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The Silent Sentinel

January 2011

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.

Taiwan Turns To Russia For Submarines After US Stall: Report

Brecorder.com, 8 December 2010

Taiwan has sought help from Russia to upgrade its submarines after a lack of progress in plans to buy new subs from the United States, a report said on Wednesday.

The Taiwanese military sent a team to Russia in October to inquire about replacing the frames of its four ageing submarines, said the Next magazine, citing unnamed sources.

After the team met a shipbuilder in Moscow, Taiwan's defence and intelligence authorities are now evaluating the possibility of collaborating with Russia, it said.

The move came after Taipei's failure so far to acquire new submarines from Washington despite repeated requests to boost its naval defence against threats posed by China, the weekly said.

The government hopes to stress to Washington its wish to still buy the submarines even though ties with Beijing have warmed recently, the report said.

The US is Taiwan's leading arms supplier and Washington announced in January a 6.4-billion-dollar arms package to the island, although it has yet to decide on whether to sell the submarines and F-16 fighter jets to Taiwan.

Analysts have said they doubt Washington would risk further angering Beijing by approving the more sensitive items.

Taiwan and mainland China have been governed separately since the end of a 1949 civil war, but Beijing has repeatedly threatened to invade should the island declare formal independence.

The defence ministry denied the report, in line with its policy on sensitive arms issues.

"The military is cautiously optimistic and continues to urge the United States to authorise the submarine deal," it said in a statement.

Taiwan's navy operates a fleet of four submarines, but only two of them, Dutch-built, could be deployed in the event of war. The other two were built by the United States in the 1940s.

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The Silent Sentinel via Email

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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 Meeting

Our monthly meetings are held on the second Tuesday of the month at VFW Post 3787, 4370 Twain Ave., San Diego. Our next meeting will be on 11 January 2011. 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

Al Strunk, back at home recuperating.

Submarine Losses in December

Submitted by C J Glassford

" SUBMARINE FORCE LOSSES "
" DECEMBER "

GRAMPUS [Bell} (SS 4) - 16 Men on Board:
Main Engine Fuel Explosion, on 10 Dec 1910 :
" 1 MAN LOST "

CARP (SS 20) - 19 Men on Board:
Sunk, on 16 Dec1917, after Collision with USS F – 3, (SS 22), off the Coast of San Diego, California :
"ALL HANDS LOST "

S – 4 (SS 109) - 39 Men on Board:

Rammed and Sunk, on 17 Dec1927, by Coast Guard Cutter Spaulding, Off Provincetown, Massachusetts, * Later Salvaged: "ALL HANDS LOST "

SEALION (SS 195) - Duty Section on Board:
Severely Damaged, on 10 Dec 1941, by 2 Bombs, during Air Attacks at Cavite Navy Yard, in the Philippines. Later Scuttled on 25 Dec 1941: " 4 MEN LOST "

MINNEAPOLIS-SAINT PAUL [Bell} ((SSN708) – 110 Men on Board:
Heavy Seas, on 29 Dec 2006, Washed 4 Crewmen Overboard in Plymouth, Sound England, while exiting Devonshire, England, on the Surface, After a Port of Call :
" 2 MEN LOST " – " 2 MEN RESCUED "

Base Commanders Corner
Jan 2011

Hello everyone! Hope everyone is doing good and enjoyed the Christmas Holidays. Hope everyone rung in the New Years with a bang!! We had a Great turn out for the Joint Christmas party. There were about 90 folks there ranging from our Heroes from WWII SUBVETs, Scamp Base, Bonefish Base, Trieste Base, and our base. The food was great and thanks to the women from the Ladies VFW Aux and Gus for all their hard work. Again, we pulled off getting a gift to everyone who came to the dinner. Thanks to everyone who donated gifts for the door prizes.

This past year we lost a lot of shipmates and I would like to take this time to remember our shipmates that are Eternal Patrol and their families. Our thoughts and prayer go out to them.

Over the Christmas holiday, I was thinking about programs we have talked about getting involved with and want to move forward with them. Kaps-for-Kid, and the Boy Scout Programs were discussed this past year and I think we can get more involved with the community. We are also involved in the Partnership to Education Program with a local grade school that has dropped offline. I would like to see a few of people to take charge and run with these programs and get many others in our organization involved, too. Just a little something to think about.

Hope you all have a Great Year and hope WE, SUBVETs, can make a difference this year and keep moving forward!! God Bless for a better year!!

Sincerely Your Base Commander,

Bob Bissonnette

Navy Stamps Out Smoking On Submarines

By Jeanette Steele, Union-Tribune, Friday, December 31, 2010

The life of a Navy submariner is famously tough.

Packed in a cramped metal tube, they have no contact with home while deep under the water. No e-mails. No phone calls. It's not uncommon to go 45 days without seeing the sun.

But at least they could smoke.

Now the submarine community faces a major cultural change. Starting today, the Navy is banning cigarette smoking on subs while they are under way.

The new policy, which aims to protect the health of nonsmokers, means that submariners such as Jared Devillier will have to survive for long stretches without a puff.

Devillier, a 21-year-old sailor on the San Diego fast-attack submarine Albuquerque, has quit cigarettes before. Plenty of times. He's really only an occasional smoker. The last time he took a drag?

OK, about 25 minutes ago.

"There's something about work that drives you to want to do something besides just work. At home, I'm fine," said Devillier, a sonar technician. "There's no other outlet at work where you can do something totally stress-free. You can't just play Ping-Pong, or go shoot hoops or do whatever people do."

No more quick trips to the engine room, often one of the designated smoking spots on a sub. No more standing in line, waiting to be one of the three people allowed to light up at the same time.

The new policy came about because a 2009 Navy study found that air-filtration systems on submarines couldn't fully subtract what cigarettes put in the air. Other submariners were being forced to become secondhand smokers.

Sailors on other kinds of Navy ships can still smoke.

"This environment where our sailors are breathing air that's recirculated makes it unique," said Cmdr. Christy Hagen, spokeswoman for the Navy's Submarine Force Pacific in Hawaii. "The policy was necessary in order to protect the health of all submariners."

About 4,000 of the 13,000 sailors serving on submarines are smokers.

That means roughly one out of every three or four sailors aboard San Diego's six fast-attack submarines will have to change their Winston ways.

Since the ban was announced in April, the Navy has tried to help these folks extinguish the habit. Each sub sent sailors to be trained on how to teach the rest of their shipmates to stop. Say-no-to-smoking meetings are held regularly on the boats.

And hospital corpsmen assigned to subs are dispensing free nicotine patches and gum to smokers who want it.

Submariner Orlando Apodaca, 29, has been smoking since he was a teenager in El Paso, Texas.

Knowing the ban was coming, he went to the military clinic. The doctors offered him prescription medicine to help curb the craving. But he can't take it, as submariners aren't allowed to ingest drugs that affect the mind.

So Apodaca, who has been serving on subs for almost 12 years and is now assigned to the Ashville, is going to white-knuckle it while the vessel is submerged.

He has only eight years to go until he is eligible for a retirement paycheck. He can always smoke in port.

"I just think of the long run: retire, and I get paid for sitting on my butt all day long," Apodaca said. "So you know what? I'll deal with whatever they throw at me. It'll be over eventually."

Submariner Caleb Scarth, who keeps his Camels in the leg pocket of his Navy uniform, will switch to chewing tobacco exclusively. He already carries, next to the smokes in his pocket, a little plastic bottle for spitting out the juicy discards.

Scarth believes that, amid the pressures of a deployment, he's going to need the quick, blissful punch of nicotine.

"Because of the way the chemical works, it just gets in your head. And it's just like, 'Yeah.' And everything goes away," said Scarth, a 25-year-old fire control technician.

Nick Church, 27, a former smoker on the Ashville, said he understands why his buddies light up — to fight the tension and boredom below the sea surface.

"I don't think anyone else understands what it's like to go silent for 40 to 50 days," said Church, another fire control technician. "Unless you've done it, you don't know how to even explain it to somebody."

In addition to the smoking ban, the submarine community was recently rocked by another policy change when the Navy announced in April that women will be allowed to join the "silent service" on some subs.

The first female submarine officers are in training and are expected to join their ships in December.

Despite the no-smoking change, none of the submariners say they are ready to abandon ship.

"I've got way more pride in my job than that," Scarth said.

Navy Adds Restrictions For Submariner Pay

By Sam Fellman, Navy Times, Dec 29, 2010

Submariners heading to shore duty in 2011 will have to commit to longer follow-on sea duty to continue receiving incentive pay, according to a NAVADMIN message released Tuesday.

To receive continuous duty sub pay while assigned to shore or non-submarine duty, they must commit to serving 18 months past their projected rotation date starting in April. For those checking aboard shore duty sooner or already assigned there, the current requirement of 14 months past PRD won't change.

"The objective of this change is to improve at-sea manning stability by lengthening the time personnel who obligate their service (OBLISERV) for subpay will be onboard and qualified after returning to sea," states the message released by Chief of Naval Personnel Vice Adm. Mark Ferguson.

Sub incentive pay adds up for petty officers and chiefs. A second class petty officer with five years of service receives $250 a month; a Chief with 12 years gets $405, according to the Opnav instruction 7220.15.

Russia's New Nuclear Sub Completes Year-Long Trials

Brahmand.com, Dec 23, 2010

SEVERODVINSK (BNS): Russia's newest strategic nuclear-powered ballistic missile submarine (SSBN) Yury Dolgoruky has successfully completed trials programme of 2010, according to a media report.

"The submarine is not going to be delivered to the Navy so far; as is known, Yury Dolgoruky will undergo trials of standard weapon – new missile system Bulava", ITAR TASS quoted a shipyard's representative as saying.

Yuriy Dolgorukiy is the first SSBN submarine of the Borei class of the Project 955, which was laid down in 1996 and launched for outfitting in April 2007.

The submarine has completed sea trials programme of 2010 and will be commissioned along with submarine-launched ballistic missile (SLBM) Bulava, it said.

Recently, Russia has postponed the missile's first test launch with standard carrier – SSBN Yury Dolgoruky – which was scheduled on Dec 17, due to the heavy snow fall in firing range of the White Sea.

Sevmash shipyard will also build the next submarine of this project – SSBN Vladimir Monomakh.

Submariners Get New Information Systems Technician Rating

From Chief of Naval Personnel Public Affairs, Dec 20, 2010

WASHINGTON (NNS) — The Navy released NAVADMIN 406/10, Dec. 17, announcing the creation of the Information Systems Technician Submarines (ITS) service rating and providing active duty Sailors with guidance on how to request an ITS conversion.

"The establishment of the ITS rating will provide the Submarine Force with an infrastructure of information assurance and network professionals who will be fully equipped to resolve future issues and implement new technologies on board our submarines," said Lt. Dan Morrison, Submarine, Non-Nuclear, Enlisted Community Manager. "Overall, the ITS rating is an excellent choice for Sailors who seek challenges in new and emerging technologies, and the opportunity to be submariners

The primary source ratings for ITS conversions will be from Sailors assigned to jobs in submarine Local Area Network divisions and those from ratings in the information assurance workforce, but all non-nuclear trained Sailors are eligible to request conversion. Information System Technicians (IT) with Navy Enlisted Classification (NEC) codes of 2780, 2781, or 2735 will be eligible for direct conversion to ITS.

Describing the benefits of converting to ITS, Morrison explained, "Currently, submariners working outside of their source rating in support of submarine LAN requirements are at a disadvantage when taking promotion examinations. Sailors who convert to ITS will participate in ITS examinations and compete with other ITS professionals in their paygrade."

Any E-4 to E-6 active duty Sailor who wants to be part of the initial 180–200 selected for conversion must ensure they are eligible for submarine service prior to submitting their request (NAVPERS 1306/7 form) to Naval Personnel Command (PERS-811) by the Feb.1, 2011 deadline. Sailors possessing a Microsoft (MS) A+ or Microsoft Certified Professional (MCP) certification are highly encouraged to apply and should note these certifications on their conversion request form.

Dependent upon their source rating and previous training, Sailors selected for conversion may require additional schooling and potentially incur additional obligated service. For example, Sailors who require an IT NEC may attend A-school as part of their conversion and Sailors from non-submarine ratings will need to attend Basic Enlisted Submarine School (BESS) prior to being assigned to a submarine as an ITS. Applicants are encouraged to speak with a Navy Career Counselor about the conversion process.

To learn more about the ITS rating conversion, visit Navy Personnel Command's website at www.npc.navy.mil.

For more information from the chief of naval personnel, visit www.navy.mil/cnp.

For more news from Chief of Naval Personnel, visit www.navy.mil/local/cnp/.

Pentagon Said Likely to Back New Design for Ballistic Missile Submarine

By Elaine M. Grossman, Global Security Newswire, Dec. 21, 2010

WASHINGTON — The U.S. Defense Department is likely to pursue a brand new design for its next nuclear-armed submarine, following a Navy recommendation during a key program review earlier this month, according to experts and observers (see GSN, Sept. 27).

The Pentagon's Defense Acquisition Board on December 9 completed an initial design review meeting on the so-called "SSBN(X)" effort, spokeswoman Cheryl Irwin confirmed last week. However, she indicated the department was not ready to release the review's results.

If approved by defense acquisitions czar Ashton Carter, the replacement submarine for today's Ohio-class ballistic missile vessels would enter its first major acquisition program phase, called "Milestone A."

A recent Congressional Research Service report estimated it would cost roughly $70 billion to replace the 12 ballistic missile submarines expected to populate the U.S. fleet by the end of this decade. The nation currently fields 14 Ohio-class boats.

The Navy has not released total cost projections for the new underwater craft, but has estimated it would spend $29.4 billion on the effort between fiscal 2011 and 2020. That figure, though, excludes costs for roughly two subsequent decades during which the 12 new submarines would be built and delivered.

The next-generation submarine is to initially carry today's Trident D-5 nuclear-armed ballistic missiles, but later could be fitted with new-design nuclear missiles and possibly conventional weaponry (see GSN, Aug. 10).

The first Ohio-class submarine to be replaced reaches the end of its 42-year service life in 2027. One subsequent vessel is slated to retire each year after that, with the last submarine expected to age out in 2040. The SSBN(X) submarines are to enter the fleet between 2029 and 2042.

One pivotal decision believed likely to come out of the Defense Acquisition Board review pertains to the approach the Navy will take in developing and building the replacement submarine. In an official "analysis of alternatives" that also has not been released, the Navy considered three possible design concepts for the Ohio-class follow-on, according to a recent Energy Department report.

First, the Navy could base its design on the Ohio-class vessel. This would have the potential benefit of saving much of the cost involved in designing a new submarine, which one 2008 estimate pegged at roughly $7 billion. However, service officials have said this approach would have the disadvantage of locking in older technologies that fail to meet the Navy's needs.

For example, it could be difficult to include in an Ohio-class design the silencing technologies the Navy believes are needed to combat modern detection equipment that future adversaries might field, among other features, according to naval sources.

Second, the service could alter the Virginia-class attack submarine design so that it could carry ballistic missiles. This approach could also offer cost-cutting advantages and transition the service to a smaller ballistic-missile vessel at a time when traditional Cold War nuclear threats are receding, according to analysts.

On the downside, modifying the more diminutive Virginia-class vessels would give the submarines a "humpback" appearance — thanks to the insertion of a compartment for the large D-5 missiles — and that could result in reduced capability in such areas as speed, maneuverability and stealth, the Navy has argued.

"A Virginia Insert SSBN would require redesign of the Virginia and would have technical and operational shortcomings and risks," the CRS report quoted the Navy as stating in March.

That leaves the Navy endorsing a new-design approach, the third option considered for the SSBN(X) in the service's analysis of alternatives, according to program experts. Though a new-design submarine involves additional cost, the Navy recently tailored back its size and speed requirements for the boat, defense leaders said this fall.

An "emphasis on affordability is already being applied to the next-generation ballistic missile submarine, where we are trimming [design] requirements without compromising critical capability," said Defense Secretary Robert Gates, appearing with Carter at a September 14 press briefing.

Pentagon-watchers said this month's Milestone A meeting was likely to have resulted in a schedule for the new submarine's development and testing, as well as possible cost-reduction goals for the program.

"The big problem is going to be money, because no one knows what they're going to cost," Norman Polmar, a longtime Defense Department consultant on naval issues, told Global Security Newswire yesterday.

There is little debate, though, over the basic necessity of replacing today's aging submarines.

"To maintain an at-sea presence for the long-term, the United States must continue development of a follow-on to the Ohio-class submarine," stated the Pentagon's Nuclear Posture Review, an assessment of strategic forces and strategy completed in April. "Since the lead times associated with designing, building, testing, and deploying new submarines are particularly long, the secretary of defense has directed the Navy to begin technology development of an SSBN replacement."

In February the Navy said that "owing to the unique demands of strategic relevance, [the new submarines] must be fitted with the most up-to-date capabilities and stealth to ensure they are survivable throughout their full 40-year life span," according to the Congressional Research Service.

Among the new capabilities the service is seeking in the new submarines is a nuclear fuel core that would last as long as the vessel, an improvement on the Ohio-class reactors that required midlife refueling, the October 28 CRS report states.

Whether Carter and his defense buying panel have fully backed all of the Navy's requests for SSBN(X) remains unclear, but it is "almost 100 percent certain" that the Pentagon will opt for a new design, one congressional source said last week.

Critics say, though, that the Navy analysis of alternatives failed to seriously assess the prospects for viable alternatives to a new design, effectively setting up the idea of designing a boat from scratch as the only acceptable option.

"That's the beauty of the Goldilocks approach, is that two options will always be unacceptable and then you land on the one you prefer anyway," Hans Kristensen, who directs the Federation of American Scientists' Nuclear Information Project, said in an interview yesterday.

The recent design review was also expected to decide whether the submarine will feature 16 or 20 missile tubes, according to the Capitol Hill aide and others who asked not to be identified in discussing the sensitive matter.

Each tube would be capable of launching a single D-5 ballistic missile or a future ballistic missile of up to the same size, but also might be able to fire multiple smaller weapons, according to experts.

To cut costs, the Navy is believed to be pressing for 16 missile tubes in the new submarine, though that does not mean that a new-design vessel would be smaller than the Ohio-class boat, which has 24 missile tubes, according to the CRS report.

In a recent briefing, "the Navy stated that an SSBN(X) would probably be about the same size and have roughly the same displacement as an Ohio-class submarine, even though it might have only 16 or 20 missile tubes," according to the congressional report. "Over time, technological advancements tend to add weight to a submarine design (compared with the same submarine produced 30 years earlier)."

In part because of technologies the Navy has long embraced to insulate the submarine's nuclear-reactor propulsion system, "there are real physical limits to how small you can make it," Kristensen said of the next ballistic missile submarine.

Polmar argued, though, that the Navy should consider using newer and smaller quieting technologies, such as "active" silencing approaches that cancel out reactor noise with other noise. Both of the analysts also said that if the Pentagon could accept a more limited patrol range for its next ballistic-missile submarine, the reactor and the overall size of the craft could be smaller.

"We don't have to stay as far at sea as we did during the Cold War," Polmar said.

On Capitol Hill earlier this year, lawmakers urged the Navy to consider buying a submarine smaller than the Ohio class — such as a variant of the Virginia class — that would be limited to launching a less-sizable missile like the Trident C-4, the weapon that the D-5 replaced.

"I think you ought to ask the engineers about a missile that might fit in the smaller submarine rather than the multibillion dollars you might have to sink into a replacement for the Ohio-class submarine," House Armed Services Committee Chairman Ike Skelton (D-Mo.) told Navy Undersecretary Robert Work at a July hearing.

Work responded that the Navy had considered using the C-4, but opted instead to go with the D-5, even if that effectively ruled out using a Virginia-class design.

Rear Adm. Terry Benedict explained to a Capitol Hill breakfast audience the same month that retaining D-5 missile capability in the new submarine would help maintain continuity during a 13-year period between 2029 and 2042, as the Ohio-class boats gradually retire and their replacements transition into the fleet. Benedict directs the Navy Strategic Systems Planning office.

Though the decision would allow the Navy to avoid the cost and developmental risk of undertaking both a missile- and submarine-development program at the same time, it also would mean the Ohio-class replacement must be large enough to fit the D-5, which has a range of roughly 4,000 nautical miles.

"At the outset, we have a predecisional notion that we're going to keep the D-5, making other [submarine] options straw men," Kristensen said.

Polmar agreed that the Navy should seriously consider using the C-4 or a new-design missile that is roughly 35 feet in length, as it could still offer the service some 3,000 nautical miles in range.

Under the New START nuclear arms control agreement — a U.S.-Russian pact currently on the Senate floor for a ratification vote — the Pentagon anticipates capping its Trident D-5 missile force at 240.

Today the fleet carries 288 deployed D-5s, armed with a total 1,152 nuclear warheads.

The reduction in two vessels by the end of this decade is not, in itself, expected to affect the number of D-5 warheads fielded at that time, according to nuclear force analysts Kristensen and Robert Norris of the Natural Resources Defense Council. The numbers would allow for a slightly higher average warhead loading on each missile, if the Pentagon desired.

Russia To Develop New Heavy ICBM By 2020

RIA Novosti, 20 December 2010

Russia's state arms procurement program through 2020 provides for the development of a new heavy ballistic missile, a leading missile designer said on Monday.

The final decision should be made in 2012-13 by the expert community, not solely the Defense Ministry, said Yury Solomonov of the Moscow Institute of Thermal Technology (MITT), the developer of the troubled Bulava submarine-launched ballistic missile.

"This matter is beyond the Defense Ministry's competence. It is a matter of state importance," he said.

"Heavy ICBM" refers to a class of missiles with a heavy throw weight between five and nine metric tons and a length of over 35 meters, capable of delivering a large number of warheads in a single MIRV missile.

Russia's Strategic Missile Forces are still armed with Soviet-era SS-18 Satan and SS-20 Saber ICBMs with an extended service life and are expected to remain in service until 2026.

The SS-18 Satan is deployed with up to 10 warheads with a yield of 550 to 750 kilotons each and an operational range of up to 11,000 km (6,800 miles).

Carrier Bush Evacuates Injured Sailor To S.C. Hospital

By Kate Wiltrout, The Virginian-Pilot, 17 December 2010

A Navy helicopter crew, assisted by a neurosurgeon, evacuated an injured sailor from a U.S. submarine in the Atlantic on Thursday and flew him to a South Carolina hospital.

The Knighthawk helicopter, assigned to Helicopter Sea Combat Squadron 26 in Norfolk, was embarked on the aircraft carrier George H.W. Bush. Hours before the carrier was scheduled to dock in Norfolk on Wednesday, it was ordered back to sea in order to help a sailor suffering from a head wound on an unnamed submarine. The sailor hit his head on a scuttle, or hatch.

The Navy announced Thursday that the sailor and the neurosurgeon - assigned to Portsmouth Naval Medical Center - were flown to the Medical University of South Carolina in Charleston. There, the sailor was given further evaluation and treatment, he is in stable condition.

"Mariners at sea take care of each other," said Vice Adm. Daniel P. Holloway, the commander of the Navy's 2nd Fleet. "There is no better way to show our sailors and their families the extent the Navy will go in order to take care of their own."

The Bush had been at sea for about two weeks of training and was scheduled to return Wednesday, in time for a holiday party at a local convention center. The party was scrapped when Holloway ordered the Bush to make "best possible speed" to a rendezvous point to evacuate the sailor.

Another ship in the Atlantic - the Florida-based guided missile frigate Boone - was also dispatched from its location toward the submarine.

Its helicopter provided surveillance and search-and-rescue support during the evacuation, the Navy said.

"The saying that we never leave a shipmate behind was proved today," said Capt. Chip Miller, commanding officer of the Bush. "There was a sailor out there who needed our help, and we were honored to receive the call. "

The Bush is expected back today.

Indian Navy Begins Process To Acquire Two Submarine Rescue Vehicles

Currently dependent on US DSRVs, this is India's second attempt to acquire its own rescue vehicles

BY Ritu Sharma, tehelka.com, Dec 17, 2010

Delhi - The Indian Navy floated an RFI (request for information) earlier this week for acquiring two kits of free-swimming deep submergence rescue vehicle (DSRV), used for rescuing downed submarines and covert missions.

It has sought information from firms who have experience in designing and constructing such a vehicle which is currently in service with any navy or undergoing sea trials.

The bid, published by the Directorate of Submarine Acquisition of the navy, comes shortly after it invited information from Indian and global shipbuilders to support the procurement of two new 3,000-ton diving support vessels (DSV)

"The RFI has sought information about the maximum depth in which the rescue vehicle can operate, number of rescuees in one batch, composition and number of onboard as well as support crew, along with additional personnel during a continuous operation for 72 hours," said an Indian Navy official who refused to be named.

While the depleting submarine strength of the Indian Navy remains a cause of concern, its efforts to procure submarine rescue vehicle have also been unsuccessful. It made the first attempt to acquire the kits from the US Navy, in 1997.

The intention was to also allow indigenous manufacturers to assemble their own submarine rescue vehicles. But the plan fell through as the US government embargoed supply of defence equipment to India in the aftermath of the nuclear tests.

Further, the Indian Navy's plan to buy two DSRVs was scrapped in 2005 following charges of corruption, but the effort has apparently picked up again.

Currently, the Indian Navy is dependent on the US Navy's rescue vehicle, without any proper service agreement, during distress. The US Navy DSRVs, however, would take at least 72 hours to get to station from its nearest base.

According to an August 2010 report of the Comptroller and Auditor General (CAG), the DSRV will perform rescue operations on submerged or disabled submarines.

"It will remain stationed with the US Navy and in the event of an accident will be transported to the nearest seaport or airport, then to a mother ship to reach the rescue site….with the capability of rescuing up to a depth of 610 meters," it added.

The report says that such time and depth restrictions further dilute the effectiveness of a rescue facility which, in any case, is nowhere close to completion.\

Submarine Launched Brahmos Almost Ready

By Vinay Shukla, MSN News, Dec 15, 2010

Moscow, Dec 15 (PTI) Submarine launched version of the supersonic BrahMos cruise missile is in final stages of development, and Russia says that the new Amur subs being offered to India have the capability to launch these weapons.

"The submarine launched version of Indo-Russian BrahMos is in the very advanced stage of development," Chief of NPO Mashinostroyeniya (NPOM) Corporation Alexander Leonov here said.

Leonov said St. Petersburg-based Central Naval Design Bureau "Rubin" has already worked out options for the deployment of BrahMos missiles on the new "Amur-1650" conventional submarines offered to India, which can be launched from underwater position.

The new Russian conventional submarines will be equipped with tubes for launching them from underwater position, he said. India is facing problems in testing these strategic new missiles in the absense of a platform.

Indian Navy''s current range of submarines including Russian Kilo Class, German SSK and the French Scorpene under construction at Mazagoan docks under a Indo-French joint venture do not have the capability to launch these supersonic missiles.

NPOM is equity partner in the Indo-Russian BrahMos Aerospace JV. Leonov said India-based BrahMos Aerospace JV has signed new contracts with the Indian Air Force, Navy and Army for the delivery of cruise missiles through 2017, ARMS-TASS military newswire reported.

Nevsky and Novomoskovsk: Two submarines for Putin

RIA Novosti, Dec 15, 2010

On December 13, 2010, Vladimir Putin visited Sevmash, a major shipbuilding company in Russia. His visit was timed to coincide with a significant addition to Russia's strategic nuclear naval forces.

In the last few days, the company has released two strategic ballistic missile submarines (SSBNs) - the overhauled K-407 Novomoskovsk and the newly built K-550 Alexander Nevsky.

The Novomoskovsk is part of Project 667BDRM and the Alexander Nevsky is part of Project 955. These two types of submarines will form the basis of strategic nuclear naval forces in the foreseeable future.

The Alexander Nevsky: Continuing a princely series

The Alexander Nevsky is the second submarine of its project to be built by Sevmash. The first, the Yury Dolgoruky, took 11 years to build, from 1996 to 2007, and is now undergoing the final stage of testing. The Alexander Nevsky was built in six years, starting in 2004. Construction of the Vladimir Monomakh started in 2006 and is currently in progress. It is scheduled to be commissioned in 2012. The St. Nicholas is also being built. Work began on a fourth submarine in 2009 and should take five years to complete.

This trend of shorter submarine construction times has been made possible by the resumption of regular funding of defense contracts and newly established industrial cooperation. Vladimir Putin had also identified minimizing construction times as a goal. Ideally, the construction of SSBNs should take four to five years, and these timeframes appear to be achievable.

The main problem with the Dolgoruky, the Nevsky and similar missile submarines is the missiles themselves. Ongoing tests of the Bulava have not been been terribly successful. The next launch of the Bulava will take place in coming weeks on board the Yury Dolgoruky. If it is successful, it will be the third successful launch in a row, which will mean that the major issues involved in the production of Bulava missile can be resolved.

A total of eight Project 955 SSBNs are to be built in the next 10 years. Starting with the hull of the fourth submarine, missile submarines will be based on the improved design of Project 955U. Based on available information, the first submarines manufactured under the project will carry 20 missiles instead of 16.

The Novomoskovsk: Proven reliability

Unlike the modern submarines of Project 955, the upgraded submarines of Project 667BDRM were tested and adopted by the fleet a long time ago - in the second half of the 1980s - and they represent the latest stage in the development of the large Project 667 family. Currently four out of six of the Project 667 submarines have been re-armed with Sineva missiles - an improved version of the previously tested R-29RM missiles. Two more submarines will be re-equipped with Sineva missiles in the next three to four years.

Sineva missiles have a much larger range than the basic R-29RM missile (over 11,000 kilometers versus 8,300), greater accuracy and a more advanced set of tools to penetrate anti-missile defense. The standard version of the missile is equipped with four warheads with a capacity of 100 kilotons each. Additionally, these missiles may be equipped with new generation sub-kiloton warheads having a yield of several dozen tons of TNT, which enables pinpoint targeting.

Project 667BDRM submarines with the new missiles will remain in service for another 15-20 years, making them, along with new Project 955 submarines, the foundation of strategic nuclear naval forces for the near future.

Submarines are key to nuclear capability

By 2020, the Russian Navy will have a total of 14 ballistic submarines from Projects 955 and Project 667BDRM. They will carry 244 ballistic missiles and about 1,000 warheads, which will make up approximately half of Russia's entire strategic nuclear arsenal in terms of the number of delivery vehicles, and two-thirds of the number of nuclear warheads. This means that for the first time in Russian history, the submarine fleet will form the foundation of Russia's strategic nuclear forces. This imposes a great responsibility on the rest of the fleet's forces, which must ensure the battle-readiness of missile submarines and protect them from possible attacks.

Great responsibility also rests with the Navy's support system - in order for the "strategics" to effectively perform their tasks, they have to regularly sail out to sea and stay there most of the time. In order to keep such a schedule, large-scale investments in infrastructure will be needed, from educational centers to maintenance plants that will keep the submarines in a state of constant readiness.

A base for new SSBNs is being built in Vilyuchinsk, on the Kamchatka Peninsula, where the Pacific Fleet's nuclear submarines are based. Investments in infrastructure may be just as costly as the submarines themselves (the Dolgoruky and Nevsky cost about 25-30 billion rubles each), but due to heavier use of these submarines, the cost will be recouped many times over.

Pacific Submarine Force Changes Command

By COMSUBPAC Public Affairs, Dec. 10, 2010

Rear Adm. Frank Caldwell Jr. assumed command of Submarine Force, U.S. Pacific Fleet, relieving Rear Adm. Douglas McAneny during a traditional change of command ceremony held Dec. 10 at Joint Base Pearl Harbor-Hickam.

As Commander, Submarine Force, U.S. Pacific Fleet, McAneny lead a force that includes attack, ballistic-missile and guided-missile submarines, submarine tenders, a floating submarine dock, a submarine rescue unit and undersea surveillance.

Adm. Patrick Walsh, Commander, U.S. Pacific Fleet, presided over the ceremony. He offered remarks on the Pacific Submarine Force and McAneny's leadership.

"Over the past 2 years, Doug [McAneny] has had the enormous task of overseeing submarine operations and being our point man for submarine manning, training and maintenance in the Pacific," said Walsh. "Our submarines bring capabilities that are just vital to our national security as well as alliances in the Asia-Pacific region. Under Doug's guidance, the Pacific Submarine Force has dramatically improved its combat readiness, meeting increased national tasking while maintaining the highest standards of operational excellence."

In his remarks, McAneny reflected on the history of the Submarine Force in the Pacific and wondered what the commanding officers of the past would think of the submarines of today.

"I think they would be struck by one important factor- they would immediately recognize our Force still attracts America's finest," said McAneny who assumed command in Sept. 2008. "The ships of the Force are technological marvels, but it is the character of the people that man our submarines that makes us the envy of great navies around the world."

During McAneny's tenure, he oversaw the introduction of Virginia-class submarines to the Pacific including USS Texas (SSN 775), USS Hawaii (SSN 776) and USS North Carolina (SSN 777). With the introduction of these vessels and shifts in homeports for others, the mandate from the 2006 Quadrennial Defense Review to homeport 60 percent of the U.S. Navy's attack submarines in the Pacific was achieved.

"The dominance the Force provides to the Navy and the nation today revolves around one key axis - credible deterrent power," said McAneny. "In fact today, nearly 50 percent of the Pacific Fleet Submarine Force is underway - with nearly half of them supporting Combatant Commander objectives."

Submarines under McAneny's command conducted 37 deployments to the U.S. Pacific Command and U.S. Southern Command areas of responsibility as well as 44 strategic deterrent patrols.

McAneny recognized that being the world's best Submarine Force depends on people and recognized his "all pro" teammates: fellow submarine flag officers in the Pacific, the Commodores who lead the squadrons, the shipyards and tenders that provide the maintenance for the submarines, the training commands that provide training to the submarine crews, and enlisted leadership throughout the Force.

"My Sailors deserve the best support I can broker for them," said McAneny. "And I am blessed with the leadership I have available to me to support the mission - nothing but the best from nothing but the best."

Walsh presented McAneny with the Legion of Merit for his exceptionally meritorious service prior to the official reading of orders and transfer of command to Caldwell.

"I consider it an absolute privilege to lead the Pacific Submarine Force," said Caldwell in his first remarks to his command. "We are entrusted with an incredible responsibility to the American people. That responsibility is unrelenting. It's a responsibility that demands our operational readiness."

Like McAneny before him, Caldwell emphasized the people that make up the Submarine Force.

"Our Submarine Force is the best in the world today because of the commitment of our people and the organizations that support the Force," said Caldwell. "Our team is equipped with advanced platforms, sensors and weapons systems, yet we are ultimately dependent on our people to accomplish the mission."

Caldwell, a 1981 graduate of the U.S. Naval Academy, assumed duties as Commander, Submarine Force, U.S. Pacific Fleet. Previously he was assigned as Commander, Submarine Group 9 in Bangor, Wash.

McAneny will report in January as Commandant, National War College, National Defense University, Washington, D.C.

Jinxed Submarine HMS Astute Limps Back To Base

By Chris Musson, Daily Record, Dec. 13, 2010

The nuclear submarine which ran aground off Skye broke down on its first day back at sea.

HMS Astute had to limp back to Faslane naval base last week because of a "minor defect", the MoD confirmed yesterday.

The latest hitch came two months after the sub was marooned in the Inner Hebrides - causing massive embar rassment for the Navy.

Astute's captain, Commander Andy Coles, was rel ieved of command following the grounding.

He was replaced by Commander Iain Breckenridge but the new chief's maiden voyage was shortlived.

Technical exper ts are said to have identified a fault in the sub's steam plant.

It is hoped the vessel will be back in service this week.

The MoD said: "HMS Astute has been completing sea trials and has returned to por t to have a minor defect corrected."

The £1billion Astute ran aground near the Sk ye Bridge on October 22 and had to be towed free after becoming stuck on a shingle bank for around 10 hours.

It later emerged the sub had been damaged during the rescue operation in a collision with coastguard tug Anglian Prince, which had been sent to free it.

Astute - which weighs 7800 tons - returned to Faslane naval base on the Clyde three days after the grounding.

Commander Coles, 47, was relieved of his command in November.

Iran Builds Unmanned Radio-Controlled Submarine

Iranian Students News Agency, Dec. 12, 2010

TEHRAN (ISNA)-An Iranian scientist has built unmanned radio-controlled submarine with the ability of information exchange five meters under water.

"The submarine is in the initial phase of construction and it will be turned into a smart one in the second phase," said the project director, Reza Mohammadi.

A camera can be installed in front of the submarine, transferring images. The camera can send pictures out from water if connected online.

The submarine can also go down under water by five meters with the speed of two meter per second.

The project manager continued that the submarine is armed with a "balance tank" which prevents additional movements underwater.

The submarine is equipped with a system warning low battery, he said adding, "the newly-built device was tested in sweet water, but it can move in any kind of water."

History: Bermuda's "Maritime Chernobyl"

BerNews.com, December 10, 2010

On October 3, 1986 while on patrol 680 miles northeast of Bermuda, the 10,000 ton, 425-foot long Soviet Yankee Class Ballistic Missile Submarine K-219 suffered an explosion and fire in one of her 16 missile tubes caused by a seal failure which allowed seawater to leak in and mix with residue from the missile's liquid fuel.

Three members of the submarine's 113-man crew were killed in the devastating blast and a fourth, Sergei Preminin, died when he volunteered to shut down the submarine's two nuclear reactions by hand and was trapped in the reactor compartment.

There were fears an uncontrolled chain reaction in the submarine's damaged reactors could "cook off" the 34 independently targetable warheads the K-219's missiles were armed with.

This would have caused a cataclysmic nuclear explosion which would have poisoned the Gulf Stream and rained radioactive waste on Bermuda, killing most of the population and rendering the island uninhabitable for generations.

The crippled sub remained on the surface for three days while efforts were made by her crew to have the stricken vessel towed by a Soviet merchantman. However, on October 6 several gas leaks forced her Captain to order ship abandoned against orders from the Kremlin. Shortly after the crew went over the side the submarine rolled and sank, carrying both her nuclear reactors and nuclear warheads with her to the bottom of the Atlantic.

Throughout the Cold War there were often up to five Soviet submarines patrolling the waters near Bermuda. Submarine-launched Soviet ballistic missiles fired from the Bermuda area would have only taken about 16 minutes to reach military and civilian targets along the US East Coast. Soviet submarines were not withdrawn from the Bermuda "patrol box" until the late 1980s. As late as 1987 the former Soviet Union engaged in a large-scale submarine exercise near Bermuda.

The Soviet Union officially blamed the US Navy for the damage to K-219, stating that the damage resulted from a collision with the submarine USS 'Augusta', which was trailing the East Bloc vessel at the time. The US Navy denies this and points to a previous similar missile tube mishap on the sub as evidence that the Soviet vessel was in poor condition. To date, there have been no public efforts to remove the nuclear weapons or nuclear fuel from the sub which lies at a depth of some 18,000 feet.

At the time environmental group Greenpeace described the sinking as "a maritime Chernobyl", a reference to the catastrophic April, 1986 accident at a Soviet nuclear power plant which released massive amounts of radioactivity into the surrounding environment and is blamed for causing thousands of deaths. But then Premier Sir John Swan was assured by British military and scientific experts the sub wreck posed no threat to Bermuda. Fears the K-219 could leak radioactive waste into the ocean causing health hazards for Bermudians and an environmental threat to our marine life were later described as "about zero" by the Bermuda Biological Station.

However, there are unconfirmed reports the Russian Navy still performs periodic testing of the surrounding seabed, flora and faunae for radiation from the sub's hull in association with scientists from the Wood's Hole Oceanographic Institute in Massachusetts.

Recently a correspondent for the Russian newspaper "Pravda" marked the 24th anniversary of the disaster, talking to surviving crew members of the submarine about the disaster.

"On October 3, 1986, the submarine K-219 had been in the autonomous navigation for about 30 days," reported the newspaper. "After surfacing for a communication session and determining its location, the submarine submerged to to periscope position. And suddenly water gushed from one of the missile silos on the left side of the ship. An explosion shook the ship … pressure crushed the body of a missile. Water began to come into the bay. Three people — the commander of the missile warhead compartment, and two sailors – were killed immediately.

"An emergency alert was announced on the submarine, it emerged. Despite sealing the compartments and the struggle for survival, a poisonous orange-coloured fog from the components of rocket fuel spread through the damaged submarine. Many sailors were poisoned by these nitrogen oxide fumes. In some areas, the pollution level exceeded the legal limits by two to three thousands of times.

"There were several attempts to drain the fuel components and pump the missile silos with seawater. But the main missile specialists died in the explosion. The task remained unfulfilled. The crew fought to save the ship for nearly 14 hours when the 6th compartment sent a report to the central office: there was a fire in the 5th compartment; a gray-brown smoke was visible. Fifty minutes after that reactor protection got activated. Compensating gratings built to shut down the reactor were to automatically go down. However, this did not happen, they got stuck.

"The drives of the compensating gratings received no power. From the moment that the emergency protection was triggered, it became clear that they will not be able to get the power to the compensating gratings, everyone clearly understood that the most important thing was to shut down the reactor. The compensating gratings had to be manually dropped with a special handle — this was provided by the design. Sailor Sergei Preminin, who lowered the compensating gratings, remained in the reactor compartment forever as the bulkhead doors got locked under pressure. He went down with the ship.

" When it became clear that the submarine cannot be saved, that even in tow it would not get to the nearest base, the crew abandoned the ship. The struggle for survival continued 77 hours 38 minutes. The commander, Captain of the 2nd Rank Igor Britain was the last to leave the ship on October 6, at 11:00am. And at11.03am K-219 sank, carrying in its womb the sailor-hero Sergei Preminin to the depth of nearly four kilometers.

"The crew and the bodies of three sailors killed on the submarine were delivered to nearby Cuba. Then the crew was brought to the Soviet Union, and for nearly a year the crew was dragged in for questioning by special investigators. The terrible accident was deemed secret, the crew members had to sign a non-disclosure agreement. The Soviet media was silent, despite this being the highly publicised period of Gorbachev's glasnost (reform) in the USSR.

"… Any heroic deed has a surprising property: made by a single man, it subsequently ceases to belong to its creator. The deed becomes a national treasure, increasing the spiritual wealth of the people who stand in one row with cultural, scientific and economic values. Let us not shy away from lofty words. We are not used to using them lately. Intentional or unintentional neglect of heroic deeds like that of the K-219 sailor Sergei Preminin is not as innocuous as it might seem: it is tantamount to squandering the national wealth. Those who respect their country cannot allow that. Glory to the submariners, both Soviet and Russian!"

Manned Dive Bell Testing for New Diving System Completed

From Naval Sea Systems Command Public Affairs, Dec 9, 2010

PANAMA CITY, Fla. (NNS) — The Navy successfully completed dive bell testing for its new Saturation Fly-Away Diving System (SAT FADS) Dec. 2., at Naval Experimental Diving Unit (NEDU), Panama City, Fla.

The testing is helping to make progress toward a critical saturation diving capability to support Navy salvage and recovery operations around the world.

Saturation diving is a diving technique that allows divers to avoid the deadly effects of decompression sickness, so they can work at great depths for long periods of time.

Pierside testing included transferring divers from the dive bell system to the ocean in preparation for a 1,000 ft. saturation dive scheduled for 2011.

The SAT FADS system is designed to support six divers for a period of 21 days, with an additional nine days of decompression in deep water sustained diving operations to depths of 1,000 feet sea water (fsw) for aircraft and ship recovery or salvage operations. The system will replace two decommissioned Pigeon-class submarine rescue which operated to 850 fsw.

"These tests prove the capability for the system to successfully launch the manned dive bell, exit divers from the bell on excursion dives, recover them and return safely to the surface," said Paul McMurtrie, SAT FADS program manager. "There were many procedural lessons learned from the testing which we'll use to streamline our processes and enhance diver safety."

The entire SAT FADs system measures 40 feet x 70 feet and includes the main deck decompression chamber, manned dive bell, bell handling system, command and control center, and two auxiliary support equipment containers, bulk helium storage racks. Living quarters are located in the deck decompression chamber.

System testing will continue through additional operational evaluations, a series of manned dives pier-side, and culminate with a 1,000 foot deep ocean saturation dive in 2011.

NEDU is a field activity of Naval Sea Systems Command.
For more news from Naval Sea Systems Command, visit www.navy.mil/local/navsea/.

Review Of Nuclear Sub Program Tests New DOD Procurement Measures

By Christopher J. Castelli, Inside the Pentagon, 9 December 2010

The Defense Department will hold a major meeting today to determine the way ahead for a multibillion-dollar program to build new nuclear ballistic missile submarines.

The review marks one of the first major applications of DOD acquisition chief Ashton Carter's new procedures for boosting the department's buying power, defense officials told Inside the Pentagon.

The Navy's SSBN(X) program, through which the Pentagon plans to buy a dozen replacements for 14 aging Ohio-class subs, will be the subject of a Dec. 9 briefing before Carter's Defense Acquisition Board. At that meeting, program officials will seek formal entry to the acquisition process. If the board grants milestone A approval, key submarine characteristics would be determined and the program would be assigned an affordability target.

Earlier this year, the Navy estimated the subs would cost roughly $7 billion each. The Office of the Secretary of Defense pressed the Navy to slash the price and has lately expressed some satisfaction with the results. Officials sought to cut the average unit procurement cost of subs Nos. 2 through 12 to $5 billion in fiscal year 2010 dollars, according to a recent Congressional Research Service report. As of September, the unit cost had been cut to $5.75 billion, the study notes. Carter touted the effort Nov. 16 at the Center for American Progress (ITP, Nov. 25, p1).

Last month, the Pentagon sent Congress an unclassified update to a secret May report on the New START treaty framework and nuclear force structure plans. The update revealed the May report contained a $29.4 billion cost estimate for SSBN(X) work spanning FY-11 to FY-20. The estimate will be adjusted after the milestone A decision, according to the update. The figure does not cover the total cost of the program, which is slated to buy the last SSBN(X) in 2033.

The update's estimate includes $11.6 billion for research and development and $17.8 billion for design and procurement. The latter figure likely covers much of the procurement cost for the lead boat, as well advance procurement funding for the second boat, according to the Congressional Research Service.

As part of the cost-reduction effort, the number of submarine-launched ballistic missile tubes on each SSBN(X) has been preliminarily cut from 20 to 16, with the specific number of tubes to be decided in the milestone A review, the Congressional Research Service report notes. The Navy plans to sustain the Trident II D5 missile, as carried on Ohio-class subs as well as the new subs, through a least 2042 with a robust life-extension program, according to DOD's November update.

The update says the Navy's SSBN(X) analysis of alternatives eyed three platform concepts for the Ohio-class replacement: inserting a new section into the design of the Virginia-class attack submarine, building a sub much like the Ohio-class design and developing a brand new design. "DOD is currently evaluating the advantages and disadvantages of each concept, including cost tradeoffs, with the goal of meeting military requirements at an affordable cost," the update notes. After the Navy initially focused on a brand new design, affordability concerns led officials to scale back that design, a service official told ITP, noting this scaled-back concept is what the Navy is advocating.

Navy officials are slated to brief the board using a new consolidated format — a streamlined presentation of about 25 pages tied to recent efforts to overhaul Pentagon procurement. The briefing would include a program description; outstanding issues; SSBN(X) costs in the context of the shipbuilding portfolio; the AOA results, tradeoffs and recommendations; basic affordability questions and answers; the program's affordability requirement; targets for the program cost and initial operational capability; a "will cost/should cost" analysis; the program schedule and a related assessment; the business strategy for competition; funding; technology risk; critical technologies; a technology assessment; exit criteria; a list of key documents; and any international cooperation issues.

Carter's recent guidance requires any acquisition decision memorandum that grants milestone A approval to include an affordability target. This target will be treated by the program manager like a key performance parameter such as speed, power or data rate — a design parameter that cannot be sacrificed or compromised without Carter's specific authority. A Nov. 3 memo from Carter stated this "affordability target (initially, average unit acquisition cost and average annual operating and support cost per unit) will be the basis" for decision-making and systems-engineering tradeoff analysis prior to milestone B.

"This analysis should show results of capability excursions around expected design performance points to highlight elements that can be used to establish cost and schedule trade space," Carter wrote. The services must consider how their new programs fit in the context of broad portfolio or mission areas, including from a fiscal perspective.

The first Ohio-class sub is slated to reach the end of its service life in FY-27. The Pentagon plans to introduce the new subs on a schedule that leaves no gap in the naval strategic deterrent capability. DOD's November update says R&D began in FY-10 with the aim of achieving 10 percent greater design maturity before starting procurement than the Virginia class had before procurement. In FY-15, the Navy plans to begin detailed design and advanced procurement of critical components. In FY-19, the Navy plans to begin the seven-year construction period for the first new sub. In FY-26, the Navy plans to start the three-year strategic certification period for the first sub. In FY-29, the first SSBN(X) is slated to enter the fleet.

The U.S.S. Squalus-39 Hours at the Bottom of the Sea

By Larry Isaacson, EzineMark.com, Dec 9, 2010

In September of 1939, the U.S.S. Squalus, a submarine with a crew of 59, was undergoing sea trials off the coast of Portsmouth. Everything seemed ready and the submarine began to dive. Somehow water began to flood in the aft compartments and the ship sank 243 feet and landed upright on the bottom. The 26 sailors in the aft compartments drowned, while 33 remained alive in the front portions of the ship behind the safety of a watertight door.

No one had ever survived in such circumstances before, but Lieutenant Commander Charles Momsen had made it his life's work to see to it that submariners would get a second chance. Despite the bureaucratic resistance of the Navy for what was considered a hopeless quest, Momsen had created a rescue chamber just for this purpose, a supplement to the Momsen lung he had also developed to enable trapped submariners to rise to the surface and then carried on all submarines. In this instance, the commander of the Squalus, Lt. Oliver F. Naquin, decided against the use of the lung because he feared his men would die of exposure once they reached the surface.

Newly acquired safety features, like a rescue buoy with a phone attached, plus signal flares, allowed the sister ship of the Squalus, U.S.S. Sculpin, to locate it and arrange for the arrival of the rescue ship, U.S.S. Falcon. Fortunately, the Squalus landed upright, and made the rescue possible using the McCann rescue chamber, co-developed by him and Momsen.

In the Squalus, meanwhile, Commander Naquin had made the atmosphere with the submarine slightly toxic to keep the men sleepy and less prone to panic. His preternatural cool, ably described by the author Peter Maas in a book about this tragedy, "The Terrible Hours", set the table for the successful rescue that followed.

In groups of ten, the surviving sailors were taken to the surface in the rescue chamber, but it was the last trip that was the most harrowing of them all.

The captain and several others were the last to be hoisted, but the cable snagged and was in bad shape from the previous lifts. The chamber had been raised half way up, when it had to be dropped once again to the bottom of the sea while repairs took place. Those on board the chamber remained in remarkable good spirits, and were overheard singing "Old MacDonald Had a Farm" during the final lift upwards. After they were brought on board, it was determined that the cable would have snapped had another lift been required. The final official report of the event said the following: "The appearance and bearing of all SQUALUS officers and men as they stepped out of the rescue chamber to the deck of the FALCON indicated a high state of discipline and morale under the most trying conditions."

In an ironic turn of events, the U.S.S. Squalus was salvaged and renamed the U.S.S. Sailfish. In that capacity, it later sank the Japanese aircraft carrier Chuyo towards the end of the war that was carrying half of the survivors from the U.S.S. Sculpin, the sister submarine that had been instrumental in locating the Squalus when it first sank. Only one of these men survived the carrier's sinking, and he spent the balance of the war as a slave laborer in Japan.

The U.S.S. Sailfish survived numerous patrols, sank its share of Japanese shipping, and ended up being scrapped in 1948. A poem written in commemoration perhaps sums it up best: "59 Men on the ocean's floor, 26 Men who are no more. 26 Men who gave their lives, Protecting our homes, our kids, our wives."

Beijing's Build-up and New START

An arms-control treaty between the U.S. and Russia could advantage China.

By Peter Brookes, National Review, 9 December 2010

While there has been lots of discussion of the U.S.-Russia Strategic Arms Reduction Treaty (New START) over the past few months, one very important consideration continues to receive insufficient attention: China's robust nuclear-force modernization program.

It is not clear the administration or lawmakers have thought through the implications of the fact that as we build down our strategic nuclear forces (by some 20–30 percent under New START) in the White House's hope of playing Pied Piper to others on the road to "global zero," the People's Republic of China is building up its strategic nuclear forces.

As Congress could vote on whether to ratify the treaty in the coming days or weeks, now would be an excellent, indeed critical, time to consider this matter, especially since passing the arms-control pact will obligate us to its provisions for the next ten years.

While the exact shape of China's ambitions may not be completely clear, there is little question that its aspirations are grand. In congressional testimony last year, then–director of national intelligence Dennis Blair said that Beijing's international behavior is driven in part by a "longstanding ambition to see China play a role of a great power in East Asia and globally."

To this end, China has been feverishly building all aspects of its national power: political, economic — and most worrisome, military. China's military modernization has proceeded at a feverish pace; its defense budget has increased by roughly 10 percent per year over the last two decades.

On the nuclear front, China relies on the services of its strategic-rocket forces, known as the Second Artillery Corps. The Second Artillery has long been equipped with a small force of liquid-fueled, silo-based intercontinental ballistic missiles (ICBMs) armed with three- to five-megaton thermonuclear warheads such as the CSS-3s and -4s. But in recent years, it added a number of solid-fueled, road-mobile missiles such as the DF-31A, reducing the reaction time associated with the silo-based force while increasing survivability.

In addition, in its annual report to Congress on China's military power, the Pentagon warns this year that China has "the most active land-based ballistic and cruise missile program in the world." It may also "be developing a new road-mobile ICBM, possibly capable of carrying a multiple independently targeted re-entry vehicle (MIRV)," which can strike different targets, even though they are carried on a single ICBM. MIRVing of Chinese missiles will also mean that the number of warheads "could more than double in the next 15 years," according to the Department of Defense (DOD). The Pentagon further notes that the People's Liberation Army (PLA) is working on maneuvering re-entry vehicles (MARV), decoys, chaff, jamming, and thermal shielding for its strategic forces, increasing their ability to reach their intended targets.

And the problems do not end there. China's Second Artillery has reportedly built 3,000-plus miles of tunnels in northern China, known as "The Underground Great Wall." Some believe the tunnel system is intended to conceal China's growing nuclear arsenal, while providing Beijing with a land-based nuclear capability that could survive an enemy's first strike.

But it's not just the Second Artillery that is getting a boost. Beijing is also diversifying its nuclear dossier from its longstanding "monad" of land-based nukes into the more traditional "triad" of land-, sea-, and air-based nuclear forces embraced by other major nuclear powers such as Russia and the United States.

Nowhere is this transition more dramatic than at sea. During the Cold War, Soviet and American submarine forces were considered the stealthiest and most survivable arm of the nuclear triad, especially in providing for a second-strike capability. Well aware of this, China is now sending its nuclear deterrent below the waves.

China's new class of strategic submarine, the Type 094, has replaced its long-troubled first-generation fleet ballistic missile submarine (SSBN), the Type 092. The Type 094 may already carry twelve of China's first intercontinental-range, sea-launched ballistic missiles, the JL-2, whose range exceeds 4,000 miles. Two or three of the boats may be in service already, with another two to three on the way. Beijing is building another SSBN, too, the Type 096, which is expected to be able to carry as many as 24 intercontinental-range missiles.

China is adding an air leg as well, most notably via the upgraded, nuclear-capable B-6 Badger bomber, originally of Cold War vintage. Analysts believe that China, which is already capable of dropping nuclear gravity bombs, is developing land-attack cruise missiles for these aircraft, which may have both conventional and nuclear warheads.

While these weapons are all of great interest, one must also look at the policy context in which these strategic systems reside. Not surprisingly, there is increasing debate in U.S. security circles about how China's new strategic instruments fit into Beijing's nuclear policy — a pressing issue, considering that PLA scholars often describe the American military as its most likely adversary.

China has long adhered to a no-first-use policy, meaning it promises not to use nuclear weapons against a non-nuclear state, in a nuclear-free zone, or to initiate a nuclear war. Beijing has also embraced a minimum-deterrence strategy, meaning that if deterrence fails, it plans to absorb a first strike and then retaliate, focusing on countervalue targets (i.e., population centers) rather than counterforce targets (i.e., the enemy's nuclear forces).

China continues to espouse these policies publicly, but outside observers are starting to ask questions. According to some PLA watchers, there is an ongoing, behind-the-scenes debate in China about its nuclear policies, especially among the new generation of security strategists, who wonder if their seniors are failing to adapt to the country's elevated position in the international pecking order. Some speculate that China may be considering shifting to a new nuclear strategy, which includes a preemptive, first-strike capability, which is aimed at destroying an opponent's nuclear forces before they can launch.

Making matters more complex is China's refusal to provide transparency or discuss its nuclear forces. The PLA has a general penchant for strategic denial and deception, which is perhaps nowhere better demonstrated than in its unwillingness to talk about nuclear issues with the Department of Defense. This lack of openness and dialogue presents a challenge to our intelligence and policy communities, since it perpetuates a litany of unanswered questions about China's strategic doctrine, capabilities, and intent.

And while China's strategic forces are increasing in number, diversity and capability, American nuclear forces are in desperate need of modernization. In the view of some experts, if any country can undertake a "rush to nuclear parity" with the United States, it is the world's No. 3 nuclear power, China.

Indeed, according to some independent groups, Beijing could become a nuclear peer of Washington's in the not-too-distant future if it so desired, in light of the expected arms cuts by the United States under New START.

The question remains: Have we really considered what China's nuclear forces will look like over the life of New START? If not, we had better do so immediately.

Consequently, in considering New START, the Senate and the administration must factor in the trajectory of China's nuclear forces and the direction of its strategic policy to ensure that an arms-control treaty with Russia does not undermine our security.