

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



The Silent Sentinel *November 2017*



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.



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U.S. Submarine Veterans San Diego Base

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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: _____

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Would like the SILENT SENTINEL emailed: YES _____ NO _____

USSVI Base Commander
c/o VFW Post 3787
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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

November 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 *November 14*. 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

Manny Burciaga, Harry Humpreville, and Glen Gerbrand

Submarine Losses in November

Originally Compiled by C J Glassford



USS Albacore (SS-218)

Lost on Nov 7, 1944 with the loss of 85 men when she was sunk off northern Hokkaido. Winner of two Presidential Unit Citations, Albacore was on her eleventh war patrol and struck a mine while running submerged near a Japanese patrol craft that had detected her.

USS Growler (SS-215)

Lost on Nov 8, 1944 with the loss of 86 men when she was sunk in the South China Sea. Winner of two Navy Unit Commendations, Growler was on her 12th war patrol, and was lost while attacking a convoy, probably as a result of a depth charge attack or victim of a circular run by one of her own torpedoes.

USS Scamp (SS-277)

Probably sunk on November 16, 1944 with the loss of 83 men near Tokyo Bay. On her 8th war patrol, she may have been damaged by a mine and was trailing oil, which helped Japanese coast defense vessels locate and destroy her with depth charges.

USS Corvina (SS-226)

Lost on Nov 16, 1943 with the loss of 82 men when she was sunk just south of Truk. Corvina was on her 1st war patrol and appears she was lost to the torpedoes of a Japanese submarine.

USS Sculpin (SS-191)

Lost on Nov 19, 1943 with the loss of 43 men near Truk. Severely damaged by depth charges after attacking an enemy convoy, Sculpin continued to fight on the surface. When the captain was killed, the crew abandoned ship and scuttled Sculpin. 41 men were taken prisoner but only 21 survived the war. Among those not abandoning ship was CAPT Cromwell, aboard as a potential wolfpack commander, he rode the Sculpin down, fearing that vital information in his possession might be compromised under torture. For this, CAPT Cromwell was posthumously awarded the Congressional Medal of Honor.



San Diego Base, United States Submarine Veterans Inc. Minutes of Meeting - 10 October 2017 At VFW Hall, 4370 Twain Avenue, San Diego CA 92120

1905- Base Commander Warren Branges called the meeting to order.
Conducted Opening Exercises - Pledge of Allegiance lead by Past Commander Fred Fomby
Acting Chaplain David Ball lead the prayer.
Acting Chaplain David Ball conducted Tolling of the Boats for boats lost in the month of October.
Base Secretary Jack Kane recognized Past Commanders, dignitaries and guests.
Base Secretary Jack Kane announced 19 members present.
Base Treasurer Joe Peluso gave his report. A copy of the Treasurers Report will be filed with these minutes.
Minutes of September meetings were published in the Sentinel.

Base Commander Warren Branges called for Committee Reports
Binnacle List - Acting Chaplain David Ball reported Manny Burciaga, Harry Humpreville, and Glen Gerbrand on Binnacle.
Parade Committee - Secretary Jack Kane reported for Parade Chairman Joel Eikam. We will be taking the float to two more parades this year. Borrego Springs on 21 October and San Diego Veterans Day Parade on 11 November.
Membership Committee - Chairman Ray Febrache. We have currently have 254 base members. We have 2 new members this month. Ray noted that starting with 2018 first year's dues will be waived for new member's.
Scholarship Committee - Committee Chairman Paul Hitchcock. We have received a third thank you from the last Scholarship recipient. Next round of applications will be due in April 2018
Storekeeper - Paul Hitchcock has volunteered to become Storekeeper. SK inventory for turnover is in progress.
Breakfast Committee - Chair Base Commander Warren Branges. Next Breakfast is 29 October. We need maximum participation as Warren will be attending the USS TUNNEY Reunion that day. COB Bob Bissonnette will be head cook and bottle washer for the day. We need volunteers to help cook and run coffee, etc.
52 Boat Memorial - Chair Base Commander Warren Branges- The City will start landscaping in October/November. We are waiting for City Parks and Recreation schedule. Bushes will be placed near each plaque to minimize inadvertent damage to each. Some volunteer labor may be needed to help with the plantings. The next "ALL FLAGS DAY" - will be 11 November 2017, Veterans Day.
Float Committee - Chair David Kauppinen - No Report.
Eagle Scout Program - Nihil Smith and Glenn Gerbrand. Two Eagle Scout presentations were made in the last month. One for Troop 319 and one for Troop 959. Two campout/boat tour outings are planned for October and November. Each Troop will campout overnight on the softball fields at Naval Base Point Loma. The next day those scouts will be given submarine tours.

Special Presentation. Shipmate David Kauppinen gave a presentation of the background leading up to the sinking of USS Cisco SS-290.

1940 - Base Commander called for a break. 50/50 Raffle held.

1950 - Unfinished Business

Baja Fishing Trip Fund Raiser - David Ball reported 69+ tickets sold. Anyone who needs tickets see David. We need to sell 200+ more tickets. Recap of Fund Raiser. 300 tickets @ \$10 per ticket. First Prize 2 Day Baja Fishing Trip with 3 day stay at Old Mill Hotel in San Quintin Baja or \$500. 2nd Place - Prize not claimed by 1st Place winner. 3rd Place \$100.

Annual Christmas Party - Will be held at the VFW Hall, 4370 Twain Avenue, San Diego on Saturday, 2 December 2017. Meals will be Pork Chops or Cornish Hens. Admission will be by tickets. Each ticket is \$20.00. Seating starts at 1300. Meal served at 1400. See Base Commander Warren Branges for tickets.

Upcoming Parades 2017 and 2018 - Two parades remain for 2017. Borrego Springs and San Diego Veterans Day Parade. Base Commander noted that we will need to take a hard look at the Parade Schedule for 2018. We are quickly coming to a point where transportation, repairs, maintenance, storage and liability insurance for the float needs to be addressed. We may want to look at reducing the number of parades we attend in 2018.

2018 Membership Drive of Active Duty Submariners. Base Commander Warren Branges will contact Naval Base Point Loma and SUBRON 11 Command Master Chief's before we contact the boats.

We have been unable to locate a suitable meeting place for a Saturday 18 November Brunch Meeting. If no place is identified we will hold the meeting on Tuesday, 14 November at the VFW Hall on Twain Street as originally scheduled.

The Veteran's Walk to benefit the Chula Vista Veteran's Home will be held on November 4th. If you are planning on/or are interested in walking contact Bob Bissonnette.

Member donations to the Hurricane Harvey/Irma Relief Fund stands at \$200. Donations will be sent to National in December.

99 for 99 Scorpion Fund will benefit the 2018 Scorpion Memorial in Norfolk. 2018 is the 50th Anniversary of the loss of Scorpion. Each Base is asked to donate \$99 to the fund. National is donating \$999. A motion will be made at the next meeting concerning this donation.

Base Secretary will contact Juanita Williams about touring Terry Ulmer's property in Puetz Valley.

Wreaths Across America will place wreaths at Point Loma National Cemetery on 16 December. If you are interested in participating or donating see the Base Commander.

2006 - New Business

The Base participated in the Cabrillo Festival on Naval Base Point Loma on Saturday, September 30th. We setup the float as a static display. Five Base members manned tables presenting the San Diego Base and offering calendars and memorabilia. We received \$142 in donations for calendars, Challenge Coins, patches and ballcaps. We sold several Baja Fishing Trip Raffle Tickets. We will add this event to our calendar for next year.

We have been invited to setup our float at a static display at The El Centro Air Show on 9 an 10 March 2018. This Air Show will be the Blue Angels Kickoff for 2018. Base Secretary will add this engagement to to the suggested calendar for 2018. We will discuss the 2018 Calendar at the November and/or December Base meeting.

National is looking for bids to host the 2020 National Convention. After a long discussion the Base has decided not to bid for the Convention.

2020 - Good of the Order - No speakers.

The Meeting was adjourned at 2021.

/s/ Jack E. Kane
Jack Kane, Secretary

Sailing List for 10 Oct 2017

Members

Fred Fomby
Bob Bissonnette
Jack Kane
David Ball
Rocky Rockers
Bob Farrell
Matt Baumann
Ed Farley
Christ Stafford
Ray Febrache
Mert Weltzien
Nihil Smith
Paul Hitchcock
Dennis Mortensen
David Kauppinen
Joel Eikam
Rus Stoddard
Ron Gorence
Warren Branges

USS Scamp (SS-277) - Perpetuating the Memory

by David Kauppinen

The USS Scamp (SS-277) was a Gato Class submarine commissioned on September 18, 1942 at the Portsmouth Navy Yard, Maine, with Commander Walter Gale Ebert as the Commanding Officer.

USS Scamp (SS-277)



She left on her *first patrol* from Pearl Harbor on March 1, 1943 to an area off the coast of Japan. Admiral Charles Lockwood (COMSUBPAC) was on board, however, the admiral's superiors allowed him to go only the first 1500 miles to Midway Island where the submarine refueled. After damaging a freighter with faulty torpedoes, Commander Ebert ordered the magnetic detonators deactivated, and the sub damaged two more ships before the patrol ended.

On the *second patrol* the Scamp refueled after 1500 miles at Johnston Island on her way to the Bismark Sea near Papua New Guinea. The only action was the sinking of a seaplane tender before ending the patrol at Brisbane, Australia on June 4.

The *third patrol* was in the area of the Bismark Sea and the Solomon Islands. She fired at a tanker in a six ship convoy, but was forced down by depth charges. On July 27, Scamp lookputs sighted a Japanese submarine near Rabaul which launched a torpedo at her. She submerged, went ahead full, and leveled off at 220 feet letting the torpedo pass over the sub. In less than 10 minutes, Commander Ebert was back at periscope depth and launched a spread of 4 torpedoes which literally blew the enemy boat out of the water. After the war, analysis revealed the sunken boat was the Kaidai IV class submarine I-168, commanded by Lt. Cdr. Sakae Nakajima with a crew of 97. This was a fitting end to the I-168, since a year earlier she had sunk the damaged carrier USS Yorktown (CV-5) and destroyer USS Hammann (DD-412) during the Battle of Midway on June 6 and 7, 1942.



Japanese Submarine I-168

After a month in Brisbane, the *fourth patrol* took Scamp again to the Bismark Sea and to the area around the Solomon Islands. She managed to sink a passenger-cargo ship and recover the ship's log along with other documents from an empty life boat. While stalking a convoy, Scamp was forced down by aerial bombing.

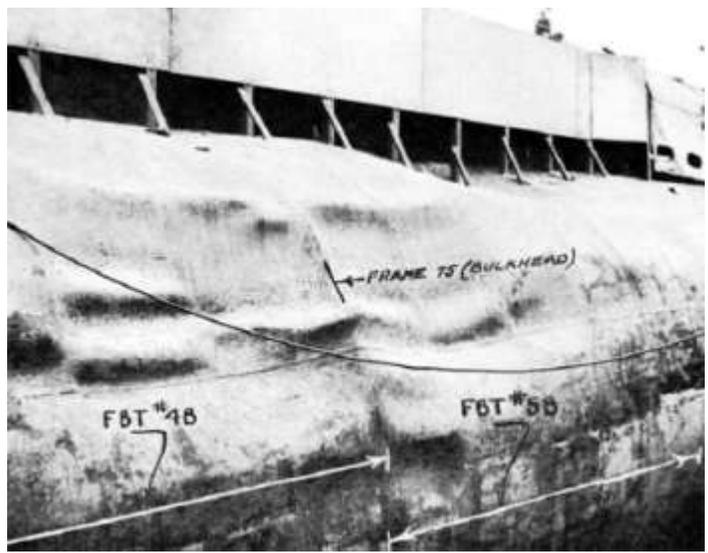
The *fifth patrol* started with supporting the invasion of Treasury Island in the Solomon Islands. Subsequently, she patrolled between Kavieng, New Britain, and Truk. Scamp sank one freighter and damaged a light Cruiser. Prior to ending the patrol, she suffered minor damage from two bombs dropped by a Japanese seaplane.

The *sixth patrol* began December 16, 1943 and again was near the Bismark Archipelago. After sinking a tanker, the Scamp transited north and acted as a plane lifeguard for B-24 bombers.



After returning to port, Commander Ebert was relieved by Commander John Christie Hollingsworth who had previously served on the USS Triton (SS-201) as a Lieutenant. After leaving the Triton in 1942, Hollingsworth had been ordered to a desk job in San Francisco. However, he wanted a return to the action and was given the USS Scamp as his first command.

The *seventh patrol* was in the shipping lanes between New Guinea and the Philippines. After 4 weeks with no targets, the Scamp battle surfaced to sink a trawler with her deck gun. The trawler was in flames when the attack was terminated because the deck gun failed. Later when patrolling the Davao Gulf in the Philippines, she encountered 6 cruisers escorted by destroyers but was forced down by a seaplane. When passing 40 feet during a crash dive, a bomb exploded nearby and all hands were knocked off their feet, all power was lost, the hydraulic plant was knocked off-line, and the sub took on an up angle before settling at 300 feet. In addition, a fire filled the Manuevering compartment and After Torpedo Room with thick toxic smoke. Depth control was restored after see-sawing up and down three times between between 50 and 150 feet. Scamp released air bubbles and fuel oil to appear being sunk while making her escape. After 9 hours she surfaced and headed to port with a 17 degree list. The damage to the inner and outer hull structure was the worst of any submarine in WWII that was not actually sunk.



On October 16 after a six month overhaul at Pearl Harbor, she left on her *eighth patrol*. On November 9, Scamp responded to a message changing her patrol area to the coast of Japan and reported her position as 150 miles north of Bonin Island with all 24 torpedoes and 77,000 gallons of fuel on board. On November 14 a message was sent again changing her patrol area to life guard duty near Tokyo Bay in support of B29 bomber strikes, but the message was never acknowledged.



After the war, records revealed that the USS Scamp was sighted by a planes south of Tokyo Bay, because she was leaving an oil slick. Subsequently, coastal defence ship Kaibokan CD-4 dropped 70 depth charges during 3 runs over her on Veterans Day, November 11, 1944. Air bubbles and oil came to the service, this time for real, and the USS Scamp was lost: Seven Battle Stars, 83 men lost.

Post Notes:

- 1) During his 6 patrols on the USS Scamp, Commanding Officer Walter Ebert was credited with sinking 5 ships for a total of 33,322 tons. After retiring from the Navy as a Rear Admiral in 1950, Walter served as a hospital administrator in Ohio for 20 years before retiring again. He went on eternal patrol in 1990.
- 2) On October 8, 1960, the USS Scamp (SSN-588) was launched, sponsored by Mrs. John C. Hollingsworth, widow of Commander John C. Hollingsworth of the first USS Scamp (SS-277). The second Scamp was commissioned at Mare Island on June 5, 1961 with Commander W. N. Dietzen in Command. The USS Scamp earned 3 campaign stars for service in the Vietnam War. On February, 24, 1987 while attempting to rescue the crew of a sinking freighter during a storm in the North Atlantic, the USS Scamp suffered flooding and sail damage which caused early decommissioning on April 28, 1988.
- 3) The USSVI Scamp Base was founded in 2004 at Escondido, CA, with at least one member who made the war patrols on the SS-277, and many more members who had served on the SSN-588.

Current News

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

The invention of the first nuclear-powered submarine USS Nautilus was so important that it could be compared with the first human flight to the moon

Guest Writer, War History, November 8

Diesel-powered U-boats had to surface every day for four hours to recharge the batteries. It significantly increased their exposure, and hence vulnerability. Even after the invention of the snorkel, a method for underwater operation while using diesel the engine, the problem was solved only partially. Snorkels had imposed operational and habitable penalties on the submarine's operations. While snorkeling, submarines couldn't move at high speeds and extended cruising on diesel underwater led to a dangerous CO2 build-up in the submarine's compartments. The real breakthrough in submarine capabilities came with the development of a nuclear submarine, which could be underwater for several months.

The Cold War between two superpowers, U.S. and USSR, had many “fronts”. The competition involved all three elements: space, land and water, and even underwater.

The invention of the first nuclear-powered submarine USS Nautilus (SSN-571) was so important that it could be compared with the first human flight to the moon. It is hard to imagine the emotions of the people who were the first crew of this submarine. What could be the effects of radiation on sailors who had to undergo a long-term stay in the reactor proximity? How safe was it really? A big government project could become a real triumph or a terrible catastrophe.

The submarine USS Nautilus (SSN-571) got its name from the famous novel “Twenty Thousand Leagues Under the Sea” by Jules Verne, as well as in honor of the other submarine which was involved in World War – II USS Nautilus (SS-168).

The vessel design efforts were led by Hyman George Rickover (January 27, 1900 – July 8, 1986) – four-star admiral of the US Navy who is known as the “Father of the nuclear fleet.”

Admiral Hyman Rickover was born in a Jewish family in the town of Makow Mazowiecki (these days it was part of the Russian Empire, now Poland). Forced by the anti-Jewish pogroms of 1905, the family emigrated to the United States.

After four years following the Congressional approval of a nuclear submarine program for the US Navy, “Nautilus” was ready for its maiden sail, and Eugene Wilkinson, its first Captain, transmitted a historic message: “Underway on nuclear power.”

Eight months later, September 30, 1954, the submarine was approved by the US Navy. The crew of “Nautilus” consisted of 13 officers and 92 sailors. The submarine was equipped with six 533-mm bow torpedo tubes and carried 24 torpedoes aboard. Contrasted with the diesel-electric boats, “Nautilus” was characterized not only by the presence of a new power plant, but also by the housing design, the location of cisterns, premises, and other facilities.

Nautilus had a deadweight of about 4,000 tons, it was equipped with twin-shaft nuclear power plant with total capacity of 9860 kW and was capable of reaching a speed of over 20 knots.

On August 3, 1958, Nautilus accomplished the first undersea voyage to the geographic North Pole.

The “Nautilus” design had significant shortcomings. The mass-to-power ratio of the nuclear power reactor had been vast, so designers failed to house a part of the intended arsenal. The reactor shell alone weighed about 35 tons, while the weight of the biological protection, which comprised lead, steel, and other materials layers, reached about 740 tons.

Another problem was the noise that came from the working generator turbines. They produced a vibration that made boat's sonar useless at a speed of 4 knots: the submarine became “deaf” while the noise-exposed it to enemy sonars. This major disadvantage was taken into account in the next generation nuclear submarine design.

On May 8, 2002, submarine USS Nautilus (SSN-571) ended its service and went into retirement in the same city where it launched on 21 January 1954: Groton, Connecticut.

Nowadays Nautilus is one of the exhibits of Submarine Force Library & Museum that is located next to the Naval Submarine Base New London, Groton, Connecticut.

China Is Testing Silent ‘Magnetic Drive’ Submarines to Evade the US Navy
David Axe, Motherboard (Vice), November 3

It almost sounds like something out of a certain 1980s spy thriller: China, according to state media, recently tested a new magnetic propulsion system that could make its military submarines much quieter and harder for the US Navy to detect.

But engineers in other countries have been working on magnetic ship drives for decades, without much to show for it. There's no guarantee Chinese engineers will succeed where others have failed.

If the magnetic drive proves reliable and Beijing succeeds in installing it in a large number of subs, the Chinese fleet could begin to match the American fleet underwater. And that could partially negate one of the United States' biggest military advantages over China. The US and Chinese navies each possess around 50 attack submarines, but America's undersea boats are much stealthier than are the less sophisticated Chinese boats.

"Submarine and anti-submarine technology and capabilities have long been considered a weak link in Chinese naval power," Eric Wertheim, author of *Combat Fleets of the World*, told me. "It appears that they are making concerted efforts to address this shortfall."

The government-owned China Shipbuilding Industry Corporation tested the prototype magnetic drive for the first time in Sanya in southern China on October 18, state media reported.

In a magnetic drive, a superconducting magnet forces water through a sub's shaft and out the back of the vessel. In contrast to a conventional ship engine, which has pistons and a propeller, a magnetic drive has essentially no moving parts. Fewer moving parts means less noise. The less noise a submarine makes, the harder it is to detect on sonar.

A successful first test is just one small step in what could be a decades-long effort to refine and deploy the magnetic drive. The late Tom Clancy based his 1984 novel *The Hunt for Red October* on a fictional Russian noiseless submarine drive. In 2017, however, Russia is still struggling to master the latest in non-nuclear submarine propulsion.

Japan built its own first ship with a magnetic drive back in the early 1990s but has yet to widely install the technology. The US Navy, meanwhile, has been making its subs quieter by adding shrouds around their conventional propellers.

Other countries' setbacks bode ill for China's own efforts on the magnetic drive. "The question is whether the Chinese can build one with the fine machining necessary to achieve the degree of quieting possible," Bryan Clark, an expert with the Washington, DC-based Center for Strategic and Budgetary Assessments, told *The National Interest*.

In any event, Beijing isn't totally banking on the new drive. "Experimental work on new propulsion technology is probably just one example of how China is trying to catch up to Western powers and negate the Western advantages currently held in the underwater realm," Wertheim said.

For one, China plans to greatly expand its submarine force to as many as 78 vessels by 2020, according to the Pentagon's latest assessment of Chinese military power. The US sub fleet, by contrast, is actually slowly shrinking, as older vessels retire and fewer new ones are available to replace them.

But if China manages to perfect the magnetic drive and builds a bigger sub fleet, its advantage could be twofold.

D&S 2017: Chinese Floats Whole Submarine Family For Export
Gordon Arthur, Shephard Media, November 6

Chinese companies were out in force at Defense & Security 2017 in Bangkok, including the China Shipbuilding and Offshore International Company (CSOC). Most prominent on its stand was a new family of submarines displacing 1,100t, 600t and 200t.

Scale models of these submarines were displayed alongside a model of the 2,550t S26T currently being built for the Royal Thai Navy (RTN) under a \$385 million order lodged in May.

Perhaps the most interesting aspect was a video indicating countries currently interested in procuring Chinese submarines. In addition to Bangladesh and Pakistan that have already ordered Chinese platforms, those named by CSOC as interested parties are Algeria, Cuba, Egypt, Libya, Myanmar, Saudi Arabia, the UAE and Venezuela.

In a rare move from a state-owned Chinese corporation, a lot of specifications about this family of submarines were available. This relative openness, as well as the revelation of a family range spanning 200t to more than 2,500t, shows China is serious about gaining greater export clients for its underwater technology.

The S26T, it was revealed, is customised for the RTN though based on the Yuan class (Type 041) designed for the People's Liberation Army Navy. It measures 77.7m long, has an 8.6m beam, height of 9.2m and can dive 300m deep.

The type's maximum speed is 17kt and it can swim submerged for 260nm at 80% battery capacity. Its range using air-independent propulsion (AIP) is 768nm or 20 days. Meanwhile, its maximum range for mixed AIP and diesel-electric travel is 2,000nm or 65 days.

The teardrop-shaped hull accommodates 38 crew in 46 available berths. The boat is divided into six compartments, and employs a cross-stern rudder and bow hydroplanes. An optronic mast is fitted on the sail, while the type can launch anti-ship missiles.

It will still take some time for China to construct the submarine for Thailand, with delivery expected in 2023. The RTN will eventually receive three submarines, with the budget allowing only one to be ordered at a time.

Continuing down in scale, the 1,100t submarine is 60m long, 5.6m wide and 6.8m high. Its speed is listed as 15kt, with a submerged AIP range of 800nm and mixed range of 3,000nm. It can dive 200m deep and carry 18 crew for up to 30 days. It carries ten torpedoes.

Moving further down in scale, the 600t conventional submarine is 50m long, 4.5m wide and 5.6m high. It travels at a top speed of 15kt with an AIP range of 400nm and submerged mixed range of 2,000nm. The 600t boat has a crew of 15 and can sustain a 20-day journey.

Finally, the MS200 is a mini-submarine of 200t displacement. Measuring 30m long, 3.6m wide and 4.4m high, it is designed for covert missions. It operates with a crew of six and can carry eight special forces operatives.

This small submarine moves at a maximum 8kt speed and submerged range of 120nm. Its endurance is 15 days and it can travel for up to 1,500nm submerged. It has two launching devices for torpedoes or mines.

Once Formidable, Taiwan's Military Is Now Overshadowed by China's
Steven Lee Myers, Chris Horton, New York Times, November 5

ZUOYING NAVAL BASE, Taiwan — The Hai Pao, one of Taiwan's four navy submarines, began its service as the Tusk, an American vessel launched in August 1945 at the end of World War II. Its sister submarine, the Hai Shih, is a year older. Neither can fire torpedoes today, though they can still lay mines.

The submarines, said Feng Shih-kuan, Taiwan's minister of national defense, "belong in a museum."

The Hai Pao — with its paint-encrusted pipes, antiquated engines and a brass dial with a needle to measure speed in knots — will instead remain in service past its 80th birthday, a relic of a military that once was one of Asia's most formidable. Taiwan's aging submarine fleet is but one measure of how far the military balance across the Taiwan Strait has tilted in favor of the island's rival, mainland China.

A military modernization overseen by the Chinese president, Xi Jinping, whose political power reached new heights after last month's Communist Party congress in Beijing, has proceeded in leaps and bounds, lifted by hefty budget increases that have already made China the world's No. 2 military spender after the United States, though it is a distant second.

Taiwan's armed forces, by contrast, have fallen way behind, struggling to recruit enough soldiers and sailors — and to equip those they have. A major obstacle is that countries that might sell it the most sophisticated weaponry are increasingly reluctant to do so for fear of provoking China, which claims Taiwan as part of its territory. The unwillingness to anger China extends even to the United States, on which Taiwan has long depended for its defense.

This shifting balance affects more than just Taiwan. The Taiwan Strait was once Asia's most ominous flash point, with the potential to drag the United States into war with China. Now, it is just one of several potential hot spots between a more assertive China and its neighbors.

Taiwan's experience could be a cautionary tale to Japan, South Korea, Vietnam and others in the region who are also warily watching China's rising military capabilities.

"A small snake does not make nearby frogs, chickens and ducks feel threatened," Mr. Feng, the minister, said in an interview, "but when it grows to be a python, even nearby pigs, oxen, horses and goats feel a threat to their survival."

Adding to the unease has been uncertainty over United States policy under President Trump. As he makes his first visit to Asia, allies and others will look for signals about the depth of the American military commitment to the region.

When he was still president-elect, Mr. Trump initially signaled a more fulsome embrace of Taiwan by accepting a congratulatory phone call from its president, Tsai Ing-wen. Since taking office, he has shown more deference to China in hopes of winning its support in the nuclear standoff with North Korea.

When the Trump administration approved a new package of arms sales to Taiwan this summer, it was worth a relatively modest \$1.4 billion, less than the \$1.8 billion package approved by President Barack Obama two years ago. The sales have included missiles, radar equipment and other military gear, but they stopped short of the major systems that could give Taiwan a real edge.

Any weakening of the American defense commitment "is what Taiwan worries about most," said Lu Cheng-fu, an assistant professor at National Quemoy University on Kinmen, an island held by Taiwan that sits just four miles from the Chinese coast.

"We need to resist a Chinese military attack for two weeks and wait for help from the United States or the international community," said Mr. Lu, echoing a strategy that has been at the core of Taiwan's defense doctrine for decades.

China has made no secret of its desire to absorb Taiwan, and China's military routinely drills to do so by force, if necessary. It has even built a scale replica of Taiwan's presidential building at its largest military training base in Inner Mongolia.

China's armed forces have long outnumbered and outspent Taiwan's. China now has 800,000 active combat troops in its ground forces, compared with 130,000 in Taiwan; its budget last year was \$144 billion, compared with Taiwan's \$10 billion, according to the Pentagon's most recent annual report on the Chinese military. (Congress approved a \$700 billion Pentagon budget in September, with an even larger increase than President Trump had requested.)

To defend itself, Taiwan has relied on geography — a mountainous main island 80 miles across a windswept strait — and the support of the United States.

However, China's military modernization has "eroded or negated many of Taiwan's historical advantages" in deterring a potential attack, the Pentagon report warned in May.

The Taiwan Relations Act of 1979 commits the United States to defend the island's sovereignty, providing "such defense articles and defense services in such quantity as may be necessary" for Taiwan to protect itself.

While Taiwan still has vocal support in Washington, especially in Congress, China's economic and military rise has made it harder for the United States to ignore Beijing.

In 1995 and 1996, when China menaced Taiwan with missile tests, President Bill Clinton dispatched two aircraft carriers to the Taiwan Strait. At that time, China backed off, but an intervention now would confront a more potent Chinese military.

China has developed ballistic missiles on mobile launchers that, although untested in battle, would threaten American aircraft carriers. Denying the American military the ability to operate freely around Taiwan would undermine a core element of Taiwan's strategy.

In Taiwan, once home to thousands of American air and naval forces before the United States recognized the People's Republic of China in 1979, Mr. Trump's election last year raised hopes of more robust support.

In the months since, however, there has been a growing realization that diplomacy with China — including Mr. Trump's very public efforts to build a personal relationship with Mr. Xi — would be the administration's more pressing priority.

Though the arms package announced in the summer was welcomed, it was not nearly enough to help Taiwan keep pace with China's buildup. More ambitious packages — like one announced by President George W. Bush in 2001 to sell Taiwan eight new diesel-powered submarines that ultimately fizzled out — no longer seem affordable or, for the United States, viable if it wants to maintain relations with Beijing.

"Taiwan needs to realize that its defense is, ultimately, in its own hands," said Andrew S. Erickson, a professor with the China Maritime Studies Institute at the Naval War College in Newport, R.I.

During a recent visit to Hawaii, Ms. Tsai responded to concerns about the imbalance by pledging to increase military spending 2 percent a year. She also promised to make more funds available for purchases of larger weapons.

Since being elected in January 2016, Ms. Tsai has also promoted a plan to expand the island's indigenous defense industry. Among the most ambitious of the projects envisioned is one to build its own fleet of diesel-powered submarines.

In choosing a defense minister, she turned to Mr. Feng, an air force general who spent 39 years in uniform before retiring in 2006 to become chairman of Taiwan's largest defense company. In January, he announced that Taiwan would seek to develop its own stealth fighters to counter China's introduction of stealth jets.

Until such programs are off the ground, Taiwan must rely on aging matériel.

Its two other submarines were built by the Netherlands in the 1980s. By contrast, China, according to the Pentagon report, has 59 attack submarines, including five that are nuclear-powered.

"Regardless of whether you are talking about the quantity or the quality of our submarines," the Hai Pao's captain, Wang Kuo-min, said onboard, "there is a very big gap between us and the Chinese Communist contingent."

Some experts say that given China's overwhelming numerical advantage in weaponry, Taiwan should focus less on big platforms like submarines and more on lower-cost weapons like antiaircraft and anti-ship missiles that can blunt China's superiority.

"Taiwan needs to invest in things that give us new and asymmetric capabilities and can be operational in three to five years," said Yu Hsiao-pin, who has served on Taiwan's National Security Council.

In the meantime, China keeps ratcheting up the pressure. Its aircraft routinely probe Taiwan's airspace, forcing Taiwan's fighters to respond on at least eight occasions so far this year. In July, China's first aircraft carrier, the Liaoning, traversed the Taiwan Strait in a show of force.

"We cannot allow the situation to become routine," said Col. Hsieh Chu-yuan, political warfare director of the 455th Tactical Fighter Wing, whose F-16s scramble from the island's main air force base at Chiayi.

The F-16s, bought from the United States in 1992, now face off against increasingly sophisticated Chinese jets, including, soon, the Chengdu J-20 stealth fighter. Taiwan has no choice but to use the weaponry that it has to deter China, said Mr. Feng, the defense minister.

"Taiwan can't match China jet for jet, boat for boat," he said, but that hardly leaves it defenseless.

"Any attempts to harm Taiwan's people or invade its territory," he said, "will come at a great cost."

SKorea 'In Talks To Buy Nuclear Submarine' From US – Reports Staff, The Manila Times, November 7

SEOUL – South Korea is negotiating with the United States to buy nuclear-powered submarines to guard against threats from Pyongyang, local reports said Tuesday, as President Donald Trump said Seoul would buy "billions of dollars" of US weapons.

Nuclear-powered submarines can stay submerged for months, giving them a far greater range than their diesel-powered counterparts, and are also crucial to any seaborne nuclear deterrent.

Such a purchase would redraw the balance of power in northeast Asia, and could trigger a regional arms race.

Japan—another US ally—does not have nuclear-powered submarines, and is barred from having a military under its post-World War II pacifist constitution.



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