start working with the Kings Bay team.”

Submarine Group 10 is located at Naval Submarine Base Kings Bay, Ga. and is the Nation's pre-eminent provider of sea-based strategic deterrence, strike and unique Ohio-class guided-missile submarine special operations capabilities.

[USS New Mexico Arrives At Shipyard](#) [Staff, Seacoast Online, September 7](#)

PORTSMOUTH – The nuclear-powered attack submarine USS New Mexico (SSN 779) and her crew of 15 officers and 117 enlisted personnel arrived at Portsmouth Naval Shipyard Thursday morning.

While at the shipyard, New Mexico will complete scheduled maintenance work and several system upgrades. Portsmouth Naval Shipyard is the Navy’s center of excellence for submarine overhaul, repair and modernization.

New Mexico is the sixth Virginia-class submarine, and the second naval vessel to be named in honor of the state. During Ice Exercise 2014, New Mexico made history as the first Virginia-class submarine to surface at the North Pole. Attack submarines like New Mexico are multi-mission platforms enabling five of the six Navy maritime strategy core-capabilities - sea control, power projection, forward presence, maritime security and deterrence.

The submarine is designed to excel in anti-submarine warfare, anti-ship warfare, strike warfare, special operations, intelligence, surveillance and reconnaissance, irregular warfare and mine warfare - from open ocean anti-submarine warfare to intelligence, surveillance and reconnaissance, to projecting power ashore with special operation forces and cruise missiles in the prevention or preparation of regional crises.

New Mexico returned from her latest deployment to the U.S. European Command area of responsibility April 26, where it executed the Chief of Naval Operations’ maritime strategy in supporting national security interests and maritime security operations. During the deployment, New Mexico steamed approximately 31,000 nautical miles. New Mexico’s crew also supported diplomatic relationships by conducting port visits in Faslane, Scotland; Souda Bay, Crete; and Toulon, France.

New Mexico’s commanding officer Cmdr. Daniel Reiss joined the Navy through the NROTC at Rensselaer Polytechnic Institute in 1998. He graduated with a bachelor of science in chemical engineering and then attended the nuclear training pipeline and Submarine Officer Basic School. He holds a master of arts in national security and strategic studies from the U.S. Naval War College and is a graduate of the U.K. Submarine Command Course “Perisher.” Reiss assumed command of New Mexico Jan. 18, 2016.

Kittery, Maine, will serve as host community for New Mexico’s crew while they are in port.