



UNITED STATES SUBMARINE VETERANS



“To Honor Those Who Serve, Past, Present & Future”

September 2023

Volume 24, Issue 09

**Lest We Forget —  
“The USSVI Submariner’s Creed”**

To perpetuate the memory of our shipmates who gave their lives in the pursuit of their duties while serving their country. That their dedication, deeds, and supreme sacrifice be a constant source of motivation toward greater accomplishments. Pledge loyalty and patriotism to the United States of America and its Constitution.

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**News Brief**

- Next Meeting:** At 1100, third Saturday of each month at the Knollwood Sportsman’s Club. Mark your calendars for these upcoming dates:
  - September 16**
  - October 21**
  - November 18**
- Duty Cook Roster:
  - SEPTEMBER – MANNY GARMENDEZ AND CLAY HILL
  - OCTOBER – BRET ZACHER
  - NOVEMBER – TED ROTZOLL
- September Birthdays:** Ted Rotzoll 8<sup>th</sup>; and Charles Daniels 17<sup>th</sup>; . Happy Birthday, Shipmates.

## Crash Dive Meeting Minutes August 19, 2023

**NOTE: Long minutes due to a couple months off.**

- 1) Call to Order 1122
- 2) Attendance:
  - a) Clay Hill
  - b) Manny Garmendez
  - c) Maurice Young
  - d) Ted Rotzell
  - e) Frank Walter Jr.
  - f) Frank Voznak
  - g) Bret Zacher
  - h) Dave Cornell
  - i) Chris Gaines
- 3) Reports:
  - a) Secretary's Report
    - i) Attended Milwaukee Air and Water Show to support inflatable USS Wisconsin and followed up at Great Lakes meeting. Attendance light over busy summer time.
    - ii) Need to follow up with National Museum of American Sailor (NMAS)
    - iii) Annual Report to USSVI filed at end of June. May meeting minutes?
      - (1) Bret to dig up notes from May
  - b) Treasurer's Report

Total Assets \$20,677.11

    - i) Funds in GLCU: Checking \$1,339.27, Savings \$1,092.33

- ii) Crash Dive Memorial: \$6,419.61; Cobia Drydock: \$11,725.90; Petty Cash: \$100
  - iii) Phoenix Capital funds move tabled from April meeting; likely until quorum in fall.
  - iv) Matching funds for Cobia fundraising: meeting coming soon to discuss that. Museum requests funding by end of calendar year.
- c) Committee Reports
    - i) Newsletter – Chris Gaines
    - ii) Membership – Chris Gaines
    - iii) Community Outreach– Bret Zacher
    - iv) Hospitality – Bret Zacher
    - v) Webmaster – Frank Voznak, Jr.
    - vi) Storekeeper – Herman Mueller [ABSENT]
      - (1) Order forms for hats and shirts (Bret)
      - (2) Production company is out of town; details to follow.
    - vii) Eagle Scout – Ted Rotzoll
      - (1) Double ceremony in May; 1 or 2 more scouts pending
      - (2) Report on veteran school program; outstanding community involvement.

4) Old (Unfinished) Business

a) WWII Chicago Memorial: Paver Program

i) Memorial Day, 27 May 2024, 10am start; pending city approval.

(1) City denies permission to hold official Memorial Day ceremony

(2) Revised date to Veterans' Day, Nov 2024. Order forms by Aug 2024.

ii) Order form cut-off date expected to be 01 Mar 24.

(1) Bricks, contractor, and logistics for install all lined up. 44 expected spaces available; more could be installed if needed.

iii) Rickover Academy Color Guard to be scheduled in Fall 23

b) USSVI Elections Completed – Results? 11% turnout.

(1) Voting in USSVI elections not difficult; base turnout was about 25%

(2) Only 1 announcement last time. Expect more next year.

c) New Old Website: 2<sup>nd</sup> website until old address works again...

i) Very basic and temporary until main site comes back up in Aug/Sep: [ussubvets.org](http://ussubvets.org)

ii) National USSVI elections update; 2<sup>nd</sup> Base membership recordkeeper?

(1) Leftover from previous meeting; website continues to be worked on

5) New Business

a) Recruitment needs to take priority. Tough for many organizations. Exploring bulletin boards and social media. Word of mouth has been primary for current members.

b) Email communications for base business: normal reminder is enough for most.

6) Good of the Order

a) Ted Rotzell is the lucky gentleman

b) Illinois submarine license plates design approved; expected to be public by Jan.

c) Inflatable submarine photo passed around; discussion of base buying two inflatable boats. COB Walter to fund fleet of two inflatable boats initially.

d) KSC Corn Roast next Saturday, 26 Aug. \$20/ticket. Tickets on sale now.

e) Cobia Working Party: Fri 25 to Sun 27 August; contact Greg Miller if planning to attend.

i) Greg's info Home: 630-543-7855; Cell: 331-307-9497

- f) Duty Cook
  - i) September – Manny Garmendez/Clay Hill
  - ii) October – Bret Zacher
  - iii) November – Ted Rotzoll
  
- g) 786 Club
  - (1) Luncheon coming up on Oct 3<sup>rd</sup>; pending geopolitics
  - (2) Pearl trip coming up in mid Jan 2024; boat has been in port for about a month.
  
- h) USSVI National Convention in Tucson: 28 Aug to 03 Sep 2023

- (1) Bret reports on International Submarine Conference in Greece in May (weather was hot) 17 countries attended. Next conference in Dublin, Ireland 26-30 May 2024.

- 7) SOUND Klaxon
  - a) Next Meeting is 16 September 2023 @ KSC; preceded by staff coffee?
    - (1) Bret likely to be absent due to travel.

8) Adjourn 1305

## Lost Boats

USS S-5	(SS-110)	09/1/20
USS Grayling	(SS-209)	09/09/43
USS S-51	(SS-162)	09/25/25
USS Cisco	(SS-290)	09/28/43

## U.S. revives Cold War submarine spy program to counter China



[The Chinese Navy's nuclear-powered Long March 11 submarine takes part in a naval parade off the eastern port city of Qingdao, to mark the 70th anniversary of the founding of the Chinese People's Liberation Army Navy, in April 2019. | REUTERS](#)

By [Joe Brock](#)  
REUTERS Sep 23, 2023

On a windswept island 80 kilometers (50 miles) north of Seattle sits a U.S. Navy monitoring station. For years, it was kept busy tracking whale movements and measuring rising sea temperatures. Last October, the Navy gave the unit a new name that better reflects its current mission: Theater Undersea Surveillance Command.

The renaming of the spy station at the Whidbey Island naval base is a nod to a much larger U.S. military project, according to three people with direct knowledge of the plans: conducting the biggest reconstruction of America's anti-submarine spy program since the end of the Cold War.

The revival of the multibillion-dollar effort, known as the Integrated Undersea Surveillance System (IUSS), comes as China has ramped up military exercises around Taiwan, heightening concerns about a potential conflict over the democratically

ruled territory, which Beijing wants brought under its control.

The IUSS revamp project has not previously been reported. It involves modernizing America's existing network of underwater acoustic spy cables and retrofitting a fleet of surveillance ships with cutting-edge sensors and subsea microphones, moves aimed at boosting the military's ability to spy on its foes. The United States has agreed to sell Australia similar technology to help bolster allied defenses in the Pacific region.

The most innovative change in the Navy's ocean reconnaissance system is an investment in new technologies to miniaturize and globalize traditional maritime surveillance tools. The original network of fixed spy cables, which lie in secret locations on the ocean floor, was designed to spy on Soviet submarines seven decades ago, the three people said.

The Navy's plan includes deploying a fleet of unmanned sea drones to listen for enemy craft; placing portable "underwater satellite" sensors on the seafloor to scan for submarines; using satellites to locate ships by tracking their radio frequencies; and utilizing artificial intelligence software to analyze maritime spy data in a fraction of the time human analysts would usually take.

The existence of the IUSS was only made public in 1991 at the end of the Cold War, and the details of its operations remain top secret, the three people said. The three spoke about the classified program on condition of anonymity.

Reuters was able to piece together details of the unit's plans through interviews with more than a dozen people involved in the effort, including two current Navy staffers working on maritime surveillance, advisers to the Navy and defense contractors involved in the projects.

The news agency also reviewed hundreds of Navy contracts. That examination identified at least 30 deals linked to the surveillance program signed over the last three years with defense giants as well as a string of startups working on unmanned sea drones and AI processing. A review of ship-tracking data and satellite imagery also revealed new details about the Navy's secretive underwater cable laying.

The IUSS is led by Capt. Stephany Moore, a veteran Navy intelligence officer. The program operates under the command of Submarine Force U.S. Pacific Fleet, headed by Rear Adm. Richard Seif.

Moore and Seif declined interview requests. In response to questions from reporters, a spokesperson for Submarine Force U.S. Pacific Fleet said the Navy could not discuss specifics related to its undersea surveillance system for "operational security reasons."

"The systems have and will experience growth and recapitalization as subsea technologies are developed and as defense priorities are updated," the spokesperson said in a statement.

Tim Hawkins, a spokesperson for the U.S. 5th Fleet, which is based in the Middle East and has led U.S. sea drone trials, said the Navy is improving surveillance from "space to seabed" with the aim of painting the clearest-ever picture of global activity at sea.

China, meanwhile, is working on its own maritime spy program, known as the Great Underwater Wall, two U.S. Navy sources said.

That system, already under construction, consists of cables fitted with sonar listening sensors laid along the seafloor in the South China Sea, a tense arena due to territorial disputes between Beijing and its neighbors. China is also building a fleet of underwater

and surface sea drones to scour for enemy submarines, the two people said.

The Chinese push extends far into the Pacific. The state-run China Academy of Sciences said in 2018 it was operating two underwater sensors: one in Challenger Deep in the Mariana Trench, the deepest known point on Earth; the other near Yap, an island in the Federated States of Micronesia. Though China says these sensors are used for scientific purposes, they could detect submarine movements near the U.S. naval base on Guam, a Pacific island territory, the Navy sources said.



Capt. Eric Hanks, commanding officer of Naval Air Station Whidbey Island, and Cmdr. Jon Nelson, commanding officer of Theater Undersea Surveillance Command Pacific, unveil the new entrance sign to TUSC PAC, Whidbey Island, Washington, in September last year. | U.S. Navy / via REUTERS

China's Ministry of Defense did not respond to requests for comment about any aspect of this story. China's Foreign Ministry declined to comment.

The U.S. Navy's surveillance push is driven by three main factors, according to the three people with direct knowledge of the plans. First is the meteoric rise of China as a sea power and the potential for its vessels to attack Taiwan or sabotage critical undersea infrastructure, including oil pipelines and fiber-optic internet cables.

Second is Ukraine's success in employing new maritime warfare tactics in its counteroffensive against invading Russian forces; Ukraine has used relatively cheap unmanned sea vehicles to strike enemy ships and bridges. This development has exposed the vulnerability of large surface vessels to drone attacks, and the need for the U.S. Navy to master this technology for its own offensive operations, as well as learn ways to defend against it. That, in turn, could heighten the importance of submarine warfare in any conflict with China, the three people said.

Finally, rapid technological change, including more sensitive underwater sensors, artificial intelligence and sea drones, is fueling a surveillance arms race between Beijing and Washington.

U.S. upgrades are long overdue and moving too slowly because the Pentagon remains focused on building huge warships and submarines, said Brent Sadler, a former U.S. Navy submarine officer.

"We have to invest faster in next-generation capabilities. We're losing the lead, and the Chinese are rapidly catching up," said Sadler, now a naval warfare fellow at The Heritage Foundation, a Washington-based think tank.

The U.S. Navy and Department of Defense did not respond to requests for comment about the pace at which the Navy is adopting new technologies.

### **Sense of urgency**

America's underwater espionage program was launched in the 1950s with a submarine detection system known as the Sound Surveillance System. That consisted of so-called hydrophone cables — a type of subsea microphone — laid on the seabed. The name changed to the IUSS in 1985.

That's when the fixed cables were supplemented with technology known as the Surveillance Towed Array Sensor System (SURTASS), long vertical sonar arrays dragged below Navy ships to listen for enemy submarines lingering in the depths.

At its peak in the 1980s, the IUSS comprised thousands of Navy sailors and analyzed data from ships and undersea cables at 31 different processing facilities. Tracking Soviet vessels was central to the original mission, according to declassified Navy documents.

With the breakup of the Soviet Union in the 1990s, the IUSS was scaled back. Increasingly, its analysts were tasked with monitoring marine life and offshore earthquakes.

Today, just two surveillance sites remain: the facility located within the Naval Air Station Whidbey Island in Washington state, and another at the Dam Neck naval station in Virginia Beach, Virginia.

Once dubbed Naval Ocean Processing Facilities, they were rechristened Theater Undersea Surveillance Commands last year. The new name is "more fitting of the expansive coverage of our mission," Jon Nelson, commanding officer at the Whidbey Island unit, said at a name-changing ceremony in October 2022.

China's rise as a naval rival, and Ukraine's effective harassment of Russia's Black Sea fleet with drones, have renewed the U.S. military's focus on ocean surveillance in a fast-changing maritime environment, according to Phillip Sawyer, a retired U.S. Navy vice admiral and former head of the submarine forces in the Pacific.

"It has given us a sense of urgency that perhaps was lacking in the '90s and the early 2000s," said Sawyer, now the Undersea

Warfare Chair at the Naval Postgraduate School in Monterey, California.

Adding to that urgency: the need to protect subsea internet cables crisscrossing the ocean floor, a global network that carries 99% of transcontinental internet traffic. These cables are the heart of an intensifying competition between the United States and China to control advanced technologies, Reuters reported in March.

In February, two undersea internet cables were cut that connected Taiwan with the Matsu Islands, a cluster of isles governed by Taiwan that sit close to the Chinese mainland. It took weeks to restore internet service fully to some 14,000 island residents. Taiwanese authorities said at the time they suspected two Chinese vessels were to blame, but provided no direct evidence and stopped short of calling it a deliberate act.

China did not comment on the incident at the time. China's defense and foreign ministries did not respond to fresh requests for comment about it.

In May, "the Quad" — an alliance between Australia, Japan, India and the United States — said the four countries would partner to protect and build undersea high-speed fiber-optic cables in the Indo-Pacific.

Both the Chinese and U.S. navies regularly carry out military exercises around Taiwan as military analysts study how any potential conflict over the island could play out.

Although U.S. warships and submarines are widely considered technically superior, China has the largest navy in the world, comprising around 340 ships and submarines, according to the Pentagon's 2022 report on China's military. China is building more advanced nuclear-powered

submarines that are quieter and harder to detect, the report said.

## **Ships going dark**

The jewel of the U.S. subsea surveillance operations remains the global network of listening cables first laid during the Cold War, still the best subsea spying infrastructure in the world, according to two Navy sources with direct knowledge of the system.

Those cables were instrumental in solving the mystery surrounding the privately owned Titan submersible that imploded in June, killing five people on a voyage to view the century-old wreckage of the Titanic, the sources said.

The U.S. Navy said in a statement that it had assisted in the search for the Titan after an analysis of acoustic data detected "an anomaly consistent with an implosion." The Navy did not respond to questions about how it had obtained the acoustic data.

Over the last three years, some of this cable network has been expanded and replaced with advanced cables fitted with state-of-the-art hydrophones and sensors to more accurately pinpoint the location of enemy vessels, the two people said.

Much of this work has been carried out by the 40-year-old USNS Zeus, the first and only operational cable ship specifically built for the U.S. Navy, the people said. Assisting are the CS Dependable and CS Decisive, two cable ships owned by the private U.S. firm SubCom, they said. SubCom has become a key player in the tech war with China.

To keep the locations of U.S. underwater spy cables secret, these three ships have been masking their locations, known in the shipping industry as "going dark," according

to the two Navy sources and an analysis of ship-tracking data.

Commercial ships are required under international law to keep their identification transponders switched on to prevent collisions and help authorities fight maritime crimes. But nations can secure exemptions for some private vessels, particularly those working on national security projects, according to London-based maritime lawyer Stephen Askins.

Between Jan. 1, 2022, and Aug. 22 of this year, the CS Dependable and the CS Decisive were not transmitting identification signals for 60% and 57% of the days they spent at sea, respectively, according to data on LSEG's Eikon terminal.

SubCom and the U.S. Department of Defense did not respond to requests for comment about any exemption for SubCom vessels.

The second element of the original U.S. subsea spy program is a fleet of five large catamaran-style ships equipped with the SURTASS system, the cables fitted with sonar listening gear and dragged through the ocean.

In February 2020, the Navy awarded Lockheed Martin a \$287 million contract to produce new advanced towed sonar arrays for these ships. The first of these new cables was delivered last year, according to two Navy sources.

Lockheed Martin did not respond to a request for comment.

Now the Navy is building new miniaturized, mobile versions that can be deployed undetected, the sources said. These modules, known as Expeditionary SURTASS, or SURTASS-E, can be placed in cargo containers loaded onto any flat-decked



vessel, allowing commercial ships to carry out surveillance for the Navy, two sources with knowledge of the project said.



Capt. Richard Seif, the incoming commanding officer of Submarine Squadron 1 at the time, speaks during the change of command ceremony at Joint Base Pearl Harbor-Hickam in Hawaii in January 2017. | U.S. Navy / via REUTERS

Over the last three years, the Navy has been testing the system from an offshore supply vessel in the Atlantic, and it has since been used in active operations in secret locations, the sources said.

In May, the U.S. State Department said in a statement that it had approved the sale of a \$207 million SURTASS-E system to the government of Australia.

An Australian Defense spokesperson said it was investing in new undersea surveillance capabilities to protect critical infrastructure and monitor evolving subsea threats.

Japan also operates a fleet of three ocean surveillance ships, fitted with U.S. SURTASS cables, the two U.S. Navy sources said.

The Maritime Self-Defense Force said in a statement that it was coordinating with its allies to counter China's increased naval threat; it declined to comment specifically on surveillance operations.

## Sea drones with sharp ears

The Navy is experimenting with new ways to listen for subs in areas where its warships are closely monitored by China, including the Taiwan Strait and South China Sea, two sources with knowledge of those efforts said.

This means using stealthier methods such as sending out small, unmanned sea drones fitted with infrared cameras and underwater microphones, and dropping portable listening devices from commercial ships, the people said.

One of the first successful attempts to make an autonomous subsea surveillance unit was the Transformational Reliable Acoustic Path System (TRAPS), developed by Leidos, a Virginia-based Fortune 500 defense firm, the people said. The Navy awarded Leidos a \$73 million contract to develop the system in 2019.

TRAPS consists of a processing box attached to deep ocean sensors. It is designed to sit on the seafloor and listen for submarines overhead, like an underwater satellite.

These underwater spy units could be surreptitiously dropped off the side of a fishing vessel or tugboat in enemy territory, said Chuck Fralick, Leidos' chief technology officer and a retired Navy officer.

"You can get listening or surveillance capability pretty much anywhere in the world you want," Fralick said.

The Navy has also been experimenting with small sea drones, including uncrewed sailboats and autonomous miniature submarines that cost \$800,000 to \$3 million to build — relatively small change in the world of defense systems.

These craft don't yet carry weapons. But they can be fitted with high-definition cameras, underwater microphones, satellite uplinks and other spy gear, giving the Navy a low-cost means to expand its surveillance dramatically, Navy spokesman Hawkins said.

In the future, these vessels could be used to fire submarine-sinking torpedoes, drop underwater mines or set off decoy devices that make loud noises beneath the surface to confuse the enemy, two Navy sources said.

The Navy did not respond to questions about arming sea drones.

Saildrone, a San Francisco-based firm founded in 2012 by British engineer Richard Jenkins, for years has been collecting data from its unmanned sailboats to track marine life movements and measure impacts of climate change.

Now military customers are calling. In the past two years, Saildrone says it has supplied the U.S. Navy with 22 of its solar-powered boats, including the 33-foot Voyager, which can be equipped with a smart camera and a variety of sensors. The

Navy confirmed that it has purchased Saildrones.

Though the Navy has yet to place large orders, Saildrone and other drone startups say they are each ready to supply hundreds of vessels a year.

Navy spokesperson Hawkins declined to say how many more uncrewed vessels the military might procure. But he said the sea drone industry was "on the cusp of a technological revolution."

## **One US Sub Sinks Japanese Supercarrier – Sinking of Shinano Documentary**

This is the extraordinary story of how a single US submarine, skippered by a then unremarkable captain sank a Japanese supercarrier single-handed, instantly becoming the most successful US submarine patrol of the entire war by tonnage sunk.

[https://www.youtube.com/watch?v=9Lgc\\_NtwApQ](https://www.youtube.com/watch?v=9Lgc_NtwApQ)

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