

TORPEDO ALLEY



Vol. 7, No. 1

January 2011

Newsletter of Charleston Base, United States Submarine Veterans, Inc.



USSVI Creed



"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"



Base web page: www.ussvicb.org
 National web page: www.ussvi.org

Base Meeting:

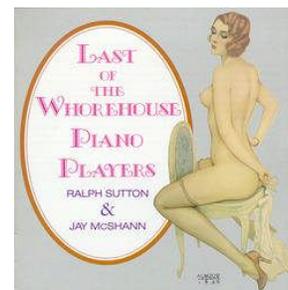
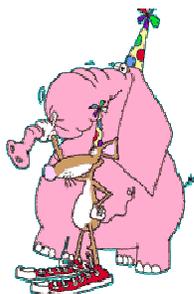
January 13, 2011
 Social hour 1800, General Meeting 1900

Location:

Fleet Reserve Association Branch 269, Low Country Home
 99 Wisteria Rd.
 Goose Creek, South Carolina. Phone 843-569-2962

| Special Officers | | Phone Number |
|-------------------|-----------------|---------------|
| Chief of the Boat | Rick Wise | 843-875-5559 |
| Public Affairs | Ed Stank | 843- 569-6012 |
| Veterans Affairs | Jim Morrison | 843-832-9716 |
| Chaplain | John Nichols | 843-452-3189 |
| Membership | Carl Chinn | 843-875-3098 |
| Holland Club | John Lookabill | 843-797-2991 |
| Scholarship | Julian Villegas | 843-871-6135 |
| Newsletter | Carl Chinn | 843-875-3098 |
| Storekeeper | Don Mook | 843-245-2005 |
| Webmaster | John Nichols | 843-452-3189 |
| Historian | George Scharf | 843 873-3318 |

| Base Officers | | Phone Number |
|----------------|--------------|---------------|
| Commander | Paul Viering | 843-797-2623 |
| Vice Commander | Carl Chinn | 843-875-3098 |
| Secretary | Ed Stank | 843- 569-6012 |
| Treasurer | Terry Trump | 843-873-9563 |



"Don't tell mom I'm a submariner, she thinks I play piano in a whorehouse."

Minutes of the December 2010 meeting

Charleston Base annual Christmas Party was held on 4 December at Gatherings in Dorchester. There were approximately 160 attendees. Everyone had a good time; the food was great as usual.



| | | | |
|-------------|---------|----------|-------------|
| Barnette, R | Beach | Brown | Coutu |
| Farr, G | Farrell | Hansen | Isaman |
| Kay | Kirk | Lewis | Moore |
| Murray | Owen | Pasnak | Phillips, C |
| Phillips, J | Scott | Silvers | Simokat |
| Stank | Welch | Young, L | |

January happenings!

January 13 – General Meeting; social hour 1800, meeting starts 1900

Eternal Patrol

The following Charleston Base members departed on Eternal Patrol during the months of November and December:



| | |
|-----------------------|------------|
| MMCS(SS) Waller, Rick | 11/13/2010 |
| STSCS(SS) Lord, Avery | 12/17/2010 |

A Toast To The Forgotten

Here's to the men of the briny deep;
 Here's to their blood and guts;
 Here's to those heroes who never sleep;
 Here's to those glorious nuts.

Take your glass and raise it high...
 Drink to their nerve and daring.
 Don't be ashamed of the tear in your eye,
 There are others who'll never stop caring.

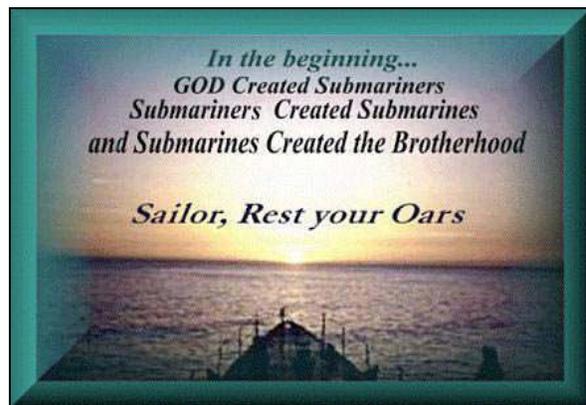
Remember your husband, your buddy your friend...
 The proud man with head held high;
 Though young in years, you know at the end
 His courage did not die.

Here's to the men with story untold;
 You all know those I mean.
 Here's to the men who never grow old...
 The men in a submarine.

By Bob Milford

January Submarines Lost:

| | | |
|---------------|--------|------------------|
| USS S 36 | SS 141 | January 20, 1942 |
| USS S 26 | SS 131 | January 24, 1942 |
| USS Argonaut | SS 166 | January 10, 1943 |
| USS Scorpion | SS 278 | January 5, 1944 |
| USS Swordfish | SS 193 | January 12, 1945 |



Membership and Dues Information:

Your 2010 dues were payable by 1 October 2010. The following members were dropped from the National and/or Charleston Base Sailing List as of 1 January 2011:

| | |
|--------------------|------------------|
| Abbott Michael | Allegretto Guido |
| Cahall Gene | Clift Marvin |
| Douglass Peter | Fletcher Stephen |
| Gunnis Glenn | Harbison Robert |
| Hunt Danny | Ianuzzi Michael |
| Lavergne R.J. | Luttrell William |
| Mason Larry | Minaudo John |
| Morrin David | Niebeling Roger |
| O'Callaghan Thomas | Olsen Odell |
| Pruitt William | |

Members may be reinstated with payment of dues.

Send dues (payable to USSVI) to:

Carl Chinn
 217 Brailsford Rd
 Summerville, SC 29485-5405

Navy Adds Restrictions For Submariner Pay

By Sam Fellman - Staff writer

Posted : Wednesday Dec 29, 2010 16:31:15 EST

Submariners heading to shore duty in 2011 will have to

Chaplain's Report

The following shipmates have departed on their eternal patrol since we met for our 2009 Christmas party:

Torpedoman's Mate First Class, submarines, Michael J. Stuffle, United States Navy

Shipmate departed on eternal patrol – December 21, 2009

Quartermaster Second Class, submarines, William Clyde Yates, Jr., United States Navy

Shipmate departed on eternal patrol – December 23, 2009

Machinist Mate Senior Chief, submarines, Andrew Larry Hendrix, United States Navy Retired

Shipmate departed on eternal patrol – March 13th, 2010

Mrs. Celecia Henderson, wife of Swamp Fox World War II veteran, Marshall 'Pappy' Henderson

WWII armed forces civilian cryptographer - passed away 11 May 2010

Electricians Mate Chief, submarines, Alvin Eugene Addington, United States Navy Retired

Shipmate departed on eternal patrol – May 26, 2010

Electronics Technician Master Chief, submarines, Francis John Young, United States Navy, Retired

Shipmate departed on eternal patrol – July 17th, 2010

Lieutenant Commander, submarines, William F. Kopacka, United States Navy, Retired

Shipmate departed on eternal patrol – July 24th, 2010

Machinist Mate Senior Chief, submarines, Richard 'Rick' Waller, United States Navy Retired

Shipmate departed on eternal patrol – November 13th, 2010

December Report:

- Rick Waller departed on Eternal Patrol on Nov. 13th, when his truck crashed into a power pole in Moncks Corner. A memorial service was held on Nov. 19th with over 20 in attendance.
- Jon Sutton is home recovering from his surgery.
- Robert 'Pop' Coley, Sr., a WWII Pearl Harbor survivor and Submariner, departed on Eternal Patrol on Nov. 15th. Pop was not a member of Swampfox Chapter or Charleston Base. A card of condolences was sent to his family.
- Bill Redd, retired RMCM(SS) and member of Groton Base, departed on Eternal Patrol on Nov. 22nd.
- Rodney McKanna's father passed away in Illinois on Nov. 24th. His funeral will be on December 7th. Rodney's

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.

Virtual Viet Nam Wall

<http://www.virtualwall.org/iStates.htm>

First click on a state. When it opens, scroll down to the city and the names will appear. Then click on their names. It should show you a picture of the person, or at least their bio and medals. This really is an amazing web site. Someone spent a lot of time and effort to create it. The link below is a virtual wall of all those lost during the Vietnam war with the names, bio's and other information on our lost heroes. Those who remember that time frame, or perhaps lost friends or family can look them up on this site.

Admiral Osborne Scholarship Fund

How about helping out the scholarship fund? We are offering a Charleston Base Challenge Coin for sale. ALL proceeds go into the scholarship fund.

Coins only cost \$7 each. Available for an additional \$1 is a protective plastic capsule.

To get your coin(s) see Jim Yates, Julian Villegas or Carl Chinn.

Make sure you have one for "when you get challenged"! Buy several for great gifts!



father was 93 and a WWII veteran with the army artillery in the Pacific.

· Avery Lord was put in the hospital before Thanksgiving. He broke his hip earlier this year and hasn't recovered yet.

Several follow-ups were made on those who've had surgery or illnesses in the last couple of months along with the base sending additional cards.

If you know of shipmates or spouses from other bases who are having a difficult time, had surgery, etc. and would like for USSVI Charleston Base to send them a card please send their name and address to the Chaplain via email or phone call.

Walls Have Ears - The Technology That Can Communicate Electronically Through Solid Steel

Through-hull data link system removes in one swoop the need to create hundreds of holes in a submarine hull to send and receive data from sensors and other external equipment.

A system developed by BAE Systems that allows data to pass wirelessly through several inches of solid steel could save millions of pounds in the way submarines are designed, built and maintained. It also promises to enhance protection offered to soldiers using armored fighting vehicles.

The through-hull data link system removes in one swoop the need to create hundreds of holes in a submarine hull to send and receive data from sensors and other external equipment.

BAE claims that the system is safer and more cost efficient. "The current method of using holes fitted with special penetrators that have to be welded to the hull is expensive. There could be up to 300 penetrations in any single submarine and inserting each one represents a significant build cost," it said.

"Drilling the holes also necessitates additional strengthening of the hull to counteract the consequent structural weaknesses. The penetrations are prone to stress fatigue associated with repeated submarine dives. Tackling that fatigue substantially increases the through-life maintenance costs."

"We've developed a number of technology demonstrators and are currently testing it in a submarine environment," says John Bagshaw, the technology executive from BAE Systems Advanced Technology Centre who has helped develop the system.

"We have demonstrated how signals from a video camera can pass through an armored vehicle's hull. This could offer significant advantages in increasing the crew's situational awareness without reducing their protection." In due course, BAE claims that the oil, civil nuclear and gas industries could also benefit from the technology.

Military Funeral Disorderly Conduct Update 16

A wounded veteran was charged 2 DEC with targeting members of a fundamentalist church infamous for protesting at soldiers' funerals. Ryan Newell of Marion Kansas faces five misdemeanor counts after he allegedly followed members of the Westboro Baptist Church after a protest at a Mulvane school. The 26-year-old veteran allegedly was armed with an M4 rifle, a .45-caliber Glock pistol and a .38 Smith and Wesson pistol when he was arrested in the Wichita City Hall parking garage. He is being held on a \$500,000 bond. Newell, who lost both his legs in a roadside bomb explosion in Afghanistan, was formally charged with intentional conduct causing fear to a person or family, falsely representing himself to be a law enforcement officer, and three counts of unlawfully carrying a concealed weapon. He did not have an attorney at his court appearance via video link from the jail. His trial was tentatively set for 12 DEC and in the interim has been released so he could get treatment at the VA hospital. The family-dominated church from Topeka, Kan., is known for its protests across the nation with signs like "Thank God for Dead Soldiers" and "God Hates the USA" to express their view that U.S. deaths in Afghanistan and Iraq are God's punishment for American immorality and tolerance of homosexuality and abortion. In October, the U.S. Supreme Court heard oral arguments in a case that pits the rights of a father of Marine killed in Iraq to grieve privately against the First Amendment rights of church members to say what they want.

Sedgwick County Sheriff Robert Hinshaw said one of his detectives observed a vehicle driven by Newell that appeared to be following members of the church and stopped it. Newell initially told the officer he was providing security for church members and he was allowed to go. Shortly after, the detective stopped the van carrying the Westboro members and learned they did not know Newell. The detective stopped Newell again and then released him after he told the detective he was a reserve law enforcement officer in Marion County. After returning to the courthouse, the detective found that Newell had a revoked driver's license and was not a law enforcement officer, Hinshaw said. The detective went to the city hall where the Westboro group was meeting with city police and checked the city garage. He found Newell's vehicle backed into one of the stalls and arrested him. Shirley Phelps-Roper, the daughter of Westboro pastor Fred Phelps and one of the protestors at the Mulvane demonstration, said violence against church members has been escalating since September of last year, when a bicyclist slashed their tires in broad daylight while the group was demonstrating in Oklahoma. This summer a counter-protestor in Nebraska sprayed them and bystanders with

DFAS Tax Statement Schedule

The Defense Finance and Accounting Service has posted on its Web site a schedule for the release of 2010 tax statements such as W-2s, 1099Rs and 1099INTs via both its myPay online system and U.S. Mail. Military service members, military retirees and annuitants, and federal civilian employees paid by DFAS will be able to get their statements online through myPay access at <https://mypay.dfas.mil/mypay.aspx>. The first of the forms released, the Retiree Annual Statement, became available online Dec. 4, but will not be available via mail until the second half of the month. To see the release schedule, go to: www.dfas.mil/news/DFASRelease121001.pdf. or refer to the following. The first date below indicates the forms online availability and the next the mailing date:

- Retiree Annual Statement (RAS) Dec. 4, 2010 & Dec. 16-31, 2010
- Retiree 1099R - Dec. 14, 2010 & Dec. 16-31, 2010
- Annuitant Account Statement (AAS) - Dec. 15, 2010 & Dec. 19-31, 2010
- Annuitant 1099R - Dec. 15, 2010 & Dec. 19-31, 2010
- VSI/SSB W-2 - Not available via myPay & Jan. 4-5, 2011
- Active Duty Air Force, Army, Navy W-2 - Jan. 24, 2011 & Jan. 24-29, 2011
- Reserve Air Force, Army, Navy W-2 - Jan. 4, 2011 & Jan. 4-7, 2011
- Marine Corps Active & Reserve W-2 - Jan. 18, 2011 & Jan. 19-20, 2011
- Civilian employee W-2 - Jan. 6, 2011 & Jan. 7-15, 2011
- Savings Deposit Program 1099INT - Jan. 21, 2011 & Jan. 21-22, 2011
- Vendor Pay 1099 - Not available via myPay & Jan. 20-25, 2011
- Vendor Pay MISC W-2 - Jan. 31, 2011 & Jan. 20-25, 2011
- Travel PCS W-2 - Jan. 31, 2011 & Jan. 20-25, 2011
- Army Non-Appropriated Fund Civilian Pay W-2 - Jan. 11, 2011 & Not available

Tricare User Fees Update 57

Veterans groups and military retirees are among those mobilizing to fight back, in anticipation that the Pentagon will recommend higher Tricare premiums in the president's 2012 budget plan. As part of the social contract between the nation and the all-volunteer military, Tricare is one of the most emotionally charged targets for spending cuts, particularly in a time of war. "The heavy lifting [for this nation] is being done by the military," said Norbert Ryan, a retired Navy admiral who is president of the Military Officers Association of America. "They should be the last ones to give. Don't ignore the service and sacrifice that has earned them that benefit. Don't confuse it with Social Security. Don't confuse it with Medicare and Medicaid." Tricare includes plans that cover

pepper spray, she said. And a window of their van was broken out at a protest at a prayer vigil for a slain Great Bend teenager.

Pentagon Said Likely to Back New Design for Ballistic Missile Submarine

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

uniformed service members, retirees and their dependents, in the U.S. and overseas. Coverage for active-duty troops is largely at no charge. The Department of Veterans Affairs, which provides care for wounded veterans no longer on active duty, or who have service-related disabilities, has a separate budget.

The deficit panel report issued 3 DEC was short on specifics, but a series of draft recommendations called for raising Tricare fees for retirees, a move that would save the Pentagon about \$6 billion in 2015. They noted that around 57% of the people who use Tricare are retirees and their dependents, not active-duty service members. The cost for a military retiree to enroll his family in Tricare Prime, which is similar to a health maintenance organization, is \$460 a year, a rate that hasn't changed since 1995. According to the Kaiser Family Foundation, the average annual premium currently paid by private-sector workers is around \$4,000 a year. In the past decade, the military's health-care budget has more than doubled, ballooning from \$24 billion a year to more than \$50 billion. Mr. Gates has complained health-care costs are "eating the department alive." In 2008, medical care ate 6% of the Department of Defense's funding, according to the Congressional Budget Office. By 2026, these costs are expected to more than double to 13% of spending. Tricare took a shot across the bow in August, when retired Marine Corps Maj. Gen. Arnold Punaro decried "GM-style fringe benefits" in a speech at the Center for Strategic and International Studies in Washington. Mr. Punaro singled out health-care costs for retired personnel as the primary culprit. The speech rippled through the retired military world. In an interview, Mr. Punaro joked that he was "probably burned in effigy five or six times." The Defense Department has previously attempted moderate increases in premiums and co-pays, but has been met with a furious response from Congress and veterans groups. That coalition of Congress veterans groups may be on less solid ground now. The arrival in Congress of lawmakers with a mandate to rein in spending has some veterans' advocates nervous, especially after key pro-military members of Congress lost their seats in November. "A lot of people who understood our issues, who are our biggest champions...are gone," said Steve Strobbridge, the director of government relations for the MOAA.

Submariners Get New Information Systems Technician Rating

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

\$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

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.

Submariner is Stable After At-Sea Transfer

An injured sailor who was flown via Navy helicopter from his at-sea submarine to the carrier George H.W. Bush for medical evaluation late Thursday morning has been transported to a South Carolina medical center for evaluation and possible further treatment, 2nd Fleet said. The as-yet unidentified sailor, reported in stable condition following a head injury, was accompanied by the Navy neurosurgeon who examined him aboard the Bush. The transfer to the Medical University of South Carolina in Charleston, conducted by an MH-60S Knighthawk

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.

assigned to Helicopter Sea Combat Squadron 26, culminated a high-profile rescue mission launched Wednesday afternoon in which the Bush, the frigate Boone, multiple aircraft and several medical specialists were tasked with assisting an injured sailor aboard the unidentified submarine, operating in the Atlantic. "Mariners at sea take care of each other," said Vice Adm. Daniel Holloway, 2nd Fleet commander. "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." After receiving the injury report Wednesday, 2nd Fleet responded with what it called its "best options available." That turned out to be the Bush, which was en route to Norfolk following two weeks of at-sea training period. The carrier was turned around to sail to an undisclosed point in the Atlantic to rendezvous with the Boone and begin the rescue effort. Embarked on Bush was Naval Air Station Norfolk's HSC-26, while Boone carried aircraft from Helicopter Anti-Submarine Squadron Light-42 out of Naval Air Station Jacksonville. As they sailed, medical specialists from Naval Medical Center Portsmouth and other locations were flown out to assist, according to Cmdr. Elissa Smith, 2nd Fleet spokeswoman. Both ships made "best speed" to the rendezvous point, 2nd Fleet said. But they apparently had a good way to go. Smith said that getting to the point where they could launch aircraft, reach the submarine, conduct the operation and return — the rescue did not have to be done during daylight, she said — was a matter of "time and distance." On Thursday morning, a pair of helicopters were launched: the MH-60S Knighthawk from the Bush, and an SH-60B Seahawk from the Boone, Smith said. The Seahawk provided surface surveillance and search-and-rescue support while the Knighthawk conducted the medical evacuation from the surfaced submarine, Smith said. Other details of the actual operation, such as its general location, were not available, Smith said. The emergency mission put the Bush's planned return to Naval Station Norfolk on hold and forced the apparent cancellation of a holiday party planned for Wednesday night at the Hampton Roads Convention Center in Hampton, Va. An event manager at the center, Brian Liivak, said he hadn't heard from the ship since it was diverted and that the party is considered cancelled until further notice. "We regret that the new mission tasking changed the plans for the ship's holiday party last night," Smith said. "But at the time, we were doing all we could to save a sailor's life at sea. And that had to be our No. 1 priority." The carrier is expected back in Norfolk on Friday, Smith said. The Boone, homeported at Naval Station Mayport, Fla., was continuing at-sea training in the Atlantic when the rescue mission began, 2nd Fleet said.

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

The delay didn't concern one Bush sailor. "Being extended at sea is something we are always prepared for," said Hospital Corpsman 2nd Class (SW/AW) Caleb Haynie, a member of the carrier's medical department, who was quoted by the command. "If the roles were reversed, I would want the Navy to do anything and everything to save me. And I'm proud to be part of the medical team that helped this sailor get home safely for Christmas."

The incident marks the second time Bush's crew was able to lend a helping hand this month. On Dec. 3, the ship assisted a sailboat stranded 90 miles off the coast of Cape Hatteras, N.C., supplying them with fuel on their return to Norfolk, 2nd Fleet said.

for a slightly higher average warhead loading on each missile, if the Pentagon desired.

