A monthly publication of the Los Angeles/Pasadena Base • United States Submarine Veterans, Inc.

Volume 18, Number 11 • November 2022



"To perpetuate the memory of our shipmates who gave their lives in the pursuit of 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."

What's Inside

Commander's Message	2
General Meeting Minutes	3
Tolling of the Boats	6
Flying Submarine Drone?	9
New Swedish Sub	10
Japanese Subs Among Best	12
Dex Armstrong	14
Chapter News	15
Upcoming Events Calendar	16
E-Board Meeting Minutes	17
Propulsion for First Columbia	18
Russian Kilo Subs in Retreat	19
Bushnell Cemetary Marker	20

Editor's Corner

Busy with sub publications as usual here in the Yeoman's Shack, so you know where to find me. Running my r/c subs too, when I can. Below's the unpainted fairwater of my in-progress USS Harder (SS-257) build.-Jeff



Newly Declassified Report Shows How Rickover Worked to Explain Radiation Risk from USS Thresher Loss

(From the USNI News website - published September 8, 2022; Updated September 10, 2022.) by John Grady



Admiral Hyman Rickover.

ecently released documents about the sinking of attack submarine USS Thresher (SSN-593) show the lengths the Navy took to assure the public that the incident would not result in an environmental catastrophe.

The first director of Naval Reactors, Vice Adm. Hyman Rickover, worked to reassure the public and Congress that there was no danger of a nuclear explosion or a major radiation leak contaminating the seawater more than two hundred miles off Cape Cod following the 1963 sinking of the attack submarine.

"There is no way the nuclear material in Thresher could be made to undergo a nuclear explosion, i.e. there is no danger that it can or will explode like a bomb." On radiation, the draft said that "outside the ship [it] is normally undetectable," according to a draft statement from Rickover.

(continued on page 7)



BASE COMMANDER - CO

Dave Vanderveen 6061 Broadstone Circle Huntington Beach, CA 92648 714-374-7349 d.s.vanderveen@hotmail.com

VICE COMMANDER - XO

Darin Detwiler 205 Seventh Street Seal Beach, CA 90740-6180 425-232-5743 ddetwiler680@gmail.com

SECRETARY - OPS

Bill Moak 2865 Helm Street Simi Valley, CA 93065 805-581-4419 golfnsurf46@aol.com

TREASURER - WEPS Mike Swanson 1149 W. Santa Cruz Street San Pedro, CA 90731 310-832-5981 swanmike@gmail.com

CHIEF OF THE BOAT - COB Ray Teare 602 E. Mountain View Ave. Glendora, CA 91741-2765

626-831-5463 rtteare@yahoo.com

MEMORIAL DIRECTOR

Dennis Bott 202 Berth Slip #7 Wilmington, CA 90744-6722 562-355-0230 dbottsailor@gmail.com

IMMEDIATE PAST COMMANDER Bill Moak

L.A.-PASADENA BASE WEBSITE www.socalsubvets.org

The Periscope is a monthly publication of the Los Angeles-Pasadena Base of USSVI

> Newsletter Editor Jeff Porteous 15127 Matisse Circle La Mirada, CA 90638-4733 714-709-6584 jefftytoo@ca.rr.com

From the Wardroom ...



Dave Vanderveen, Base Commander

Shipmates and Ladies,

I have a break this afternoon in the trial on which I am serving as a juror, so I'll use the time to write my message for the November

Periscope. Jury duty is one of those double-edged "headaches." It is an aggravating disruption of daily routine, requiring changes of appointments, missed lunch dates with family, listening to the drone of a court trial, and learning things about someone else's life that I did not want to know. It's also a reaffirmation of the good things about the ways our judicial system and system of governance work. It represents one more reason I'm proud of our country and grateful I live in it. Still, I will be glad when the trial and my jury service are done.

At the end of our October meeting, a couple of our shipmates commented that it was good to hear positive news about our relationship with the Navy and our prospects for continuing to use facilities on Naval Weapons Station Seal Beach. During the meeting I had related my conversation with the new commanding officer, Captain Jessica O'Brien; the station's Operations Officer, Lt. Adam King; N-5 Jazmin Atencia; and Public Affairs Officer, Gregg Smith. Although budgetary constraints have slowed construction and facility modifications at NWSSB, we will have meeting space available, and the command is looking for a place in which we can store the tools and equipment we use for our ceremonies at the WWII Submarine Memorial. That will help us reduce the expense of storing that stuff in a commercial facility. As part of our effort to further reduce required storage space and its related expense, three of us will survey what we now have stored in order to "reduce, reuse, recycle." We had initially kept *everything* that had been in Building 6; some of it is very valuable sentimentally and some is irreplaceable. The reality is also that some of it is also long past its expiration date, so we'll figure out what's what and take appropriate action! I'll let you know what we do.

November's meeting will again be held at Glory Days Beachside Grill, 620 Pacific Coast Highway in Seal Beach. We've arranged to access their WiFi so I can set up my laptop computer for a Zoom meeting. Although we couldn't do that last month, we'll try it again so we can engage more members in our monthly meetings. It's a good way to stay connected with shipmates, and that's important to the health and proper fuctioning of our base.

Our December meeting will be at the Eagle's Nest at the Navy Golf Course in Cypress. It'll be our annual Holiday (Christmas) Party on December 10th at 11:00. That is actually the *second* Saturday of the month—because someone else had already reserved the entire facility for what would've been our usual third Saturday. You will find the announcement and reservation information elsewhere in this edition. I hope you can join us even though that's the day of the Army-Navy game!

Before we get to that party, though, I hope you and your families have reason to give thanks and can enjoy a healthy and happy Thanksgiving!

ave

Dave Vanderveen, Commander Los Angeles-Pasadena Base



Oct. General Meeting Sailing List

Ed Barwick Herb "Bo" Bolton Dennis Bott Bill Butler (guest) Ken Dorn Joe Koch Iack Mahan Bill Moak Jeff Porteous "Rocky" Rockers Chuck Senior Marilyn Senior Mike Swanson Ray Teare Dave Vanderveen Ron Wagner Dennis Walsh





Minutes of October 15, 2022 General Meeting

Base Commander Dave Vanderveen called the General Meeting of the L.A.-Pasadena Base to order at the Glory Days Restaurant in Seal Beach, CA at 1143 hours. Dave then requested a moment of silence for our departed shipmates. (No flag was available for the Pledge of Allegiance and USSVI Purpose.)

Installation of Officers for 2023:

District Six Commander "Rocky" Rockers was present to install the officers for next year. All but Darin Detwiler were present and sworn in.

Treasurer's Report:

Mike Swanson presented the status of the chapter treasury as of October 14, 2022, which had been approved by the E-Board. (Please refer to the breakdown appearing in the E-Board Minutes as usual.)

Dave then took the opportunity to mention two guests at today's meeting. First he introduced District Six Commander "Rocky" Rockers. Rocky was asked to summarize his time in the service and his life since:

Rocky's synopsis started with his enlistment in 1948. He spent time in the surface Navy, some eight plus years, before transferring to submarines. From sub school he qualified on the *Sea Owl* as an EN2. As part of reenlistment, he attended Missile A School, then was sent to *Croaker* for four months before being sent on for additional missile training. From there he was assigned to and commissioned the *Abraham Lincoln*. After two patrols, he was again assigned to a non-snorkel diesel, then on to *Tecumseh*, shore duty in DC, then out as an EN1(SS). He worked at then retired from Lockheed, and became a realtor. Retired from that at 80, he is 93 today. He has served as District 6 Commander for different intervals totalling nine years. Rocky then briefly regaled us with tales of some of his trials and tribulations in the sub service.

Our second guest, Bill Butler, was introduced by Joe Koch. Bill had recently moved into Joe's housing complex, and Joe discovered him there as a fellow submariner. Bill qualified on *Remora* in 1956, then spent eleven years in the Reserves.

Memorial Report:

Dennis Bott reported that the grass he'd seeded some time back now looks as though it will spread and fill in properly. With regard to the previously reported damaged trellis, Dennis has looked for new trellises at both Home Depot and Lowe's, but those were found to be flimsy and unsuitable. The E-Board has decided to ascertain the cost for replacement with appropriate trellises, and hope to fund the project through the National Charitable Fund. The hedges adjacent to the parking lot have been removed, and the homeless issue has been resolved by NWSSSB Security. Dave mentioned that the Base Commander was a little peeved that she'd not been made aware of this issue previously.

Dave addressed the plaques to be placed on the reverse of the Memorial sign facing Seal Beach Boulevard, explaining that ongoing delays had likely been due to their pro bono status by the engraver; the E-board is now addressing how to get the job completed by getting it paid for instead.

Outcome of Meeting with NWSSB Command:

On October 4, Dave met Captain O'Brien, Commander; Lt. Adam King, Ops. Officer; Jasmine Atencia, Liaison Officer; and Gregg Smith, Base PAO. The meeting's purpose was to come to an understanding about NWSSB-related issues concerning L.A.-Pasadena Base meetings, tool storage and memorabilia display. The Navy base intends to continue a relationship with L.A.-Pasadena, yet is constrained by DOD guidelines and requirements. Dave explained our intent to abide by any requirements, but hoped to get more firm dates about the availability of an eventual meeting place on the base. Dave further explained our public storage expense and its drain on our treasury. A memorabilia storage and/or display location on the base might be at least four years away for us, but a meeting locale could be available soon in the Recreation Building. The Navy base is in favor of displaying our items, as a link to our history and to the Navy. Some discussion addressed

(concluded on next page)



Ad Still Here by Popular Demand!



Just the Place for Killer MidRats!

Hey, know anyone on boats out of New London? Or, planning a visit to Groton yourself? Drop anchor at this local dive: **Wings'n'Pies** at 924 Route 12, just down the road from the Base's Main Gate. Your editor enjoys firsthand knowledge that the pizzas here are some of the tastiest and sloppiest around. Forget those extra napkins—just wipe your greasy fingers on your shirt and they'll think you've been hanging out with the A-Gang!



PRIDE RUNS DEEP



General Meeting Minutes...

(concluded from previous page)

the WWII turnover of the Memorial site to the Navy, since Command had wondered why it had not actually gone to the L.A.-Pasadena Base instead. Dave indicated we were just not fit to do so at the time, but have taken on the custodial duties since. Further discussion concerned our planned Memorandum of Understanding, which will include the Weapons Station, L.A.-Pasadena Base and the Lion's Club. Dave explained that such an agreement will be created and submitted for NWSSB approval before submission to the Lion's Club. In the future, any on-base work or activity desired by the Lion's Club will first be submitted to the Memorial Director—currently Dennis Bott—then forwarded to the NWSSB for approval. The long-standing issue of the bricks was also addressed, and Command wanted to know why indeed they had not yet been installed. Dave explained our prior issue with the JAG, but also pointed out similar activity had been approved and completed in Bremerton and San Diego without problem. Capt. O'Brien mentioned a soon forthcoming visit to San Diego, and her intent to discuss our bricks project with the command there. Looks as though installation of our bricks might finally occur after all!

As a result of this meeting and everything learned, the E-Board has decided to allow three months to pass with regard to storage availability. In addition, it was also agreed to split our future base meetings between any forthcoming availability at NWSSB, and public locations (such as we did today). Maintaining a relationship with the base—that is, continuing to have a "presence" there—was why a decision to meet exclusively at public locales was turned down. Dave will visit the storage facility to catalog items, with Darin Detwiler documenting, in order to consolidate the contents so perhaps they can be moved to a smaller storage unit, thereby reducing monthly cost.

Membership:

Marilyn noted our membership as currently standing at 99, with many living out of state or far from Southern California. She reported having spoken with our members who reside in Florida, and fortunately none had suffered ill effects from Ian. The loss of member Sterling Higgins was mentioned, and that he is at rest in Riverside National Cemetery.

Joe was asked about his relationship with the BSA Council, of which he is a member. He stated that the Methodist Church is pulling their charter for the Scouts. Units must now obtain charters through other sponsors.

For the Good of the Order:

Rocky urged members who haven't yet done so to sign in to the new USSVI national website, and set up with new passwords. The website is up and running, though its "Tools" section is not yet finished—but it should be available soon. Rocky also mentioned that the national office has moved from Washington state to Groton, CT, and is housed within the Groton Clubhouse. They pay no rent there, so save the organization money by doing so.

Dave covered our history of difficulty with base security. He expanded on the issues and how we will meet NWSSB's requirements. Everyone will need to obtain a biometric ID card, or request a day pass one month in advance. The potential for cancellations not being properly communicated could create any number of problems, however. Still, observing these rules is the new reality.

The date for our annual Christmas Luncheon has been established as December 10—our traditional later date was unavailable due to a larger group's reservation conflict. Jeff will place the signup sheet in the *Periscope* as usual. While this gathering will take place on the second Saturday of the month this year, no additioanl meeting will take place on the third Saturday in December.

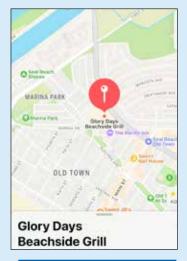
There being no further business, Bill Moak motioned the meeting be adjourned; Mike Swanson seconded and it was passed by all present, ending the meeting at 1241 hours.

Respectfully submitted, Bill Moak Secretary, L.A.-Pasadena Base, USSVI

Nov. Meeting. Convort Nov. Days Restauration Glow Days Clow Nov. Meeting Date: Nov. 10.000

Date: Nov. 19, 2022 Glory Days Grill in Seal Beach will once again be the site of our monthly gathering: Board Meeting at 10:00 a.m. and the General Mtg. at 11:00 a.m. Hope to see you there!

Glory Days Beachside Grill 620 Pacific Coast Hwy. Seal Beach, CA 90740 562-594-3800



Nov. Birthdays

We hereby extend the happiest of wishes to all our L.A.-Pasadena Base birthday celebrants!

Bill Long	11/1
Rex Shields	11/1
Gary Lee Wing	11/4
Wally Walrath	11/7
Bobby Mahaffey	11/8
Dick Traser	1/11
Jud Scott 1	1/16
Ed Arnold 1	1/21
Matt Turner	1/22
Cheese Cheesebrough1	1/22
Larry Butler	1/29
Ray Teare 1	1/30

USSVI Membership Dues Are Due: Avoid Deep Do-Do!

See Marilyn with questions
Pay up soon and you'll be glad you did
What's keeping you? Get with it, sailor!



LOS ANGELES - PASADENA BASE

2022 FLOWER FUND and BOOSTER CLUB

A special thank you to the following folks whose generous contributions this year have helped make our Base activities and charitable functions possible:

Joe Dow • Ken Dorn • Harold Staggs • Mike Varalyai (RIP)



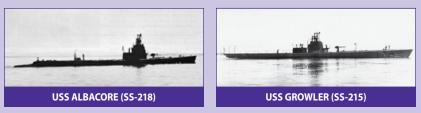
Booster Club and Flower Fund donations are welcome in any amount and are often also popular with 50/50 Drawing winners at our Base meetings. Contributions can be made in cash or by check payable to L.A.-Pasadena Base of USSVI. Checks may also be sent to Mike Swanson at 1149 W. Santa Cruz Street, San Pedro, CA 90731. To ensure proper credit, be sure to indicate Booster Club or Flower Fund on your check.

UNITED STATES SUBMARINE FORCE LOSSES ON ETERNAL PATROL

"I can assure you that they went down fighting and that their brothers who survived them took a grim toll of our savage enemy to avenge their deaths."

— Vice Admiral Charles A. Lockwood, USN

NOVEMBER TOLLING OF THE BOATS



USS ALBACORE (SS-218)

Lost on November 7, 1944 off northern Hokkaido. A recipient of two Presidential Unit Citations, *Albacore* had been on her eleventh war patrol when she struck a mine while running submerged. A nearby Japanese patrol craft had detected her and bore witness to her loss as she entered the minefield. Eighty-five officers and crew perished.

USS GROWLER (SS-215)

Lost on November 8, 1944 when she went down in the South China Sea. *Growler* had been awarded two Navy Unit Commendations and was on her twelfth war patrol when sunk while attacking a convoy—likely the victim of either a depth charge attack or the circular run of one of her own torpedoes. Eighty-six men went down with the boat.

USS SCAMP (SS-277)

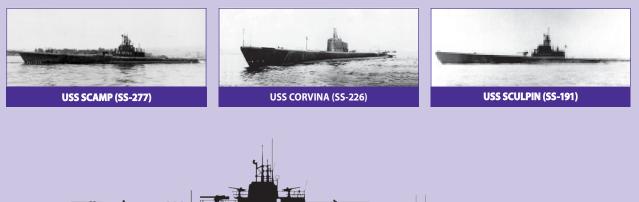
Probably lost on November 9, 1944 near Tokyo Bay. Evidence indicates that during her eighth war patrol *Scamp* had been trailing oil—perhaps from mine damage—which had helped Japanese coastal defense vessels locate and destroy her with depth charges. Her full complement of eighty-three never came home.

USS CORVINA (SS-226)

Lost on November 16, 1943 when sunk just south of Truk during her first war patrol. *Corvina* is suspected of having been destroyed by torpedoes from a Japanese submarine. All eighty-two officers and men were lost in the attack.

USS SCULPIN (SS-191)

Lost on November 19, 1943 also near Truk. Severely damaged by depth charges after attacking an enemy convoy, *Sculpin* continued her fight on the surface. Once the captain was killed, the crew was forced to abandon ship and scuttle the boat. Forty-one men were taken prisoner, only twenty-one of whom survived the war. Among those choosing not to abandon ship, Captain John Cromwell, aboard as a potential wolfpack commander, rode *Sculpin* to the bottom, fearing that vital information he was carrying might be compromised under torture. For this, Cromwell was posthumously awarded the Congressional Medal of Honor. Forty-three men were lost when *Sculpin* went down.



WE REMEMBER For those who gave their lives in defense of our country WE REMEMBER

(continued from page 1)

MEMORANDUM FOR THE SECRETARY OF THE NAVY SUBJECT: EVALUATION OF POSSIELE HAZARDS CREATED BY LOSS OF USS THRESHER

SUMMARY

Any hazard from the THRESHER would have to derive from the radioactive fission products which were created during operation and are now held in the reactor fuel alloy. Physical damage to the reactor could not by itself lead to release of these fission products; release could result only from melting of the reactor or very slowly by corresion. The total quantity of radioactive fission products in the reactor is small, since the reactor had been shut down for nine months prior to her sinking. The maximum rate of release and dispersal of this radioactivity in the ocean is low.

These conclusions are confirmed by measurements of semurator, ocean bottom, air and debris collected near the THRESHER, all of which have shown no radioactive contamination.

(b) (6)

"Rickover was very attentive to public opinion," retired Navy Capt. James Bryant told *USNI News* via email. He added that Rickover was focused on any public perception of nuclear weapons or energy, which included judging the impact of Japanese horror/disaster films of the 1950s and 1960s movie monsters being created from nuclear radiation like the giant moth, *ings* article that other shipboard systems, like handling seawater, "were far less firm in their design, construction, and testing." There also was not a recovery system in place for submarines operating at these depths.

A year after the sinking, the Navy launched the Submarine Safety

(concluded on page 8)

"Mothra" or the flying space turtle, "Gamera."

Rickover "was very conscious of public affairs; he [also] was very conscious of keeping things out [of public discussion] when it suited him," Bryant said. This also meant Rickover was "committed to protecting his [nuclear] program through unwavering operational and design safety."

He said this was in keeping with the Eisenhower administration's 1958 decision to allow USS *Nautilus* (SSN-571) to make a port call in New York City following its transpolar crossing. The visit highlighted Navy expertise and nuclear safety. Rickover greeted the crew on her arrival.

Bryant successfully brought the suit compelling the sea service to release the documents it held on subsequent investigations into what caused the submarine implosion during deep diving tests on April 10, 1963. All 129 aboard the submarine perished.

Although reactor safety was stressed, Bryant and his volunteer research team said in a *Proceed*-

Rickover Explains Thresher Radiation Risk

(concluded from page 7)

Program, known as SUBSAFE, as a quality assurance initiative.

The latest documents, with a cover notice that they are intended for Navy Secretary Fred Korth, were written within a few days of *Thresher*'s implosion and about two weeks before Rickover was scheduled to testify before the court of inquiry that had convened in Portsmouth, N.H.

In his twelve minutes of public testimony to the court, Rickover, sticking closely to the draft, said it was "physically impossible" for the reactor to have exploded on the first-of-its class fast at-tack submarine.

He added that the naval reactors' design did prevent an environmental disaster.

Bryant said that in building *Thresher*–class submarines, the emphasis was on speed and the ability to dive to previously unrecorded depths for operations in the far northern Barents Sea to counter Soviet advances in missiles and nuclear weapons.

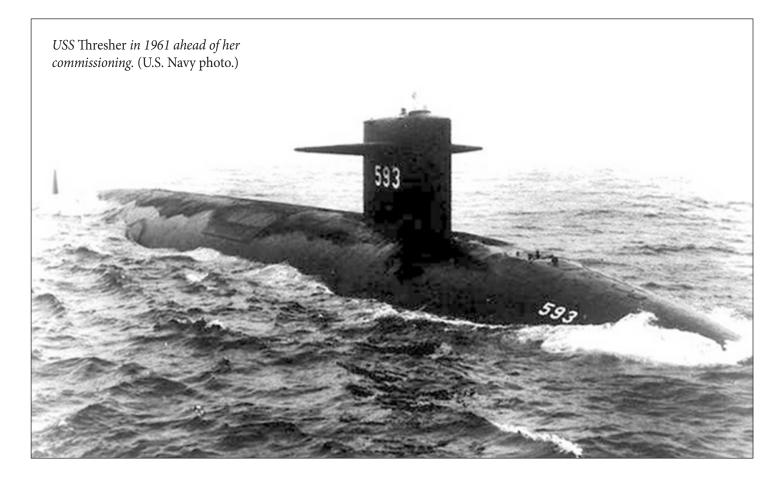
In his written response to *USNI News*, Bryant said the sub's construction under the pressure of the Cold War period meant "there was not an appropriate level of appreciation for increased operational risk" at those depths.

Back then, there was some of the animosity between Rickover and the diesel boat veterans of World War II, Bryant told *USNI News.* That in part stemmed from his choice of officers to serve in the nuclear Navy. "He did not want guys who would break all the rules," so he drew upon surface warfare officers and aviators to fill out the ranks because "they followed procedure."

Bryant estimated there are 16,000 "pinks," as the carbon copies were known, still yet to be released. He added that Rickover "read all of them."

In the material already declassified, Bryant said there is heavy redaction. Sometimes it occurs in taking out the name of message senders in unclassified documents or the performance of materials that have no relation to nuclear operations.

Bryant and his team are continuing to work on determining the causes of *Thresher*'s loss, he said. Areas of interest now include why were different Sound Surveillance System Low-Frequency Analyzer/Recorder displays briefed to the court and posted in the secretary's reading room; what was the actual performance of a critical valve as the crew readied the submarine to return to service after a yard availability; and lastly, inconsistencies in a main ballast tank blow test after the sinking versus what is known about *Thresher* when she was in distress.



China Develops New 'Flying Submarine' Drone Which Allegedly Could Penetrate Aircraft Carrier Defenses

When it reaches the water's surface, the drone can fly at 74.6 mph.
According to a researcher, this type of weapon is one of the most affordable and efficient ways to compromise an air carrier fleet's defense system

(Reproduced from the Interesting Engineering website - published August 9, 2022.) by Christopher McFadden



Kubilay Yılmaz/Interesting Engineering. (iStock image.)

I n maritime warfare news, Chinese scientists have apparently developed a novel "flying" unmanned submarine drone. So far, it's been only reported in Chinese news sources that the new drone could be one of the cheapest, most effective methods to cripple the defense system of an aircraft carrier fleet.

An eastern Chinese research team claims to have developed and tested a prototype submarine drone with the ability to fly swiftly through the air. According to experts on the subject, the autonomous watercraft is capable of performing both military and civilian tasks, such as examining underwater mines.

The drone can approach an underwater target slowly and stay in one place for a considerable amount of time since it is propelled by four propellers, including a pair at the front that tilt.

When the drone reaches the water's surface, two sizable wings folded over its back deploy and extend, enabling it to fly at a

speed of 74.6 mph (120 kph), which is roughly twice as fast as a typical drone powered by rotor blades.

The drone "consumes little energy when cruising in fixed-wing mode, so it can perform...fast, long-range missions in the air," said professor Ang Haisong, lead project scientist with the Nanjing University of Aeronautics and Astronautics in a paper published in peer-reviewed *Unmanned Systems Technology* in June.

A researcher studying similar technology at Northwestern Polytechnical University in Xian, Shaanxi province, has been reported as saying that China was developing numerous types of "transmedia vessels" that could travel in both air and water.

"They are mainly for military applications. Some can fly at supersonic speed," the unnamed researcher told the *South China Morning Post*. This researcher was not involved in Ang's study but requested not to be named because of the sensitivity of the technology.

(concluded on page 11)

Sweden Lays Keel for First New Submarine in Over Two Decades

These stealthy subs are ultra-quiet.
Construction of HMS Blekinge was ordered in 2015.
It can accommodate 26 sailors and underwater vehicles.
Sweden has spent \$840 million to improve its submarine designs.

(Reproduced from the Interesting Engineering website - published July 27, 2022.)

by Ameya Paleja



The new Swedish submarine.

s Sweden prepares its bid to join the North Atlantic Treaty Organization (NATO), it has also passed a milestone in strengthening its military capabilities. Last month, the country laid the keel for its first submarine in over twenty years—called the HMS *Blekinge*—manufacturer Saab said in a press release.

Keel-laying is an old shipbuilding tradition where coins were placed under the keel of the ship during the construction phase to bring it good luck. In submarine manufacturing, the ceremony is carried out when the first hull sections are about to be joined together.

The project began in 2014 when the Swedish government began making plans to strengthen its underwater capabilities.

The next year, the country ordered its two new submarines in two decades.

The Blekinge-class submarines

The new craft are *Blekinge*-class submarines. At 213 feet (66 m) in length, each of these subs will have a displacement of 1,925 tons and be propelled by three diesel engines and three Stirling engines. The latter of the engines uses air-independent propulsion (AIP) that will allow the submarine to dive for a period of more than 18 days, *Naval News* reported.

The sub has a standard complement of twenty-six sailors, but can be modified to carry up to thirty-five onboard. Options are

(concluded on page 11)

New Chinese Flying Submarine Drone?

(concluded from page 9)

If true, such a craft could leave surface fleets highly vulnerable to attack.

This kind of "transmedia vessel," according to Ji Wanfeng, professor at Yantai's Naval Aviation University in Shandong province, is one of the simplest and most efficient ways to compromise an aircraft carrier fleet's defenses.

According to an estimation by Ji and his coworkers, the multilayered defense system of a contemporary warship can take down almost half of the approaching aircraft, missiles, or conventional drones. However, they explain, a "transmedia vessel" has the ability to submerge when identified by radar and emerge again to avoid sonar.

Ji said that even a small number of these drones may overwhelm or confound a warship's computer systems.

According to a report Ji's team published in the Chinese journal *Electronics Optics & Control* last month, if a transmedia vessel could fly at a speed of more than 93 mph (150kph), it would have a survival rate of close to 100% when launched from a distance of 62 miles (100km).

This type of drone "can achieve efficient strikes against the enemy's key targets. It will surely become a powerful supplement to the Chinese Navy's existing equipment combat methods and tactics," Ji's paper said. An airbag in the belly of the flying submarine created by Ang's team can be filled with water to change buoyancy, allowing it to maintain a specific depth without producing noise with its propellers. Its sleek body, which resembles a normal submarine when traveling in water with its wings folded, allows for less drag and more agility.

Surface waves and the drone's simultaneous interactions with air and water make the takeoff process unstable, according to Ang's team, if the vessel rises directly out of the water.

To correct this, they created a sophisticated control system enabling the submarine to glide on the waves before lifting.

Boris Ushakov, a Soviet engineering student, developed a submersible plane that could spy on ships before diving beneath the ocean to surprise them with torpedoes way back in the 1920s. But because the undersea components rendered the aircraft too heavy, the Red Army abandoned the plan.

The first flying submarine was created by American defense contractor Donald Reid in the 1960s, but due to insufficient power, it could only hover for a short period of time.

According to reports, the U.S. military has supported a large number of research projects to create manned or unmanned underwater planes for clandestine operations, but the majority of the programs have been delayed due to technical difficulties.

New Silent Swedish Sub

(concluded from page 10)

also available to further expand the submarine design to carry fifty sailors, but a smaller variant with a footprint of 164 feet (50 m) and displacement of 1,100 tons is also possible in the future. Even the smaller submarine can be equipped with AIP propulsion while all can be armed with torpedoes and mines while also carrying autonomous underwater vehicles (AUVs) and remotely operated vehicles (ROVs), as well as magnetic silencing facilities (MSF).

The importance of being silent in the sea

Swedes already excel in noise cancellation technology used in underwater warfare, *1945* reported. With the *Blenkige*-class, the country is spending another \$840 million to improve its previous designs.

Flexible mountings designed on the submarine are expected to help it withstand shocks, reduce transient noise and further reduce the chances of detection by adversaries. The frame of the submarine will also absorb noise while its air ducts and pipes are expected to be quiet as well.

With options of deploying UAV and ROV, the submarine can stay away from risky missions while still being able to carry out intelligence, surveillance, and reconnaissance tasks. The unmanned vehicles could use active sonar to increase the submarine's reach, even as it remains quietly hidden at a safe distance, poised to stealthily exit the area if the robotic vehicles are detected and destroyed.

"The submarine competence places Sweden among one of few nations in the world with the capability to build modern and advanced submarines," said Micael Johansson, President and CEO Saab.

The first of the *Blekinge*-class submarines is expected to be delivered no earlier than 2027, which will then be followed up with HMS *Skåne* a year later.

Japan's Submarine Force is One of the Best on Earth

(Reproduced from the 1945 website - published September 15, 2022.)

by Christian Orr



ne good *19FortyFive* article on East Asian nations' submarine forces deserves another ... and another ... and now yet another. After having examined the submarine capabilities of USINDOPACOM region allies Taiwan and South Korea along with adversary North Korea, we shall once again look at the subs of one of America's key Pacific Rim allies, Japan. As with Japan's military as a whole, her submarines have not seen combat since the I-boats and RO-boats of WWII.

Nonetheless, the Japanese Maritime Self-Defense Forces (JMSDF) maintain a high-tech and highly capable undersea fleet just in case North Korean and/or Red Chinese aggression forces Japan's hand into breaking from their longstanding pacifist policy.

Söryū (16SS) Class

Most naval history buffs, upon hearing or reading the name " $S\bar{o}ry\bar{u}$ " ("Blue or Green Dragon"), will immediately think of the ill-fated WWII Imperial Japanese Navy (IJN) aircraft carrier that was among the four IJN carriers sunk at the Battle of Midway in June, 1942. However, thanks to JMSDF, the $S\bar{o}ry\bar{u}$ maritime military moniker lives on, this time in the form of a submarine class.

As noted in an article written a year ago by Raymond McCo-

noly of the *Naval Post*, the 16SS class "is a diesel-electric assault submarine that is one of the best. These incredibly quiet and capable submarines are the backbone of the Japan Maritime Self-Defense Force's submarine forces and one of the most crucial chess pieces on the chessboard in the East Pacific ... The *Sōryū* class is simply a modified version of the *Oyashio* class with air-independent propulsion, or AIP. The first vessel of this class, JS *Sōryū*, was laid down in 2005, launched in 2007, and commissioned in 2009. The personnel complement of the *Sōryū* class is sixty-five. The submarine is 84 meters [275 feet] long, with a beam of 9.1 meters [30 feet], and a draught of 8.5 meters [28 feet]. Its surfaced displacement is 2,900 tons, while its submerged displacement is 4,200 tons."

The *Oyashio* ("Parental Tide") class diesel-electric attack boats, incidentally, were commissioned between 1998 and 2008, with nine remaining in active service and two converted to training platforms.

A total of twelve *Sōryū* boats have been built, all bearing a name with a variant of the root word ryū ('dragon"). The newest in the fleet is SS-512, the JS *Tōryū* ("Fighting Dragon"), whose keel was laid down on January 27, 2017, and was launched on November 6, 2019 and commissioned on March 24, 2021. Maximum speed while surfaced is 13 knots (24 kph/15 mph),

(concluded on page 13)
THE PERISCOPE • NOVEMBER 2022 12

Japan's Submarine Force One of the Best

(concluded from page 12)

maximum submerged speed is 20 knots (37 kph/23 mph), and max diving depth is 650 meters (2,132 feet). Armament consists of six 533mm torpedo tubes, capable of firing homegrown Type 89 torpedoes and American-made UGM-84 Harpoon missiles.

Taigei (29SS) Class

The *Taigei* ("Big Whale")-class boats are the latest and greatest addition to the JMSDF sub fleet. These "Big Whales" are the direct successor to the "Blue (Green) Dragons," with a total of seven such boats planned. Thus far, only one, the JS *Taigei*, (SS-513) is in active service, having been laid down on March 16, 2018, launched on October 14, 2020—even COVID couldn't stop this Big Whale—and commissioned on March 9, 2022. The next ship in line is the SS-514, *Hakugei* ("White Sperm Whale"), launched exactly one year after the *Taigei* and currently undergoing sea trials, with an expected commissioning date sometime in March 2023.

The *Taigei*-class subs boast the same hull length and beam width as their $S\bar{o}ry\bar{u}$ predecessors, but with a slightly larger draught at 10.4 meters (34 feet). Displacement will be slightly heavier at 3,000 tons and crew complement will be upped to seventy officers and enlisted seamen. Speed and max operational depth are unknown as of this writing, while armament consists of six HU-606 533 mm torpedo tubes wielding the same Type 89s torpedoes and Harpoon missiles as the *Sōryūs*. What really stands out about the "Big Whales" are their lithium-ion batteries. As Mr. McConoly points out, "Lithiumion batteries have a higher energy density and thus a higher power output. If all other factors remain constant, the lithium battery-powered *Taigei* submarines should go farther and maintain more incredible submerged speeds than equivalent diesel-electric submarines ... Currently, the JMSDF is the only naval service in the world to have this equipment deployed on a submarine. Lithium-ion batteries have nearly twice the capacity of lead-acid batteries."

Looking Forward

The last of the *Taigeis* is expected to be commissioned in March, 2027. Between them, the *Sōryūs*, and the *Oyashios*, the JMSDF submarine fleet appear to be quite well-equipped, from a technological capability standpoint, to take on their Chinese and North Korean adversaries' boats, even if the Japanese numbers don't match those of the Communist navies.

Christian D. Orr holds a B.A. in International Relations from the University of Southern California (USC) and an M.A. in Intelligence Studies from American Military University (AMU). He has also been published in The Daily Torch and The Journal of Intelligence and Cyber Security. In his spare time, he enjoys shooting, dining out, cigars, Irish and British pubs, travel, USC Trojans college football, and Washington DC professional sports.



Mornings Alongside

by Bob "Dex" Armstrong

The day officially began with the arrival of the Krispy Kreme donut truck. Once the donuts were aboard and signed for, the topside watch would holler down the conn hatch to the below decks watch: "Wake up the little darlings and tell the sonuvabitches that daddy has the donuts!"

Five minutes later, some half-awake idiot non-rated nonqual would wander up, wiping the sleep from his eyes, yawning and mumbling something about the only people being up at this time of morning were burglars and bad women.

"Where are the donuts?"

The donuts were inside the sail door. They were *always* inside the sail door. Going back to the days of Ahab and the White Whale, the sonuvabitches were put just inside the sail. The fastest new-guy giveaway was, "Where are the donuts?"

The next comment was, "Hey horsefly, where's my coffee? Didn't anyone tell you that when you come up to get the donuts, you always bring the topside watch a cup of that 'last of the all-night pot' coffee? That stuff well on its way to making the metamorphic transition to asphalt?"

"How do you take your coffee?"

"Black. Straight black. I like that High Test, full-throttle, caffeine-loaded stuff that will pop rivet your eyelids to your skull... 'Nother thing, Hoss: After you dump first chow garbage on the pier, you collect all the coffee cups in the watch shack and haul them below. Oh, and by the way, did the Chief issue you a qual card?"

"Yes, SIR!"

"I'm not a gahdam 'sir,' you idiot! Anything with a butt that fits the head in the forward room is a 'sir.' I'm 'Hey Dex' or 'Alley Rat,' got it?"

"Yes, si—I mean... Right, Dex."

Next, the duty officer came up. Watched for the prep flag on the *Orion*. He signaled the topside watch to break the colors when they dropped the prep flag. Then, the officer crossed over to the pier to pick up his morning newspaper. No officer in the boat could visit the head without reading material. Digestive elimination and printed material get cross-connected at Annapolis. The eye lens/fanny-valve commissioned interconnect. What we just lumped under the general heading of "officer stuff."

Then there was morning quarters. Never fully understood morning quarters. A group of grown men standing aft of the sail listening to a description of what fun stuff the Chief had in mind to fill your day. It was always the same junk you did every other day: Chip, paint and shine inanimate objects.

Morning quarters afforded you the opportunity to survey your fellow inmates of your submersible asylum. Unless you were on the verge of complete sight loss, it became apparent that you were just another ugly face in a collection of ugly folks (granted, some *way* more ugly than others). Something like roll call in the monkey house at the zoo.

"Answer up when your name is called: Vanderheiden... VAN—DER—HEI—DEN! Fer crissakes, Dutch, I saw you here—SPEAK UP! Or do I have to send you an engraved invitation?"

"Yo…"

"Stuke!"

"Yo…"

"Stuke. Understand you idiots can't find the T-wrench to the after capstan. Take the forward capstan wrench up to the tender and get the boys in the metal shop to fabricate two more. Got it?"

"Aye, Chief."

"You know how the folks that run Texaco stations attach ball bats to the men's room key so no one will drive off with it? Well, have 'em chain a head seat to it that you guys can wear around your neck to stop you from losing the damned things..."

"Um, Chief?"

"Yeah, Stuke?"

"You keep looking all over for your pipe all the time. You want us to have a doubler plate chained to it for ya?"

(concluded on page 21)

New Members

We proudly welcome aboard our newest base shipmates:

Charles R. Hinman

(Associate Member) Wife: Keiko 2015 Lime Street, Apt. #904 Honolulu, Hawaii 96826-3930 *cell*: 808-561-2869 charles.hinman@gmail.com Phone number at *Bowfin* Museum: 808-423-1341

Dr. Darin Steven Detwiler

(E5-MM2SS; served 1986-1994) Wife: Gennette Zimmer 205 7th Street Seal Beach, CA 90740-6180 *cell*: 425-232-5743 ddetwiler680@gmail.com Qualified in 1989 on the USS *William H. Bates* (SSN-680)

Robert "Bob" John Frazier

EMC-SS E-7 CPO; served '78-'94) 4278 Hill Avenue Fullerton, CA 92833-3430 *cell*: 714-931-8654 Uboatman@gmail.com Qualified in 1981 on the USS *Tautog* (SSN-639)—'80-'85 USS *Rich. B. Russell* (SSN-687) '89-'92

Robert "Mike" Cailor (returning) (EM1-SS E6; served '64-'71) Wife: Rebecca 2514 Elm St., Seffner, FL 33584-5812 *cell*: 813-585-7615 rmcgfish@gmail.com Qualified in 1968 on the USS *Guardfish* (SSN-612)

Edward "Ed" Elliot Kushins

(LT-03SS; served '68-'79) Wife: Mary Hamilton 45 16th Street Hermosa Beach, CA 90254-3402 *phone:* 310-345-3562 edkushins@gmail.com Qualified on the USS *Flasher* (SSN-613)—'69-'71, LTJG.

Ramon O. Aguilar (returning) (E5-ET Radio Div.; 1996-2001) 22736 Jody Lane Carson, CA 90745-3603 *cell:* 562-303-0866 octiviano89@gmail.com Qualified in 1998 on the USS *City of Corpus Christi* (SSN-705)



"Get'cher Chapter News Here — Read All About It!" —

When News Breaks, We Pick Up the Pieces...



Friday, November 11th at 11:00 a.m. at Eisenhower Park Pier in Seal Beach

<u>A Veterans' Day Celebration</u>

- **Planned features...**
- Patriotic military displays
 - Live patriotic music
 - Military guest speaker
- SubVet Memorial review
 - More—Don't miss it!



John P. Holland

L.A.-Pasadena Base 50-Year Holland Club

(75-year members noted with *)
Gerard A. Krudwig 2022
Gregory M. Paulson 2022
Michael J. Swanson 2022
Ralph J. Hansen 2021
Robert F. Schive, Sr 2021
Larry D. Long 2021
G. Judson "Jud" Scott, Jr 2021
Edward E. Kushins 2020
Bruce Evan Neighbors 2020
David H. Vanderveen 2019
Philip J. Jaskoviak 2019
Dennis Bott2018
Robert "Mike" Cailor 2018
Robert Miller2018
John A. Anderson 2017
Roger C. Dunham, MD 2017
Richard McPherson 2017
Harry "Bill" Moak 2017
Louis A. Myerson 2017
Elliot Rada2017
Ronald G. Wagner 2017
Dennis J. Walsh 2017
Michael Kish2016
Gary Wheaton 2016
Lawrence R. Butler 2015
Samuel T. Higa 2015
Harry P. Ross 2015
Stephen C. Rowe 2015
Charles H. Senior 2015
Larry E. Smith 2015
(concluded next page)



Los Angeles-Pasadena Base 2022 Calendar of Upcoming Events

January 15:	Monthly Meeting via Zoom Conference
February 19:	Monthly Meeting at Taco Surf Restaurant
March 19	Monthly Meeting at Taco Surf Restaurant
April 16	Monthly Meeting Cancelled
May 7	Lion's Club Memorial Plaque Refit Reception at the Submarine Memorial, West - 1600-1700
May 14	Field Day/Prep at the Memorial Site - 0900
May 21	Hang Up the Tarp at Memorial Site - 0900 Monthly Meeting at the Memorial site Call for participants in the Huntington Beach 4th of July Parade
May 30	Memorial Day Service - 1100 Submarine Memorial, West
May 28	More Tarp Prep at the Memorial Site
June 18	STEAK FEST at Monthly Meeting at Bunker 33 Picnic Area; Nominations for 2023 Base Officers
July 4	115th Annual Huntington Beach 4th of July Parade
July 16	LeRoy Stone Memorial Picnic Bunker 33, Seal Beach Weapons Station
August 20	Monthly Mtg Glory Days Grill - Hawaii Theme 2023 Base Officer Candidates Announced
September 17	ANNUAL BUSINESS MEETING Election of Officers
October 15	Monthly Meeting Annual Officer Installation Luncheon
November 19	Monthly Meeting - Thanksgiving Theme
December 10	Annual Christmas Luncheon at the Los Alamitos Golf Course

(<u>Holland Club Roster, continued</u>)
Sam Aboulafia
David Palagyi
Earl Thomas Peratt, Jr2014
David D. Semrau, DDS 2014
Ray Tracy Teare
Milton Harry Boudov2013
Kenneth Jon Dorn
M. Mark Hoffer 2013
Michael P. Klein2013
Ronald L. Levenson
Edward L. Arnold2012
T. Michael Bircumshaw 2012
Raymond Cheesebrough . 2012
Bobby O. Mahaffey2012
John V. Mahan2012
Lee Melody 2012
Clyde Matthew Turner2012
George R. Walrath 2012
John L. Weisenberger 2012
Edward A. Barwick
Joseph W. Koch, Jr
Stephen D. Diumenti 2009
David Whittlesey2009
Dennis A. Yure 2009
Armen Bagdasarian 2008
Paul A. Riggs
Rex L. Shields
John L. Von Ulmen 2008
Francis R. Traser
Ronald K. Thompson 2004
Robert L. Conboy 2003
James Rogers 2003
John E. Savela, Jr
Ben Van Devender
Berry S. Yolken 2002
James E. Carter 1999
William F. Long 1999
Herbert J. "Bo" Bolton 1998
Kenneth E. Chunn 1998
*Royal Harrison, Jr 1995
•
*Robert Clair Koplin 1995
*William J. Dillon
*Harold Staggs 1992



E-Board Meeting Minutes of October 15, 2022

The Los Angeles-Pasadena Base, United States Submarine Veterans, Inc., Executive Board Meeting was conducted on the morning of Saturday, October 15, 2022.

In attendance:

- Dave Vanderveen, Base Commander
- Ed Barwick, Base Vice Commander
- Bill Moak, Secretary
- Mike Swanson, Treasurer
- Ray Teare, Base COB
- Chuck Senior, Director
- Herb "Bo" Bolton
- Ken Dorn, Director
- Dennis Bott, Memorial Director
- Marilyn Senior, Membership Chairwoman
- Jeff Porteous, Periscope Editor
- "Rocky" Rockers, District Six Regional Commander

Base Commander Dave Vanderveen called the meeting at Glory Days Beachside Grill in Seal Beach to order at 1010 hours with a quorum present. Minutes of the September meeting were reviewed with no revisions requested. Ed Barwick moved to accept the Minutes; this was seconded by Mike Swanson and approved by voice vote.

Treasurer's Financial Report: Mike Swanson

The Treasurer's Report as of October 14, 2022 was read into the Minutes by Base Treasurer Mike Swanson:

Checking Savings Cash On Hand Uncleared Checks: Total	\$20,868.70 \$0.00 \$50.00 \$500.00 \$20,418.70	
All vendors have been paid up-to-date.		
Income: Expenses:	\$314.00 \$848.00	
Flower/Booster Club Additions:		
Ken Dorn	\$200.00	
Inkind Donations:	\$00.00	

Again, there were no questions or corrections. Ray Teare moved to accept the Treasurer's Report; it was seconded by Dennis Bott and approved by voice vote. It was again noted that our base currently has no savings account; all funds reside in checking. Dave then mentioned that two glitches had occurred regarding this meeting: he'd been unable to access our storage unit to obtain 50-50 tickets, and secondly, the planned Zoom broadcast could not occur, since the restaurant's internet was inoperative.

Memorial Report:

Dennis Bott reported the grass in the area of the removed Aleppo Pine has begun to grow, and is likely to fill in soon. Dennis had discussed the trellis replacement with Paul Riggs, and Paul indicated the current trellises were part of a Scouts project, so maybe a check with them might be beneficial. The trellises at Home Depot and Lowe's were flimsy and unsuitable. Further discussion concerning trellises could be discussed with Joe Koch, who has inroads with the local Boy Scout Council. Joe could put out word of potential projects

(concluded on next page)

Leonardo DRS Delivers Electric Propulsion Equipment for 1st Columbia Submarine

(Reproduced from the Naval News website; published August 31, 2022.) by the Naval News Staff

Leonardo DRS announced it has completed factory acceptance testing and shipment of the first production unit of the main propulsion motor for the U.S. Navy's new *Columbia*class submarine.

The motor was recently shipped to General Dynamics Electric Boat (EB) for integration into the lead ship of the class.

DRS was chosen by EB and the U.S. Navy to design and manufacture the major Columbia Electric Drive Propulsion system components including the main propulsion electric motor. All prototype components of this system successfully completed full power endurance and other testing at the Navy's land-based test facility in 2020, where operational testing continues. In addition to the main propulsion motor, other lead ship components are being made and prepping to ship to Electric Boat.

The *Columbia*-class program goal is to design and build twelve new ballistic missile submarines (SSBNs) to replace the U.S. Navy's current force of *Ohio*-class SSBNs. The Navy has identified the *Columbia*class program as its top priority program. The *Columbia*-class submarines will be larger than the current class in terms of submerged displacement and will become the largest *(concluded on next page)*

E-Board Meeting Minutes...

(concluded from previous page)

at the site for Eagle candidates. Chuck suggested we have work done, and have the Memorial Fund through the Charitable Foundation handle the cost.

Dennis then indicated the progress with the engraver Paul Riggs had employed to handle the three new memorial site plaques had been slow, likely as this is a pro bono proposition. Dave asked Dennis to ascertain the cost to complete the project, then advise the E-Board of this finding so future action can be addressed.

The homeless problem at the Memoral site has apparently been resolved, after Dennis had spoken directly with the Base's Watch Commander.

Outcome of Meeting with NWSSB Command:

Dave met with Captain O'Brien, Commander; Lt. Adam King, Ops. Officer; Jasmine Atencia, Liaison Officer; and Gregg Smith, Base PAO. The purpose was to clarify many issues, and to determine whether the Navy essentially wishes us off the base. The turnover of the Memorial to the Navy, after the WWII subvets disbanded, was confusing to the Command, but Dave explained how L.A.-Pasadena was not fit at the time to assume ownership. Dave was assured that the Navy and the Base do want us around, but all must adhere to DOD guidelines/re-quirements and enhance the relationship. The intent is to determine a place we can meet on the base; the current plan being for us to use space within the Recreation Center for meetings and, we hope, as a place to store tools and memorabilia. Dave then indicated we should develop a meeting plan: to either meet always on the base, or split time between the base and public facilities, as we do today. A motion was made to meet part-time in public places and part-time on-base so we can maintain our "presence" on the base.

Just how long we intend to use public storage for our memorabilia and tools based on how much we can tolerate spending for same—and whether to consolidate or dispose of such materials to save space and cost—was again discussed. General opinion was to allow three months before movement of the materials elsewhere. However, Dave and/or Darin can visit the storage unit for consolidation—the better use of space perhaps allowing for a smaller and thus less expensive unit. To immediately save significant space, there was talk of donating the large submarine model to the NWSSB Command for display—and to keep USSVI in visitors' minds. Further discussion will occur before any donation is made.

Memorandum of Understanding:

A Memorandum of Understanding is to be prepared whereby one member from the Lion's Club will contact our Memorial Director (currently Dennis Bott) with anticipated activity, who will then present same to NWSSB Command for approval. The Memorial Day Ceremony must go through this process as well.

Membership Update:

Marilyn Senior indicated we now stand at 99 members. The loss of Sterling Higgins was recently reported to her. There had been no next of kin, yet he was buried at Riverside National Cemetery.

For the Good of the Order:

Chuck asked about a donation to assist Florida subvets affected by Hurricane Ian. After some discussion—and an understanding that this can be handled through National's Charitable Foundation—Chuck made a motion to donate \$500.00 in that manner. Ray seconded the motion, and it was approved by the E-Board. Dave stated we would do this donation now, but that when regular annual donations are scheduled for 2023, this charity will be further considered in that action.

There being no further business, Dennis Bott motioned the meeting be adjourned; Mike Swanson seconded and it was passed by all present, ending the meeting at 1114 hours.

Respectfully submitted,



Secretary, L.A.-Pasadena Base, USSVI

New Sub Propulsion Unit Delivery...

(concluded from previous page)

submarine ever built by the United States.

The DRS Naval Power Systems business was awarded contracts for the electric propulsion system components which included design, test, qualification, and production of the full-scale components for both a land-based test facility and the first two ships of the class. Over the past several years, the Navy has completed successful landbased tests of DRS' electric propulsion components. With significant testing completed, the program is transitioning to production with DRS presently manufacturing the components for the first two ships of the Columbia class.

"We are proud to play a key role in developing and providing this capability for the U.S. Navy on this critical national defense asset. Our long history of providing innovative technology to the U.S. Navy and continuing this work for Electric Boat ensures our sailors will be defending this country with the most advanced submarine in the world," Miller remarked.

Several businesses in the DRS Naval Power business contributed to this effort, including its facilities in Fitchburg, Massachusetts Milwaukee, Wisconsin and Danbury, Connecticut.

The DRS Naval Power business unit is a trusted provider of innovative naval power and control technology, delivering high-quality, customer-focused products and support solutions for the U.S. Navy.

Russian Navy Kilo-Class Submarines Retreating from Crimea

(Reproduced from the Naval News website - published September 14, 2022.) by H I Sutton



*Russia has four Pr.*636.3 *Improved Kilo-class submarines in the Black Sea. An update on the Cold War-era Kilo, they are able to carry Kalibr cruise missiles and a range of modern torpedoes.*

The changing tide of the Ukraine War appears to have led the Russian Navy to "regroup" its forces in the Black Sea. Early during the invasion they loitered boldly close to Odessa. Now the Black Sea Fleet barely sails out of sight of Crimea for fear of Harpoon missiles. Its submarines too have recently shifted their base further from the shadow of Ukrainian attack.

Since the beginning of the Ukraine Invasion in February, the Russian Navy's four Improved Kilo-class submarines in the Black Sea have been a regular sight in Sevastopol. The major naval base on Crimea's west coast has been a starting point for many attacks on Ukraine. The Kilos have dedicated berths there, where they rearm with Kalibr land-attack cruise missiles.

Until recently it was not unusual to see three Kilos in the port at once, with one at sea. That has changed.

For the past few weeks, they have been concentrated at Novorossiysk, another naval base much further from Ukraine.

The Kilo-class submarine

The Project 636.3 Improved Kilo-class submarine is Russia's most potent naval asset in the Black Sea. They are inherently more survivable in open water than their warship cousins. Especially against Ukrain, which lacks any anti-submarine assets.

This was demonstrated by the dramatic loss of the Russian flagship *Moskva* on April 13-14. There were many factors in the *Slava*-class cruiser's loss. But submarines are, by their nature, immune to Harpoon or Neptune missiles. Russia's surface fleet has already shifted out of range of the Harpoons.

Without a Ukrainian Navy to be sunk, the submarines, like much of the surface navy, are on cruise missile duty. Unlike surface ships, Russian submarines can operate unimpeded through-

(concluded on page 20)



Historical markers in a small cemetery in Warrenton, GA. Submitted by Bill Moak. Thanks as always, Bill!—ed.



Russian Kilo-Class Submarines in Retreat (concluded from page 19)

out the Black Sea. They can launch Kalibr cruise missiles at targets throughout the entire country.

A slight disadvantage of the Kilo-class submarines is that they carry only four Kalibrs. Russian surface ships are equipped with an eight-round vertical launch system. The Kilos can launch cruise missiles only through two of their six torpedo tubes.

The Safety Of Novorossiysk

Novorossiysk sits on the Russia's Black Sea coast, between Sochi and the now-famous Kerch Bridge linking to Crimea. In recent years the naval base had been expanded, and during the Ukraine War, it's become the home of many landing ships. Some submarines are normally based there, but for much of the war Sevastopol became their hub.

Now they have largely moved back from Sevastopol. Submarines do still call at Sevastopol, and the older submarine *Alrosa*, which is undergoing post-refit trials, is still active there. But it's now normal to have three Kilos in Novorossiysk, and that represents a real change.

The move came shortly after Ukraine stepped up drone attacks on Sevastopol, targeting the Black Sea Fleet's headquarters. The prominent HQ building was approached by drones flying in from the east, over the submarine berths. This may be part of the motivation for the change.

Given the war approaching Crimea, and Ukraine's growing ability and confidence to attack Sevastopol, the retreat seems prudent. And it is difficult to disassociate it with the war threat.

The submarines do not, however, have to be based at Sevastopol in order to launch Kalibr missiles. These weapons have enough range to be launched from near Novorossiysk and strike targets inside Ukraine. And the submarines still have the ability to sail unmolested throughout the northern Black Sea.

As Russia continues to shuttle its navy around in reaction to Ukraine's military moves, the location and activity levels of their submarines will continue to be of interest.

H I Sutton writes about the secretive and under-reported submarines, seeking out unusual and interesting vessels and technologies involved in fighting beneath the waves. Submarines, capabilities, naval special forces underwater vehicles and the changing world of underwater warfare and seabed warfare. To do this he combines the latest Open Source Intelligence (OSINT) with the traditional art and science of defense analysis. He occasionally writes non-fiction books on these topics and draws analysis-based illustrations to bring the subject to life. In addition, H I Sutton is a naval history buff and data geek. His personal website about these topics is Covert Shores (www.hisutton.com)

Mornings Alongside ... by Dex Armstrong

(concluded from page 14)

"Wiseass."

"Armstrong!"

"Yo…"

"Armstrong, go pick up the guard mail. Try not to steal any white hats in the radio shack. Someday, even idiots wake up. Those guys are going to eat your lunch and I'm gonna love it..."

"Thanks, Chief. Is this a marriage proposal?"

"You two bastards! How in hell did you ever qualify in submarines? How did I wind up on the same boat with you two idiots? God must hate me..."

"We love you, Chief."

And so it went everyday-early morning with the 'Fleet

Elite.' Sure could go for some of those donuts and topside repartee right about now.

Keep a zero bubble ...

Dex.







The Plunge! Send three American Submariner subscriptions to your favorite boat!

- Sponsorhip is only \$30 a year
- Add a USSVI Calendar for only \$7 more

Mail your USSVI Boat Sponsorship Program check to: P.O. Box 3870 Silverdale, WA 98398-3870

> Please indicate BSP and the name of the sponsored boat or organization in the memo field of your check

- Reach potential new members by sending three annual subscriptions of American Submariner to the boat or organization of your choice
- ✓ First-time sponsors receive a Boat Sponsorship Patch
- ✓ All sponsors entered into the quarterly Boat Model Giveaway drawing (one entry per sponsorship) - a \$500 value

SUBMARINES IN NEED OF ADDITIONAL SPONSORS

USS Columbia (SSN-771) USS Connecticut (SSN-22) USS Delaware (SSN-791) USS Greeneville (SSN-772) USS Helena (SSN-725) USS Hyman G. Rickover (SSN-795)

USS Montana (SSN-794) USS North Dakota (SSN-784) USS Kentucky Blue (SSBN-737) USS Kentucky Gold (SSBN-737) USS Maine Blue (SSBN-741)

Questions? Jack Messersmith (928) 227-7753 or e-mail MesserJ109@gmail.com



THE L.A.-PASADENA BASE, USSVI ANNUAL CHRISTMAS LUNCHEON

On Saturday, December 10, 2022, the USSVI L.A.-Pasadena Base will hold its annual Christmas luncheon at the Los Alamitos Golf Course's On the Greens Conference Center, 5660 Orangewood Ave., Cypress, CA 90630. It's the time we especially enjoy catching up with our submarine friends, families and guests, so to allow plenty of opportunity for this, the Tolling of the Boats ceremony will once again not be held during this year's gathering.

(NOTE: SECOND SATURDAY OF THE MONTH-NOT THIRD-THIS YEAR ONLY DUE TO SCHEDULING CONFLICT.)

Social Hour: 11:30AM. - Luncheon served 12:15PM

This Year's Menu is as Follows:

Sparkling Cider/Champagne Toast



Tossed Garden Salad with Ranch and Italian dressings on the side **Entrée Selection:** Chicken piccata **Oven-roasted Potatoes and Green Beans Almondine, Dinner** Rolls and Butter Grilled flat iron Steak **Oven-roasted Potatoes and Green Beans Almondine, Dinner** Rolls and Butter Vegetarian Option Mushroom Raviolis Dinner Rolls and Butter Beverage: Coffee, iced tea **Dessert: Cheesecake with Raspberry Drizzle**



As always, it is very important that you get your reservations in ASAP so that we can give the Golf Course a firm headcount no later than 12 days before the luncheon.

The cost of the luncheon will be \$30.00 per person. Cocktails will be available from the main bar.

Please send your check and reservations (checks made out to LA/Pasadena Base USSVI) to the address shown below. Be sure to indicate your choice of entrée and how many of each.

Name:	—— Chicken piccata
Name:	Flat iron steak
Guest:	Mushroom ravioli
Guest:	Total # of dinners X \$30.00 \$
Mail to: Mike Swanson 1149 W. Santa Cruz St. San Pedro, CA 90731 Phone: 310-832-5981	

United States Submarine Incidents Since

2023 United States Submarine Veterans Calenda

Mishaps at sea can take a deadly toll.

At sea, an adversary's combatant ships are not the submarine's only enemy. Hidden seamounts, undetected friendlies, and all manner of potential misshaps and accidents not only cause crippling and expensive damage, but can easily turn deadly—as such representing every submarine skipper's ongoing and unpredictable nightmare.

This year's USSVI submarine calendar explores Peril in the Depths: a series of at-sea collisions and other accidents proving that bad decisions-or mere bad luck-can happen to the best of them, even the most capable and highly-trained sailors in the world. From all corners of the globe, these accounts show what happens when submariners have a really bad dayskirmishes with fate involving everything from the simple trading of paint between passing boats to catastrophic submerged collisions causing tragic loss of life.

Join us here month by month as we present these fascinating accounts of submarine accidents you just can't seem to look away from, much as you might like to.

Sound the Collision Alarm and standby for some jolts!

The all-new 2023 USSVI Submarine Calendar **Order Now!**

Individual calendars are \$11.95+3.50 shipping. Order yours today by credit card at *ussvinationalstorekeeper.com* or by sending your check or money order made payable to USSVI to:

Barry Commons

USSVI National Storekeeper 2063 Main St. PMB 293 • Oakley, CA 94561 Email: NSK.USSVI@yahoo.com Phone: (925) 679-1744 Quantity discounts available.

USS Hartford and USS New Orleans Collide

r country. That their

August 2023

uit of their duties





Ohio-class ballistic missile submarine USS Wyoming in the Atlantic Ocean, January 9, 2009. (U.S. Navy/Rebecca Rebarich photo.)

In memory of the fifty-two submarines lost in World War II

SEALION S-36 S-26 SHARK I PERCH S-27 **GRUNION** S-39 ARGONAUT AMBERJACK GRAMPUS TRITON PICKEREL GRENADIER RUNNER R-12 GRAYLING **POMPANO CISCO** S-44 **DORADO** WAHOO

CORVINA SCULPIN CAPELIN **SCORPION** GRAYBACK TROUT TULLIBEE **GUDGEON** HERRING **GOLET** S-28 **ROBALO FLIER** HARDER **SEAWOLF** DARTER SHARK II TANG **ESCOLAR** ALBACORE GROWLER

SCAMP SWORDFISH BARBEL KETE TRIGGER SNOOK LAGARTO BONEFISH BULLHEAD