





## The Silent Sentinel February 2019





Our Creed and Purpose gave their lives in the pursuit of their daties while serving their country. That their dedication, motivation toward greater accomplishments. Pledge loyalty and patriotism to the United apreme sacrifice be a nerica and its Constitut

s 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 ment. 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 being about the perpetual remembrance of these shipmates who have given upreme secrifice. The organization will also enderwore to obaccet all third parties it comes in contact with about the services our submarine bers performed and how their sacrifices made possible the freedom and lifestyle we enjoy tuday.

### An 1850-51 Rescue Attempt Near the Devil's Thumb



THE ADVANCE, REBOUR, AND PRINCE ALBERT NEAR THE DEVIL'S THUMA.

### 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

Senior Vice Commander Robert Golembieski

Newsletter Editor Mike HYMAN 3639 Midway Drive, B-320 San Diego, CA 921 10-5254 (619)223-9344 stamps@fortunesofwar.com

**Base Storekeeper** 

Paul Hitchcock

jpeluso@pacbell.net

Treasurer

Joe Peluso

Assistant Editor / Photographer Jack Kane 619-602-1801 jkane 32@cox.net

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

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

Chaplain David Martinez Parade Chairman

Chief of the Boat/Middle East Liason

**Bob Bissonnette** 

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 February 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 and Tom Poulon.

[Please also note that member Matthew Baumann will be having brain surgery on Wednesday, February 13, in order to stop the tremors in his hands. Mike Hyman, Editor]

# Submarine Losses in February

Originally Compiled by C J Glassford



USS Barbel (SS-316) Lost on Feb 4,1945 with the loss of 81 officers and men on her 4th war patrol. Based on Japanese records, she was bombed near the southern entrance to the Palawan Passage. The day before, she reported she survived 3 depth charge attacks.

USS Shark I (SS-174) Lost on Feb 11,1942 with the loss of 59 officers and men on her 1st war patrol. Shark was the 1st US submarine sunk by enemy surface craft in the Pacific. She was most likely sunk by depth charges.

USS Amberjack (SS-219) Lost on Feb 16,1943 with the loss of 72 officers and men on her 3rd war patrol. Off Rabaul, she was attacked by a Japanese patrol plane, attacked by a torpedo boat and then depth charged by a subchaser. One additional man was killed earlier on the last patrol.

USS Grayback (SS-208) Lost on Feb 26,1944 with the loss of 80 officers and men on her 10th war patrol. She appears to have been caught on the surface in the East China Sea by a Japanese carrier plane whose bombs made a direct hit. During this patrol she sank 4 ships totaling 21,594 tons and was tied for 11th in the number of ships sunk.

USS Trout (SS-202) Lost on Feb 29,1944 with the loss of 81 officers and men on her 11th war patrol. She was sunk by escorts in the middle of the Philippines Basin after sinking a passenger-cargoman and damaging another in a convoy. She carried out several notable special missions, including carrying over two tons of gold bullion out of Corregidor in February 1942.



### San Diego Base, United States Submarine Veterans Inc. Minutes of Meeting – 8 January 2019 At VFW Hall, 4370 Twain Avenue, San Diego CA 92120

1910 - Base Commander Warren Branges called the meeting to order.

Conducted Opening Exercises - Pledge of Allegiance lead by Past Commander Fred Fomby

Base Commander Warren Branges lead the opening prayer and read a tribute to MM2(SS) Joey Ashley who died when USS San Francisco hit an uncharted sea mount on 8 January 2005.

Base Secretary Jack Kane conducted Tolling of the Boats for boats lost in the month of January.

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

Base Secretary Jack Kane announced 24 members and 3 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 December 2018 meeting were published in the Sentinel. Minutes were adopted with two changes. 1. Base Elections will be held in February vice March. 2. An auction was held to raise funds for the Base. USS SARGO Reunion donated sodas and beers left over from their recent meeting in San Diego.

Base Commander Warren Branges called for Committee Reports

Binnacle List - Base Commander Warren reported Chris Sultana on Binnacle. JJ Lynch reported Tom Poulon 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.

Membership Committee - Chairman Ray Febrache. We have 247 members. The National Database is still FUBAR.

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

Storekeeper - Paul Hitchcock. Calendars are available for \$10 each. We also have a couple pairs of pure silver dolphins for sale. The backs will need to be modified for use on uniforms. See Paul if you are interested in purchasing a set.

Breakfast Committee - Chair Base Commander Warren Branges. The last Breakfast 30 December 2018 netted \$345. Next Breakfast is 31 March 2019. The kitchen renovations should be finished by then. Proceeds from our Christmas Party, usually split between servers, was donated to the VFW Kitchen Rehab Fund.

52 Boat Memorial - 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. There are three memorials out for repair.

Float Committee - Chairmanship open. Shipmate David Kauppinen is moving to Arizona. The Point Loma Base RV parking will close soon. We may be able to move the float to new area on base. Base Commander is working on the details.

Eagle Scout Program - Co Chairs Nihil Smith and Glenn Gerbrand. Nihil reported that they have done two Courts of Honor recently. Next Court of Honor is Sunday, 20 January 2019 at 1700. The ceremony will held at the United Methodist Church in San Carlos.

1930 - Base Commander called for a break. 50/50 Raffle held.

1950 - Unfinished Business

NOMINATING COMMITTEE REPORT - None. Committee Chair Paul Hitchcock reported a deafening silence on the subject. No members have contacted the Committee about running for any of the Base Offices for next year. Nominations from the floor were entertained. Elections will be held at the March meeting. The following nominations were taken from the floor. Base Commander - Warren Branges, Senior Vice Commander - Manny Burciaga, Junior Vice Commander - Joe Peluso, Treasurer - Mike Cosgrove and Secretary - Jack Kane.

MEMORIAL DAY AND TOLLING OF THE BOATS FOR 2019. A follow-on discussion was entered as a to which ceremonies the Base should be supporting next year and what form those ceremonies should take. Topics for discussion were:

Should we have the Memorial Day Ceremony in view of declining attendance

- If yes, should we hold it at Roncador Memorial or move it off base? If at Roncador should we look at modifying the ceremony to be a inclusive of all gave their all or retain our traditional Tolling of the Boats.

- If off Base, where do we move to? 52 Boat Memorial, another venue where access if not restricted as it is at Naval Base Point Loma? Some suggestions were the Chapel at NTC.

- Should we look at not holding the Memorial Day Ceremony, but rather move it to another day as we currently do 2 or 3

Tolling Ceremonies in late May. Some suggestions were 11 April (Submarine Birthday), VJ Day, and Pearl Harbor Day (along with the Wreath Laying Ceremony).

- The Base Secretary will look into Insurance Coverage for ceremonies held off-base.

- This discussion will be continued in March. If no decision is reached by then we will proceed with the planning for the Memorial Day Ceremony as held in past years at the Roncador Memorial.

2015 - New Business

BASE EMAIL ROSTER VERIFICATION. A revised Email list is nearly finished. The Base Commander will be sending out emails for verification in the weeks to come. Our current list has been bounced against the National Database. We have

approximately 120+ emails that need verification. The data currently in the National Database has been archived on a spreadsheet to be used as a backup for use as double-check after the National Database is moved to the new servers.

2020 - Good of the Order

SHIPMATE JJ LYNCH noted we should send KUDOs to Mike Hyman for his work on the Sentinel. JJ also noted he attended the Wreaths Around America Ceremonies at Miramar National Cemetery.

OUTYEAR CONVENTIONS - 2019 will be in Austin TX - 14-20 August 2019. Details are at: ttp://ussviconvention.org/2019/ 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 Series "Silent Service" is available at olgoat.com.

A DSRV/DSV Deep Submergence Reunion is in the planning stages for 2020 - to be held in San Diego, 25-27 October 2020 at the Bayside Hilton.

CHRISTMAS PARTY PHOTOS - Courtesy of Manny Burciaga are available for download at:

https://jackkane.smugmug.com/San-DIego-Base-USSVI/San-Diego-Base-USSVI-Christmas-Party-2018/n-548w42/

TRIVIA QUESTION for the Membership. What was the average Base Meeting attendance in 2018?? Guesses ranged from 15 to 30. Actual average attendance 21.5.

The Meeting was adjourned at 2030

/s/ Jack E. Kane Jack Kane, Secretary Sailing List for 8 January 2019

Members Warren Branges Matt Baumann Manny Burciaga Mike Cosgrove Bill Earl Joel Eikam Ed Farley Bob Farrell Ray Febrache Fred Fomby Jim Harer Paul Hitchcock Jack Kane Pete Lary JJ Lynch Bob Oberting Greg Paulson Jim Pope Dennis Mortenson Joe Peluso Phillip Richeson Chris Stafford Nihil D. Smith Rus Stoddard

*Guests* Jessie Chang Farley Sonja Lynch Steven Oberting

### 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 <u>destroyer</u> 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 <u>stern</u>. 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 22 March. Whale is sailing near Saipan: "The Rag" No. 7

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FOURTEENTH EDITION

MARCH 22, 1943

"IT IS NOT BY SPEECHES AND RESOLUTIONS THAT THE GREAT QUESTIONS OF THE TIME ARE DECIDED.....BUT BY IRON AND BLOOD."

All seemed to be rather quite in the Saipan area today, with a possible exception for the fact that at 0900, the mighty WHALE once again was forced to dive in search of fresher and greener pastures in the realm of Neptuna Rex. Reason, one Japanese areoplane. It seems that Stone, W. L. was the first to sight said plane and therefore wins the second leg of the Captain's cup. Anyhoo, --- The boat spent the remainder of the day beneath the surface approximately one hundred and twenty miles from Saipan.

Yesterday, your wandering re-porter neglected to give you dear readers, a story of which ISm sure you'll all be quite interested . It seems that just before the WHALE, took that God awful whalloping from one Japanese Plane in the form of an areal bomb, that Fields was standing in the passageway near the pant-ry in the forward battery. The beat, as you all know, had a he-ll of a list by the bow and was desperately trying to level off. In a matter of a few seconds which, seemed like ages, the bow slowly lifted, bringing the boat on a level or as nearly level plane as could be established at that time. All of a sudden, out of nowhere, came the awfulest B-L-A-N-G-G-G that this boat had ever heard. The decks seemed to quake, the bulkheads quivered and squeezed, paint chippings and oork flew off the bulkheads and lines and pucker strings loosened and tightened convuisively. Almost immediately after, a terrific eyclone, tornado hurrican or something that was traveling and I mean traveling, zipped through the ward room passage way into the forward torpedo room and came to an abrupt halt in No. 4 torpedo tube. This tube was opened to receive a reload. Well-----It was Fields, he was so scared, that if it wasn't for that avidoporious development of his posterior, he would still be going. But as it was, he was stuck fast, and it required quite a pull to loosen

Bigmarok .....

him. I noticed yesterday, that several others were moving rather fast, including myself. It seems that they alknew that they had to go somewhere but, where they didn't know. Aseismograph would have beat itself silly trying to record the increased heart activity at that time.

THINGS MOTHER NEVER TOLD ME By "B"

Why those fourteen odd magazines put out by the wardroom, were immediately pounced upon by T.T. Emle, and stowed away back aft in the maneuvering room, for future individual use.....

Why a certain would-be quarter gasket, whose initials are Linsbeck, challenges certain parties to play dominoes at \$5.00 per game, after checking with the tournament board to pick out the early loosers, these being the peiple he challenges. So far no suckers.....

Why Sweet Pea finally took that shower last night, maybe he reads the RAG too.....

Why all the juicers spend so much time checking gear in the pump room. Could be the <u>pretty</u>, <u>pretty</u> pictures.

Why no one in either engine house ever checks that Ferret raiser when he comes steaming thru with all those tools painted <u>green</u> in his poskets. Ozzie take note.....

Gunner, why'n-t'ell don't you pay J.J. the Fitz that bet money you lost?

Dear Doc: Can you give the vitamin pills in Cox's diner a different flavor? I bit into one today, and, Wheeuu! Lovéngly W.E.K.

The most stupendous death warrant in all history was signed by King Phillip of Spain

n February, 1568. It sentenced to death al heretics the whole 3,000,000 peoples of the Netherlands.

### **Current News**

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

### Putin: Russia Has Completed 'Key Stage of Trials' of Nuclear-Capable Poseidon Underwater Drone Franz-Stefan Gady, The Diplomat, Feb. 6

Russia's newest underwater weapon, a nuclear-capable underwater drone alternatively referred to as an unmanned underwater vehicle (UUV), autonomous underwater vehicle (AUV), or simply an intercontinental-range, nuclear autonomous torpedo, designated "Poseidon", has successfully completed a "key" stage of sea trials, according to Russian President Vladimir Putin.

"A few days ago you informed be about completion of the key stage of trials of the unmanned multipurpose and strategic underwater combat vehicle Poseidon," Putin was quoted as saying to Defense Minister Sergei Shoigu during a meeting with the heads of the Russian Foreign Ministry and Defense Ministry in Moscow on February 2. Neither the Russian president nor the Russian defense minister revealed additional information about the Poseidon and its ongoing sea trials. However, according to an anonymous defense industry source cited by TASS news agency, "During the at-sea trials of the unmanned vehicle's power unit, the previously declared specifications of its unlimited range of use and speed of over 200 kmph were confirmed."

As I reported previously, the current tests, which purportedly commenced in December 2018, are likely part of experimental design work rather than full-fledged sea trials. Russia's Ministry of Defense (MoD) already announced in July 2018 that sea trials, primarily focused on the Poseidon's guidance system and underwater operations in autonomous mode, were under way.

The Poseidon, also known under Ocean Multipurpose System Status-6 or "Kanyon" by the U.S. intelligence community, "is a new intercontinental, nuclear armed, nuclear-powered, undersea autonomous torpedo," according to the 2018 U.S. Nuclear Posture Review. Based on a 2015 classified Russian presentation slide, accidentally or deliberately broadcasted in a video clip on Russian state-run television station, the Poseidon can be fitted with a thermonuclear warhead with a layer of cobalt-59 yielding 100 megatons. However, more recent Russian reports cite a two-megaton warhead.

The Russian Navy is expected to deploy over 30 Poseidon UUVs once the weapon system is declared operational and cleared user trials, a Russian defense industry source revealed earlier this year. The Poseidon is listed in Russia's state armament program for 2018-2027 and the first UUVs are expected to be delivered to the Russian military in the late 2020s.

The Poseidon will probably be carried by Project 09852 submarines – based on the 949A Oscar II-class nuclear-powered guided missile submarine —or Project 09851 subs — reportedly a downsized variant of the Borei-class of nuclear-powered ballistic missile submarines — two of which were laid down in December 2012 and July 2014 respectively at the Sevmash shipyard in Severodvinsk, a port city on Russia's White Sea.

As I noted previously: The UUV is being designed a weapon of last resort to strengthen Russia's nuclear deterrence posture vis-à-vis the United States and NATO. Torpedoes equipped with a nuclear propulsion system and fitted with a nuclear warhead for use over long distances were first conceived in the Soviet Union back in the 1950s but were considered impractical and unreliable at the time.

There are still questions whether Russia will be capable of building a reliable miniaturized nuclear reactor for the UUV.

Notably, it remains unclear whether the Poseidon serves only as a nuclear-warhead delivery platform or could be used for other purposes including intelligence, surveillance, and reconnaissance (ISR) missions.

### From 'Hitler's Lost Fleet' Found After 75 Years Haaretz, Feb. 2

The Turkish navy found a WWII German submarine that sank in the waters of the Black Sea and will showcase its discovery in a new documentary film. According to the television channel Russia Today, the U-23 submarine was found at a depth of 40 meters and about 4 kilometers off the shore of the resort town of Agva, near Istanbul.

U-23 was one of a series of six German submarines set to attack Soviet ships on the Black Sea. According to the report, researchers discovered the U-20 – another U-boat from the same fleet – off the coast of northern Turkey in 2008.

Turkish newspaper Daily Sabah says the submarines participated in 56 operations against Soviet ships in the Black Sea, and according to Russia Today, they succeeded in sinking dozens of ships. By 1944, three of the fleet of six had been sunken by the Soviets.

In 1944, Germany ordered the crew of the three remaining U-boats to scuttle the ships to keep them from falling into Soviet hands, earning them the nickname "Hitler's lost fleet."

Since the end of the war, many have sought to locate the six submarines. Only one of them remains missing: The U-19, which is thought to lie on the seafloor off the coast of Zonguldak, Turkey, to the east of where U-23 was discovered. Researchers estimate that U-19 lies at a depth of about 455 meters.

Hakan Aslan, the director of the documentary, titled "Mavi Tutku" ("Blue Passion"), told Daily Sabah that the film is expected to premiere soon. "We have been working on German submarines' operations in the Black Sea for a long time," he said.

The submarine was discovered by the crew of rescue and towing ship TCG AKIN, which according to Daily Sabah was introduced into the Turkish fleet last year. The newspaper reported that the TCG AKIN is equipped with deep sea cameras that can function at depths of up to a kilometer. The commander of the TCG AKIN Cenk Ilgun expressed his happiness with the discovery, saying that the submarine was an important witness to an important era in history.

### Israel Boosts Protection Of Gas Fields, Shipping Breaking Defense, Feb. 4 / Arie Egozi

TEL AVIV: With over 80 percent of Israeli's commerce carried by sea and its offshore gas fields crucial to the economy, the country is boosting spending on protecting its shipping lanes, littorals and ports with an array of weapons including underwater capabilities, heavily armed patrol boats and new submarines.

Hezbollah sees the large natural gas reservoirs and the rigs that probe them in the Mediterranean as potential targets and this puts heavy pressure on the Israeli navy to safeguard them.

David Ben–Bassat, former commander of the Israeli navy, told Breaking Defense that after Israel declared its Exclusive Economic Zone (EEZ), the maritime arena became very important and very complicated. "The navy's task is to protect the Israeli interests in the EEZ. The protection is being performed now by the Israeli navy's Sa'ar 5 missile boats, by autonomous boats carrying weapon stations and by UAS [drones] patrolling the EEZ to try and detect any developing hostility."

The former navy chief said that in recent years the government has recognized the importance of naval forces and boosted their budget. "The new Sa'ar 6 corvettes built now in Germany will carry sensors and weapon systems that will enable them to intercept maritime and aerial threats," he said. "Among those are the Barak-8 sea-air missile system and the C-Dome, the maritime version of the Iron Dome."

The Sa'ar 6 displaces 2,000 tons and is 295' long. It's armed with a 76mm Oto Melara main gun, two Typhoon Weapon Stations, 32 vertical launch cells for Barak-8 surface-to-air missiles, the C-Dome point defense system (again, the maritime version of the Iron Dome anti-rocket defense system), 16 anti-ship missiles, the EL/M-2248 MF-STAR AESA radar, and two 324 mm torpedo launchers. It also boasts a hangar space and a platform able to accommodate an SH-60-type helicopter.

Beneath the surface, a line of advanced underwater systems developed by Israeli companies help safeguard shipping lanes and port entrances. Of course, Israel's German-made Dolphin subs provide substantial capabilities as well, but they are fairly well known.

Rafael is the main source for the Israeli special underwater systems. Doron L., director of marketing for the naval systems directorate of Rafael, told Breaking Defense the company is focusing on three capabilities when it deals with the underwater fighting arena: communication between submarines; protection against torpedo attacks; and an undetectable sonar.

The Rafael official discussed some systems cleared for export. No details were shared about systems used by Israel for its own defense. But you can connect the dots.

This system enables the submarine to stay in touch with the navy's headquarters while submerged. FloatLink is fired from the submarine's torpedo tubes, rises to the surface and unfolds a SATCOM antenna. "When the exchange of transmissions ends, the FloatLink [self-destructs]. This minimizes the danger that the enemy will locate the submarine," Doron L. said. "It has other advantages; it does not disclose submarine position and has no maneuverability limitations."

Submarines can also serve as an underwater base for divers. For these missions, Rafael has developed the Deep Link system, a system designed to prevent interception of underwater communications. DeepLink can be carried by small underwater vehicles or divers.

According to the Israeli company, built-in message distribution protection and multi-hop mechanisms increase the network's reliability and the connectivity between nodes, providing a solution for non-line-of-sight scenarios as well as high reliability in deep and shallow water, as well as in the cluttered confines of harbors.

The Israeli company has also developed systems aimed at protecting surface ships from the growing threat of increasingly advanced acoustic torpedoes. One of the unclassified capabilities they are offering is the LeScut, launched from a surface ship. It's designed to respond simultaneously to multiple torpedoes of different types — active and passive. It's also programmed to defeat all types of modern torpedo logic, including range gates, Doppler shift, pulse discrimination and more.

Doron L. told Breaking Defense that LeScut requires no pre-launch input or tests, shortening the response time and eliminating errors due to incorrect settings or operator mistakes. The official said that Lescut is based on the Ultra Electronic Oceans Systems hardware and Rafael's proven reactive acoustic module electronics and software.

Countermeasures activate automatically after launch. LeScut analyzes the environment and the torpedo and then selects from its threat library the appropriate deception signal for emission. As a result, acoustic torpedoes home in on LeScut, attacking it repeatedly, enabling the sub to evade. It operates for 10 minutes, then self destructs and sinks.

In modern maritime combat, submarines are also vulnerable to torpedoes launched from ASW helicopters, ships and other submarines. To counter that threat, Rafael has developed the Scutter, a self-propelled, reactive and expendable torpedo countermeasure, capable of protecting a submarine from both passive and active acoustic homing torpedoes.

According to the Rafael official, Scutter is launched immediately following a torpedo alert, and moves automatically to operating depth. It identifies the type of torpedo and then generates and transmits customized deception signals. The torpedo attacks the Scutter Countermeasure until the torpedo's end of run. Scutter self-destructs at the end of its mission.

Rafael has also developed what it claims is the first hard kill torpedo system that can work even in shallow waters. The Torbuster is a fourth-generation torpedo countermeasure for submarines.

It provides effective defense against all types of acoustic homing torpedoes by means of combined soft and hard kill.

On detection of an incoming torpedo, Doron L. says, the Torbuster will be launched from an external launcher: "The previous such systems played a seduction role diverting the torpedo from its target. Here we destroy the threat."

Torbuster propels itself to a safe distance from the submarine and then seduces the incoming torpedo by transmitting acoustic signals. It will sense when it is at the closest point of approach and explode, neutralizing the torpedo.

Rafael and other Israeli companies are developing other systems for the underwater combat zone, but these are highly classified.

### India will continue boosting its nuclear and missile capabilities to counter China – and Beijing will keep responding South China Morning Post Online (Hong Kong), Feb. 8 / Vinay Kaura

China has not diluted its persistent opposition to India's entry into the Nuclear Suppliers Group (NSG). Beijing has asked Delhi to sign the nuclear Non-Proliferation Treaty (NPT) before it gains entry into the 48-member group, as there is no precedent for the inclusion of non-NPT countries.

Beijing is staunchly opposed to Delhi acquiring legitimate and equal footing in the global nuclear regime. It has sought to group India and Pakistan together, arguing that the two South Asian nuclear rivals are non-signatories to the NPT. China's advocacy of a "criteria-based approach" would ensure that either both are included in the group, or neither are.

The nuclear weapons issue is not always at the centre of the Sino-Indian relationship, but is nevertheless important: the nuclear forces and policies of India and China have a direct bearing on the threat perceptions of the other.

India's nuclear programme has been a direct response to China's strategic threat. Delhi has been keen to acquire an assured second-strike capability against China to fulfil the requirements of deterrence. India's concerns over the China-Pakistan nuclear nexus are also long-standing, and not without reason. From conception to delivery, Pakistan's clandestine nuclear weapons programme has been dependent on supplies from China.

In recent years, China has become increasingly apprehensive about the growing strategic partnership between Delhi and Washington, particularly on the military front. At the time of the 2008 Indo-US nuclear deal, China's policymakers vehemently criticised both sides for undermining global standards on non-proliferation and demanded a similar deal for Pakistan, regardless of its commitments to the NSG. Some in China's strategic circles believe Beijing could use its support of Delhi's entry as a carrot to move India away from its strategic embrace of the US.

China has already broadened the scope of its covert help for Pakistan's missile programme. Beijing's growing interest and investment via the China-Pakistan Economic Corridor has added a new dimension to this challenge. As China pursues major infrastructure projects in Pakistan, and a large number of Chinese nationals live there, Beijing's stakes in a potential Indo-Pakistani nuclear exchange are also set to rise significantly.

Besides improving the military logistics infrastructure in Tibet, which has direct strategic implications for India, Beijing has undertaken a robust military modernisation programme and impressive investments in high-end technologies like hypersonics. There is also talk of an independently developed aircraft carrier. The development of the Hong-20 nuclear-capable bomber, meanwhile, is in full swing.

Due to the conventional military gap between the two Himalayan neighbours, India cannot afford to lower its conventional or nuclear threshold. There are signs that India's nuclear strategy, conventionally focused on Pakistan, is increasingly geared towards China. This shift was long overdue.

While India's "no first use" pledge implies that the key objective of its nuclear arsenal is to act as a deterrent, strategists disagree about how useful such weapons are in stopping conventional attacks from China.

Academic Rajesh Rajagopalan has argued that a move towards a first-use or first-strike strategy is wrong, because "they will be ineffective in achieving either its wartime or deterrence requirements, in addition to embroiling India in an unnecessary nuclear arms race, and is likely to lead to [a] dangerous crisis". This argument stems from the fact that China acquired its nuclear capabilities to meet the challenge of the US' and Soviet Union's vast nuclear stockpiles, which guarantee it a second-strike capability with regard to India.

India now has its first ballistic missile submarine, the INS Arihant, leading the Modi government to announce that India's nuclear triad is now complete. However, the triumphalism of India's entry into a group of states possessing underwater nuclear launch capabilities has been questioned, with analysts such as Yogesh Joshi saying that it will not enhance the nation's second-strike capability unless India deploys a fleet "carrying missiles with intercontinental range, which could

take decades". This implies India's sea-based deterrent lacks credibility. Pakistan, for its part, does not have nuclearcapable submarines, but has reportedly begun work on one in response.

It makes sense for India to substantially upgrade its conventional military capabilities when considering China. That is what Delhi seems to be doing. India's Agni-V – an intercontinental ballistic missile with a 5,000km range – is widely perceived as a strategic weapon targeted at China. However, its capability is still far behind China's CSS-10 Mod 2 missile, with a range of more than 11,000km that can even reach most locations within the continental US. China is also reported to be developing the DF-41 ICBM, with a range of 12,000km-15,000km which is capable of carrying 10 manoeuvrable nuclear warheads.

Clearly, the substantial increase in Chinese missile capability is part of its strategy to limit India's options in any significant conflict. Budgetary constraints mean India will struggle to keep pace with China's modernisation plans; India's annual defence allocation is only a third of China's. Whether or not India succeeds in reducing the military gap, Beijing will respond more openly to counter India's nuclear weapons programme and ambitions in the coming years. The atmosphere of deeply ingrained distrust could be reduced by establishing a meaningful mechanism for nuclear dialogue between the two countries, but China is very unlikely to agree to that. As China continues to advocate the same privileges for Pakistan in the nuclear field that are enjoyed or claimed by India, so the calls for India to maintain and strengthen its nuclear posture will grow.

### USS South Dakota (SSN 790) Commissioned Navy.mil, Feb. 2 / Commander, Submarine Force Atlantic Public Affairs

GROTON, Conn. (NNS) -- NEW LONDON, Conn. – USS South Dakota (SSN 790) became the newest and 17th Virginiaclass fast-attack submarine in the U.S. Navy during her commissioning ceremony at Naval Submarine Base New London, February 2, 2019.

The U.S. Navy, with assistance from Mrs. Deanie Dempsey, the ship's sponsor, gave the command, "Man our ship and bring her to life!" spurring the crew into action and all ship's systems to be tested, including alarms, bells, radars, and scopes.

USS South Dakota's Commanding Officer, Cmdr. Craig Litty, highlighted South Dakota's capability to dominate the undersea domain and enable military success in any engagement.

"South Dakota was built to be on scene and unseen, forward deployed and ready to take the fight to our adversaries and protect our shores here," said Litty. "We do that through executing the seven mission areas that the United States Submarine Force, which focus primarily on anti-submarine warfare and anti-surface warfare, but we are also very capable of reconnaissance operations and operations in littoral waters. As the commissioning crew, we've developed a special bond with the ship itself, which we will use to maximize our capability on our first deployment."

Commander of the Submarine Forces, Vice Adm. Chas Richard underscored Litty's remarks. "South Dakota will soon enter the fleet with stealth, flexibility and endurance," said Richard, addressing the crew and attendees. "Traveling silently through the world's oceans undetected, collecting information, preparing for battle, and if necessary, striking from the deep swiftly without warning; answering the nation's call. To the south Dakota crew, as your motto attests, 'Under The Sea, We Rule' because the nation the navy and the Mt. Rushmore state are depending on you."

Dempsey expressed what the moment and her role as the ship's sponsor means to her. "It is my privilege to be the sponsor of USS South Dakota," said Dempsey. "I've been here from the very beginning, watching both the boat and her crew grow and that gives me a tremendous sense of pride. When I said those words and the Sailors responded 'Aye, Aye, Ma'am!', it gave me goosebumps."

The first South Dakota (ACR 9) a United States Navy Pennsylvania-class armored cruiser, laid down on 30 September 1902 by the Union Iron Works, San Francisco, California, and launched on 21 July 1904 was sponsored by Grace Herreid, daughter of Charles N. Herreid, Governor of South Dakota.

The second South Dakota's (BB 57) keel was laid down on 5 July 1939, at Camden, New Jersey, by the New York Shipbuilding Corporation. She was launched on 7 June 1941, sponsored by Mrs. Harlan J. Bushfield, wife of the Governor

of South Dakota. The lead ship of her class, South Dakota was considered to be the most efficient battleship designed under the limitations of the Washington Naval Treaty during World War II.

Though in their nineties, some of the Sailors from the submarine's namesake made it out to the event to see that the history and traditions were passed on to the next generation.

"It is very impressive and I am very honored to be a part of this," said Richard Hackley, a seaman 1 st Class (Radar Striker) aboard the battleship USS South Dakota during World War II. "I've got fond memories from serving on South Dakota and to be included in the new South Dakota is quite an honor for me."

South Dakota is the seventh of eight Block III Virginia-class submarines to be built. The Block III submarines are made with the new Virginia Payload Tubes designed to lower costs and increase missile-firing payload possibilities.

The first 10 Block I and Block II Virginia-class submarines have 12 individual 21-inch diameter vertical launch tubes able to fire Tomahawk Land Attack Missiles (TLAMS). The Block III submarines are built with two-larger 87-inch diameter tubes able to house six TLAMS each. "It is flattering to be chosen to a part of this tradition," said Sonar Technician (Submarines) 2nd Class Casey Strickland, a South Dakota Plankowner. "It sets us aside from other boat crews and I think it is an honor to be part of this."

South Dakota is a flexible, multi-mission platform designed to carry out the seven core competencies of the submarine force: anti-submarine warfare; anti-surface warfare; delivery of special operations forces; strike warfare; irregular warfare; intelligence, surveillance and reconnaissance; and mine warfare.

The submarine is 377 feet long, has a 34-foot beam, and will be able to dive to depths greater than 800 feet and operate at speeds in excess of 25 knots submerged. It will operate for over 30 years without ever refueling. Construction on South

Dakota began 2013; the submarine's keel was authenticated during a ceremony on April 4, 2016; and the submarine was christened during a ceremony Oct. 14, 2017.







3639 Midway Drive, Suite B San Diego, CA 92110

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