MINUTES OF THE USSVI NORTHERN VIRGINIA BASE MEETING HELD ON SATURDAY, June 10, 2017

The Base CDR, Chuck Martin, called the meeting to order at 1103 on June 10, 2017, at the American Legion Post 162, Lorton, VA and welcomed all members and guests.

MEMBERS AND GUESTS IN ATTENDANCE

Steve Bishop, Art Bivens, Cathy Chatham, Howard Chatham, Bob Glover, Brian Haller, Steve Jaeger, guest speaker Don Jagoe, Chuck Martin, Mike Naughton, Mary Lou Naughton, Paul Nelson, Tim Oliver, Mike Varone, George Wallace, Penny Wallace, and Lawrence Woodworth. (17 total)

Holland Club Member Associate Member Guest

The COB, Mike Varone, led all hands in the Pledge of Allegiance.

The Chaplain, Steve Jaeger, delivered the Invocation.

After a moment of silence, The CDR read the list of boats lost in the month of June. These were:

USS Herring (SS-233)	Jun 1, 1944
USS R-12 (SS-89)	Jun 12, 1943
USS Golet (SS-361)	Jun 14,1944
USS Bonefish (SS-223)	Jun 19, 1945
USS S-27 (SS-132)	Jun 19, 1942
USS O-9 (SS-70)	Jun 20, 1941
USS Runner (SS-275)	Jun 26, 1943

The COB then rang the bell twice in remembrance of the 21 USSVI NOVA Base members on Eternal Patrol.

IN MEMORIAM: CDR Terry Terrass, USN, Ret.

MEETING MINUTES

The minutes of the May meeting were distributed by e-mail and snail mail. Minutes were accepted as written.

TREASURER'S REPORT

The Treasurer, Steve Jaeger, presented the following:

Starting balance: \$ 9,125.93 Receipts: \$ 2,337.30 Expenditures: \$ 2,092.13

Ending balance: \$ 9,440.40 as of June 10, 20157

Minus the WalMart grant restricted use funds for K4K of \$3,259.38

Grand total discretionary: \$6,181.02

Treasurer's report was accepted as reported.

MEMBERSHIP REPORT Steve Jaeger reported:

83 members consisting of:

40 Holland Club

- 3 World War II members
- 33 Regular members; and
- 10 Associate members.

COMMITTEE REPORTS

The Base Commander summarized the discussion at the May 31st Executive Board meeting, including: potential new recruits, Holland Club initiation feedback and items to improve for next year, Base finances, plans for upcoming meetings and events, K4K program, and Scouting Recognition (Eagle) program.

VCDR: Nothing to report (NTR)

COB: Inputs to the <u>American Submariner</u> editor have been made on the USS Barb (SS-220) presentation by Tim Richard.

Public Relations: Mike Varone reported:

- On Saturday May 27th, the CDR and Howard Chatham joined American Legion Post #162 in placing American Flags on the gravesites of local Veterans.
- Howard Chatham, Immediate Past Commander, participated in the Falls Church Memorial Day Ceremony.
- Our Base CDR and Woody Woodworth attended the Quantico National Cemetery Memorial Day Ceremony.

Historian: The Base CDR reported:

• The National Desert Storm Veterans War Memorial organizers are very proud to present the first set of renderings of the proposed National Desert Storm War Memorial. https://www.ndswm.org/?page_id=925.

Base SK: Howard Chatham reported: 10 Base Challenge coins are still available for sale; as are two 20^{th} Anniversary shot glasses and one 2017 USSVI calendar (\$5 for the calendar – ½ price for ½ of the year remaining). USSVI NOVA Base patches for your vest are available for \$7 each.

Kap(ss) 4 Kid(ss)

- The date for our next visit to the three Walter Reed National Military Hospital's pediatric oncology wards will be Thursday, June 15th at 10:00 AM.
- The date for our next visit to Fairfax INOVA hospital is July 13th at 2:15 PM.
- Walmart has come through with another Community Fund donation, bringing our total to \$2,500.00 for 2017.
- The K4K Chair visited the offices of Submarine Squadron SIX in Norfolk, VA to liaison for K4K. We have told the visited K4K families bedside that their child, when he or she was feeling up to it, that they could get a free family tour of a submarine in Norfolk. We wanted to ensure that the skids were properly greased inside the Norfolk Navy gates to

ensure no foul-ups happened and that no family makes a trip to Norfolk just to be frustrated and denied a tour. The skids are now fully greased!!

The Squadron SIX Commodore, CAPT Carl Hartsfield, Command Master Chief Sean Craycraft, and Storekeeper Chief Brett Adams were very receptive to hosting K4K families on CSS 6 in-port submarines. The POC to arrange these K4K tours IN ADVANCE will be the COMSUBLANT Public Affairs staff, Chief Darryl Wood. CAPT Hartfield arranged for the CSL POC to arrange these tours, and said a senior officer and senior enlisted person from his staff would host / accompany these pre-arranged K4K submarine tours. As it turns out, CAPT Hartfield's wife has been taking her Therapy Dog to Portsmouth Navy Hospital once per week for years. She came home from the previous week's visit and reported to her husband (the Commodore) that the children she saw last week bedside were gushing to her about having been made "Honorary Submariners" the previous week. That was because the USSVI Hampton Roads Base had just started making their K4K visits to Portsmouth Navy Hospital. The Commodore was so struck by these K4K visits that he had ordered his Command Master Chief to invite the Hampton Roads Base's K4K team to the upcoming CSS 6 staff BBQ / picnic. Several of the CSS 6 staff desire to accompany, and now will be accompanying, the Hampton Roads K4K team on their future hospital visits. We put the CSS 6 staff in touch with the Hampton Roads K4K team leader. (WIN-WIN-WIN for all.)

- We will be taking our first edition of the NOVA Base K4K 12-page coloring book to Walter Reed this month. This edition is aimed at the younger Kid(SS) and is meant to be colored with crayons. We are working with USSVI National Artist Tom Denton (Tri-State Base) to create the older Kid(SS) version of a coloring book, meant to be colored with colored pencils.
- Our intent to provide to each child we visit a nice folder containing both the "Honorary Submariner" certificate and a coloring book. The folders and the coloring books will clearly show all appropriate credits to USSVI NOVA Base, Walmart, internet sites where we obtained free graphics, and the artists. We intend to deliver the crayons and colored pencils to the hospital staff who will make them available to the children.

Chaplain: Steve Jaeger asked that we all keep those on the Binnacle List in our thoughts and prayers going forward.

Scouting Coordinator by Chuck Martin:

- We honored Eagle Scout Ryan Sabisch on June 3rd
- Upcoming Eagle Scout Court of Honors:
 - Eagle Scout Ethan Wheatley on Sunday June 11, 2017 (tomorrow) at 3pm at Fredericksburg's St Mary of the Immaculate Conception Roman Catholic Church, Fredericksburg, VA.
 - Eagle Scouts Caleb, Daniel, and Phillip Mullenax (three brothers) on Saturday June 17,
 2017 at Church of Christ -, Upper Tract, WV.
 - Eagle Scout Thomas Davison on Saturday July 15, 2017 at 3pm at Faith Lutheran Church – Main St, Franklin, WV.
- All base members are invited to attend any of these Eagle Scouts' Court of Honor. Please contact the Base CDR for further details.

Submarine League: Tim Oliver reported:

- At the recent Battle of Midway dinner the attendees were honored by the guest appearance of a 92-year old Gunners Mate Chief who served on the USS Nautilus.
- He attended the Memorial Service for the USS Barb (SS-220) TDC operator Captain Max Duncan in Annapolis, MD

The Base CDR reported:

- Next NSL Capitol Chapter luncheon is Friday, 28 July 2017 at the ANCC, 1130-1330. Guest Speaker is RDML Bill Merz, Director of Undersea Warfare, OPNAV N97. Request early RSVP be sent to bradkratovil@cox.net by Friday 6/16 if you expect to attend.
- Foundation for Underwater Research & Education (FURE) International Submarine Races (ISR) at NSWC Carderock on Friday 30 June
 - o The Chapter is running the cookout just prior to the awards ceremony on the final day. Contact Nick Guertin (<u>Nickolas.guertin@hotmail.com</u>) if you are interested in helping.
- Other upcoming NSL Events:
 - 2017 History Seminar October 31st The Hunt for Red October: Fact and Fiction a panel discussion comparing a real Cold War submarine mission (which has been declassified) and the movie. The seminar will be held at the United States Navy Memorial.
 - \circ 35th Annual NSL Symposium November $1^{st} 2^{nd}$ at Hyatt Regency Crystal City

OLD BUSINESS

- 2017-2018 USSVI Scholarship information and application are now posted on the USSVI website
- 3rd Annual SUBFEST is being held on July 7-9, 2017 at Manitowoc, WI. Thursday night is SUB VET night. USS Cobia and the museum's Sub Pub will be open for Sub Vets only.
- The Biennial District Commander election process is underway. The nomination period is now open and closes on 30 June 2017. To be nominated for North East Region District Commander (the Base is in NE4 District), follow the directions provided in the May Meeting minutes. The voting period will begin in early July (approximately July 5th) and will continue until August 15. Your vote must be received by August 15. Votes can be submitted by either United States Postal Service (USPS) or email.
 - a. Vote by USPS:

Les Altschuler

228 N Pondview Blvd

Monroe Twp., NJ 08831-5541

- b. Vote by email: CdrNJNorthbase@hotmail.com
- David Lorms of the Capitol Base sent a very sincere Thank You letter to the NOVA Base for the recent Holland Club luncheon. His wife, daughter, and he had a wonderful time and they certainly appreciated the hard work put forth by the Base members to host this.
- David Lorms also sent NOVA Base a USS Submarine Service USS F-4 (SS-23) Skate commemorative US Postal Service envelope which was hand stamped on May 20, 2017.

NEW BUSINESS:

• The Base will have our Annual Informal Dining Out in July instead of our regular Base meeting. The dining out is being held at Neighbor's restaurant on Cedar Lane in Vienna,

VA on July 8th at 6 pm. Please send your RSVP to Howard Chatham at pastcdr@ussvinova.org or 703-573-1523

- The NOVA Base will be participating in the Dale City 4th of July parade. The application to participate in the parade is due by June 15th via US Postal Service only. The Base CDR will send out information on where and when to meet once we receive it. Right now we only have 4 who said they would participate.
- <u>American Submariner</u> If you wish to "opt out" and get the electronic version, your Base Tools person (Steve Jaeger) can make that change for you, or you may contact National Office Manager Fred Borgman and he can make that change for you. If you have any questions regarding this, feel free to contact William C. Andrea at: wcandrea@bellsouth.net.
- News from the Fleet and previous information emailed this month will be attached to the minutes.
- The USSVI convention for 2018 will be from Oct 20th thru Oct 27th. It will be held on a Holland America cruise ship and will depart from Ft Lauderdale, FL.

BINNACLE LIST

- Richard Lowry is now in the VA Hospital in DC, Building 6 The Community Living Center, K2 Room 110, Bed 1 (50 Irving Street NW, Washington DC 20422).
- Tom Conlon's (Past USSVI National Commander) surgery went very well. Due to complications from his diabetes, his right leg was removed below the knee and he's now looking forward to going to a rehab facility so that he can be fitted with a prosthetic leg and can then learn to walk again.
- Please keep the following in your prayers: Al Anceravage, Barbara Harmody, Richard Lowry, Steve & Darlene Jaeger for Darlene's mom, and Tony Poblete.

For the Good of the Order, the CDR read the list of birthdays for June: Dan Burke, Debbie Bishop, Marcy Bivens, Dave Cooper, Brian Haller, Jim Huck, Mike Niblack, Tony Poblete, Art Rosen, Lee Turner, and Carl Wooten.

We won't have a regular meeting in July so the CDR read the July birthdays too: Cathy Chatham, Bill Decker, Robert Gilmore, and Frank Pasquinelli.

50/50 Raffle The raffle was won by Cathy Chatham who donated all most all of her winnings back to the Base. Thank you, Cathy!!

The Chaplain delivered the benediction and the meeting was adjourned at 1148.

OUR NEXT EVENT WILL BE THE DALE CITY 4th OF JULY PARADE. DETAILS TO FOLLOW AND OUR NEXT MEETING WILL BE AN INFORMAL DINING OUT AT NEIGHBOR'S RESTAURANT, VIENNA VA ON JULY 8TH AT 1800.

THE NEXT REGULARLY SCHEDULED MEETING WILL BE ON AUGUST 12TH WHEN WE WILL HOLD A PIRATE AUCTION. PLEASE PLAN TO BRING YOUR SUBMARINE RELATED AND OTHER ITEMS FOR THE AUCTION AS WELL AS LOTS OF MONEY TO BUY THE TREASURES DONATED BY OTHER MEMBERS.

After a short break, the base VCDR George Wallace introduced our guest speaker, Don Jagoe.

Don Jagoe is the Senior Director for Business Development at Liquid Robotics (A Boeing Company).



Don Jagoe is a maritime professional with experience across a variety of naval warfare and ocean industry communities. He was a Navy Surface Warfare Officer, attaining the rank of Captain and served aboard a variety of cruiser-destroyer ships. Shore assignments included COMNAVLOGPAC, Commander, Carrier Group One, COMNAVSPECWARCOM and the Joint Staff, J-8. A qualified Joint Service Officer, Don had command of the USS Copeland (FFG-23). His subspecialty was Politico-Military Affairs and he served as on the faculty

of the Naval War College.

Following retirement from thirty years active duty, Don joined Science Applications International Corporation (SAIC) as an Operations Manager. His Divisions provided at-sea, operational hydrographic survey services to NOAA and the US Navy, as well as a range of commercial customers.

Don's educational background includes a Bachelor's Degree in Meteorology from the University of Oklahoma, and three Masters Degrees, from the Naval Postgraduate School, Salve Regina University and the Naval War College.

Since joining Liquid Robotics National Security in January 2013, Don has extensively briefed SHARC/Wave Glider technology to senior Navy leaders, program managers and warfare stakeholders. He and his wife, Jana, live in Newport, Rhode Island.

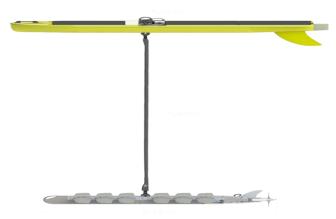
Don started his presentation by saying that he was a NESEP. He started as an E-1, became an Electronics Technician, went to nuclear power school, and was at the S5G prototype in Idaho Falls, ID, destined for submarines when he was picked up for NESEP. Back then Admiral Rickover didn't like his nuclear enlisted men earning college degrees then becoming officers and returning to nuclear power billets, so Don became a Surface Warfare Officer. Why Liquid Robotics?

- 1. There are not enough submarines to conduct all the missions, and there never will be.
- 2. There is a way to safely extend the submarine coverage by using drones and robots in the water column to do the DULL, DIRTY, and DANGEROUS missions.

Liquid Robotics plans to augment the submarine force with robots.

Don showed us a short movie explaining that the digital ocean is essential to the survival of the planet. Liquid Robotics can provide the communications link between the ocean floor and satellites in orbit. (See https://www.liquid-robotics.com/digitalocean/).

Liquid Robotics was founded by Mr. Joe Rizzo (a Silicon Valley pioneer) and a neighbor's son while exploring how to make a station-keeping buoy that was not tethered to the ocean floor. The Wave Glider was the autonomous at sea system that grew from that idea. HOW IT WORKS:



The SHARC / Wave Glider platformsconnected by a telescoping umbilical of 6 to 24 feet:

When the top buoy goes up with the ocean waves, the lower fins articulate up for forward thrust. When the ocean wave lowers, the fins articulate down, still providing forward thrust.

(See

https://www.youtube.com/watch?v=77Wg1 MFsLpQ.)

APPLICATIONS:

In 2009, the Office of Naval Intelligence saw what the company was doing and got them under contract, thus becoming Liquid Robotics' first paying customer.

In 2011, the Wave Glider, version 2, was used in the military's PACEX exercise. Here a pair of Wave Glider vehicles went from San Francisco, just inside the Golden Gate Bridge, to Sydney, Australia, while sending back data through its satellite link continuously, including during 65-foot seas in a typhoon.

To date, the company has manufactured over 400 Wave Glider vehicles. Their Wave Glider markets are: Defense, Maritime Surveillance, Oil & Gas, and Science.

Some unique applications for Wave Glider have been:

- Used during Deepwater Horizon in the Gulf to monitor the sea floor and the damage done.
- Can stay on station, unmanned for up to one year
- Continuously measures the sea water's conductivity, temperature and depth (CTD)
- Has been the first vehicle to be on the ocean surface during and in hurricanes determined that the eye of the hurricane causes the temperature of the sea to drop significantly as it passes.
- By using triple redundant GPS and LOJACK on each vehicle, it is easy for the Wave Glider Command Center in Sunnyvale to know where the vehicle is when it is doing something that it should be doing (such as when two of them were stolen at sea and were able to be tracked down and recovered).
- These Wave Gliders can be real time communications gateways for the Navy.
- The wave propulsion can be augmented by the use of solar panels feeding Li-ion batteries. This solar power can be used to power mission modules or to provide burst propulsion power to cross a strong ocean current like the Gulf Stream.
- The Wave Glider is in constant satellite communications via both Iridium satellites and the BGAN communications system used by commercial shipping.
- The Wave Glider has acoustic communications down to the ocean floor in all sea states.
- Many different mission payloads can be configured in the 7-mission payload bays.
- The US Coast Guard has ruled in its COLREGS that the Wave Glider platforms are classified as "floating debris", and therefore do not have to display vessel lighting, running lights, and use the communications needed aboard manned vessels.

More information is available at the website www.liquid-robotics.com

After the presentation and a lengthy question and answer session, the Base CDR thanked Don and presented him with a USSVI NOVA Base challenge coin. The session ended at 12:50 PM.

Meeting Minutes Respectfully Submitted by Stephen C Bishop Secretary, USSVI Northern Virginia Base

Additional Information



UNITED STATES SUBMARINE VETERANS INC.

North East Region District Commander Voting Ballot District 4

for 2017-2018 Term

You may only vote for one of the listed Candidate(s) <u>or</u> a Write In. Voting for more than one candidate will nullify your vote.

Please fill out and return before July 21st, 2017

Note: This ballot is in Word Fillable Format. The only entries you can make are in the check box or text fields. Use your tab key or mouse to navigate between the fields.

**Please note that you can only vote for the District Commander in the district where your PRIMARY BASE is located.

Write in's will have to provide a letter of acceptance if declared the winner prior to being sworn in.

After completion, you can save it as a word document anywhere on your computer and attach it to a reply back to me. DirectorNERegion@gmail.com or Mail to Les Altschuler 228 N Pondview Blvd Monroe Twp. NJ 08831-5541

(I) Incumbent

	Candidate	Base	(X) = Vote
	Ronny Olson (I)	Mid-Atlantic	
	Write In (Please Print Clearly)		
Signature: /s/	,	Da	nte:
Printed Name	<u></u>		
	A Digital signature (typed	in) is valid on electronic do	ocuments

when preceded by "/s/".

1

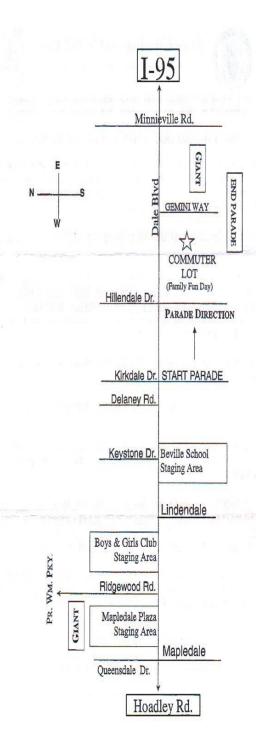
Dale City 4th of July Parade Information

Line Up is promptly at 9:00 AM. The parade will start at Kirkdale Road and Dale Blvd. at 10:00AM. The Dale City Parade Committee will call each Parde Participant 2 days PRIOR to the Parade with your Line-Up Number and Special Parade Route Entry Instructions. A parade route guide map (not to scale) is located on the right side of this page.

Please email the Base Commander by June 30 if you are planning on attending at cdr@ussvinova.org. The Base Commander will send you a confirmation email, if you do not receive the confirmation email, then send him an email at submissile@hotmail.com

The Base Commander will send everyone who sent an email of participation the line up number and special parade route entry instructions as soon as received.

The Base purchased a half page advertisement in the Parade Book. Our advertisement is located on the following page.





If you rode submarines, any class, at any time in the history of the United States Submarine Force and were designated "Qualified in Submarines" then

SUBVETS WANTS YOU!

Join your shipmates and fellow submariners at the United States Submarine Veterans, Inc.
Northern Virginia Base.

Meetings are held the second Saturday of the month at 1100 at American Legion Post 162,

8210 Legion Drive, Lorton, VA.

For more information and points of contact visit us online at www.ussvinova.org.





The Commander, Northern Virginia Base, United States Submarine Veterans, Incorporated, requests the honor of your company at our annual informal dining out on Saturday, the Eighth of July 2017 at six P.M.

Neighbors Restaurant 262 Cedar Lane (Cedar Park Shopping Center) Vienna, Virginia 22180

http://www.neighborsvienna.com/location.aspx

Please contact the Immediate Past Base Commander (pastcdr@ussvinova.org or 703-615-1635) by 3 July if you plan on attending. "Uniform" is normal Base meeting attire.

Selected Undersea Warfare News Articles



USS Jimmy Carter Officer Receives Rear Adm. Willis A. Lent Award MC1 Amanda R. Gray, Navy.mil, May 11

BANGOR, Wash. – Lt. John Wayne Walker, from Houston, Texas, assigned to the Seawolf-class fast-attack submarine USS Jimmy Carter (SSN 23), was presented with the 2017 Rear Adm. Willis "Pilly" A. Lent Tactics and Warfighting Award during a Navy League luncheon held at Bangor Plaza, May 9.

The award, which is also known as the Pilly Lent Award, is sponsored by the Bremerton-Olympic Peninsula Chapter of the Navy League. The selection was most comprehensively carried out by many experienced submarine officers, up through the submarine squadron commander level and approved by Rear Adm. Frederick Roegge, commander, Submarine Force, U.S. Pacific Fleet (COMSUBPAC).

"The Willis A [Pilly] Lent award was established last year to recognize and honor the most tactically proficient submarine department head in the Pacific Fleet," said Capt. Alan Beam, President of the Bremerton-Olympic Peninsula Council of the Navy League of the United States. "It is fitting that this year's awardee, Lieutenant John Wayne Walker, is the navigator of USS Jimmy Carter [SSN 23]; charged with developing and perfecting submarine tactics for the U.S. fleet. He is literally the best of the best serving on the largest and stealthiest SSN in the U.S. Navy."

Submarine commanding officers each nominated their top department head for this award. Squadron commanders researched each candidate and forwarded their top choice to COMSUBPAC. Roegge announced the winner in a Navy-wide message released March 20.

"Possessing a relentless ability to turn any Sailor into a professional warfighter, he was a driving force behind Jimmy Carter being awarded the 2016 Commander, Submarine Development Squadron 5 Battle Efficiency "E" for operational excellence," said Cmdr. Melvin Smith, Jimmy Carter's commanding officer. "Lieutenant Walker truly embodies the spirit of Rear Admiral Lent in his approach to aggressive tactics and leadership."

<u>Italian Submarine Collides With Cargo Ship</u> <u>Staff, CBS News, May 11</u>

The Italian military confirmed Thursday that a navy submarine had struck a cargo ship off the coast of Calabria, but said there were no casualties or major damage from the accident.

Naval officials said the Scire, a 180-foot U212 sub, had been sailing to take part in a training exercise when it hit the ship in the Ionian Sea.

The ship wasn't damaged and resumed its course, the statement said, while the Scire and its crew were rerouted back to base.

The Navy said an investigation would determine how the collision occurred.

Rear Adm. Phillip Sawyer to Serve as Next U.S. 7th Fleet Commander Megan Eckstein, USNI News, May 17

Rear Adm. Phillip Sawyer was selected to serve as the next commander of U.S. 7th Fleet in the Pacific, the Pentagon announced on Wednesday.

Sawyer, who has served as the deputy commander of U.S. Pacific Fleet since September 2015, will also be promoted to the rank of vice admiral.

A career submariner, Sawyer is quite familiar with the 7th Fleet area of operations. Before heading to Pearl Harbor to work at PACFLEET, Sawyer commanded all submarines in 7th Fleet as commander of Submarine Group 7/Task Force 74/54, and then all submarines in the Pacific as commander of Submarine Force U.S. Pacific Fleet.

The Phoenix native commanded USS La Jolla (SSN-701) and Submarine Squadron (SUBRON) 15 in Guam. Sawyer graduated from the United States Naval Academy in 1983 with a bachelor of science in systems engineering.

He will replace Vice Adm. Joseph Aucoin, who has led 7th Fleet since September 2015. The Pentagon has not yet announced Aucoin's next assignment.

Saab A26 Submarine Gets Vertical Launched Tomahawks

Mike Yeo, Defense News, May 17

SINGAPORE – Saab has unveiled a modified A26 submarine fitted with vertical launched land attack cruise missiles at the IMDEX Asia maritime and defense exhibition in Singapore, the first time such a system has been fitted on a conventionally powered boat.

The model on display at Saab's stand at IMDEX Asia showed three cylinders with six vertical launch cells each in the lengthened midships section of a model of an A26 submarine. Saab says the lengthened section adds 33 feet and about 400 to 500 tons to the displacement of the A26.

According to Gunnar Öhlund, head of marketing at Kockums, which is part of Saab, the lengthened module "shows the flexibility in performing different missions" of the A26, which he says can also be used for stowing and deploying unmanned underwater vehicles and even special forces or naval divers.

Saab says that the lengthened module can be fitted on newly built submarines or retrofitted onto existing boats as part of a Mid-Life Upgrade program. The company has had experience in the latter for Singapore's Archer class submarines, which were former Swedish Västergötland class submarines with a 40-foot section added for an air-independent propulsion unit.

When asked by Defense News about the effect the addition of the segment will have on the A26's performance, Öhlund said that Saab's previous experience with similar work on other submarines has shown that any effects on their overall performance.

Defense News understands that the Tomahawk Land Attack Missile, or TLAM, is being proposed by Saab for a potential European customer's ongoing submarine program. The fact that the company can come up with a firm proposal like this would indicate that it already secured approval from the United States to integrate Tomahawks onto the A26.

Saab has declined to reveal who that customer is, although there aren't very many European countries that have a submarine acquisition program of record and is close enough to the U.S. to be able to acquire Tomahawks for one to make an educated guess as to the identity of the interested party.

Attack Submarine Washington Delivered to the Navy Staff, Seapower Magazine, May 26

WASHINGTON — The U.S. Navy accepted delivery of Washington (SSN 787), the 14th submarine of the Virginia-class, May 26, Naval Sea Systems Command announced in a release.

Washington is the fourth of eight Virginia-class Block III submarines and the seventh of the class to be delivered to the Navy by Huntington Ingalls Industries' Newport News Shipbuilding in Newport News, Va. Construction on Washington began in September 2011 and it will be commissioned later this year in Norfolk, Va. The submarine's sponsor is Elisabeth Mabus, daughter of the Ray Mabus, the 75th secretary of the Navy.

"Washington's delivery continues our commitment to deliver Virginia-class submarines within budget and ready to deploy and execute Fleet tasking," Capt. Mike Stevens, the Navy's Virginia-class Submarine program manager, said in the release.

Washington will be the third U.S. Navy ship, and first submarine, to be commissioned with a name

honoring the State of Washington. The previous two ships were an armored cruiser which served under the name from 1905 to 1916, and a World War II battleship that was decommissioned in 1947.

Washington successfully completed the Board of Inspection and Survey (INSURV) trials earlier this month, receiving a score of 96 out of 100, the highest score to date on any new-construction Virginia-class submarine. The INSURV board conducts acceptance trials of ships and service craft to determine the quality of construction, compliance with specifications and Navy requirements.

Block III submarines feature a redesigned bow, which replaces 12 individual launch tubes with two large-diameter Virginia Payload Tubes, each capable of launching six Tomahawk cruise missiles. This, among other design changes, reduced the submarines' acquisition cost while maintaining their outstanding warfighting capabilities.

Virginia-class submarines are built to operate in the world's littoral and deep waters while conducting anti-submarine warfare; anti-surface ship warfare; strike warfare; special operation forces support; intelligence, surveillance and reconnaissance; irregular warfare; and mine warfare missions. Their inherent stealth, endurance, mobility, and firepower directly enable them to support five of the six maritime strategy core capabilities — sea control, power projection, forward presence, maritime security, and deterrence.

<u>Submarine USS Buffalo Arrives For Decommissioning</u> *Ed Friedrich, Kitsap Sun, May 26*

BREMERTON — The second submarine in a week arrived at Puget Sound Naval Shipyard Friday for inactivation and decommissioning.

The USS Buffalo checked in Friday afternoon, following the USS Dallas on Monday. They are Los Angeles-class fast attack submarines, which are being retired as new Virginia-class boats enter service.

Thirty-six Los Angeles-class subs are still in commission and 26 have been retired. The shipyard has recycled 11, said spokesman J.C. Mathews. Several others are in the process or awaiting their turn.

The Buffalo was commissioned on Nov. 5, 1983, and was in service for more than 33 years. In 2002, it became the first ship to undergo nuclear refueling in Hawaii. In 2005 its dry deck shelter was used to launch an underwater glider for gathering and storing information.

The sub was based in Pearl Harbor, Hawaii. It returned there on Dec. 23 after its last deployment before making its way to Bremerton.

The Navy accepted delivery Friday of the of USS Washington, the 14th Virginia-class submarine. Construction began in September 2011. It will be commissioned later this year in Norfolk, Virginia. The submarine's sponsor is Elisabeth Mabus, daughter of the 75th Secretary of the Navy Ray Mabus.

Washington will be the third U.S. Navy ship, and first submarine, to be commissioned with a name honoring the state of Washington. The previous two ships were an armored cruiser, which served under the name from 1905 to 1916, and a World War II battleship, decommissioned in 1947.

<u>Trump Will Nominate Richard Spencer for Next Secretary of the Navy Thomas Gibbons-Neff, Washington Post, June 2</u>

President Trump will nominate Richard Spencer as the next secretary of the Navy, the White House said in a statement Friday.

If confirmed by the Senate, Spencer will become the 76th secretary of the Navy and will take on the responsibility of helping Trump achieve his lofty goal of a 350-ship Navy.

A businessman and a former Marine captain, Spencer has been Trump's rumored choice for months following the previous secretary candidate's withdrawal from consideration in February.

Philip Bilden, a former Army officer who had a career managing private equity funds in Hong Kong, stepped down because his numerous business ties would likely not meet the Pentagon's ethical standards.

Spencer's background involves more than a decade in the financial industry and leadership positions in

multiple companies, according to the White House. He also spent five years on a defense business board as vice chairman. Spencer attended Rollins College as an undergraduate and received a degree from Duke University's Fuqua School of Business, the statement said.

The Senate has approved Trump's choice for Air Force secretary, but there is currently no one in the running for Army secretary. Two candidates for the job have withdrawn in recent months. Vincent Viola withdrew because of divestment concerns, while Mark Green, a Republican state senator from Tennessee, stepped down after his past comments about gay rights and the lesbian, gay, bisexual and transgender community came under intense scrutiny.

Realistic Submarine Bridge Trainer Opens at Trident Training Facility Bangor

MC1 Amanda Grey, DVIDS, June 5

The new Submarine Bridge Trainer (SBT) officially opened at Trident Training Facility (TRITRAFAC) Bangor during a ribbon cutting ceremony, June 5.

Rear Adm. John Tammen, commander, Submarine Group 9, Capt. John Fancher, commanding officer of TRITRAFAC Bangor, and Rear Adm. Moises DelToro, commander, Naval Undersea Warfare Center, cut the ribbon to officially open the new trainer.

"What we are doing here today, is making the long-term investments needed to making sure that we stay at the top of our game," said Tammen. "Today's strategic deterrence is not what it was in the 80s, there are a lot more adversaries out there, and we are not resting on our laurels as we wait for Ohio replacement. What we are doing is continuing to invest in our future and the most important part of our future is the people. So we are making this investment into this state of the art bridge trainer, to make sure that our crews, when they throw off that line, are ready to do their mission."

The SBT gives submarine bridge team members the ability to navigate, pilot and moor the boat to and from a pier, while interacting with a complex visual and auditory environment, with all of the relevant ship sensors and systems.

"Our job here at Trident Training Facility Bangor is to provide premiere world-class training to the submarines stationed in the Pacific Northwest," said Fancher. "What you see here today is a new incredible facility that blows me away. I am so excited about the capability this new trainer brings to the submarine force and the increased ability that they will have to maintain their proficiency and safely navigate out of port."

In this near life-size mockup of a generic submarine sail, Sailors are surrounded by a 360-degree horizontal and 70-degree vertical dynamic environment that includes 18 channels of visual imagery and 16 channels of 3D sound. A dual attack center has also been completed that will provide ship systems and periscopes required for surfaced events.

"One of the most important, dangerous and critical times when driving a submarine is navigating on the surface, because you are close to land and other surface contacts," said Capt. John Fancher, commanding officer of Trident Training Facility Bangor. "It is not only one of the most critical things that we do, but it is also one of the things that we actually do the least amount of times during a deployment. This trainer allows us to practice piloting, navigating and managing surface contacts in real life scenarios. This allows us to practice it to a fidelity that is just about as good, and in some respects better, than actually being on the boat."

Construction for the SBT began October 2015, with the actual trainer installation beginning October 2016. Construction for the trainer was completed May 26, 2017. The total cost for the new trainer, including the development of trainer and building construction, cost \$7 million.

"This innovative trainer allows submarine crews to safely navigate through challenging environments in a realistic training scenario which closely emulates what they would actually see from the bridge of a submarine," said Cmdr. John Correll, Training and Readiness officer at commander, Submarine Group 9. "This realistic trainer is vital to maintaining proficiency and certification on a two-crew submarine, while one crew is assigned ashore."

Four Submarine Bridge Trainers have been approved for construction throughout the fleet. The first trainer is located at the Naval Submarine School (NAVSUBSCOL) located in Groton, Connecticut, and was ready for training in August 2012. The second trainer was built in Pearl Harbor, Hawaii, and was ready for training in October 2013. Trident Training Facility Bangor was the third site, and the fourth site will be King's Bay, Georgia in 2020.

"This is the first guided-missile (SSGN) and ballistic-missile (SSBN) SBT design; the sail and dome are larger than the two previous SBTs and the engineering development model," said Steve Stephenson, the Technical On-Site Agent for Naval Sea Systems Command. "King's Bay will begin construction of the same design next year, once the facilities are modified. This is also the first SBT to receive the new laser projectors, which operate up to 30 times longer than the previous projectors with significantly less maintenance."

SBT instructors were required to learn all of the SBT's functions. Training included two classroom sessions, to familiarize themselves with the functions of the trainer, and three hands on training days, to apply the lessons learned. According to Chief Electronics Technician James Short, SBT instructor, the most beneficial training was when they ran the SBT in all modes with the Ohio's Gold crew prior to the ribbon cutting, as it showed the trainers the systems limitation and gave in-depth, hands on training to both staff and the crew.

TRITRAFAC Bangor plans to have the Blue and Gold crews assigned to the guided-missile submarines USS Ohio (SSGN 726) and USS Michigan (SSGN 727) certified through the SBT this year. The 16 SSBN crews will certify in the SBT based on the needs of Commander, Submarine Squadron 17 and Commander, Submarine Squadron 19 along with various SSBN upgrade plans.

"This is by far the most advanced trainer that I have experienced at TRITRAFAC Bangor," said Fire Control Technician 2nd Class Christopher Goetz, assigned to Ohio's Gold Crew, the test submarine crew for the Submarine Bridge Trainer. "With the 360-degree view, the vibrations you feel while on the bridge, the realistic wind and climate changes and the high tech binoculars that let you see into the distance, it really prepares you for being on a real submarine."

Currently, Submariners use two separate trainers to get the experience and training necessary for certification: the Submarine Piloting and Navigation (SPAN) 2000 Trainer and the Virtual Environment Submarine Ship handling Trainer (VESUB). The SPAN Trainer equipment has representative controls, alarms, displays and indications of actual shipboard equipment, including the periscope, primary navigation plotting table, and a secondary plotting table, and the VESUB system consists of a head-mounted display, PC graphics (beyond entertainment) and automated environment data base generation. The new Submarine Bridge Trainer combines and expands upon these two trainers to allow for better communication between the bridge and the control center, in a much more realistic and advanced environment. The new trainer also allows commanding officers to fully participate in the team training.

"To me, there are few things as important as this bridge trainer and I really want to highlight that," said Tammen. "I want our adversaries to know that we are investing just as much into people as we are into the platforms, and quite frankly, the excellence that our Sailors provide with strategic deterrence in the SSBN world and conventional deterrence from the SSGN world is so very important. I can't overemphasize how important this trainer is to our Sailors which results in global stability overall."

<u>USS Cheyenne Makes Port Call In S. Korea Amid Tensions With The North Kim Gamel, Stars and Stripes, June 6</u>

SEOUL, South Korea — The attack submarine USS Cheyenne made a port call to the southeastern city of Busan Tuesday in the latest show of military might amid rising tensions with North Korea.

The Navy said the 360-foot-long Los Angeles-class submarine was on a routine visit as part of a regularly scheduled deployment to the Western Pacific.

But the sight of U.S. warships and other military hardware near the divided peninsula rankles North Korea, which accuses Washington and Seoul of preparing for an invasion.

The U.S. military has been beefing up its resources in the region as fears grow over the growing nuclear

and missile threat from the North.

The submarine — which is named for the capital of Wyoming and has its homeport in Pearl Harbor, Hawaii — arrived at Busan just over a month after the USS Michigan paid a visit. The aircraft carriers USS Carl Vinson and Ronald Reagan also conducted dual operations last week, and the Nimitz is on its way to the Pacific.

The Los Angeles-class attack submarine USS Olympia pulled into Yokosuka, Japan, on May 31 for a port visit.

North Korea has test-fired about a dozen missiles this year, increasing the pace of its testing program in defiance of a ban on ballistic technology in U.N. Security Council resolutions that are backed by punishing sanctions. It also conducted two underground nuclear tests last year.

Defense Secretary Jim Mattis called North Korea a "clear and present danger" during his speech Saturday at an international security conference in Singapore.

"We're working diplomatically, economically, we're trying to exhaust all possible alternatives to avert this race for a nuclear weapon," he said. "We want to stop this. We consider it urgent."

The visit by the Cheyenne, which was commissioned in 1996 and weighs more than 6,000 tons when submerged, is proof of the U.S. commitment to its alliance with South Korea, officials said.

"We are honored to host the crew of USS Cheyenne for a much deserved port visit" Rear Adm. Brad Cooper, commander of U.S. Naval Forces Korea, said in a statement.

He added that the U.S. and South Korean navies "routinely work shoulder to shoulder with one another and this port visit is an opportunity for Cheyenne sailors to enjoy Busan and explore the Korean culture."

The United States has about 28,500 servicemembers stationed in South Korea, which is still considered to be at war with the North after the 1950-53 conflict ended in an armistice instead of a peace treaty.

<u>U.K., France, U.S. Sign Submarine Agreement</u> <u>Staff, The Maritime Executive, June 5</u>

Navy leaders from the U.K., France and the U.S. signed an agreement on June 1, designed to increase coordination for anti-submarine warfare activities in the Arabian Gulf, Gulf of Oman and Red Sea.

Naval chiefs from the three navies affirmed their commitment to enhanced interoperability in the area encompassing the U.S. Navy's 5th Fleet area of operations.

"We believe this increased trilateral cooperation will help secure a future that is not only in the interests of our three nations, but in the common interests of our allies, partners and all like-minded nations who are committed to peace, prosperity and maritime security," an excerpt from the statement read.

The U.S., U.K. and French navies regularly operate together in the region. France has deployed its nuclear aircraft carrier FS Charles de Gaulle twice to the Arabian Gulf in support of Operation Inherent Resolve aimed at defeating ISIS in the region.

In 2015, a French admiral, embarked on Charles de Gaulle, commanded NAVCENT's Task Force (TF) 50, a U.S. task force. A Royal Navy admiral also assumed command of TF 50 last November while embarked aboard the amphibious helicopter carrier HMS Ocean. Additionally, both navies have had ships serving as part of TF 50 and with the Combined Maritime Forces in the region.

In May, the International Maritime Exercise 2017, led by U.S. Naval Forces Central Command, was held to promote interoperability in all facets of defensive maritime warfare. The exercise included personnel from the U.S. and more than 20 partner nations, as well as representatives from the civilian shipping industry group Oil Companies International Marine Forum.

Participants took part in field exercises simulating realistic scenarios that have occurred in or threaten the U.S. 5th Fleet area of operations. Situations included a simulated missile attack, mine threats, a mine strike on a naval vessel and a fast attack craft threat.

U.S. 5th Fleet's area of operations encompasses about 2.5 million square miles of water area and includes the Arabian Gulf, Gulf of Oman, Red Sea and parts of the Indian Ocean. The expanse is comprised of

20 countries and includes three critical choke points at the Strait of Hormuz, the Suez Canal and the Strait of Bab al Mandeb at the southern tip of Yemen.

<u>For First Time in 153 Years, Public Will See Inside Civil War Submarine</u>

Staff, WYFF4, June 6

CHARLESTON, S.C. — The inside of a Civil War submarine, shrouded in mystery since it vanished with its crew of eight 153 years ago, will be viewed by the public for the first time on Wednesday.

The H.L Hunley was the world's first successful combat submarine.

The innovative hand-cranked, single-propeller sub was built in Mobile, Alabama, for the Confederate government.

The Union fleet had blockaded Charleston Harbor, and the Confederacy was desperate to restore the shipment of vital military supplies. The Hunley was ordered to Charleston, along with other ships, to challenge the Union blockade.

On the evening of Feb. 17, 1864, the 40-foot Hunley sank the Union Army's USS Housatonic.

After completing the mission, the Hunley mysteriously vanished, remaining lost at sea for more than a century.

Many searches over the decades were unable to locate the submarine.

In 1995, the National Underwater and Marine Agency, led by New York Times-bestselling author Clive Cussler, finally found the Hunley.

The Hunley was raised in 2000 and delivered to the Warren Lasch Conservation Center at the former Charleston Navy Base, where an international team of scientists is working to conserve the submarine for future generations and piece together clues to solve the mystery of her disappearance.

Initial theories were that the Hunley sank because of collateral damage caused by the spar torpedo used to sink the Housatonic, but others argued, based on historic anecdotes, that the sub might have survived for more than an hour after detonating the torpedo.

After the sub was raised, a team of historians examined it, and theorized that a crewman on the Housatonic fired a rifle round into the Hunley's viewing ports, causing it to sink.

Archeologists in 2013 announced new evidence indicating that, as was initially theorized, the Hunley might have been closer to the detonation than realized, and the sub was damaged by the explosion and sank.

Other theories include the sub being trapped by tides and the crew suffocating or the Hunley being clipped by another vessel and taking on water through an open hatch.

Scientists are continuing to work in the cramped confines of the Hunley's roughly 4-foot-tall hull. They are slowly breaking off a layer of sand, sediment, shells and corrosion products, called concretion, that built up on the Hunley while the sub was lost at sea.

"The work has offered stunning new views of the Hunley, unearthed human remains and offered operational and design discoveries," a news release from the Warren Lasch Center said,

"Tomorrow, an exclusive photography and filming opportunity of the recently exposed Hunley crew compartment will be held. For the first time in over a century, you can actually see portions of the inside of the world's first successful combat submarine."

Navy Goes Virtual For Submarine Training Josh Farley, Kitsap Sun, June 7

BANGOR — The Navy's newest training ground for submariners requires no water at all.

The seas of Puget Sound appear to swell all around the trainee on a giant, 360-degree screen; airplanes fly by and tanker ships bob in the waves. Even a gentle breeze is mimicked with a fan from above.

"Our joke is, 'where's the rain?" said James Short, a Navy navigations chief.

The Submarine Bridge Trainer at Bangor's Trident Training Facility, unveiled Monday, is as close to the real thing as it gets, Navy officials say. At a cost of \$7 million, submariners can practice almost anything they would do under way, including piloting a sub to and from many of the world's ports. Capt. John Fancher, commanding officer of the training facility, called it a "world-class" simulator at its dedication.

"It blows me away," he said.

Construction, which began in October 2015, was completed by the Naval Undersea Warfare Center, with help from federal contractors.

Rear Adm. John Tammen, commander of the fleet of submarines at Bangor, said the trainer will ensure sailors aboard the Navy's ballistic and guided missile submarines will be prepared for what he called "not a very stable world right now." He mentioned America's "four plus one" threats — Russia, China, Iran, North Korea and terrorism — and pointed out the bus and knife attack in London Sunday that has so far left eight people dead.

"We're making the investments needed so that we can stay on top of our game," Tammen said. Submariners can already use virtual reality in training, but usually only one sailor at a time. The new trainer allows an entire bridge crew to work in unison.

"It maintains the team dynamic," Short said.

Bangor's version is the third the Navy has put into service, following Groton, Connecticut, and Pearl Harbor, Hawaii.

It doesn't hurt that the trainer is a grander version to what many young sailors might have and play at home, in the form of an XBOX or PlayStation.

"Millennials take to this like a fish to water," said Darrell Lewis, executive officer at the Trident training facility.