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

The Silent Sentinel

January 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.

Editor's Drawer.

THE agony is over, and the man whom the people—at least the majority of the people—willed to be their chief magistrate is chosen President of these United States. Half of the people have been very sure that if he were elected the country would come to an end, if the world did not. But we are inclined to believe that the Union will last a little longer, and that we shall have some good times yet, in time to come. It has been said that a "special Providence watches over children, drunkards, and the United States." They make so many blunders, and yet live through them, it must be that they are cared for, for they take very little care of themselves. So we are disposed to trust Providence, and not to worry.

Speaking of worrying, recalls an authentic and very good story of the Protector's times.

Cromwell was sending a special envoy to Sweden in the person of Bushrod Whitelock. The embassador was a very devout, but nervous, anxious body, and as he was about to embark he was detained at Harwich by a storm. The distracted state of the nation troubled his mind, and sleep would not come to his pillow. Tossing on his bed, he frequently uttered his distress in groans which came to the ears of his confidential servant lying in an adjacent room. At last the servant, who had the respect of his master, ventured to say,

"Pray, Sir, if you please, will you give me leave to ask you a question?"

"Certainly. Go on."

"Pray, Sir, do you not think that God governed the world very well before you came into it?"

"Undoubtedly I do."

"And pray, Sir, do you not think that he will govern it quite as well when you are gone out of it?"

"To be sure he will."

"Then, Sir, pray excuse me, but may you not trust him to govern it the little while you are to live in it?"

To this question Whitelock had no reply to make, but turning over he soon fell asleep.

We intend to do the same: not to go to sleep exactly—we never sleep in the Drawer—but to trust Providence to take care of the country while we live, and when we are gathered with the fathers.

The president? The year? The publication?

Go to Page 12 in order to find out!

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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.

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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*

January 2017 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 *January 10th.* 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

Harry Humphreyville

Submarine Losses in January

Originally Compiled by C J Glassford

USS Scorpion: (SS-278) Lost on Jan 5,1944 with the loss of 77 officers and men in the East China Sea, on her 4th war patrol. It is assumed she was sunk by a mine.

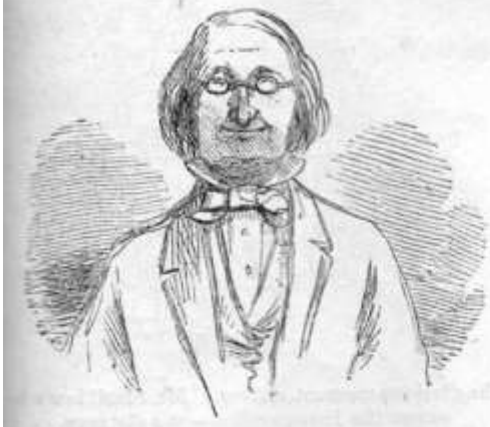
USS Argonaut (SS-166): Lost on Jan 10, 1943 with the loss of 102 officers and men off Rabaul, on her 3rd war patrol. While attacking a convoy, she torpedoed a Jap destroyer who along with 2 other destroyers depth charged her. As she tried to surface, the destroyers sunk her by gun fire.

USS Swordfish (SS-193): Lost on Jan 12,1945 with the loss of 89 officers and men somewhere near Okinawa, on her 13th war patrol. Probably was lost to a mine.

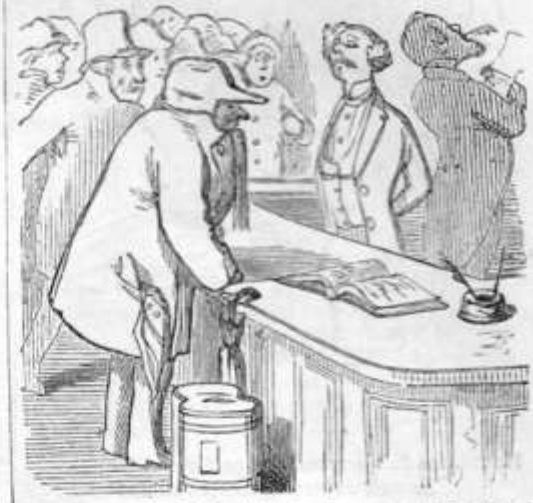
USS S-36 (SS-141): Lost on Jan 20, 1942 with no loss of life, on her 2nd war patrol. She ran hard aground on a reef and radioed for help. The entire crew was rescued by a Dutch ship after they scuttled her.

USS S-26 (SS-131): Lost on Jan 24,1942 with the loss of 46 officers and men in the Gulf of Panama, on her 2nd war patrol. She was rammed by the USS PC-460 and sunk within seconds. The CO, XO and one lookout on the bridge, were the only survivors.

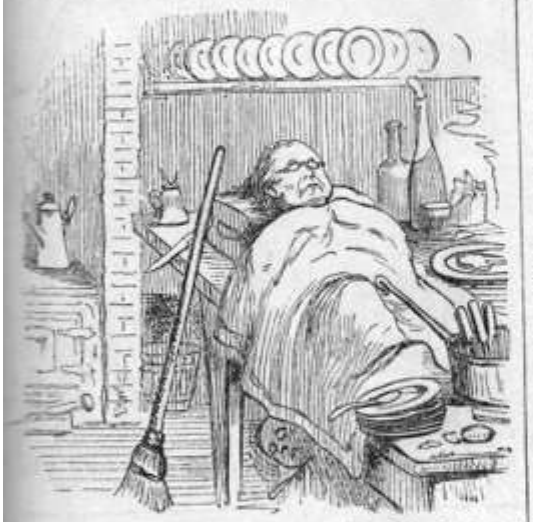
The Inauguration.



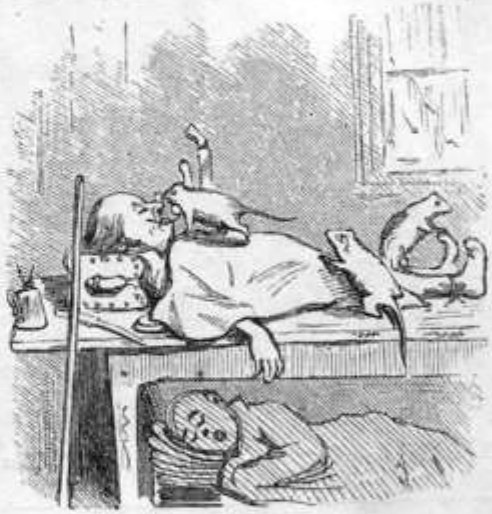
Mr. SHADBLOW, having voted for the successful candidate, resolves to be at the *Inauguration*.



Having reached Washington, he goes to the Hotel and asks for "A Nice Room, not too high up."

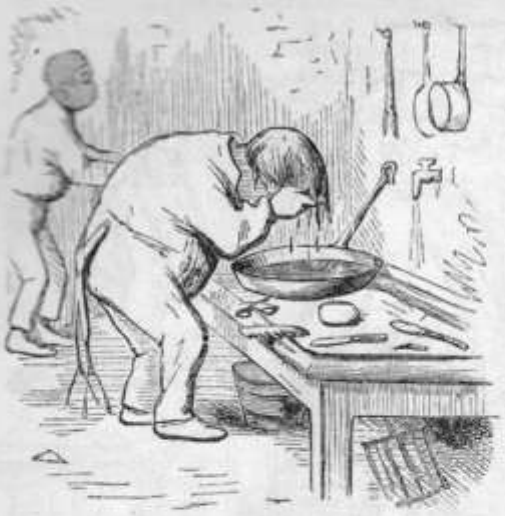


The "Gentlemanly Clerk" gives him his choice of the Roof or the Kitchen.—He prefers the latter.

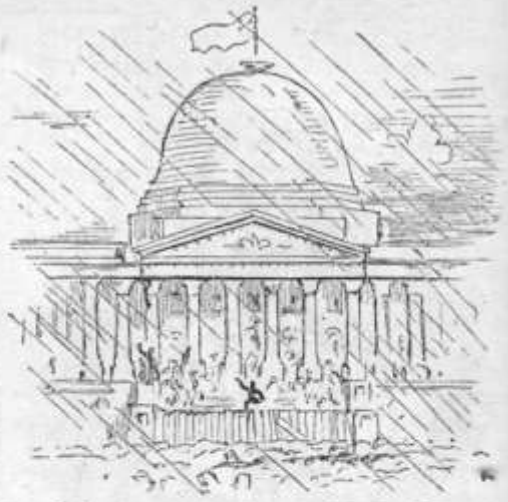


Where he receives every attention from the former occupants of the Apartment.

In the morning he proceeds to the Barber's Shop for a "Wash and a Shave." He waits two hours for "his turn"—which does not come.

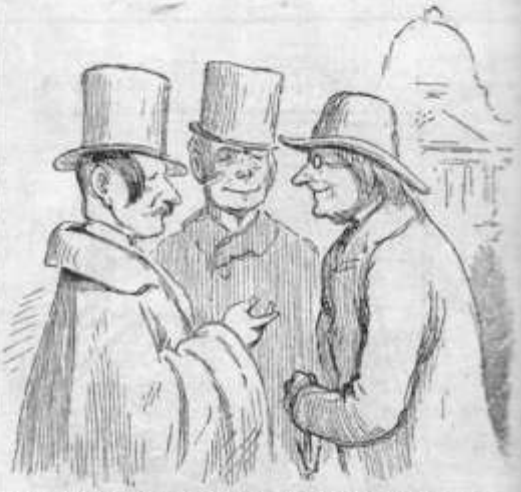


He returns to his room, and performs his ablutions as well as circumstances admit.



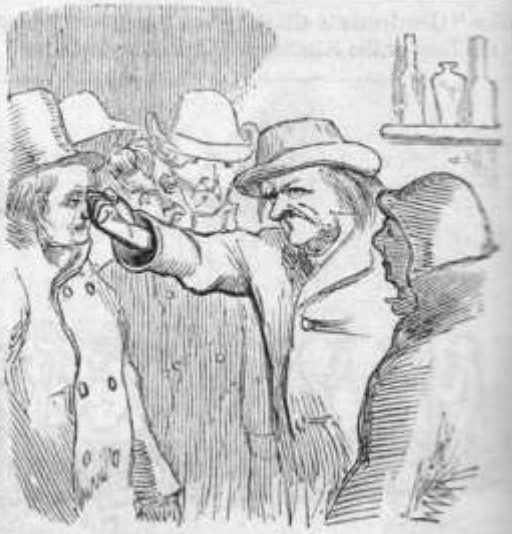
The glorious moment arrives. Mr. Shadblow witnesses the Inauguration—at a distance.

He thinks he will "drop in on Old Buck." But does not succeed.



He falls in with a "Member of the House," who introduces him to a "Senator."

Having parted with his Honorable Friends, he finds that he has lost his Pocket-Book.



And is sure that it must have been taken by one of those "rascally Congressmen."

Mr. SHADBLOW is fully convinced that great corruption exists at Washington, and thinks another "Committee of Investigation" should be appointed. He says, "If they'll pick a man's pocket, they'll do any thing, and ain't fit to go to Congress."

Current News

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

Navy Plans Stealthier Attack Submarines, Citing Breakthrough Acoustic Technology
Kris Osborn, Scout Warrior, January 4

New quieting technologies could help US submarine operate in or near enemy territory without being detected; this will enable US subs to detect and destroy enemy submarines, ships and incoming weapons at much farther distances.

Navy leaders say the service is making progress developing new acoustics, sensors and quieting technologies to ensure the U.S. retains its technological edge in the undersea domain – as countries like China and Russia continue rapid military modernization and construction of new submarines.

The innovations, many details of which are secret and not available, include quieting technologies for the engine room to make the submarine harder to detect, a new large vertical array and additional coating materials for the hull, Navy officials explained.

"We are talking about changes in sensors and changes in the capabilities aboard the ship that we think could be very dramatic in terms of improving our ability to compete in our acoustic spectrum," Rear Adm. Charles Richard, former Director of Undersea Warfare, told Scout Warrior in a special interview last year.

Richard told Scout Warrior that the impetus for the Navy effort, called "acoustic superiority," is specifically grounded in the emerging reality that the U.S. undersea margin of technological superiority is rapidly diminishing in light of Russian and Chinese advances.

The idea with "acoustic superiority," is therefore to engineer a circumstance wherein U.S. submarines can operate undetected in or near enemy waters or coastline, conduct reconnaissance or attack missions and sense any movement or enemy activities at farther ranges than adversaries can.

Acoustic sensor technology works by using underwater submarine sensors to detect sound "pings" in order to determine the contours, speed and range of an enemy ship, submarine or approaching weapon. Much like radar analyzes the return electromagnetic signal bounced off an object, acoustics works by using "sound" in a similar fashion. Most of the undersea acoustic technology is "passive," meaning it is engineered to receive pings and "listen" without sending out a signal which might reveal their undersea presence or location to an enemy, Richard explained.

Described as a technology insertion, the improvements will eventually be integrated on board both Virginia-Class submarines and the now-in -development next-generation nuclear-armed boats called the Ohio Replacement Program.

"The testing going on with the acoustic superiority program is more on the sensor side of the house. We see ourselves on the cusp of a fourth generation of undersea communications," Richard added.

The concept with a fourth generation of undersea technology is based upon a "domain" perspective as opposed to a platform approach – looking at and assessing advancements in the electro-magnetic and acoustic underwater technologies, Richard explained.

"In this fourth generation, acoustic stealth will always be required - get into a hostile environment. If I am noisy, I am not going to live very long. We are constantly pushing the boundary of how to minimize our own signature - while having a better ability to detect an adversary signature," Richard told Scout Warrior.

Richard articulated the first two generations as the advent of the first operational submarine fleets during WWII and the subsequent advent of undersea nuclear weapons during the Cold War.

"WWII was our first time to field a fleet scale capability that was effective in a war. It actually helped us win," he said.

The new "acoustic superiority" effort is immersed in performing tactical assessments as well as due diligence from an academic standpoint to make sure the service looks at all the threat vectors – whether that be hydrodynamics, acoustics, lasers, among others.

The emerging technologies, however, are heavily focused upon sensitive, passive acoustic sensors able to detect movement and objects of potential adversary boats and ships at much further ranges and with a higher-degree of fidelity. While high-frequency, fast two-way communication is currently difficult to sustain from the undersea domain, submarines are able to use a Very Low Frequency radio to communicate while at various depths beneath the surface.

"Low frequency radio signals allow for slower communication. Water is opaque and it is also opaque to radio energy. We have the ability to use certain radio frequencies that do penetrate in the water but they tend to limit you in data rate and receive only. It's very reliable and it well understood. Ballistic missile submarines are in constant communication," Richard added.

The South Dakota is slated deliver in the next few years, Navy officials said.

Study: US Undersea Technological Dominance in Jeopardy.

Senior Navy officials have explained that the innovations contained in the USS South Dakota do, at least in part, help address an issue raised by a report by the Center for Strategic and Budgetary Assessments.

The report, titled "The Emerging Era in Undersea Warfare," says the technological margin of difference separating the U.S from potential rivals is expected to get much smaller. This is requiring the U.S. to re-think the role of manned submarines and prioritize innovation in the realm of undersea warfare, the study says.

"America's superiority in undersea warfare results from decades of research and development, operations, and training. It is, however, far from assured. U.S. submarines are the world's quietest, but new detection techniques are emerging that don't rely on the noise a submarine makes, and may make traditional manned submarine operations far more risky in the future. America's competitors are likely pursuing these technologies even while expanding their own undersea forces," writes the report's author Bryan Clark.

In the report, Clark details some increasingly available technologies expected to change the equation regarding U.S. undersea technological supremacy. They include increased use of lower frequency active sonar and non-acoustic methods of detecting submarine wakes at short ranges. In particular, Clark cites a technique of bouncing laser light or light-emitting-diodes off of a submarine hull to detect its presence.

"The physics behind most of these alternative techniques has been known for decades, but was not exploited because computer processors were too slow to run the detailed models needed to see small changes in the environment caused by a quiet submarine. Today, 'big dat'" processing enables advanced navies to run sophisticated oceanographic models in real time to exploit these detection techniques," Clark writes.

Chinese Submarine Threat:

When asked about the pace of Chinese undersea military construction and modernization, Richard explained that the Navy is focused on sustaining the research and development, or R&D, sufficient to ensure the U.S. retains its technological superiority.

Richard added that the submarine fleet, and strategic nuclear deterrence in particular, is all the more pressing and significant now that China has operational nuclear-armed JL-2 missiles able to hit part of the United States.

A recent Congressional report states that Chinese modernization plans call for a sharp increase in attack submarines and nuclear-armed submarines or SSBNs. Chinese SSBNs are now able to patrol with nuclear-armed JL-2 missiles able to strike targets more than 4,500 nautical miles.

The Chinese are currently working on a new, modernized SSBN platform as well as a long-range missile, the JL-3, Congressional information says.

Navy confirms new submarine is under development
Atle Staalesen, The Barents Observer, January 5

RUSSIA--Marine engineers have started the process with a new nuclear-powered sub, the Navy's Deputy Commander said as shipyard Sevmash officially starts construction of Russia's 8th, and last, Borey-class vessel.

"Definitely, we are not stopping with this", Viktor Bursuk said as shipyard Sevmash on 23rd December officially launched construction of the strategic submarine Knyaz Pozharsky. "Like any other industry, shipbuilding is moving forward in an evolutionary process", Bursuk added in the ceremony organized at the yard in Severodvinsk, northern Russia.

"On an order from the Navy, the Rubin Design Bureau for Marine Engineering has started to create a new missile carrier, which will be built here, at the great Sevmash, the crown jewel of our country", the Deputy Navy Commander said, a press release from the yard reads.

Not much is known about the new vessel, which will be Russia's fifth generation sub. It will be designed by the bureau which have developed more than 80 percent of all Soviet and Russian submarines, and built by the yard which today constructs all the country's nuclear vessels of the kind.

At the moment, five Borey-class vessels are under construction at Sevmash. That includes the Knyaz Pozharsky, the latest, and last, of Russia's Boreys.

The Knyaz Pozharsky is like its fellow Knyaz Vladimir, Knyaz Oleg, Generalissimus Suvorov and Imperator Aleksandr III a Borey-A vessel. Three other Borey-class subs, the Yuri Dolgoruky, the Aleksandr Nevsky and the Vladimir Monomakh have already been handed over to the Navy and are in full operation.

The Borey and Borey-A submarines will for decades ahead constitute the backbone in the Russian Navy's nuclear strategic capacities.

The Borey-class vessels can operate on depths down to 480 meters. It has an underwater top speed of 29 knots and can operate autonomously for 90 days. It has a crew of 107 people.

'Let It Be An Arms Race': Our Nuclear Adversaries Have Already Started
Adam Lowther, Breaking Defense, January 4

President-elect Donald Trump took to Twitter on December 22 to say "The United States must greatly strengthen and expand its nuclear capability until such time as the world comes to its senses regarding nukes." He later called MSNBC TV host Mika Brzezinski and reportedly said, "Let it be an arms race. We will outmatch them at every pass and outlast them all."

While a return to 20,000-plus operationally deployed strategic nuclear weapons is not desirable, over the past decade America's adversaries have replaced aging delivery vehicles and warheads, giving Russia, China, and North Korea capabilities they did not have a decade ago. The arms race has started without us.

Russia:

The Strategic Rocket Forces are fielding a number of new intercontinental ballistic missiles as Russia seeks to replace Cold War weapons. Russia is currently replacing its remaining SS-18 and SS-19 Mod 3 intercontinental ballistic missiles (ICBMs) — which were designed and deployed about the same time as American Minuteman III ICBMs — with SS-27 Topol-M and SS-29 Yars-M ICBMs designed in the 1990s and 2000s. These new ICBMs are silo-based and road- or rail-mobile. Locating and targeting mobile ICBMs is particularly difficult for American targeteers. By 2020, the Russians will field the RS-28 Sarmat, which is often called the "country killer" because it can hold 15 thermonuclear reentry vehicles and is equipped with defensive countermeasures to defeat ballistic missile defenses.

The Russians are also fielding a new class of ballistic missile submarine as a replacement for its fleet of Cold War-era Delta IV submarines. The new Borei class is the quietest Russian submarine produced and can carry up to 16 of the new SS-NX-30 Bulava submarine-launched ballistic missiles (SLBM). With the first Borei-class submarine having entered service in 2009, a total of eight are expected by 2020.

Russia is also modernizing its fleet of Tu-95 Bear-H and Tu-160 Blackjack bombers while it designs and fields a new stealth bomber. The Russians are fielding a new nuclear air-launched cruise missile

(ALCM), the Kh-102. The Kh-102 can be launched from bombers while still in Russian airspace and reach the continental United States; radar may not even see these weapons before they enter American airspace.

Russia is also making significant advances in warhead design, which is important as both the United States and Russia are growing increasingly concerned that the other side could destroy incoming warheads through defensive measures. Ensuring warheads detonate, and at the desired yield, when and where they are supposed to do so has been a focus of Russian designers in recent years. With open source information limited, it still appears Russia is making strides in these areas.

China:

China's nuclear deterrent is primarily found in its ballistic missiles. The DF-5 (CSS-4) is a liquid-fueled rocked first deployed in the mid-1980s. This ICBM was designed to strike the United States with a single large-yield warhead because of its limited accuracy. As part of its modernization effort, the DF-5 is being replaced by the DF-41, a solid-fueled ICBM, which has a considerably improved accuracy and response time.

China also fields the DF-31 (CSS-9), a solid-fueled ICBM first deployed in 2006. A recent upgraded to a DF-31A variant gives China the ability to reach the United States with this ICBM's three warheads. An additional variant is the DF-31B—a road mobile weapon.

The Chinese are also building toward their own nuclear triad by establishing a continuous at-sea deterrent with the Jin-class ballistic missile submarine, first commissioned in 2010 with a total of five expected. Described in open sources as noisy enough to be detected and tracked by the US Navy, it is an inferior submarine, but still a step forward. The Jin will carry up to twelve JL-2 (CSS-NX-4) ballistic missiles, which have a range of approximately 5,000 miles.

China also fielded the H-6K bomber in 2009—a modernized variant of the Soviet-era H-6 bomber—which can carry the CJ-10K cruise missile. Although it is believed that the CJ-10K is conventional only, China could field a nuclear variant. With China seeking regional dominance in Asia, the H6-K's 2,200 mile range provides ample distance to hold targets in the region at risk.

North Korea:

While North Korea has demonstrated the ability to produce a nuclear device and has an active ballistic missile program, it is not clear that it can deliver its nuclear warheads atop a KN-08 road mobile ICBM. Currently, there is no open source evidence to suggest that North Korea has attempted to mate a nuclear warhead with any of its ballistic missiles. However, it is unlikely that North Korean scientists and engineers will fail to overcome existing challenges given Kim Jung-Un's focus on nuclear weapons.

In short, our adversaries are improving their own nuclear capabilities. It is time we do the same.

Does China's deep-sea tech upgrade point to submarine signals network under Pacific?
Stephen Chen, South China Morning Post, January 4

Technology used for undersea research has clear military applications, including improving communications with submarines, say experts.

China has announced plans to upgrade a civilian network of -sensors and communications technology deep in the Western Pacific that it says is used in scientific research.

But analysts said the PLA could already be using a military-grade version of the communications technology to contact submarines operating far from base.

Buoys anchored between 400 and 500 meters beneath the surface of the Western Pacific would be upgraded this year, state media quoted scientists involved in the project as saying.

The researchers said the -submerged sensors helped with research into areas such as -climate change and ocean -currents, and the upgrade would allow the equipment in the buoys to send data directly back to bases in China via satellite technology, Xinhua reported on Sunday.

China had deployed hundreds of buoys, including nearly 20 deep anchor points, in the Western -Pacific since 2014, Xinhua said.

The data can only be collected from the buoys once a year by manually retrieving hard drives as it was difficult to make radio contact with the sensors through the water, Wang Fan, deputy director of the Institute of Oceanology at the Chinese Academy of Sciences in Qingdao, said.

The new technology will enable the deep-sea buoys to send -data to surface anchor points through a cable or wireless sound waves. The surface buoy will then relay the information to a communication satellite.

The civilian system works at the operational depth of most nuclear submarines, suggesting the military could already be using a similar undersea network to communicate with submarines, according to other scientists familiar with the technology.

The data collected could also aid naval operations, according to research scientists. Readings of water speed, temperature and -salinity collected by deep-sea -sensors would help Chinese -submarines avoid harmful turbulence, they said.

The buoys might also record and monitor the passage of submarines from other nations. The Western Pacific is close to numerous countries involved in maritime disputes with China, including Japan and the Philippines.

China is also increasingly concerned about growing US military activity in the area as Beijing makes more assertive claims to territory in the South China Sea.

Lockheed Martin said six years ago it was developing similar technology for US submarines.

Nuclear subs can receive messages but not reply to them when underwater, according to the company. To send a message the submarine has to surface, which increased the risk of being spotted or attacked.

A solution proposed by the US company, then still under development, also involved a surface buoy to establish a link between the craft and a satellite. The new system was dubbed the "first two-way communication method for submarines at depth". The buoy could be deployed either by plane or launched from the submarine's waste disposal chute.

Professor Li Xiaodong, director of the communication acoustics laboratory at the Institute of Acoustics at the Chinese Academy of Sciences, said the technology faced many challenges.

In deep, quiet waters, wireless communication with sound waves could be achieved at distances over 10,000 meters, he said.

But the effective range dropped quickly in the presence of background noises such as ship engines or whale calls.

"The technology works better in distant oceans than offshore -areas," he said. "The real advance is that they seem to have solved the problem of the long-term -operation [of deep-sea buoys] with low power consumption for satellite communication."

Navy To Get New, More Deadly Torpedo
Kyle Mizokami, Popularmechanics.com, December 27

The Pentagon is developing an improved version of the venerable Mark 48 heavyweight homing torpedo. A standard of U.S. Navy submarines since the 1970s, the torpedo is being updated to deal with new threats.

The Mark 48 torpedo was originally fielded in the early 1970s as a "one torpedo sinks all" replacement for the older Mark 37. Unlike the Mark 37, which was only useful against other submarines, the Mark 48 could attack both surface ships and submarines.

The Mark 48 weighs 3,695 pounds, is nineteen feet long and has a diameter of 533 millimeters. It has a 650 pound PBXN-103 high explosive warhead, an effective range of 35,000 yards, and an estimated

maximum depth of 2,500 feet. It has both active and passive guidance systems capable of locking onto targets at 4,000 yards, and can also use wire guidance. The U.S. Navy has 1,046 of the torpedoes fleetwide.

Defense contractor Lockheed Martin is upgrading existing Mark 48s to a new standard. A new, upgraded torpedo will run quieter, have an improved propulsion system, be more resistant to electronic countermeasures, and have an all-new guidance control system known as Common Broadband Advanced Sonar System, or CBASS. The new system should allow for locking onto enemy vessels at even longer ranges.

In addition to upgrading older torpedoes, Lockheed will deliver 250 more brand new Mark 48s to the U.S. Navy.

Navy Engineers Develop Autonomy In A Box?
Mark Pomerleau, C4ISRNet, December 27

As investments in unmanned undersea vehicles are set to increase in the future, assets beneath the surface must have a reliable avenue to meet rapidly changing mission needs. This is where Autonomy in a Box comes in.

Engineers at the Naval Surface Warfare center developed this solution, which will simplify updates to UUV mission information.

“Autonomy in a Box is designed to make installing configurations of autonomy software on a vehicle as easy as installing an application from an app store,” Matthew Bays, system engineer, said.

This capability will offer a quickly deployable software solution that provides platforms with a basic autonomy capability, supports configuration management of an autonomy framework to facilitate easier experimentation and compartmentalizes autonomy software development, a Navy release said.

The release notes that UUVs are currently shared assets between software developers and autonomy projects; step-by-step installations are required before every test of algorithms and operating systems. This process can take days to weeks, with lengthy monetary and mission execution schedule costs.

The Autonomy in a Box solution leverages a “Docker software pre-developed ‘container,’” a large file that allows users to package an application into a standardized unit for software development, the release said. Moreover, the file condenses software into a complete file system with everything it needs.

Developers can now develop their own Docker container or work with provided baselines.

"Any group or program that wants to test their autonomy software can get a copy of the base frameworks within a Docker image and integrate their experimental software off-site into the image," Bays said. "After the copy is returned, the integrity of the software would need to be verified with respect to the changes they have made and deploy it onto our unmanned assets."

Similar platforms might be used to perform different mission sets, requiring varying levels of autonomy based upon its mission.

The system was tested in October during the United Kingdom’s Unmanned Warrior exercise. The team is also working toward further integration, as well as developing a topside autonomy testing container and creating more advanced auto-detection features.

Computer Corner

Untrustworthy download sites are frequently the source of malware attacks. Recently, users who downloaded the "safe" virus protection program Miscosoft Security Essentials from a non-Microsoft website received a fraudulent version which contained malware. This malware caused the "blue screen of death" (BSOD) and prompted the user to click on a link or call Microsoft for technical support to resolve it. In addition, it disabled the Task Manager and hid the Mouse Cursor so there was no way to clear the screen. Microsoft does have a BSoD alert that looks quite similar to the tech support scam. However, Microsoft states that any true messages from them will not include support contact information, nor will they ever request payment for providing technical support. The take away is make sure that download website is valid for the product you want and don't be quick to click the link or make the call. **David Kauppinen, San Diego Base Webmaster 12/29/16**

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From the Cover

Harper's New Monthly
December 1856

Concerning the newly elected, 15th President of the United States, James Buchanan, Jr.

From Page 4

On March 4, 1857, James Buchanan, Jr., was Inaugurated.
Harper's New Monthly
April 1857