

American Submariners Inc.
4370 Twain Ave.
San Diego, CA 92120-3404



The Silent Sentinel *March 2019*

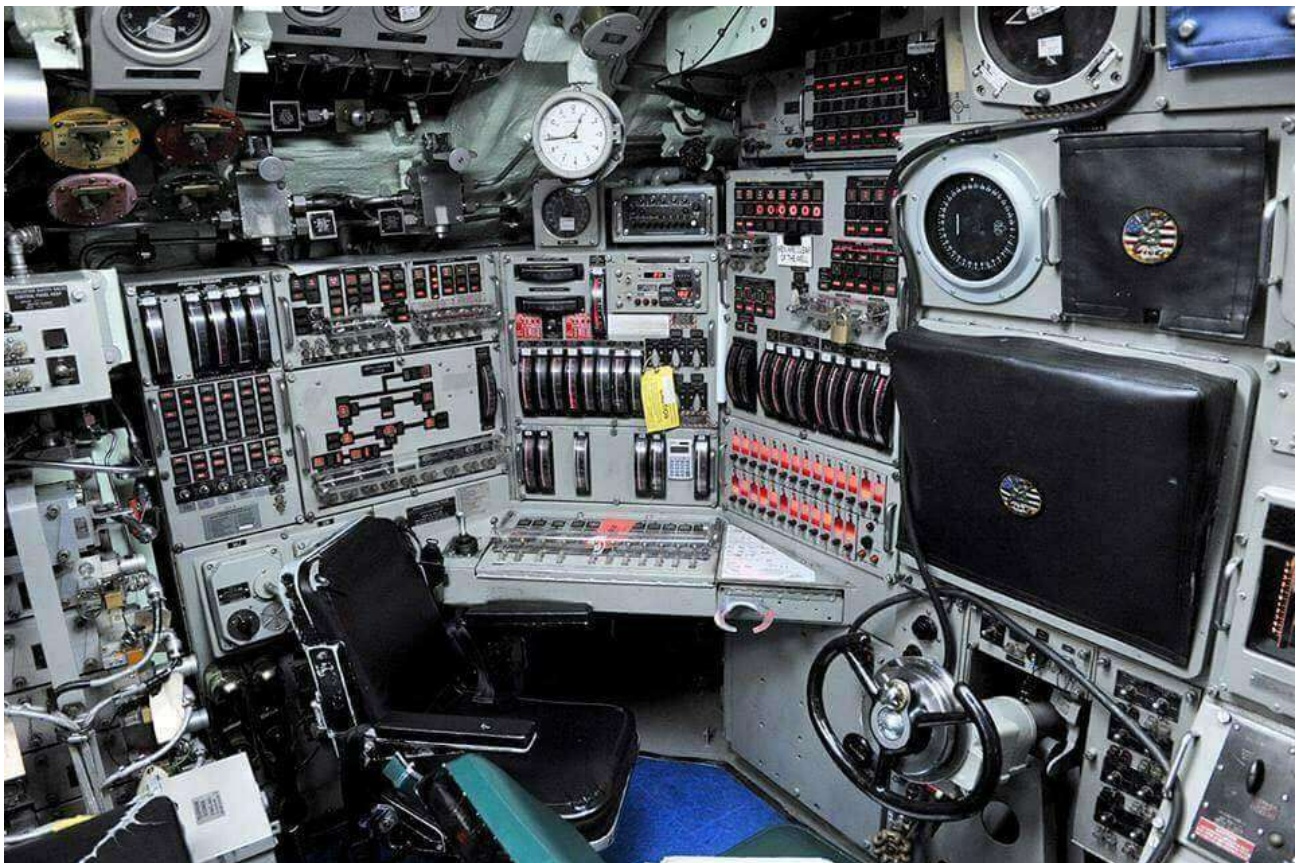


Our Creed and Purpose

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.

In addition to perpetuating the memory of departed shipmates, we shall provide a way for all Submariners to gather for the mutual benefit and enjoyment. Our common heritage as Submariners shall be Strengthened by camaraderie. We support a strong U.S. Submarine Force.

The organization will engage in various projects and deeds that will bring about the perpetual remembrance of those shipmates who have given the supreme sacrifice. The organization will also endeavor to educate all third parties it comes in contact with about the services our submarine brothers performed and how their sacrifices made possible the freedom and lifestyle we enjoy today.



U.S. Submarine Veterans San Diego Base

Base Commander
Warren Branges
wgbranges@gmail.com

Membership – Change of Address
Ray Ferbrache
2955 lloyd St.
San Diego, CA 92117
arayz@san.rr.com
619-972-4474

Treasurer
Joe Peluso
jpeluso@pacbell.net

Senior Vice Commander
Robert Golembieski

Newsletter Editor
Mike HYMAN
3639 Midway Drive, B-320
San Diego, CA 92110-5254
(619)223-9344
stamps@fortunesofwar.com

Assistant Editor / Photographer
Jack Kane
619-602-1801
jkane32@cox.net

Junior Vice Commander
Manny Burciaga
8406 Alado Place
El Cajon, CA 92021-2003
619-921-5877
mpburci@cox.net

Base Storekeeper
Paul Hitchcock

Chief of the Boat/Middle East Liason
Bob Bissonnette

Secretary
Jack Kane
619-602-1801
jkane32@cox.net

Chaplain
David Martinez

Parade Chairman
Joel Eikam
Scholarship Chairman
Paul Hitchcock

The Silent Sentinel via Email

To all of my Shipmates and families who currently receive our Great newsletter via the mail who would like it sent via email or continue to receive it via mail, please fill out the form and mail it to the base or myself. We are trying to cut the cost of the newsletter down from \$3700 to about \$1900 a year. By receiving the Silent Sentinel via email will cut down the printing and mailing cost. The other plus to receiving it via email is you can save it on your computer and not have the paper lying around the house.

A subscription to the Silent Sentinel newsletter will be available to surviving family members via internet email, at no charge, upon notification of the Membership Chairman. If a printed hard-copy is preferred, via US Post Office delivery, an annual donation of \$5.00 will be requested to cover costs.

NAME: _____

ADDRESS: _____

CITY/STATE/ZIP: _____

EMAIL: _____

TELEPHONE: _____

Would like the SILENT SENTINEL emailed: YES _____ NO _____

USSVI Base Commander
c/o VFW Post 3787
4370 Twain Ave.
San Diego, CA 92120-3404

DUE TO LOGISTICS CONSTRAINTS, ALL INPUTS FOR THE SILENT SENTINEL MUST BE IN MY HAND NO LATER THAN ONE WEEK AFTER THE MONTHLY MEETING. IF I DO NOT RECEIVE IT BY THIS TIME, THE ITEM WILL NOT GET IN. NO EXCEPTIONS! MIKE

Our Next Meeting

Our monthly meeting is held on the second Tuesday of the month at VFW Post 3787, 4370 Twain Ave., San Diego. Our next meeting will be on *March 12th*. The post is located one-half block West of Mission Gorge Road, just north of I-8. The meeting begins at 7 p.m. The E-Board meets one hour earlier at 6 p.m.

*Check us out on the World Wide Web
www.ussvisandiego.org*

BINNACLE LIST

Chris Sultana, Tony Dack, and David Martinez

[Baumann's brain surgery was a complete success. Mike Hyman, Editor]

Submarine Losses in March

Originally Compiled by C J Glassford



USS Perch (SS-176): Lost on March 3, 1942 near Java with no immediate loss of life, while on her 1st war patrol. She survived 2 severe depth chargings in less than 200 feet of water by 3 Japanese destroyers. The crew abandoned ship and scuttled her. Of the 59 officers and men taken prisoner, 53 survived the war and six died as POWs.

USS Grampus (SS-207): Lost on March 5, 1943 with the loss of 71 officers and men, on her 6th war patrol. She was lost in Vella Gulf, sunk after engaging 2 Japanese Destroyers.

USS H-1 (SS-28): Lost on March 12, 1920 with the loss of 4 men as they tried to swim to shore after grounding on a shoal off Santa Margarita Island, off the coast of Baja California, Mexico. Vestal (AR-4), pulled H-1 off the rocks in the morning of 24 March, only to have her sink 45 minutes later in some 50 feet of water. She was originally named the USS Seawolf before becoming H-1.

USS Triton (SS-201): Lost on March 15, 1943 with the loss of 74 men. She was sunk north of the Admiralty Islands during a fight with 3 Japanese Destroyers. Triton was the 1st boat to engage the enemy in December 1941 off Wake Island, sinking 9 ships, 1 submarine and a destroyer.

USS Kete (SS-369): Lost on March 20, 1945 with the loss of 87 officers and men at the end of her 2nd war patrol. Probably sunk near Okinawa, by a Japanese submarine that itself was subsequently lost.

USS F-4 (SS-23): Lost on March 25, 1915 with the loss of 21 men. She foundered 1.5 miles off of Honolulu when acid corrosion of the lead lining of the battery tank let seawater into the battery compartment, causing loss of control. She was raised in August 1915.

USS Tullibee (SS-284): Lost on March 26, 1944 with the loss of 79 officers and men, on her 4th war patrol. It's believed she was a victim of a circular run by one of her own torpedoes. The lookout was the only survivor and he survived the war as a Japanese prisoner.

USS Trigger (SS-237): Lost on March 26, 1945 with the loss of 89 officers and men, on her 12th war patrol. She was lost during a combined attack by Japanese antisubmarine vessels and aircraft. Trigger ranked 7th in total tonnage sunk and tied for 8th in number of ships sunk.



***San Diego Base, United States Submarine Veterans Inc.
Minutes of Meeting - 12 February 2019
At VFW Hall, 4370 Twain Avenue, San Diego CA 92120***

1900 - Base Junior Vice Commander Manny Burciaga called the meeting to order.

Conducted Opening Exercises - Pledge of Allegiance lead by Chief of the Boat Bob Bissonnette

Chief of the Boat Bob Bissonnette lead the opening prayer and conducted Tolling of the Boats for boats lost in the month of February.

Chief of the Boat Bob Bissonnette lead ceremony for EN3(SS) Fred Ashcraft who passed on 29 December 2018. Fred was a WWII Army Veteran. Fred joined the Navy after the war and qualified on USS Segundo SS-398 in 1948.

Base Junior Vice Commander Manny Burciaga recognized Past Commanders, dignitaries and guests.

Base Secretary Jack Kane announced 25 members and 4 Guests present.

Base Treasurer Joe Peluso presented the Treasurer's report. A copy of the Report will be filed with these minutes. Minutes of the January 2018 meeting were published in the Sentinel. Minutes were adopted with one change. Shipmate David Kauppinen has not to move to Arizona. He has resigned at Float Committee Chair, but will remain as Web Master.

Base Junior Vice Commander Manny Burciaga called for Committee Reports

Binnacle List - Base Junior Vice Commander Manny Burciaga reported Chris Sultana, Tony Dack and David Martinez on Binnacle.

Parade Committee - Chairman Jack Kane announced the next parade is Linda Vista on Saturday, 27 April 2019. We are scheduled to attend. Chairman will confirm our entry with the Parade Committee. Maps and further information will be sent via e-mail upon receipt from the Linda Vista Parade Coordinator.

Membership Committee - Chairman Ray Febrache. We have 248 members. The National Database is still FUBAR. Ray is working on reconciling their list with ours.

Scholarship Committee - Committee Chairman Paul Hitchcock. Scholarship packages are due on 15 April 2019. He needs 3 volunteers to review scholarship packages.

Storekeeper - Paul Hitchcock. Calendars are available for \$10 each. Shipmate JJ Lynch suggested that we send a calendar to each Base Member and ask for a donation.

Breakfast Committee - Chief of the Boat Bob Bissonnette reported for Chair Base Commander Warren Branges. Next Breakfast is 31 March 2019. The kitchen renovations should be finished by then. We need volunteers for the kitchen and to run coffee.

52 Boat Memorial - Chief of the Boat Bob Bissonnette reported Chair Base Commander Warren Branges - The next All Flags Day will be Thursday, 11 April 2018 (U.S. Submarine Force Birthday). We will put up flags at 0700 and take them down at 1700.

Float Committee - Chairmanship open.

Eagle Scout Program - Co Chairs Nihil Smith and Glenn Gerbrand. Nihil reported that one Honor Court was held in January. Several others are being planned.

1920 - Base Commander called for a break. 50/50 Raffle held. The Raffle winner donated half of his winnings to the Scholarship Fund.

1930 - Unfinished Business

FLOAT STORAGE STATUS - Naval Base San Diego will be opening a new RV storage lot adjacent to the Mini Mart at Rosecrans and Nimitz. We will be moving the float to that lot when it opens.

BASE ROSTER AND EMAIL VERIFICATIONS are continuing. If you a verification email please respond.

NOMINATING COMMITTEE REPORT. Committee Chair Paul Hitchcock read the slate of candidates and took Nominations from the floor. No one was nominated from the floor.

1941 - New Business

ELECTIONS FOR BASE OFFICERS WAS HELD. Ballots were distributed and counted. Results were read after Good of the Order.

Results - The following members were elected for two year terms. Base Commander Warren Branges, Senior Vice Commander Manny Burciaga, Junior Vice Commander Joe Peluso, Treasurer Mike Cosgrove and Secretary Jack Kane.

1945 - Good of the Order

2019 National Convention is 14-20 August in Austin TX. Details are at: <http://ussviconvention.org/2019/>

OUTYEAR CONVENTIONS - 2020 will be in Tucson and 2121 will be in Orlando at Rosen Shingle Creek.
WESTERN REGION ROUNDUP will be held in Laughlin Nevada, March 25-29 in the Riverside Inn.

The Meeting was adjourned at 1953

/s/ Jack E. Kane
Jack Kane, Secretary

Sailing List for 12 February 2019

Members

Bob Bissonnette
Manny Burciaga
Mike Cosgrove
Nicholas Dirx
Bill Earl
Joel Eikam
Ed Farley
Bob Farrell
Ray Febrache
Russ Filbeck

Jim Harer
Paul Hitchcock
Jack Kane
Pete Lary
JJ Lynch
Greg Paulson
Jim Pope
Joe Peluso
Phillip Richeson
Chris Stafford
Nihil D. Smith
Rus Stoddard

Mert Weltzien
John Zinich
Greg Vechinski

Guests

Sonja Lynch
Jessie Chang Farley
Julie Biewer
Kip Casper

Silent Sentinel **EXCLUSIVE!**



Judith and Gary Murphy have graciously consented to allow the Silent Sentinel to republish their collection of USS Whale, SS-239, ship's newspaper, "THE RAG," from the WW-II era! Gary's father, Rex Murphy, served as Whale's Engineering Officer. The Silent Sentinel will now include a copy of The Rag in each issue. The Murphy's and I hope that you will find it an interesting reading experience.

On the evening of 19 March, *Whale* sighted two large freighters and one torpedo boat or destroyer as escort. Just after daylight the next morning, the submarine finally worked into a favorable attack position; she fired spreads of three torpedoes at each freighter, and hit both. The first target, tentatively identified as *Mogamigawa Maru*, sank rapidly by the stern. The second, a cargo ship resembling *Arizona Maru*, was plagued by several heavy internal explosions following a second torpedo hit. *Whale*, mistaking these secondary explosions for bombs, went deep. Upon discovering her mistake, she started to surface but was greeted by a barrage of depth charges from the escort. *Whale* dove again but again came under attack – this time from the air – when she attempted to return to examine the wreckage. The submarine suffered extensive damage during this attack, which prevented her learning the fate of her targets. This was by far *Whale's* closest escape.. It is now 23 March. *Whale* is sailing near Saipan: "The Rag" No. 8

 * * * * *
 * * * * *
 * * * * *
 * * * * *
 * * * * *

FIFTEENTH EDITION

MARCH 23, 1943

Every great scientific truth goes through three stages. First people say it conflicts with the bible. Next, they say it has been discovered before. Lastly, they say they have always believed it.

--Louis Agassiz.....

What crummy imitation of a scandal sheet, called the "RAG", printed an article last night accusing an Emic with the initials of T.T., of hoarding magazines so generously donated by the ward room. Such an accusation without substantial proof is a base for a libel suit. If said T.T. could get anything from that crummy sheet besides hot air, and T.T. could kick that black-kneed gangling editor of the RAG in the teeth (which I'm sure he couldn't stand) and if an apology for false accusations to T.T. is forth coming in the near future, then and only then will T.T. call off all hostilities.

By T.T.....

Once again the mighty Whale has discovered the scent and is at this moment stalking her prey. We have been informed that she is a freighter of about 6,000 tons, by no means a small bite. So---stand by for that familiar ring of the battle station alarm and be ready to send our salutations to Hiro-Hito and Tojo in the form of high explosives.

The following is a poem submitted by one of our new members of the crew, late from Geony Bird Land, Mack, torpedoeman in the forward room.

The Mighty Whale into battle went,
 Against her sought for prey foe,
 Into two ships four fish were sent
 And those two sank below.

Their escort went in frantic search,
 To send us to our doom,
 But we had left them in the learch
 And they got tired soon.

Tojo even sent out an aeroplane,
 With a bomb, upon us to test,
 But our radar picked it up quite plain,
 And I guess you all know the rest.

Yes, four out of six is not so bad,
 We think aboard the Whale,

And Tojo's probably plenty mad,
 Cause his dreams are getting pale.
 By Mack.....

CONGRATULATIONS ARE IN ORDER FOR CAMERON GEM U.S.N. AND STONE W.L. FOR THEIR QUICKNESS OF ACTION AND COOLNESS IN THEIR EXECUTION OF DUTY AS OF YESTERDAY WHEN THEY SIGHTED AND REPORTED AIRCRAFT. THEY BOTH HAVE BEEN PRESENTED WITH A CIGARON OF SMOCKS AND EACH HOLD A LEG OF THE CAPTAIN'S SUP.
 The Editor.....

Things Mether never told me.
 By "B"

Why at 2030 tonight, two crescent wrenches painted with that lovely colour of green, one 12" and the other 10", were laying on the deck in the motor room.....

Why Cox's scullery girls have to break out the onions every time the diving alarm goes.....

Why Wura had to go and revert to type by getting scalped instead of getting a normal trim.....

Why Kubacki is constantly singing the blues and growling with him self.....J.J. the Fitz has the Chaplains duty come mamma, ski.....

Why big Stoker and little Stoker were both ala-nude in the forward engine house at 0730. naughty, naughty, nasty, h-mmmmmmm.....

Why the Creek is always dashing madly to the pump room, could it be due to the pretty prettys, the peace and quite or could it be to rifle the Auxillary gonga pogy bait locker.

While Gunner was eating his meagre meal this evening, he noticed that the roaches were stealing his crackers. Says the Gunner; "Even the cock roaches are starving to death in Cox's diner" Yes we pray for the day when the hamburger runs out.

Cameron says, "It's getting so I can't tell whether the hash marks in my scivvies are caused from too many cigarettes or too many depth charges and bombs."

There's only one way to find out Cas. God gave to all men a nose!

When We Were Young

When we were young and feeling our oats
We joined the navy and went on those boats
That sank on purpose sliding into the sea.
Nobody knew where we were going to be
Except for a few who charted the way
To a far-off coastline or a secret bay.
The rest of us did what we're trained to do
and trusted each other - but prayed a lot too.
In a sewer pipe coffin, we just did our jobs
pulling sticks, cycling vents or adjusting some knobs.
When all hell broke loose, we knew what was best
because we had dolphins affixed to our chest.
But although we knew every valve on the boat
that made it submerge or caused it to float
it wasn't dolphins or qualcards or years worth of studies
that would save us... but rather our crewmates... our buddies.
Many stood by us then, but they stand here no more.
On Eternal Patrol they have left their last shore.
Husbands and fathers and grandfathers too
who sailed with us, challenged us under the blue.
Forever a mate, forever our friend
we're bonded as shipmates beyond our lives end.
We pray for them now as we prayed with them then:
May you rest in peace always, my brothers - AMEN.

Submitted to the Sentinel by David Ball

Current News

**"Plataginet, I will; and like thee, Nero,
Play on the lute, beholding the towns burn" (*Henry VI*, Shakespeare)**

Navy Torpedo-Armed Poseidon Spy Planes Track China's Nuclear-Armed Submarines

Kris Osborn, *DefenseMaven.io* (Warrior Maven), Mar. 5

The Navy just ordered 19 more sub-hunting Poseidon Aircraft - Could they stop Chinese SSBNs?

WASHINGTON, D.C. -- The increasing global reach of Chinese nuclear-armed ballistic missile submarines, armed with JL-2 weapons reportedly able to hit parts of the US, continues to inspire an ongoing Navy effort to accelerate production of attack submarines, prepare long-dwell drones for deployment to the Pacific and continue acquisition of torpedo-armed sub-hunting planes such as the P-8/A Poseidon.

Seeking to overcome the Pacific's "tyranny of distance" dispersed geography, and track China's expanding fleet of submarines, the Navy is working with Congress to produce as many as three Virginia-class submarines per year, moving beyond the current plan to build two. In the air, the Navy has been moving to place its

new Triton sea drones in Guam and has recently awarded Boeing a \$2.4 billion deal to produce 19 more P-8A Poseidon surveillance and attack planes.

Given the Poseidon's role as a high-tech surveillance aircraft, known for capturing video of Chinese phony island building in the South China Sea (land reclamation) several years ago, it takes little imagination to envision ways its advanced sensors, sonobuoys and weapons could function as part of a containment strategy against Chinese expansion -- and even operate as a deterrent against China's growing fleet of nuclear-armed ballistic missile submarines (SSBN).

The PLA Navy has, in recent years, been expanding its reach beyond the Pacific as part of a visible effort to become a major-power international force. Chinese SSBNs have been sighted at great distances from Western Pacific shores, according to numerous news reports -- and the

existence of both JL-2s and emerging JL-3s have increased pressure on the US. According to the National Air and Space Intelligence Center, the Chinese had deployed up to 48 JL-2 launchers on submarines as of 2017. With ranges greater than 4,500 miles, JL-2s travelling well beyond China's immediate vicinity can hold US areas at risk.

Just last year, Captain James Fanell, a former director of intelligence and information operations for the U.S. Pacific Fleet, warned Congress about the need to track and deter Chinese nuclear-armed submarines.

"Every time a [PLA Navy] SSBN departs on a strategic nuclear patrol, the [U.S. Navy] must follow closely enough to be ready to sink them if they ever attempt to launch a nuclear tipped ICBM towards our shores," he told Congress, according to an essay called "China's new undersea nuclear deterrent strategy doctrine and capabilities" from the National Defense University. (Dr. Toshi Yoshirara & Dr. James Holmes)

The essay goes on to make the case that, given the difficulties associated with intercepting possible Chinese SLBMs (submarine-launched ballistic missiles), an intelligent way to address the threat might be to "hold Chinese SSBNs at risk so they can be destroyed preemptively before their SLBMs can be launched."

The Poseidon, alongside ISR-enabled SSN attack submarines, seems well positioned to help perform this SSBN sub-hunting mission for a number of reasons. Not only is the P-8's 564 mph speed considerably faster than the P-3 Orion it is replacing, but its six additional fuel tanks enable it to search wider swaths of ocean and spend more dwell-time patrolling high-threat areas. Navy developers explain the Poseidon can operate on 10-hour missions at ranges out to 1,200 nautical miles. More dwell time capacity, fortified by high-speeds, seems to position the Poseidon well for covering wide areas in search of "hidden" Chinese SSBNs.

The P-8A, a militarized variant of Boeing's 737-800, includes torpedo and Harpoon weapons stations, 129 sonobuoys and an in-flight refueling station, providing longer ranges, sub-hunting depth penetration and various attack options. Given that a P-8 can conduct sonobuoy sub-hunting missions from higher altitudes than surface ships, helicopters or other lower-flying aircraft, it can operate with decreased risk from enemy surface fire and swarming small boat attacks. Unlike many drones and other ISR assets, a Poseidon can not only find and track enemy submarines, but attack and destroy them as well.

Alongside its AN/APY-10 surveillance radar and MX-series electro-optical/infrared cameras optimized to scan the ocean surface, the Poseidon's air-parachuted sonobuoys can find submarines at various depths beneath the surface.

The surveillance aircraft can operate as a "node" within a broader sub-hunting network consisting of surface ships, unmanned surface vessels, aerial drone-mounted maritime sensors and submarines. As part of its contribution to interconnected sub-hunting missions, the Poseidon can draw upon an Active Electronically Scanned Array, Synthetic Aperture Radar and Ground Moving Target Indicator.

By lowering hydrophones and a magnetic compass to a pre-determined depth, connected by cable to a floating surface radio transmitter, Poseidon sonobuoys can convert acoustic energy from the water into a radio signal sent to aircraft computer processors, according to a June 2018 issue of "Physics World."

Also, Poseidon-dispatched sonobuoys can contribute to the often discussed "US Navy Fish Hook Undersea Defense Line," a seamless network of hydrophones, sensors and strategically positioned assets stretching from coastal areas off of Northern China down near the Philippines all the way to Indonesia, according to an essay from the Carnegie Endowment for International Peace, called "China's Nuclear Ballistic Missile Submarines and Strategic Stability."

An improved aerial sub-hunting presence offered by the Poseidon, it seems, could help reinforce this "Undersea Defense Line" effort to prevent Chinese SSBNs from leaving the region undetected.

Interestingly, Poseidons might offer a significant nuance to the Pentagon's well-cultivated nuclear deterrence posture, by introducing a technically advanced method of finding and destroying enemy SSBNs from the air. It aligns with the current "offensive power can be the best defense" approach central to the Pentagon's nuclear-triad strategic deterrence strategy. Holding Chinese SSBNs at risk, could at very least help further deter China from contemplating some kind of sub-launched nuclear strike. The Poseidon could almost function as a kind of connective tissue between the undersea and air portions of the nuclear triad. The current air leg of the triad, consisting of platforms such as the B-2 and B-52 bombers, is not able to track or destroy submarines. A Poseidon could further fortify the air leg of the triad while also providing crucial intelligence to surface ships and US undersea assets seeking to track Chinese SSBNs.

Currently in service with UK, Norwegian, Indian and Australian militaries, among others, the Poseidon is increasingly in demand in the international market.

This Submarine Is "Invincible": Meet the Super Sub Headed to China's Doorstep (Singapore)

By Sebastien Roblin, The National Interest, Mar. 2

On February 18, 2018, officials gathered to celebrate the launch of a new state-of-the-art submarine at a shipyard in Kiel, Germany. But unlike similar Type 212 submarines previously built there, the seventy-meter long diesel-submarine isn't destined to shadow Russian submarines in the cold waters of the Baltic Sea.

Instead, the Invincible will lurk in the warmer Pacific waters around the Straits of Malacca in the service of the Republic of Singapore Navy. In so doing, the 2,000-ton submarine and her three forthcoming stablemates will become new factors in the ongoing multi-national competition for influence over the South China Sea.

Singapore is an island city-state sitting astride the Straits of Malacca, which offers the most direct route for commercial traffic between East Asia and the Indian Ocean—totaling one-fourth of all the world's traded goods, including a quarter of all oil.

The wealthy but tiny nation has invested in an unusually capable and expensive military for its size—in 2017 it had the fifth highest defense spending per-capita on the planet. It has purchased major Western weapon systems including 100 F-16 and F-15SG fourth-generation jet fighters, Leopard 2 tanks and most recently, four to twelve F-35 stealth fighters.

Singapore is adjacent to two more populous countries (Malaysia and Indonesia) and also holds China as an important commercial partner. However, it has insisted China's claims to sovereignty over large swathes of the South China Sea should be adjudicated by legal means, and hosts U.S. Navy P-8 maritime patrol planes and Littoral Combat Ships.

Thus, while Singapore considers itself a neutral actor, it is sometimes perceived as tilting more towards Washington to counterbalance China's growing military power. Not incidentally, Beijing has explored bypassing Singapore through construction of the Kra canal through Thailand.

The Invincible, also designated the Type 218SG, joins the growing numbers of air-independent propulsion (AIP) submarines active in the Pacific Ocean in the navies of

China, Japan, Singapore and South Korea. AIP allows a comparatively cheap diesel-electric submarine to cruise underwater at slow speeds for weeks at a time, instead of having to surface or snorkel every few days.

The Type 218, as with contemporary German designs like the Type 212 and 214, uses hydrogen fuel-cells for this purpose, a more advanced and less noisy configuration than the Stirling heat-cycle AIP engine used on Singapore's two Swedish-built Archer-class submarines which entered service in 2011 and 2013. The Invincible is said to have 50 percent greater endurance than the Archers, implying it can remain submerged four to six weeks before needing to surface. Fuel-cell AIP does have the disadvantage of being more expensive and is potentially volatile should the submarine sustain damage, however.

AIP submarines still can't sustain speeds of 30 knots and remain underwater indefinitely the way a nuclear submarine can. The Type 218 reportedly has top underwater speed of 15 knots, or 10 knots surfaced. But AIP-submarines cost one-fourth or less the price of a nuclear sub, and their limitations are not nearly as important when engaged on shorter-range patrols.

Germany has already exported chubby Type 214 export submarines to South Korea in Asia. However, Singapore sought a slightly larger, more advanced design to replace its old Challenger-class submarines, which Singapore first purchased from Sweden in the 1990s.

The Type 218 boasts a sophisticated new combat system jointly developed by Germany and Singapore featuring computer-assisted decision-making algorithms. The resulting high degree of automation allows a crew of only twenty-eight to operate the sub, rotating on eight-hour shifts instead of more fatiguing twelve-hours. This could leave more room for intelligence-gathering specialists or special operations troops.

The Type 218SG can also carry a heavier weapons load, with eight tubes for launching 533-millimeter heavyweight torpedoes instead of the more typical six. While official details of onboard armament remain unavailable, in addition to heavyweight torpedoes, the Type

218 tubes could conceivably be outfitted with naval mines or anti-ship or land-attack missiles like the Harpoon and Tomahawk, or the German fiber-optically guided IDAS missile, which can hit both surface targets and slower-moving aircraft like sub-hunting helicopters.

In a statement to media, Singaporean defense minister Ng Eng Hen emphasized the submarine's usefulness for various peacetime operations, including curbing piracy, arms smuggling and human-trafficking. However, the Type 218s also give the island state an intimidating conventional deterrence capability: if Singapore feels threatened or compelled to join an international alliance in a crisis, its submarines could effectively deny access to the ultra-valuable strait. Even a numerically superior adversary would struggle to hunt down long-endurance submarines that can remain submerged for over a month at a time.

The Invincible's X-shaped rudder also affords it greater maneuverability—useful for navigating the shallow, rocky Strait, which is only 1.5-miles wide at its narrowest point. The strait has many small inlets and islands, around which a submarine could settle onto the sea floor and wait in ambush, while remaining extremely difficult to detect.

The Invincible's improved ocean-going capabilities means it could also contribute to longer range patrols of sea lines of communication in the Indian Ocean, or to Taiwan, with which it has a defense partnership.

More routinely, the Type 218's advanced sensors and facilities will give Singapore significant intelligence-

gathering capabilities, particularly for intercepting signals, deploying operatives, tracking the movements of Chinese diesel-electric submarines around the strait and building a "threat library" on their acoustic signatures. Such intelligence may be exchanged with United States and regional partners, with which Singapore has shared intelligence in the past.

The Type 218's potential uses and areas of operation are explored in greater detail in this article by Peter Coates in *Submarine Matters*.

For now the Invincible is set to begin sea trials while a crew commanded by Lt. Col. Jonathan Lim is training in Germany, preparing for commissioning in 2021.

Meanwhile, her sister ships Impeccable, Illustrious and Indomitable are set to be launched in 2022, 2024 and beyond, respectively, with the latter eventually replacing Singapore's Archer-class submarines.

Sébastien Roblin holds a Master's Degree in Conflict Resolution from Georgetown University and served as a university instructor for the Peace Corps in China. He has also worked in education, editing, and refugee resettlement in France and the United States. He currently writes on security and military history for War Is Boring.

Russian special-purpose sub to be first carrier of Poseidon strategic underwater drone

Not Attributed, TASS (Russia), Mar. 6

The Project 09852 special-purpose submarine Belgorod that will be floated out in the second quarter of this year will be the first carrier of Poseidon nuclear-capable underwater drones, a source in the domestic defense industry told TASS on Wednesday.

"The Project 09852 special-purpose nuclear-powered submarine Belgorod will become the first carrier of Poseidons. It will be launched from the Sevmash slipway and floated out in the second quarter," the source said, adding that the submarine's further construction afloat will be completed and its dockside trials will be carried out throughout 2019. The Belgorod is expected to assume combat duty in 2020.

The special-purpose submarine Belgorod will be capable of carrying six Poseidon strategic underwater drones. The second basic carrier of Poseidon underwater drones, the Project 09851 submarine Khabarovsk, is expected to be floated out in the spring of 2020 and be made operational in the Russian Navy in 2022, the source added.

TASS does not have an official confirmation of this information yet.

In his state-of-the-nation address to both houses of Russia's parliament on March 1 last year, Russian President Vladimir Putin mentioned for the first time the country's efforts to develop a nuclear-powered unmanned underwater vehicle that can carry both conventional and nuclear warheads and is capable of destroying enemy

infrastructural facilities, aircraft carrier groups and other targets.

The Russian president said at the time that the first submarine that would carry Poseidon underwater drones would be floated out in the spring of 2019.

On the same day, Russia's Defense Ministry posted the first video of the drone's sea launch. Before that, the Russian president said on February 2 that the key stage of the Poseidon trials had been completed. A source in the defense industry later told TASS about the completion of the trials of the drone's nuclear propulsion unit, which confirmed the weapon's unlimited range capability and a speed of over 200 km/h.

Poseidon drones together with their carriers - nuclear-powered submarines - make part of the so-called oceanic multipurpose system. The drone got its name following the results of open voting on the website of Russia's Defense Ministry.

A source in the defense industry earlier told TASS that the Poseidon drone being developed in Russia would be capable of carrying a nuclear warhead with a yield of up to 2 megatonnes to destroy enemy naval bases.

According to reported data, the Poseidon will feature an intercontinental range capability and an operational depth of over 1 km.

Navy plunks down \$846 million to begin building hypersonic booster

Jason Sherman, InsideDefense.com, Feb 27

The Navy has awarded Lockheed Martin a potential \$846 million contract to begin building a new booster for a submarine-launched, maneuvering hypersonic payload, marking a significant development in the Pentagon's plans to ready a new class of ultra-fast conventional weapons to strike high priority, fleeting targets.

On Feb. 26, the Navy's Strategic Systems Programs office awarded Lockheed Martin a fourth contract in the last nine months for work on a new booster, pushing spending to date to \$925 million for a rocket tailored to ferry a planned hypersonic glide vehicle to the edge of

The Navy obligated \$87 million at the time of the award, including \$20 million appropriated in fiscal year 2018 and \$67 million appropriated in FY-19, according to DOD.

The SSP office manages the Trident II D-5 submarine-launched ballistic missile program and -- by order of the Pentagon's acquisition executive in September -- will take responsibility Oct. 1 for management of the Conventional Prompt Strike program from the Office of the Secretary of Defense which has owned the program since its inception in 2008.

Last June, the Navy tapped Lockheed Martin to develop the new hypersonic booster, capping a four-year competition with Raytheon for the project, issuing an \$11.8 million contract. In November, SSP exercised a \$28 million option on that contract.

On Dec. 20, 2018, SSP then awarded a parallel contract for work on the hypersonic booster, issuing a \$40 million contract to begin building the new rocket; the new \$846 million award is an extension of this second contract vehicle.

"It takes the motors from the previous contracts and integrates them into the overall sea-based weapon system," Navy SSP spokesman John Daniels said Feb. 27 of the second pair of contracts.

space. Prior awards include \$11 million last June, \$28 million in November, and \$40 million in December.

The latest award, an \$846.3 million undefinitized contract, is for "the design, development, build and integration of large-diameter rocket motors, associated missile body flight articles and related support equipment for Navy Intermediate Range Conventional Prompt Strike Weapon System flight test demonstrations," according to the Defense Department contract announcement.

This funding is slated to finance work on the new rocket through 2023, according to the announcement.

The Conventional Prompt Strike program is a decade-long project to develop a long-range, ultra-fast missile to give the president the option to strike a powerful, non-nuclear blow precisely to a target anywhere in the world within an hour.

Each of the military departments are now developing intermediate-range hypersonic weapon variants based on a common hypersonic glide body developed by the CPS program. The Air Force is working on an air-launched ballistic missile to be dropped from a B-52; the Navy is developing this new booster for a submarine-launched weapon; and the Army plans to re-purpose the Navy booster for a road-mobile hypersonic weapon.

The Navy wants to field the Intermediate Range Conventional Prompt Strike Weapon System by 2025, the service revealed in December.

In addition to potential fielding on a submarine, the Navy is also exploring options to integrate a hypersonic weapon on surface ships, including Arleigh Burke-class destroyers, according to the Navy's FY-19 budget request.

SEALs revive stealthy submarine delivery team in Virginia

Mark D. Faram, Navy Times, Feb 26

After an 11 year absence, Naval Special Warfare will reactivate its East Coast SEAL delivery vehicle team in a ceremony slated for March 8 at Joint Expeditionary Base Little Creek-Fort Story.

SEAL delivery teams operate from small submerged vehicles launched from special platforms mounted on submarines called dry deck shelters. Navy divers help deploy and recover the vehicles from the subs.

SEAL Delivery Vehicle Team Two will be helmed by Cmdr. Grady McDonald, according to a statement released by the Navy.

Created in 1983 through a reorganization of Underwater Demolition Teams 12 and 22, Little Creek hosted SDVT-2 for more than a quarter century.

On the other side of the country, SEAL Delivery Vehicle Team One operated out of Coronado in California before it was relocated to Hawaii in 1994.

In 2008, SDVT-2 was disestablished, part of a consolidation of most of the Navy's SEAL delivery operations under Pearl Harbor-based SDVT-1.

The Navy continued to rely on a small dry deck shelter detachment at Little Creek to support East Coast special operations, but it remained under the command of Hawaii-based SDVT-1.

By splitting off SDVT-2, the SEALs will beef up their delivery capabilities on the East Coast and in Europe.

Both teams, however, will fall under the control of Naval Special Warfare Group Three in Hawaii.

US Navy considers accelerating Columbia programme

Michael Fabey, Jane's Navy International, Feb 27

The US Navy (USN) is considering a block-buy acquisition and looking for other industry suggestions to accelerate the building and deployment of its Columbia-class strategic submarine replacements for the ageing Ohio-class ballistic-missile (SSBN) fleet, Rear Admiral John Tammen, director, Undersea Warfare, said.

There are some "gap years" in the USN's shipbuilding plan for submarine builds, Rear Adm Tammen noted on 26 February during a Heritage Foundation panel discussion, "Modernising the US Sea-based Strategic Deterrent Force and the Need for 12 Columbia-class SSBNs."

The USN is trying to ascertain if submarine builders Huntington Ingalls Industries' Newport News Shipbuilding and General Dynamics' Electric Boat yards can handle additional work during some of those years, Rear Adm Tammen said.

"We're working with Huntington Ingalls and Electric Boat to see what is in the realm of the possible to ramp up [during the] gap years," he said.

He also acknowledged the USN could use block-buy contracts for the Columbia class "to make sure we give the taxpayers a bang for the buck".

Columbia production is the number-one shipbuilding priority for the USN to make sure it can produce the 12 ships in time to assume patrols as the Ohio-class ships become too old for strategic missions.

The submarine-based leg of the US strategic force is considered the most survivable leg of the nation's nuclear triad.

However, the submarine force also is "brittle" because all the missiles are in one vehicle, said Bryan Clark, senior fellow, Center for Strategic and Budgetary Assessments (CSBA).

"You've got a bunch of eggs in a basket," Clark said during the Heritage Foundation panel discussion. "If you take out that submarine with suppression or by sinking it,

you eliminate all of those weapons at once. The brittleness of the sea-based leg has to be mitigated."

One way to achieve that mitigation, he noted, is by ensuring there are enough submarines for the patrols and to back up ships that for some reason cannot complete those patrols.

But, also, he said, the USN will have to think about "pro-SSBN" operations in a way the service has not had to think about for some time, especially with emerging anti-submarine technology advancements.

For example, he said, the USN may have to rely on attack submarines (SSNs) to guard or provide better protection for SSBNs. With an expected shortfall of SSNs in the coming decades, he said, the service may have to rely more on decoys, acoustic jamming, sensor arrays, and unmanned systems.

After the panel discussion, Rear Adm Tammen said pro-SSBN operations are being considered and will likely be part of the mission set being developed for undersea unmanned systems or vehicles.

If SSNs are needed to provide cover for SSBNs, the USN will task the submarines accordingly, according to the admiral.

"But it's not just SSNs," he said. "Our surface ships are very ASW [anti-submarine warfare] capable. We have P-3s [and] P-8s. It's which one is available at what time."

Comment

When the USN is finished building the 12 Columbia-class submarines, it intends to keep the production line open in case lawmakers want more of those ships built – or to build an unmanned vehicle along the same lines as the submarine with the same payload capability.




PACIFIC LENDING
Phone: 954-373-8981
Email: contact@pacificlending.com
Fax: 407-223-6375
NMLS#: 1001523
Gary Wetzel
Mortgage Loan Officer
1490 South Price Road, Suite 207, Chandler, AZ 85286
Pacific Lending LLC/NMLS 1134786
1 Corporate Park - Suite 106
Irvine, CA 92606
OFFICE: 1-866-431-4328


**PT. LOMA
POSTAL PLUS**

3839 Midway Drive, Suite B
San Diego, CA 92110
pplp@rocketmail.com

Quinlin R. Holmes
Owner / Notary Public

M-F 9-5; Sat 9-5
TEL 619 221-8004
FAX 619 221-5006


Cost
APPLIANCE PARTS & SERVICE
A One Hour Appliance Company
EST. 1988

M-F 9:00 am to 5:00 pm
Sat. 9:00 am to 1:00 pm

4420 Torrey Pines Road
San Diego, CA 92121
619-541-1115
619-541-6556 Fax

<http://www.costappliance.com>