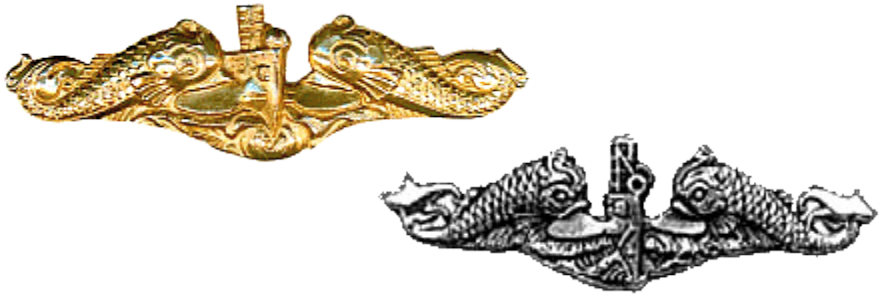
Vol. 11, No.3 March 2015

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

Base Meeting:
BOD: 5 March, 1800
Membership: 12 March, 1900
Location:
Fleet Reserve Association Branch 26
Low Country Home
99 Wisteria Rd.



Base Commander	Ed Stank	843-568-2148
Vice Commander	Don Mook	843.499.5727
Secretary	Rick Wise	843.875.5559
Treasurer	Steven Morawiec	360.473.8883

Chief of the Boat	Rick Sparger	843.553.5594
Veterans Affairs	Ken Curtis	843.797.1268
Membership	Don Mook	843.499.5727
Scholarship	Julian Villegas	843.871.6135
Storekeeper	Ken Hutchison	843.553.0935
Historian	George Scharfe	843.873.3318
Public Affairs	Tom Clark	843.871.8923
Chaplain	Nick Nichols	843.452.3189
Holland Club	Bill Freligh	843.553.1115
Newsletter	George Fuchs	941.580.2333
Webmaster	Nick Nichols	843.452.3189
Kaps for Kids	Walt Deal	843.871.4143

BOATS LOST IN MARCH

BOAT NAME	HULL NR.	DATE LOST	SOULS LOST
USS Perch	(SS-176)	3 Mar. 1942	61 POWs; 55 Survived the War
USS Grampus	(SS-207)	12 Mar. 1943	Lost w/All Hands – 71 Souls 6th War Patrol
USS H-1	(SS-28)	25 Mar. 1920	Loss of 4 souls
USS Triton	(SS-201)	15 Mar. 1943	Lost w/All hands – 74 Souls
USS Kete	(SS-369)	20 Mar. 1945	Lost w/All hands – 87 Souls
USS F-4	(SS-23)	25 Mar. 1915	Lost w/All hands – 21 Souls Foundered
USS Tullibee	(SS-284)	26 Mar. 1944	Lost w/79 Souls 4th War Patrol 1 POW survived the war.
USS Trigger	(SS-237)	26 Mar. 1945	Lost w/All hands – 89 Souls 12th War Patrol

Eight Boats and 431 Men Lost

CHAPLAIN'S CORNER

HEALTHY CHOICES

Why are you cast down, O my soul? And why are you disquieted within me? Hope in God; For I shall yet praise Him, The help of my countenance and my God. Psalm 42:11

The journey toward improved health is not only a common-sense exercise in personal discipline; it is also a spiritual journey ordained by our Creator. God does not intend that we abuse our bodies by giving in to excessive appetites or to lazy behavior. In reality God has instructed us to protect our physical bodies to the greatest extent we can. To do otherwise is to disobey Him.

God's plan for you includes provisions for your spiritual, physical, and emotional health. But, He expects you to do your fair share of the work! In a world that is chock-full of tasty temptations, you may find it all too easy to make unhealthy choices. Your challenge, of course, is to resist those unhealthy temptations by every means you can, including prayer. And rest assured: when you ask for God's help, He will give it.

--A Prayer for Today--

Lord, when I am ill or weak or troubled, You heal me. Renew me, Father, and let me trust Your will for my life. Let me welcome Your unending love and Your healing touch, now and forever. Amen.

E-mail Received from the COB:
Hey Guys,
The Navy Band will be performing here on the time, date and place listed below. I think this theatre is located off Montaque Ave by the Danny Jones Sports Complex. You may have to Google to get the exact location.
The Navy Band will be performing 9 March 2015 at 6:30 p.m. at the Rose Maree Meyers Theater for the performing arts, 5109 W. Enterprise St. in North Charleston, SC. The performance is free and open to the public.
Rick

USSVI Charleston Base Meeting Minutes

The attendance for the February 2015 meeting was 96.

Opening Ceremonies: The meeting was called to order by Base Commander Ed Stank. A quorum was present and the meeting started at 1902. Following the Pledge of Allegiance, the Invocation and the Tolling of the Boats lost in February was given by Base Chaplain Nick Nichols. The USSVI Creed was read by Base Vice-Commander Don Mook. Ed welcomed the members and guests to the meeting.

Introductions: The following men introduced themselves at the meeting: PN1(SS) Larry Tarzwell, Qual Boat: USS James Monroe SSBN 622; MM2(SS) John Sealander, Qual Boat: USS Trigger SS 564; MTC(SS) Steve Kellar, Qual Boat: USS Alexander Hamilton SSBN 617; YN1(SS) Jon Bieniek YN1(SS), Qual Boat: USS Cheyenne SSN 773.

Secretary: Acting Base Secretary Rick Wise called for a motion on the January Base Meeting minutes. Nick Nichols made a motion to accept the minutes as published. The motion was seconded and passed on a voice vote.

Treasurer: Base Treasures Steve Morawiec gave a report on the base finances. The report is available on the Charleston Base website www.ussvicb.org .

Vice-Commander/Membership Chairman: Base Vice-Commander Don Mook had no report but as Membership Chairman reported that there are now 317 members of Charleston Base. He will be available to take dues for 30 minutes after the meeting. Dues can also be paid on-line at the base website, www.ussvicb.org .

Chaplain and Webmaster: Base Chaplain and Webmaster Nick Nichols gave the following report:

February Report:

Highlighted boat of the month:

SHARK 1 was lost on Feb. 11, 1942 with the loss of 59 officers and men on her 1st war patrol. SHARK 1 was the 1st US submarine sunk by enemy surface craft in the Pacific. She was most likely sunk by depth charges.

- **EM3(SS) James E. Walker**, Summerville, a WWII Submariner, departed on Eternal Patrol on Mon. 2 Feb. He was not a member of USSVI. James qualified on PIKE (SS 173) in 1944 and served on Thornback (SS 418) and CUSK (SS/SSG/AGSS 348). His funeral service was held this past Monday. Base member Ralph Luther sent me this info on Friday evening but I did not pick up the email until late on Monday. I apologize for not getting the word out to everyone.
- **MOMMFN(SS) Robert A. Barber Sr.,** Newberry SC, a WWII Submariner, departed on Eternal Patrol on Sun. 1 Feb. He was not a member of USSVI. Robert qualified on COCHINO (SS 345) at the end of WWII.
- **ETCS(SS) David Carr,** Johns Island SC, departed on Eternal Patrol on Sat. 31 Jan. He was not a member of USSVI. Received the following from Tom Lufkin:

o Went to the funeral service at the Shrine Temple. Rodney was also there and we both had on our Vests so lots of people came up and talked with us. The service was very nice and the Masons did their works. I did not know that Dave has a brother who is a Captain on active duty in the US Navy and is submarine qualified. He is currently stationed at the Naval Academy. Dave's wife thanked us for coming and made the statement "Dave always wanted to come and join USSVI Chas Base but he just never got around to it. I used to send him meeting notices each month but he never did make it. Anyway we were there and his wife and daughters appreciated it.

o **MMCM(SS) Paul Frederick Popik, Summerville, departed on Eternal Patrol Sat. 17 Jan.** He was not a member of USSVI. Paul qualified on SENNET (SS 408) in 1962 and served on THOMAS A. EDISON (SSBN/SSN 610).

o **TMCM(SS) Alfred J. Burrill, Jr.,** U.S. Navy (Ret), departed on Eternal Patrol Tue. 13 Jan. Al qualified on Corporal (SS 346) in 1950 and served on Balao (SS 285), Trumpetfish (S 424), Turk (SS 426) and Henry Clay (SSBN 625. He was a member of the Drum base.

o **EMCM(SS) Jesse Lowman**, brother of base member Jim Lowman, departed on Eternal Patrol Fri. 16 Jan. He was not a member but was stationed in Charleston for a number of years with his last tour at Group Six staff.

o **Glenn Fleming** is at home with hospice. Had a chance to talk to Glenn and Joyce on the way to the meeting. Today was a good day for him. He would really like some phone calls and visits if possible. He is a little hard to understand on the phone but if you listen close you can make out most of it. Joyce will need some help at some time in the near future when she must go for an appointment.

o **Jim Yates** had emergency surgery at MUSC at the end of January. He's had a lot of problems but Carol just told us he has been more alert lately. There is hope that the ventilator can be removed soon. Still in ICU, no idea when he can go to a private room. He is out of septic shock but continues with the infection and slight fever. Keep up the prayers please. Carol has asked the SUBVETS **NOT TO RECEIVE PHONE CALLS, TEXTS or EMAILS** at the present time. She will let me know of any changes in Jim's status and I will pass the information to the base members. Please remember Jim, and Carol, in your prayers and thoughts during this time.

o **Gene Weir** is not here tonight due to the recurrence of his lymphoma. He starts chemo this week and will be getting monthly treatments. I am feeling good and spirits are high. He asked that I pass it on to everyone.

o **Doc Hill** has informed me that he has been diagnosed with cancer in his right lung. He has two small spots that will be treated with radiation only. He laughed as he told me that he has beat prostate cancer and bladder cancer, has bone cancer and lung cancer and the only part of his body that hurts is his back where he had a drain for his kidney. That spot has healed but it still gives him fits. Wants everyone to know that he could use some company and/or phone calls. He misses being here with his shipmates.

o **Fred Woodley** had another bout of the Shingles. They came out on his back from his spine to shoulder blades on both sides. It is better now and he's back at work. His comment: "Get the shot if your doctor says you can."

o **Bob & Norma Deschaine** would like to thank everyone for helping them. Ray Bryant took Norma to the hospital for her knee surgery, took Bob to the Sub Vets meeting last month and he also took him to see Norma in the hospital. Jim Boggs also checked on Bob during the time Norma was away from home.

o **Bob Hubert** let me know that he had his first post-surgery checkup and they removed stiches and staples plus X-Ray. Looks good so far. He is recovering at home and will have monthly XRays.

o **Sonny Rash** had major surgery at the VA repair an aortic aneurysm. He came through the surgery very well and is now home recovering and doing PT.

o **Marvin Miller** broke his ankle at the end of Dec. and had surgery on it on Jan. 14th. He is home recovering.

o **Lee Young** is doing well now that the blockages in his heart have been taken care of. He reports that his blood pressure is normal and he feels great!

o **Frenchy Fuqua** continues to recover from his stroke.
Anne Snyder, Ron's wife, will be having knee surgery on 19 February.

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.

WEBMASTER NOTES: Website is updated constantly. The Charleston Base website is www.ussvicb.org .

Newsletter: Newsletter Editor George Fuchs asked if someone would help in printing and mailing out the Base Newsletter to those people who do not have e-mail addresses.

Veterans Affairs: Ken Curtis reported that work on the new parking facility for the Ralph Johnson VA Hospital should start in March.

FRA: Larry Cox reported that the FRA Valentine's Day show for Saturday, February 14 was sold out as far as seats in the Ballroom. There was Standing Room Only available in the bar.

There is a membership drive underway that will end 0n February 28. Look into it because it can save you some money.

The two-bell ceremony for Shipmate Gary Sorenson on Sunday February 15.

Submarine Veterans of World War II/Scholarship Committee: Swamp Fox President George Scharf asked if anyone knew a good automobile mechanic in the Hanahan area that did not over charge please contact WWII Submarine Veteran Walt Curtis.

The next Swamp Fox meeting will be at the Golden Corral near Tanger Outlets at 2468 Centre Pointe Drive, North Charleston. Tell the cashier that you are with the SubVets group and get your drinks. Mike Emerson will collect $12.00 each for the meal and tip and write a check when we leave.

The Scholarship Chairman is looking into holding a Car Show to raise money for the Scholarship Fund.

Ed Stank pointed out that the Base Storekeeper has Charleston Base Challenge Coins for sale with the proceeds going to the Scholarship Fund and that the Base has a Store on the Charleston Base Website (www.ussvicb.org) to sell donated items with the proceeds going to the Scholarship Fund.

Storekeeper/Election Coordinator: Base Storekeeper Ken Hutchison stated that he still Challenge Coins for sale. As Election Coorinator he reported that the election this May is for Base Commander and Base Treasurer. Both incumbents are not running. So far the only candidate is Rick Wise running for Base Commander.

CRAMA: Director of Restoration and Maintenance Butch Bryar reported that CRAMA had received assurances from the Coast Guard that Clamagore could only be moved to Florida on another ship or a barge. CRAMA will continue to seek support in the state legislature to have Clamagore turned over to CRAMA. He also pointed out that this is a new year and that we need members. The membership fee is $20.

Nuclear Historian: Rick Carlson made the following report:

I have been informed that Congratulations are in order for the Charleston Base Auxillarymen (MM's). Or so they think! It seems that there are now more Auxillarymen in our midst than The Exalted Torpedomen.
In Honor of this The Secretary of the Navy have bestowed the new name on the SSN 795 USS Hyman G. Rickover.

I have to assume that in order to achieve this great number they must be adding Nuclear Trained MM's. But what am I thinking… The Auxillarymen were once Nuclear trained , they were just the Non-Accredited one.

This revelation should be evident seeing that there are no longer any TM's in the Navy.

Those that are now performing that duty are Machinist mate Weapons . They have to wear the "Screw" on their sleeve as a reminder of what happened to them. If you ask them what they are they will tell you "TM's".

Why is that surprising to anyone ? Didn't you ever hear the Term " Creeping Nucism".

What is a Nuc School Dropout? An Auxillaryman !

NOW FOR THE REST OF THE STORY!!!!!!!

A Senior Machinist Mate Instructor did a Class Brief at "A" school to see who wants to become a "Torpedoman" and who wants to become an "A-Ganger". Each student would write down which one they want as a First Choice and a brief description of why. So the 1st. sailor wrote… Torpedoman. His reason was , I want to be a Torpedoman because I'd rather tell the Ladies…I work on and Fire Large Weapons rather than " I fix toilets on a submarine!

SOMETHING TO THINK ABOUT!

I've accidentally swallowed some Scrabble tiles. My next crap could spell "DISASTER".

Last year I joined a support group for PROCRASTINATORS. We haven't met yet!

The After Battery: Steve "Buddha" Nelms reminded the base that the Annual After Battery Hog Roast will be on Saturday April 11. People will start arriving on Sunday April 5. This is also the birthday of the US Submarine Force so the theme is "Going Down for 115 years." The After Battery has a website, www.theafterbattery.com .

Chief of the Boat: COB Rick Sparger reported that strengthening of the Float trailer would begin shortly and that there would be a working party to get it ready for welding on Monday, February 16.

The combined Charleston Base – FRA Picnic will be Saturday, May 16 at the Cooper River Partners Picnic Area at Bushy Park. More information will be put out later.

Rick reported that he had 17 volunteers for the Hunley – Houatonic Memorial Service on Tuesday, February 17 at the Sunrise Presbyterian Church on Sullivans Island, SC.

Rick also reminded the base that the Navy Band will be performing on 9 March at 6:30 pm the Rose Marie Myers Theater at the Academic Magnet School off Montague Avenue.

Rick also reported that the new signs that Charleston Base helped pay for were now up at the Cold War Submarine Memorial in Mt. Pleasant.

Base Commander: Ed Stank told the base that he will be making a trip to the Veteran's Victory House in Walterboro on Tuesday, February 17. He will leave from the VFW on Bellwright Road in Ladson at 1000. If you would like to go give Ed your name so he can let the Victory House know since the want the group to have lunch with the veterans. Ed plans to keep doing this on the Tuesday following base meetings.

The Submarine Birthday Ball will be on April 10 at the Charleston Marriot Hotel. The tentative cost is $25 a ticket with WWII Sub-Vets and their spouses free. More information will be available later.

Charleston Base has been invited to the Massing of the Colors at the Citadel on 8 March. More will be sent out later.

The Submarine Birthday – Amberjack Memorial Service will be held at 1000 on Saturday, April 11 at the Cold War Submarine Memorial in Mt. Pleasant, SC. More information will follow.

The information on the Admiral James B. Osborne Scholarship and the USSVI National Scholarship program is located on the Charleston Base website. Applications must be submitted by 15 March for the USSVI Scholarship and 15 April for the Admiral James B. Osborne Scholarship.

Acting Base Secretary Rick Wise will be sending out the By-Law changes that were submitted by the By-Laws review committee and approved by the Board of Directors. Please read the changes and be prepared to discuss and vote on the changes at the March meeting. If you have a change you would like made to the By-Laws you may bring it up at the March meeting but be sure of how you want the change worded.

Old Business: It is time to submit nominations for the Distinguished Submariner Award. The form is on the base website. This is for what the nominee has done for the base and there is no timeframe limit. The form is on-line and needs to be submitted by the Board of Directors Meeting on April 2.

New Business: Base Chaplain Nick Nichols talked about a Shipmate Contact Program he was trying to start so that members of the base were contacted monthly. The program is entirely voluntary. He is asking members to contact 4 other members each month. If you find that a base member has a problem and they give their permission send an e-mail or call Nick

Good of the Order: Base Member Gordon Long talked about the Singing Valentines that the Barber Shop Groups do every year. The cost is $50.

Depth Charge: The depth charge was won by A. B. Campbell. A. B. made a donation os $150 to the Scholarship Fund.

Meeting Adjourned: Following the benediction by Base Chaplain Nick Nichols, the Base Commander adjourned the meeting at 2020.

FRA News

FY 2016 Budget Request given to Congress

The president has submitted his FY 2016 budget request, which is seven percent above sequestration levels. With projected federal deficits falling, the president urged Congress to move beyond the "mindless austerity" of sequestration-mandated, across-the-boards budget cuts. The departments of Defense, Veterans Affairs and Homeland Security all increased spending by eight percent over FY 2015. The budget intends to slow the growth of military compensation and benefits with provisions FRA opposed last year, including:

Capping military pay increases at 1.3 percent for FY 2016;

Creating an annual enrollment fee for new TRICARE for Life (TFL) beneficiaries;

Merging TRICARE Standard, Prime, and Extra into one consolidated health plan;

Requiring all retirees to use home-delivery or a Military Treatment Facility (MTF) for maintenance drugs;

Increasing TRICARE annual fees and pharmacy co-pays for retirees under age 65;

Creating a small co-pay ($10) for retirees using MTFs;

Requiring active duty family members to pay a co-pay for TRICARE services;

Reducing Base Allowance for Housing (BAH) payments by six percent; and

Cutting the commissary budget from $1.3 billion to $400 million in three years with only stateside commissaries being cut.

The Association will oppose these budget-driven pay and benefit cuts and is reviewing other issues addressed in the DoD budget proposal.

FRA staff (Ben Young and Chris Slawinski) attended the Department of Veterans Affairs meeting on the VA

budget. The VA budget increases disability claims processing by $166 million. Much of the VA budget is now on a 2-year (advanced funding) cycle. FRA will closely monitor the VA and DoD budgets as they move through the legislative process.

Pharmacy Co-pay Increase Takes Effect

New copayments for prescription drugs covered by TRICARE went into effect on February 1. The FY 2015 National Defense Authorization Act (NDAA) requires TRICARE to increase most pharmacy copays by $3.

The old and new copay rates are given below:

At the retail pharmacy network (you can get up to a 30-day supply of drugs at retail pharmacies):

Copays for generic formulary drugs increased from $5 to $8,

Copays for brand name formulary drugs increased from $17 to $20, and

Copays for non-formulary drugs increased from $44 to $47.

For home delivery (you can get up to a 90-day supply of drugs through home delivery):

Copays for formulary brand name drugs increased from $13 to $16, and

Copays for non-formulary drugs increased from $43 to $46.

Drugs from military pharmacies and generic drugs from TRICARE Pharmacy Home Delivery still cost beneficiaries nothing.

NED Attends Bill Signing Ceremony

National Executive Director (NED) Thomas Snee attended the bill signing ceremony in the East Room at the White House for the "Clay Hunt Suicide Prevention for American Veterans Act" (H.R. 203), which was sponsored by HVAC member Rep. Tim Walz (Minn.). The Department of Veterans Affairs (VA) estimates that as many as 22 veterans commit suicide every day. This FRA-supported legislation is designed to improve the long-term mental and physical well-being of our veterans.

HASC Personnel Panel Reviews Retirement Commission Recommendations

The House Armed Services, Military Personnel Subcommittee held a hearing this week to review the 15 recommendations in the final report of the Military Compensation and Retirement Modernization Commission (MCRMC). Members of the Commission testified on the recommendations. The hearing focused on the concern that only 17 percent of those who serve ever collect retainer pay and the fact that paying benefits to service members who serve less than twenty years will reduce benefits to those that serve 20 or more years. FRA has expressed concern about several of the Commission's recommendations in statements to the House and Senate Armed Services Committees; the full commentary available on the FRA website at action.fra.org/testimony. In addition, NED Tom Snee is scheduled to testify on the MCRMC recommendations before the Senate Armed Services, Personnel Subcommittee on February 25.

Over the course of the last two weeks, members of the FRA Legislative Team met with Personnel Subcommittee staff from the House and Senate Armed Services Committees, as well as staff from the Military Compensation and Retirement Modernization Commission. These off-the-record meetings allow FRA staff to provide the Association's legislative agenda to key staff members on Capitol Hill.

FRA's Full Month's Retired Pay Bill Introduced

Representative Walter Jones (N.C.) recently introduced legislation (H.R. 454) authorizing surviving spouses (or other designated survivors) to retain the full month's retired pay for the month in which a military retiree passes away. "The Military Retiree Survivor Comfort Act" was introduced at FRA's request and seeks to ensure survivors are not unfairly burdened when overpayments occur.

The problem most often occurs when a military retiree dies late in the month. As survivors mourn and work to sort out the details of their loved one's passing, there is sometimes a delay in reporting the death to the Defense Finance and Accounting Service (DFAS). If the death report and other administrative details aren't handled before the next retirement payment is processed, an overpayment occurs for the period between the retiree's death and the end of the month. DFAS has the authority to recoup this overpayment directly from the survivor's bank account with little or no warning, often creating financial and emotional hardship for the family.

Jones' proposal would allow survivors to retain the full month's retired pay for any month in which the retiree was alive for at least 24 hours. To offset the cost associated with this proposal, a provision of the bill would delay the first Survivor Benefit Plan (SBP) annuity payment until the month after the retiree dies.

Congress passed a similar law in 1996 allowing surviving spouses to retain veterans' disability and VA pension payments issued for the month of the veteran's death. FRA believes military retired pay should be no different. Members are urged to use the Action Center (action.fra.org/action-center) to ask their Representative to support this legislation.

Senate Approves Secretary of Defense Nomination

Early this week, the Senate Armed Services Committee unanimously approved Ashton Carter to serve as Secretary of Defense. Full Senate confirmation of the nomination (93-5) followed promptly.

During his nomination hearing, Carter said that sequestration-driven budget caps could lead to a "significant risk" of rewriting the U.S. defense strategy and would imperil "extremely fragile" recent readiness gains. If military personnel costs keep rising amid flat budgets, it could lead to a "hollow force," he added. Carter also predicted a "smaller and more efficient" military in the next five years.

Agent Orange/Blue Water Navy Bill Introduced

Rep. Chris Gibson (N.Y.) has introduced the "Blue Water Navy Vietnam Veterans Act" (H.R. 969), which would clarify a presumption for filing disability claims with the Department of Veterans Affairs (VA) for ailments associated with exposure to Agent Orange herbicide during the Vietnam War. The bill was introduced with 131 original co-sponsors. Congress should recognize that so-called "Blue Water" veterans who served off the coast of Vietnam were exposed to Agent Orange herbicide. This bill authorizes presumptive status for VA disability claims associated with Agent Orange exposure for this group of veterans. Shipmates are urged to use the Action Center (action.fra.org/action-center) to ask their Representative to support the "Blue Water Navy Vietnam Ve terans Act."

Online Prescription Tracker Gives Veterans 24/7 Online Access to Status

Veterans can now track the status of most of their prescriptions online, thanks to an innovative program at the Department of Veterans Affairs (VA). The new 24/7 service allows online tracking for most prescriptions mailed from the VA Mail Order Pharmacy. More than 57,000 Veterans are currently using the service through My Health*e*Vet, an online feature that allows Veterans to partner with their health care team. The number is expected to grow as the VA starts to educate veterans about the new feature. Later this month, the tracking feature will include images of the medication that it dispensed. Over the next year, a secure messaging alert will be added so that veterans know when a medication was placed in the mail. For more information on the program, go to: https://www.myhealth.va.gov/index.html.

Happy 74th Birthday USCGR

The Coast Guard Reserve was established by the passage of the Coast Guard Reserve and Auxiliary Act of February 19, 1941. That act also established the Coast Guard Auxiliary under its present name (the Auxiliary had originally been called the 'Coast Guard Reserve'). The new Coast Guard Reserve was modeled after the Naval Reserve as a military component. It was composed of two broad classifications: Regular Reservists and Temporary Reservists. Regular Reserve members served on active duty during World War II "for the duration," while Temporary Reserve members consisted of volunteers and former Auxiliary members whose paid and unpaid services were still needed in a military capacity for coastal patrols and port security work.

Thin 'Bubble' Coatings Could Hide Submarines from Sonar

Charles Q. Choi, Yahoo News, FebBubble-filled rubbery coatings may one day help make submarines virtually undetectable to sonar, researchers say.

To avoid detection by sonar, military submarines are often covered with sound-absorbing tiles called anechoic coatings. These perforated rubber tiles are typically about 1 inch (2.5 centimeters) thick.

In the past decade, research has suggested that the same degree of stealth could be provided by much thinner coatings filled with vacant cavities. When hit by sound waves, empty spaces in an elastic material can oscillate in size, "so it will dissipate a lot of energy," said lead study author Valentin Leroy, a physicist at the Université Paris Diderot in France. [7 Technologies That Transformed Warfare]

However, figuring out how to optimize such materials for stealth applications previously involved time-consuming simulations. To simplify the problem, Leroy and his colleagues modeled the empty spaces in the elastic material as spherical bubbles, with each giving off a springy response to a sound wave that depended on its size and the elasticity of the surrounding material. This simplification helped them derive an equation that could optimize the material's sound absorption to a given sound frequency.

The researchers designed a "bubble meta-screen," a soft layer of silicone rubber that is only 230 microns thick, which is a little more than twice the average width of a human hair. The bubbles inside were cylinders measuring 13 microns high and 24 microns wide, and separated from each other by 50 microns.

In underwater experiments, the scientists bombarded a meta-screen placed on a slab of steel with ul-

trasonic frequencies of sound. They found that the meta-screen dissipated more than 91 percent of the incoming sound energy and reflected less than 3 percent of the sound energy. For comparison, the bare steel block reflected 88 percent of the sound energy.

"We have a simple analytical expression whose predictions are in a very good agreement with numerical simulations and real experiments," Leroy told Live Science. "I find it exciting and beautiful."

To make submarines invisible to the sound frequencies used in sonar, larger bubbles are needed. Still, the researchers predicted that a 0.16-inch-thick (4 millimeters) film with 0.08-inch (2 millimeters) bubbles could absorb more than 99 percent of the energy from sonar, cutting down reflected sound waves by more than 10,000-fold, or about 100 times better than was previously assumed possible.

However, despite the possibilities, "making these samples will probably be tough," Leroy cautioned.

Navy Striving To Reduce Detectability Of Next Boomers

Mike McCarthy, Defense Daily, Feb 5

The Navy is working to ensure the acoustic profile of the future ballistic missile submarine is low enough that it can avoid being detected and withstand new technologies foes may introduce throughout the planned 50-year year lifetime of the subs, the Navy's acquisition chief said Thursday.

"We have to project what that threat will be for the next half century," Sean Stackley, the assistant secretary of the Navy for research, development and acquisition, said.

The Navy plans to begin construction of the first of the SSBN(X)s to replace the Ohio-class boomers in 2021 and get it into service by 2031. Stackley said the last of the 12 boats in the new class will operate to about 2080. The SSBN(X) is formally known as the Ohio-class Replacement Program, or ORP.

"Much of our acoustic superiority is designed and built into the submarine on day one," Stackley said at the Naval Future Forces Expo hosted by the Office of Naval Research and American Society of Engineers. "There are certain features and aspects of a submarine that you don't get to come back to later again."

"So we're being very careful to project what signatures we believe are necessary for that submarine and its various operating profiles, what technologies are necessary from stem to stern to deliver that signature profile," he said.

The Navy has already been investing hundreds of millions of dollars for early design and development for the SSBN(X), largely in contracts with General Dynamics [GD] Electric Boat in Groton, Conn. Electric Boat is also working with Huntington Ingalls Industries [HII] headquartered in Newport News, Va.

The two companies partner in the construction of the Navy's Virginia-class (SSN-774) attack submarines.

Several years ago the Navy said it was delaying the original construction timeframe for the SSBN(X)s from 2019 to 2021 because of budgeting issues and to give more time to iron out the design.

Railguns and UUVs Part of the Navy of the (near) Future

Michael Hardy, C4ISRnet.com, Feb 5

In the Navy of the future, railguns and lasers have replaced gunpowder, and speedy unmanned underwater vehicles are stepping into the gap left by a diminishing submarine fleet. The challenge is getting such futuristic technology into use fast enough.

Nearly half of the Navy's $2 billion science and technology budget will be spent on discovery and the invention of technologies that may not reach the fleet for another five to 20 years, according to a report in Navy Times.

Related: Under the sea: Sleek UUVs ply the depths

The funding will focus on nine areas: assured access to maritime battlespace; autonomy and unmanned systems; electromagnetic maneuver warfare; expeditionary and irregular warfare; information dominance — cyber; platform design and survivability; power and energy; power projection and integrated defense; and warfighter performance.

ADM Jonathan Greenert, chief of naval operations, told an audience at the Naval Future Force Science and Technology Expo, that he didn't come into

his job "with a thing for science and technology," but now it influences many strategy and budget decisions.

His priorities include replacing shipboard guns with lasers and railguns—weapons that use electromagnetism rather than explosions to propel projectiles— and enhancing undersea unmanned vehicles. Protecting proprietary data is another key need, he added.

Catch the full report at Navy Times, and see our comprehensive coverage of the 2016 budget here.

Southampton Scientists Develop 'Octopus Submarine'

BBC, Feb 5

Scientists are developing an ultra-fast, underwater vehicle inspired by the octopus, which they say could revolutionise sea passenger travel.

The robotic vehicle, being developed in Southampton, uses the aquatic animal as inspiration for a faster and smoother way of moving in the sea.

Like an octopus, it inflates with water then rapidly deflates by shooting the water out through its base.

The acceleration is the equivalent of a car going from 0 to 60mph in a second.

Dr Gabriel Weymouth, lead author of the study, said in contrast, a "submarine has to travel for miles to get up to full speed".

The project, led by a team at the University of Southampton, is currently centred around a remote-controlled prototype, built using a 3D printed skeleton with no moving parts and no energy storage device, other than a thin elastic outer hull.

The speed achieved "is unprecedented in man-made underwater vehicles," the university said.

Mr Weymouth said, in future, this method of propulsion could be applied to creating underwater passenger vehicles, which would be much faster than floating vessels such as ferries.

The goal for the more foreseeable future, however, is to develop vehicles for the purpose of underwater exploration that are easier to manoeuvre around obstacles such as coral reefs and off-shore wind farms.

Mr Weymouth said: "Underwater exploration of these environments is very difficult and potentially dangerous, particularly because our vehicles are often unwieldy.

"Robots that can greatly deform their shape can improve our ability to speed-up manoeuvres and touch obstacles softly, helping man-made vehicles interact with their environments faster and more naturally."

NASA Releases Details of Titan Submarine Concept

Now that NASA has got the hang of planetary rovers, the space agency is looking at sending submarines into space around the year 2040. At the recent 2015 NASA Institute for Advanced Concepts (NIAC) Symposium in Cocoa Beach, Florida, NASA scientists and engineers presented a study of the Titan Submarine Phase I Conceptual Design, which outlines a possible mission to Saturn's largest moon, Titan, where the unmanned submersible would explore the seas of liquid hydrocarbons at the Titanian poles.

If you had to choose the odd man out of all the moons of the Solar System, Titan would be it. Larger than the planet Mercury, it's the only moon with a proper atmosphere. In this case, one composed largely of nitrogen and methane at a pressure one and half times that of Earth's, which is remarkable when you consider that the gravity is only 0.14 g. It is, however, unpleasantly cold at a nippy minus 290 °F (minus 179 °C).

As a result of the Voyager and Cassini probe flybys and the Huygens probe landing, it's been established that there are three large polar seas on Titan consisting of methane and ethane in a composition similar to that of liquified natural gas. The largest of these is Kraken Mare, which was discovered by the Cassini probe n 2007. It lies in the Titanian arctic between 60 and 80 degrees north latitude, covers 400,000 sq km (154,000 sq miles), and may be 160 m (525 ft) deep, though some estimates place it beyond 300 m (1,000 ft). It even has tides due to the pull of Saturn, a complex shoreline, and evaporite deposits, so it's of particular interest to scientists.

Unfortunately, as anyone who has peered over the side of a boat can tell you, there's only so much that can be learned by looking at the surface, so NASA is considering what kind of a submarine would be able to explore the depths of Kraken Mare.

NASA's conceptual Titan submarine is based on experience gained from the building and operations of drone submersibles on Earth. Weighing in at about one tonne (2,200 lb), it uses conventional electric propulsion modified for use on Titan for a 90-day mission covering 2,000 km (1,240 miles) of Kraken Mare.

Because of its elongated shape, the sub would need to be delivered to the surface of Titan using a winged spacecraft similar to US Air Force X-37 lifting

body, which could survive a hypersonic entry into Titan's atmosphere, ditch on the surface of Kraken Mare, and then sink away, leaving the submarine floating on the surface. After orientation and testing, the sub would then begin its mission. Because of the great distance from Earth, the submarine would operate with a very high level of autonomy.

At its heart, the submarine would use a 1 kW radiothermal Stirling generator. This would not only provide power to propel the craft, but it would also keep the electronics from freezing. Unfortunately, Titan is so cold that it's almost a cryogenic environment, so the waste heat from the generator would cause the liquids around it to boil and this would need be taken into account when designing the sub to minimize interference. However, NASA estimates that the boat could do about one meter per second (3.6 km/h, 2.2 mph).

For economy and simplicity, the conceptual submarine would not use an orbiter as a relay because an orbiter would need to be nuclear powered and include a propulsion system, which would greatly increase the cost and complexity of the mission. Due to the large amount of data that needs to sent to Earth, the submarine needs a large dorsal fin that includes a planar phased-array antenna. While operating, the submarine would surface for 16 hours per day for Earth communications during which it would study its surroundings using a mast camera. This is a bonus because the high latitudes mean any break in the Titanian clouds would be rewarded with spectacular views of Saturn on the horizon.

Like an earthbound submarine, the Titan sub would use ballast tanks, but their design is still open to question because methane and ethane are not water and Titan is very different from Earth. The liquid density of different ratios of methane to ethane, for example, is very variable compared to that of fresh versus salt water, so something as basic as the size of the tanks has yet to be sorted out.

Titan's gravity is low, but if Kraken Mare is as deep as some theories indicate, and taking into account the composition and temperature of the Titanian atmosphere, it could also cause trouble because at great depths the nitrogen in the ballast tanks could condense into a liquid, which could result in a sudden loss of buoyancy. For this reason, the tanks would need to use a piston to allow in and expel liquid rather than relying on air pressure as in a conventional submarine.

NASA doesn't say much about the objectives of the Titan submarine, but it would probably be a full itinerary. This would likely include the study of the structure and composition of Kraken Mare in terms of both its liquid and its sediment. Also, since Titan has an overabundance of organic chemicals, the submarine would be tasked with looking for traces of prebiotic compounds that could give clues as to how life began on Earth.

John P. Craven, Scientist Who Shaped Cold War Spying At Sea, Dies At 90

William J. Broad, New York Times, Feb 19

John P. Craven, a former Navy scientist whose innovations in ocean technology and exploration led to some of the nation's most celebrated feats of espionage, died on Feb. 12 in Hawaii. He was 90.

The cause was complications of Parkinson's disease, his family said.

From 1959 to 1969, as chief scientist of the Special Projects Office, Dr. Craven led the Navy's drive to expand its presence into the crushing depths of the sea. Among other things, he turned submarines into spy machines that could reach down miles to inspect and retrieve lost enemy matériel, including nuclear arms.

Dr. Craven liked to regale friends and journalists with as much of his personal history in the Navy as the nation's secrecy laws would allow, resulting in books and articles that sought to illuminate his Cold War exploits.

"There's a hell of a lot of stuff that went on," he said in an interview in 1993 on the front porch of his home overlooking Honolulu. After all, he added philosophically, "the whole object of life is to adapt."

John Piña Craven was born on Oct. 30, 1924, in Brooklyn, coming from a long line of naval officers on his father's side and a family that reached back to Moorish pirates on his mother's. He graduated from Brooklyn Technical High School and joined the Navy during World War II, serving in Hawaii and earning two battle stars before he was sent to Cornell University for officer training.

After the war, under the G.I. Bill, he studied at the California Institute of Technology and the University of Iowa, where he met his future wife, Dorothy

Drakesmith, and received a doctorate in mechanics and hydraulics. Years later he received a law degree from George Washington University and became an expert on seabed legalities.

Dr. Craven's naval career began in 1951, when, as a civilian, he investigated how to improve ships and submarines. He was promoted quickly after correctly predicting and helping to fix a structural problem with the Navy's first nuclear-powered submarine, the Nautilus.

Dr. Craven was project manager for developing the Polaris, the world's first intercontinental ballistic missile that could be fired from a submerged submarine. It underwent test firing in 1960 and was in service for decades.

The Navy was eager to restore the nation's confidence in its deep-sea abilities after the new attack submarine Thresher sank in 1963 during a test dive east of Boston because of a mechanical failure, taking 129 lives. Officials gave Dr. Craven and his special-projects team leeway to devise a wide range of undersea gear for search, rescue, salvage and gathering intelligence from the sunless depths.

In 1965, he selected the nuclear submarine Halibut for conversion into an innovative spy sub, filling the vessel with electronic, sonic, photographic and video gadgets. Hovering beneath the waves, invisible to adversaries, the sub could lower a long cable heavy with lights, cameras and other gear for deep reconnaissance, recovery and manipulation. It was a technological first that begot a new kind of espionage.

Among the targets were ships, planes and spacecraft lost at sea, as well as functioning equipment, like undersea cables and listening devices. To build support for his top-secret endeavors, Dr. Craven met with senior Pentagon officials, showing them classified photographs of Soviet warheads buried in muck on the seabed.

In March 1968, a rich new target materialized when a Soviet missile submarine bearing code books, encryption gear and nuclear arms sank in the central Pacific. By all accounts, Dr. Craven and the spy sub located the wreckage more than three miles beneath the sea's surface.

That May, the nuclear-powered attack submarine Scorpion vanished in the Atlantic with 99 men on board. Dr. Craven scrutinized recordings from undersea microphones, found evidence of explosions, and drew on his knowledge of math and statistics to pinpoint the spot where the submarine was most likely to have sunk. Search teams discovered the Scorpion's wreckage at a depth of nearly two miles.

The undersea fleet that Dr. Craven helped devise included the Navy's NR-1, a nuclear submarine with crablike claws; the Deep Submergence Rescue Vehicle, a cylindrical craft designed to evacuate up to 24 people at a time from a crippled submarine; and the bathyscaph Trieste, a vessel his team improved, which investigated the sunken Scorpion.

Dr. Craven twice received the Distinguished Civilian Service Award, once from the Navy and once from the Department of Defense.

After Richard M. Nixon won the presidential election in 1968, Dr. Craven, convinced that the new administration would have no room for an outspoken Democrat, left the Navy and took a teaching post at the Massachusetts Institute of Technology. In 1970, lured to Hawaii by its governor, he was named dean of marine programs at the University of Hawaii and the state's marine affairs coordinator.

The spy sub he devised made one of its greatest coups shortly after he left the Navy. In 1971, the Halibut stole into the Sea of Okhotsk north of Japan, found a telecommunications cable used by Soviet nuclear forces and succeeded in tapping its secrets. The mission, code-named Ivy Bells, was so secret that a vast majority of the submarine's sailors had no idea what they had accomplished. The success led to a concealed world of cable-tapping.

In 1974, Dr. Craven founded the Natural Energy Laboratory of Hawaii, a state research center that investigated how to make electricity by exploiting the temperature difference between the Earth's warm surface and cold water from the ocean's depths.

Dr. Craven's naval career has been profiled in several books. He recounted his own story in 2001 in "The Silent War: The Cold War Battle Beneath the Sea." In its prologue, he says he wrote the book to honor men whose sacrifices might otherwise go unacknowledged.

Dr. Craven is survived by Dorothy Drakesmith Craven, his wife of 64 years; a son, David; a daughter, Sarah Craven; and five grandchildren.

Once, at his Hawaiian laboratory, Dr. Craven described an energy project in terms that echoed his

own life. “It seemed,” he said, “like perpetual motion.”

Norwegian Scientist Says Decaying Russian Subs Threaten 'Chernobyl in Slow Motion'

Tom Parfitt, The Telegraph, Feb 20

A scientist in Norway has warned of a "Chernobyl in slow motion" as the result of decaying nuclear submarines off the Arctic coast of neighbouring Russia.

Nils Bøhmer, a nuclear physicist who heads the Bellona environmental group, said that ageing subs and boats dumped in the Barents and Kara Seas could begin to leak radioactive waste within a decade.

"We fear what could be called a Chernobyl in slow motion, where radioactive waste seeps out into the sea," he told Norway's Dagbladet newspaper, according to The Local.

Mr Bøhmer said that Norway's Radiation Protection Authority (NRPA) estimated leaks could begin, "in 10 to 15 years time".

The NRPA says that before the USSR collapsed in 1991, Soviet authorities dumped an estimated 17,000 containers of nuclear waste, two submarines, 19 ships containing radioactive waste, 14 nuclear reactors, including five that still contain spent nuclear fuel, and 735 other pieces of radioactively contaminated heavy machinery in the Arctic Ocean.

Most dangerous of all are two submarines – the K-159 and the K-27 – which lie on the ocean floor, the first at the entrance to Kola Bay in the Barents Sea and the second in the shallows surrounding the Novaya Zemlya archipelago, where nuclear bombs were tested during the Soviet period.

• The women living in Chernobyl's toxic wasteland

Bellona says the K-27 submarine was scuttled in less than 150 feet of water in the early 1980s after a reactor accident that killed nine crew on-board in 1968. Its reactors contain an estimated 200lb of uranium 235.

The K-159 sank unexpectedly while it was under tow to a shipyard in 2003. Nine sailors on board drowned.

The United States and Russia previously worked together to decommission and protect Soviet-era nuclear, biological, and chemical weapon stockpiles under the Cooperative Threat Reduction (CTR) Programme.

That initiative – which included dismantling of submarines – was ended by Russia in December, most likely as a result of rising tensions between Moscow and Washington over the war in Ukraine.