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

Non-Profit Org.
U.S. Postage Paid
Permit No. 445
Chula Vista, CA

RETURN SERVICE REQUESTED

The Silent Sentinel

JUNE 2012

Our Creed and Purpose

To perpetuate the memory of our shipmates who gave their lives in the pursuit of their duties while serving their country. That their dedication, deeds, and supreme sacrifice be a constant source of motivation toward greater accomplishments. Pledge loyalty and patriotism to the United States of America and its Constitution.

In addition to perpetuating the memory of departed shipmates, we shall provide a way for all Submariners to gather for the mutual benefit and enjoyment. Our common heritage as Submariners shall be Strengthened by camaraderie. We support a strong U.S. Submarine Force.

The organization will engage in various projects and deeds that will bring about the perpetual remembrance of those shipmates who have given the supreme sacrifice. The organization will also endeavor to educate all third parties it comes in contact with about the services our submarine brothers performed and how their sacrifices made possible the freedom and lifestyle we enjoy today.

If You Receive "The Silent Sentinel" By ***Regular Mail,***
PLEASE READ THIS

Over the next month, "The Silent Sentinel" will be attempting to minimize the number of Sentinels sent via the United States Postal System. Our goal is to become as paperless as possible. Consequently, we would like to hear from you ASAP. You may write to Mike Hyman, Editor (physical address and email are on page two) in order to pass on your email address for Sentinel delivery. ***If you are receiving the Sentinel via the Post Office and do not own a computer, don't worry; we will not drop you!*** However, if you are able to receive the Sentinel electronically, please seriously consider switching. Printing costs and postage are increasing--delivery via email can save the Base a substantial amount of money.

U.S. Submarine Veterans
San Diego Base

Base Commander
Bob Bissonnette
1525 Walbollen Street
Spring Valley, CA 91977
(H) 619-644-8993
(CELL) 619-251-7095
RBisson250@aol.com

Membership -- Change of Address
Ray Ferbrache
2955 lloyd St.
San Diego, CA 92117
arayz@san.rr.com
619-972-4474

Treasurer
David Ball
3804 Wildwood Road
San Diego, CA 92107-3750
619-225-0304
davidball@cox.net

Senior Vice Commander
Bill Earl
2251 Vancouver Ave
San Diego, CA 92104-5350
619-2804053
dinkysan@yahoo.com

Newsletter Editor
Mike HYMAN
3639 Midway Drive, B-320
San Diego, CA 92110-5254
(619) 223-9344
stamps@fortunesofwar.com

Assistant Editor / Photographer
Jack Kane
619-602-1801
jkane32@cox.net

Junior Vice Commander
Jim Bilka
563 Broadway, Apt 62
El Cajon, CA
92021
619-277-5758
sashanman@yahoo.com

Base Storekeeper
Phil Richeson
Phillip92071@aol.com
619-922-3230

Chief of the Boat
Fred Fomby
858-735-0026

Secretary
Manny Burciaga
8406 Alado Place
El Cajon, CA 92021-2003
619-921-5877
MannyBurciaga@pointloma.edu

Chaplain
John (Jack) Lester
6531 Cowles Mtn. Blvd.
San Diego, Ca. 92119
619-469-8805
lanabjack@cox.net

Assistant Chaplain
Position Open

The Silent Sentinel via Email

To all of my Shipmates and families who currently receive our Great newsletter via the mail who would like it sent via email or continue to receive it via mail, please fill out the form and mail it to the base or myself. We are trying to cut the cost of the newsletter down from $3700 to about $1900 a year. By receiving the Silent Sentinel via email will cut down the printing and mailing cost. The other plus to receiving it via email is you can save it on your computer and not have the paper lying around the house.

A subscription to the Silent Sentinel newsletter will be available to surviving family members via internet email, at no charge, upon notification of the Membership Chairman. If a printed hard-copy is preferred, via US Post Office delivery, an annual donation of $5.00 will be requested to cover costs.

NAME: _____

ADDRESS: _____

CITY/STATE/ZIP: _____

EMAIL: _____

TELEPHONE: _____

Would like the SILENT SENTINEL emailed: YES_____ NO_____

Robert Bissonnette
1525 Walbollen St.
Spring Valley, CA 91977-3748

USSVI Base Commander
c/o VFW Post 3787
4370 Twain Ave.
San Diego, CA 92120-3404

*DUE TO LOGISTICS CONSTRAINTS, ALL INPUTS FOR THE SILENT SENTINEL MUST BE IN MY HAND NO LATER THAN **ONE WEEK** AFTER THE MONTHLY MEETING. IF I DO NOT RECEIVE IT BY THIS TIME, THE ITEM WILL NOT GET IN. NO EXCEPTIONS! MIKE*

June Meeting

Our monthly meeting is held on the second Tuesday of the month at VFW Post 3787, 4370 Twain Ave., San Diego. Our next meeting will be on 12 June, 2012. The post is located one-half block West of Mission Gorge Road, just north of I-8. The meeting begins at 7 p.m. The E-Board meets one hour earlier at 6 p.m.

Check us out on the World Wide Web
www.ussvisandiego.org

BINNACLE LIST
Al Strunk

This issue of *The Silent Sentinel* is dedicated to the memory of *Mary Ann Gorence.*

Submarine Losses in May

Originally Compiled by C J Glassford

SQUALUS (SS 192) - 59 Men on Board :
Foundered, on 23 May 1939, off the Coast of Portsmouth, New Hampshire, Later Salvaged, Raised, Repaired, and Recommissioned, USS SAILFISH (SS 192)
* Crew Rescued by First Successful use of Diving Bell
" 26 MEN LOST - 33 SURVIVORS "

RUNNER (SS 275) - 78 Men on Board :
Sunk, on 28 May 1943, by Causes Unknown, Possibly a Japanese Mine, or Combined Air and Surface Attacks, off Northeastern Honshu, Japan : " ALL HANDS LOST "

LAGARTO (SS 371) - 85 Men on Board :
Sunk, on 3 May 1945, by Japanese Minelayer, In the Gulf of Siam :
" ALL HANDS LOST "

STICKLEBACK (SS 415) - 78 Men on Board :
Sunk, on 29 May 1958, after Collision with Destroyer Escort Vessel, USS SILVERSTEIN (DE 534) :
" NO LOSS OF LIFE "

Minutes for Submarine Veterans San Diego, 08 May 2012

1900 – Meeting of the Submarine Veterans Inc., San Diego Base was called to order by Base Commander BoB Bassonette.

Conducted Opening Exercises:

Reading of Our Creed:
Pledge of Allegiance:
Chaplin Lead in Prayer:
Conducted Tolling of the Boats:
Observed a moment of Silent Prayer:
Junior Vice Commander recognized past E-Board members, Past Officers and guest present.
Secretary posted the sailing list – 30 members and one guest present.
Treasurer's report: Treasurer was not present, but his report will be presented in a newsletter and any questions or comments can be submitted to the Treasurer.

Call for Committee Reports:

Chaplain Binnacle List: Al Strunk, Maryann Coates(Ron's wife) Mike Coad passed away April 1and a condolence card was sent from the organization. Please let the Chaplin know if any other members should be on the Binnacle list.
Parade Committee: Jack Kane:

Saturday April 21st: Linda Vista Multicultural Parade

A brief slide show was present of the Vista parade.

Saturday May 19th: Ramona Main Street Parade

Muster at 0900 – Parade at 1000
Parade line up information has not been received, but should arrive this week. We will email the information when we get it.

Saturday June 2nd: La Mesa Salute to Old Glory and 100th Anniversary Parade

Muster at 0900 – Parade at 1000
Maps will be sent but we are using same parking lot. Best parking is near the American Legion Post.

Wednesday July 4th: Julian Independence Day Parade

Muster at 1030 – Parade at 1200

Monday November 12th: San Diego Veterans Day Parade

Times TBD – Grand Marshal Lt. Gen Chuck Yeager
Membership Committee: Chairperson is out of town, no report.
Scholarship Committee: Dead line for applications was April 15. We have received one application with the possibility of one more. We will not extend the deadline.
Storekeeper: We have some items here and patches can be ordered. Let me know if you would like to order anything special.
Breakfast Committee: Next Sub vet breakfast will be 29 July 2012, at 0800 to 1200. This last breakfast was great we sold 100 breakfasts and had plenty of help. We made 300 dollars. Thanks for all who helped. As noted last month we have decided to raise the cost of breakfast from 6 dollars to 7 dollars. This raise will help offset the increase cost of food. The next food handler's class will be announced later.
1930 – Base Commander called for a Break….
1940 – Base Commander called meeting to order.

Old Business

The Old Timers Luncheon was held on 20 April. The Old Timers luncheon and the Submarine Ball were dedicated to the memory of CJ Glassford. It was an excellent event. Members were treated to a video of the burial at sea of CJ. It was held in the torpedo room of the USS SAN FRANCISCO. It was very reverent and a moving ceremony. The video will be placed on the web site once the Squadron clears the video for public viewing.

Unfinished Business

USSVI National Convention will be held 2-9 September at Norfolk, Virginia. Bob has been asked to take photos at the convention.
Repairs to the float have been postponed because we will be using it in La Mesa and will not have enough time before the parade. Instead we will do some minor repairs and use it in the parade.

New Business

A Memorial Day service at the USS RONCDOR MEMORIAL located on the Submarine Base will be held on 28 May at 1000. Our base has been asked to take charge of the ceremony and we would like some volunteers to help with the program. It would be great to get WWII veterans to read the Tolling of the Boats, but if you would like to help contact our Base Commander. Come early for parking, you will not need a special pass at the gate, just tell them you are going to attend the Memorial Service at the RONCDOR. The E-board has authorized 100 dollars for the Memorial wreath. The Scamp base ladies will again provide refreshment.
The San Diego Sub vets annual Picnic will be held on 21 July 2012. The picnic will be located at the Sub Base picnic area. Our base will provide the food and door prizes. We plan to have boat tours starting at 1000 to 1300.

Good of the Order
There is some Submarine history information and some magazines you might find interesting, they are located on the back table.

The George C. Marshall SSBN 654 first ships reunion will be held this August 8-11, 2012 at Groton, Connecticut. There are flyers in the back.

Charlie Marin stood and brought greetings from John Householder.

Dave (Webmaster) is looking for pictures of anyone who has had a birthday this past year. The National website would like pictures of its members to post on their website. Jack Kane stated he can take pictures of the members for the website anytime during the meetings.

The Midway memorial has begun a fund raising effort to raise 600 thousand dollars to keep the Memorial Sailor statue located in the park behind the Midway.

Phil requested more folks should attend the parades, he has found that people really appreciate our service and it would be great to have more members attending the parade events.

2005 – Meeting adjourned.

Sailing List for 08 May 2012

JIM BILKA	BOB BISSONNETTE	ED FARLEY
FRED FOMBY	JIM HARDER	STEVE GILLIT
JACK LESTER	JACK KANE	BILL EARL
BOB COATES	M. BURCIAGA	JACK ADDINGTON
CHARLIE MARIN	D. MORTENSEN	SERGIO FROST
RUSS MOHELAVO	FRANK MCCOY	JUANITA WILLIAMS
BOB CHAPMAN	J. GRIENENBERGER	ED CLARK
BENNY WILLIAMS	PHILL RICHESON	
MIKE COSGROVE	BUD ROLLISON	
D. MCCREIGHT	DAVID WOODWARD	
GLENN GERBRAND	MIKE HYMAN	
DAVID KAUPPINEN	DON MATHIOWETZ	

New Book Authored by USSVI San Diego Base Member, Dennis McCreight

Adversity no match for determined man in new Great Depression era novel Set in Illinois and spanning from the 1930s to the early 1950s, Dennis C. McCreight's "Ain't No Bum" is a rousing story about overcoming adversity through personal drive

SAN DIEGO – In "Ain't No Bum" (ISBN 1466478004), Dennis C. McCreight pens a historical novel that looks at the hardscrabble, sometimes rough-around-the-edges, Midwest during the Great Depression, World War II, and post-war recovery years. It centers on Milt McCoy, a young man with a big heart and abundant willpower whose pitfalls in life leave him labeled by his parents as a bum. Frank McCoy, Milt's notorious father, laughs and cackles when someone asks him, "What is a bum?," before answering in a profanity-laced tirade, that there is no need for the dictionary, just look at his son.

Yet Milt has many believers in his unique and honest approach to life; foremost among them an initially skeptical father-in-law, Denny Stewart, and a wary Sheriff Foster, who watch Milt overcome challenges to which lesser men would have succumbed. Milt survives and thrives through economic chaos, war, continued economic hardship and even a polio pandemic. Throughout all of this, he keeps his chin up and his good nature on display for all to see. In the process, he wins over a number of people, including Violet Stewart who will become the love of his life. As his new wife marvels at her husband's ability for overcoming seemingly insurmountable odds, she shakes her head in agreement as Milt yells to the heavens that he, "ain't no bum."

McCreight was inspired to write the novel after observing several people who had been severely challenged by the adversity of our current times but had not let their experiences rob them of their spirit. One thing that he noticed they had in common, between each other and also survivors of the Great Depression, was their tremendous application of will power and their ability

to build strong relationships. "Ain't No Bum" exemplifies this mindset, going far beyond Milt and Violet's love story, to look at how monumental challenges can be overcome by personal fortitude and cultivating caring relationships.

"McCreight's debut novel is a heartwarming, coming-of-age story about a young Midwestern man who must struggle through the Depression, World War II, postwar chaos and some heavy conflict with a ne'er-do-well father," says Roger L. Conlee, author of "Souls on the Wind" and "The Hindenburg Letter."

"Ain't No Bum" is available for sale online at Amazon.com and other channels.

About the Author:
Dennis McCreight grew up in the Midwest in the Knox and Fulton counties of Illinois. He served in the U.S. Navy Submarine Service for 22 years and has continued to explore the world since then. He currently lives in San Diego with his wife Linda.

MEDIA CONTACT
Dennis C. McCreight
E-mail: dlmccreight@cox.net
Phone: (619) 708-3450
Blog: http://
www.dennismccreight.blogspot.com/

REVIEW COPIES AND INTERVIEWS AVAILABLE

Five Things Every Sailor Should Know About Women On Subs

By Sam Fellman, Navy Times, June 4, 2012

After intense training and hitting the fleet, 10 of the Navy's first female submariners gathered May 24 in Washington, D.C., to share their experiences over the past six months. The head of the submarine force hailed them as examples of the Navy's best and brightest.

"The Navy and the submarine force really garner the best people that the nation has to offer," said Vice Adm. John Richardson, who added these women were living proof that the once all-male force "is opening up doors to more diversity and more talent."What you need to know:

Earning Dolphins

The transition began in November, when female officers began reporting to their boats. The first to add women were the ballistic-missile subs Wyoming and Maine and guided-missile subs Georgia and Ohio. Women are assigned to both the blue and gold crews for each sub. For the next year or so, the primary focus for the 18 female submarine officers will be earning the gold chest device, known as "dolphins"or "fish," which demonstrates mastery of submarine operations.

"So far, the qualification process has been rigorous, but it's also been a lot of fun," said Lt. j.g. Tabitha Strobel, the main propulsion assistant on Georgia's gold crew, who's married to a submariner. "At the end of the day, what we want to do is drive the submarine, and the chances that we get to do that are extremely rewarding."

Adapting

Despite the training and briefings, it took one crew about a week to come to grips with their new shipmates.

"At first, the guys were a little more timid, just because they hadn't worked with females on a day-to-day basis," said Lt. Britta Christianson, supply officer on Ohio's gold crew, recalling her November 2011 check-in. "But after a week, they warmed up and we were just like brothers and sisters fighting for the bathroom."Men and women take turns using the two available heads; women note their presence with an "occupied by female" sign.

"Sir"And "Ma'am"

Crew members have had to watch their language, beyond avoiding lewd jokes.

After years of tacking "sir" onto every report, request and reply, sub sailors have to add "ma'am" to their vocabulary. Still, the occasional slip-ups don't bother one officer.

"If they call me 'sir,' then I know that they've fully accepted me," said Lt. j.g. Vanessa Esch, the electrical officer on Ohio's blue crew. "They see me as an officer, not as a woman. So that's good."

A Setback.

The historic transition has not been without issues. Two of the original eight supply officers lieutenants chosen to be role models for the young submariners arriving at their boats straight from training were pulled from their crews in March and charged two months later for allegedly filing false travel claims for roughly $4,500 each. After an investigation, another female supply officer was exonerated.

What's Next?

The next batch of 15 female submariners and five supply lieutenants is slated to begin arriving at boats in January 2013, according to submarine force spokeswoman Cmdr. Monica Rousselow. The next two subs to be integrated are the guided-missile sub Florida and ballistic-missile sub Louisiana, she said.

2 Navy Submarine [Female] Officers Charged In Fraud Probe

Associated Press, May 14, 2012

HARTFORD, Conn. — Two of the Navy's first female submarine officers have been charged with financial misconduct, a spokeswoman said Monday.

Navy Cmdr. Monica Rousselow, a spokeswoman for the submarine force, said the alleged fraud took place before the two Supply Corps officers reported to their vessels.

The two officers, whose names were not released, are accused of filing fraudulent travel claims involving about $4,500 each, according to Rousselow, who is based in Norfolk, Va. The officers are charged with fraud and conduct unbecoming of a Naval officer under the Uniform Code of Military Justice. One of them also is charged with falsifying an official statement.

The Navy announced in March that a total of three officers had been reassigned to a submarine group at Naval Submarine Base Kings Bay in Georgia as the Naval Criminal Investigative Service investigated fraud allegations. One of the three officers was cleared of wrongdoing, Rousselow said.

The officers are among the first group of women assigned to U.S. submarines by the Navy, which reversed a ban on women serving aboard subs in 2010. They completed training at sites including the submarine school in Groton, Conn., before joining the undersea force.

"The integration of females on submarines continues to progress nicely," Rousselow said.

Rousselow said she could not identify the submarines to which the officers had been assigned or provide further details about the alleged fraud.

Two of the Navy's first female submarine officers have been charged with financial misconduct, a spokeswoman said Monday.

Navy Cmdr. Monica Rousselow, a spokeswoman for the submarine force, said the alleged fraud took place before the two Supply Corps officers reported to their vessels.

The two officers, whose names were not released, are accused of filing fraudulent travel claims involving about $4,500 each, according to Rousselow, who is based in Norfolk, Va. The officers are charged with fraud and conduct unbecoming of a Naval officer under the Uniform Code of Military Justice. One of them also is charged with falsifying an official statement.

The Navy announced in March that a total of three officers had been reassigned to a submarine group at Naval Submarine Base Kings Bay in Georgia as the Naval Criminal Investigative Service investigated fraud allegations. One of the three officers was cleared of wrongdoing, Rousselow said.

The officers are among the first group of women assigned to U.S. submarines by the Navy, which reversed a ban on women serving aboard subs in 2010. They completed training at sites including the submarine school in Groton, Conn., before joining the undersea force.

"The integration of females on submarines continues to progress nicely," Rousselow said.

Rousselow said she could not identify the submarines to which the officers had been assigned or provide further details about the alleged fraud.

Navy Begins Assessing Fire-Damaged Sub

Fireengineer.com, May 27, 2012

KITTERY — Those who have spent time on Navy submarines will tell you that few combustible materials are aboard. But don't tell that to the firefighters who rushed to the USS Miami when a blaze swept through the billion-dollar nuclear-powered submarine.

"It's like going into a chimney," said Portsmouth Naval Shipyard firefighter David Funk, who described insulation and wiring fueling a smoky fire that became hot enough for aluminum to burst into flames.

On Friday, two days after the blaze began, workers at the shipyard finished pumping fresh air into the fire-damaged sub, allowing Navy investigators to enter to begin the first damage assessment. It remains to be seen whether the submarine can be salvaged.

U.S. Sens. Susan Collins of Maine and Jeanne Shaheen of New Hampshire, both members of the Armed Services Committee, visited the shipyard Friday and met with its commander. They thanked a small contingent of firefighters, including Funk, who battled the blaze as the sub's metal hull trapped the heat inside.

Three Navy teams were dispatched to Portsmouth Naval Shipyard to investigate the incident, the senators told reporters.

The blaze started early Wednesday night at the shipyard where the sub was being overhauled. A handful of shipyard workers were in the forward compartments where the fire began while the sub was in a dry dock, Collins said.

The fire wasn't extinguished until the next morning. More than 100 firefighters responded from more than a dozen agencies as far away as Groton, Conn., and South Portland.

Eric Wertheim, a U.S. Naval Institute author, characterized the USS Miami fire as a financial disaster, with the potential loss of a submarine that cost $900 million to build, but not a true disaster like the losses of the USS Scorpion and Thresher, nuclear subs that sank during peacetime with a loss of their crews.

"It's important to put it into perspective," Wertheim said. "It could've been a lot worse."

The USS Miami fire damaged the torpedo room, crew quarters and command and control areas in the front of the submarine, but the nuclear propulsion components at the back of the sub weren't harmed.

One defense analyst suggested that the repairs would be so costly that the 22-year-old sub would be scrapped, a scenario that would be similar to the USS Bonefish, a diesel-electric sub decommissioned and scrapped after a fire at sea in 1988.

Vice Adm. Kevin M. McCoy, commander of the Naval Sea Systems Command, told U.S. Sen. Olympia Snowe that he's hopeful that the ship can be repaired. He said that many vital components escaped damage because they had been removed for the 20-month overhaul and that salvage parts are available from previously decommissioned Los Angeles-class subs.

"He said, 'We've built submarines, so we can fix them as well,'" said Snowe, who also toured the shipyard Friday.

The intensity of the fire, the lack of lighting, the thick smoke and the metal hull that turned the submarine into an oven all contributed to a difficult blaze for firefighters to extinguish.

Unlike a house fire, there was no way to vent the fire by knocking out windows or using axes to create an opening, and all the smoke billowed from a small number of hatches that firefighters had to use to enter the sub.

"It was pretty intense, a lot of heat, a lot of smoke," Funk said. "It's a steel-hulled vessel. It's basically like going into a chimney into a black void that's superheated and trying to find the seat of the fire and get it put out."

The blaze was so blistering hot that a firefighter could only remain in place for minutes before being replaced by another firefighter, a leap-frogging technique that continued throughout the night until firefighters got the stubborn fire under control.

All told, the firefighters rotated 75 times to battle the fire, using 3 million gallons of water, nearly filling some compartments, Snowe said.

Two members of Funk's fire department were hurt. One had a broken foot, and another had a back injury, he said.

Funk, who left his post at the shipyard on Friday for the first time since the fire started, said he's thankful it wasn't worse. "It's a miracle that nobody got hurt bad," he said. "Frankly, it's a miracle that nobody got killed."

Key Senate Panel Approves Extra EB Submarine

Hartford Courant, May 25, 2012

A committee of the U.S. Senate has lined up with The House of Representatives in supporting spending allowing the Department of Defense to purchase two Virginia-class submarines in each of the next five years, one more than proposed by the president.

Connecticut Sens. Joseph I. Lieberman and Richard Blumenthal said in a conference call today that the priorities approved by the Senate's Armed Services Committee is a clear win for the defense industry in Connecticut.

In addition to 10 submarines instead of nine, the Senate approved orders for 29 Joint Strike Fighters powered by Pratt & Whitney F-135 engines, at a cost of $7 billion. The program has been beset by delays and cost-overuns soaring into the billions of dollars. The Senate is pressuring contractors to deliver the aircraft on time and closer to budget.

Blumenthal, however, said there was no displeasure with the Pratt engine. "Everyone seems very happy with the engine," Blumenthal said. "We have tremendous confidence in the engine."

The committee also approved $2.3 billion for 96 Black Hawk helicopters, manufactured by Stratford-based Sikorsky Aircraft. The 96 include 59 for the Army, 19 Sea Hawks and 18 Night Hawks.

Lieberman said the priority for the helicopters represented "full funding."

Both the JSF and helicopter spending priorities match the president's. Lieberman and Blumenthal said there also was no support for launching another evaluation of whether Navy bases should be closed.

The legislation passed by the unanimously by the committee, which now goes to the full Senate, is known as authorization bill and sheds light on priorities. It is followed by an appropriations bill that sets fundings for specific programs.

Report: Iran Relaunches Russian-Made Submarine After Local Overhaul

The Washington Post, May 28, 2012

TEHRAN,Iran — Iran's state TV is reporting the country's navy relaunched one of its Russian-made submarines after repairing its systems with locally-made replacement parts.

Iran has tried to build a self-sufficient military program since 1992.

The Tuesday report says that navy personnel overhauled the Taregh, one of its three Kilo class submarines, replacing 18,000 components including radar-evading cover, engine parts, propellers and radars.

State TV showed video of the relaunch from a dry dock in an Iranian port .

Iran added the three Kilo class submarines to its underwater fleet in early 1990s soon after it founded its submarine unit. Several smaller Iranian-built submarines have also been deployed by its navy.

Pakistan Acknowledges Sea-Based Nuclear Deterrent

Defense News, May 23, 2012

ISLAMABAD — Pakistan has acknowledged the existence of a sea-based nuclear deterrent with the recent inauguration of the Headquarters of the Naval Strategic Force Command (NSFC) by the head of the Navy, Adm. Asif Sandhila.

A May 19 press release by the military's Inter Services Public Relations stated the NSFC "will perform a pivotal role in development and employment of the Naval Strategic Force," and was "the custodian of the nation's 2nd strike capability."

Mansoor Ahmed, lecturer at Quaid-e-Azam University's Department of Defence and Strategic Studies, and who specializes in Pakistan's nuclear and missile programs, said this is all but specific confirmation of the widely speculated submarine-launched variant of the Babur/HATF-VII (Vengeance-VII) cruise missile.

Analyst Usman Shabbir of the Pakistan Military Consortium think tank said Pakistan has been working on its sea-based deterrent for some time.

"When the Babur was first revealed in 2005, it was claimed that it is mainly designed to be deployed from submarines. There was at least that speculation," he said.

The Navy "has pretty good experience in using similar systems, for example, both submarine-launched Harpoon and Exocet use a similar system, and [the Navy] has operated both for a long time."

Shabbir speculates that the launch method may be similar to the UGM-84 Harpoon's method of being fired from torpedo tubes.

However, other analysts are not so certain the Navy can afford to undertake the responsibility of the nation's second-strike capability.

Former Australian defense attaché to Islamabad Brian Cloughley said the size of Pakistan's submarine force is too small to carry out this task.

"Pakistan's current submarine fleet is not adequate in numbers [although well-trained] to be able to undertake detection and effective interdiction of the Indian fleet, given its size — which is increasing, even if slowly," he said.

Currently, Pakistan's submarine flotilla comprises two refurbished 1970s-era Agosta-70s and three 1990s-era Agosta-90B submarines. The latter are equipped with air independent propulsion (AIP) or are in the process of being retrofitted with the AIP module, and incrementally entered service from 1999.

Cloughley said interdiction of India's fleet "must remain [the Navy's] first priority," and considers "conversion of the present assets to take Babur not only costly but a most regrettable diversion of budget allocation."

"I would go so far as to say that, in present circumstances, it would be a grave error if such a program were to go ahead," he added.

The Navy, however, has a requirement for new submarines and wants to increase their number. The Agosta-90B design has been superseded twice, once by the DCNI Scorpene, and briefly by a paper design called the Marlin before it was absorbed into the Scorpene family.

There is a confirmed requirement for 12 to 14 submarines to meet Navy expansion plans. This would allow for a constant war patrol of at least one deterrent-tasked submarine, leaving other submarines to carry out more traditional tasks.

However, Cloughley is still certain that Pakistan does not require such a capability.

"[Pakistan] has plenty of nuclear-capable SSMs and strike aircraft, and does not need a Navy-oriented second-strike capability," he said.

Navy Orders Submarine Escape Suits

UPI.com, May 21, 2012

SHARON CENTER, Ohio, May 21 (UPI) — The U.S. Navy has given the Survitec Group an initial order for escape suits for its submarine crews.

The RFD Beaufort Mk11 suit, or Submarine Escape Immersion Equipment, is a single-skinned suit full-body with a breathing device and affords protection from hypothermia. It also features an integrated life raft.

The suits were designed at Survitec Group's center of excellence in Birkenhead, U.K.

"We're extremely proud to be supplying our U.S. Navy submariners in what is a very important contract for Survitec and our workforce in Sharon Center [Ohio]," said David Abbott, managing director of Survitec's Ohio facility. "Our company pioneered submarine escape technology in 1952 and has continually evolved its offering to the current high standard of the SEIE Mk11."

The initial order – for "several thousand" — RFD Beaufort SEIE Mk11suits is worth $25 million but the company said possible contract extensions could eventually lead to more than $60 million in orders.

China Deploys Warships, US Submarine Blamed

Philippine Online Chronicles, May 20, 2012

Five Chinese warships were reportedly deployed near Philippine waters following the visit of a nuclear-powered submarine from the United States.

Philippine Star reported that a news outlet from Taiwan identified the ships as two Type-052B destroyers, two Type-054A frigates and one Type-071 amphibious transport vessel.

Media said the ships are on a training mission and are on their way to an unspecified location near the Philippines. They may also be sent to support China's fishery administration ships around Panatag Shoal, a disputed island claimed by various nations including Philippines and China.

The cited news outlet Douwie News read, "With a displacement of just 3,200 tons, the Hamilton-class cutter of the Philippine Navy is no match for the four Chinese destroyers and frigates which together would carry about 48 C-802/803 anti-ship missiles. The Philippines has none."

The news came after USS North Carolina suddenly surfaced in the former US Naval Base in Subic for reprovisioning. It is said to be among the most modern submarines in the US Navy. The visit is reportedly unannounced and came during the continuing standoff between the two countries.

Submarine debate

Earlier, critics slammed the entry of the US submarine, saying it is unconstitutional and will provoke China's ire.

Gabriela Women's Party Representative Emmi De Jesus said, "This is not a simple issue of routine ship replenishment for food and water but the lack of respect for our Constitution and sovereignty."

She explained that it is in direct violation of the Philippine Constitution which bans the entry of nuclear weapons into the country.

De Jesus said the submarine may further escalate the five-week standoff between China and the Philippines.

"Instead of resolving issues in the diplomatic table, President Aquino has allowed the intrusion of US war mongering in the guise of protecting Philippine interest. When has the US acted politically and economically on behalf of any other interest other than its own? Is President Aquino blind to this reality or is he only admitting to his administration's full puppetry to US economic and political interests?" she said.

Meanwhile, presidential spokesperson Edwin Lacierda asserted that it has nothing to do with the dispute involving Panatag (Scarborough) shoal.

"For the record, there was a request made to our government on April 3 that was before the Panatag incident and they requested to be allowed to be berthed here for the purpose of supply, replenishment and maintenance of shipboard systems. This has nothing to do with the Panatag Shoal incident," Lacierda explained.

US reclaims naval base?

On the other hand, groups like Bagong Alyansang Makabayan (BAYAN) and Pambansang Lakas ng Kilusang Mamalakaya ng Pilipinas (Pamalakaya) pointed out that US is again assuming its control over its former naval base, although in an undeclared form.

"It appears to us that the former US military naval base in Subic is back to its former status as Washington's biggest naval base outside mainland America. And the big trouble here is that President Benigno Simeon Aquino III is hiding this matter from the collective knowledge of over 100 million Filipinos," Pamalakaya said in a statement.

The group agreed with De Jesus, saying that the "visit" was a clear violation of the Philippines' national sovereignty. They urged the Senate to pursue an inquiry.

Meanwhile, BAYAN explained that "The port calls made by US warships is part of a greater strategy to project US military power in the region. It is directed at all countries in the region, but most especially China, in order to keep China subservient to US dictates."

BAYAN secretary general Renato Reyes Jr. said the visit created "a host of social and legal issues."
He explained that while the "virtual basing and hosting" of US warships are being justified by the Visiting Forces Agreement and the Mutual Logistics Support Agreement, it is a way for US to "rebalance" towards Asia.

Step 1 in U.S. Plan to Rule Sea and Sky: Actually Share Data Danger Room

(WIRED) Blog , May 16

No one really understands the Navy and the Air Force's new blueprint for dominating Earth's seas and skies. But what's increasingly clear, even to the heads of both the Navy and the Air Force, is that there's a big challenge ahead for it, one that doesn't have anything to do with an adversary like China: getting U.S. ships, subs, planes and drones to actually talk to one another.

The watchword for the Navy and the Air Force in the future is an idea called "AirSea Battle." And if you listen to Adm. Jonathan Greenert and Gen. Norton Schwartz, the heads of both services, it's more like a state of mind. AirSea Battle is "a concept, a way of thinking things through, a conceptual approach to establishing access," Greenert said at a talk he gave with Schwartz at the Brookings Institution in Washington D.C. on Wednesday morning.

If that sounds airy — or, if you prefer, lost at sea — Greenert and Schwartz tried to bring it down to earth at Brookings (where, full disclosure, Danger Room boss Noah Shachtman has a non-resident fellowship). From now on, they said, the Navy and the Air Force will partner closer than ever before to jointly ensure that no adversary can deny the U.S. military access to the "global commons" — that is, the shipping lanes, airspace, low-Earth orbit and electronic avenues necessary for the military to operate anywhere on or above Planet Earth.

In practice, that means connecting the vast fleet of ships, subs and aircraft — manned and robotic alike — that Greenert and Schwartz possess. But there are at least two interrelated problems with that. The networks aboard the Air Force's stuff and the Navy's stuff don't talk well with one another. And getting sufficient bandwidth to connect them across vast distances is difficult and expensive. "Our links need to be similar," Greenert said, "or at least minimally compatible."

In other words, AirSea Battle is supposed to make the Navy and the Air Force a hyper-connected juggernaut. But standing in its way, to a significant degree, is the Navy and the Air Force.

Greenert and Schwartz can already credibly claim successes for AirSea Battle that, they argue, prove the blueprint's value. During the first ten days of last year's Libya war, submarines sent powerful Tomahawk missiles to destroy Moammar Gadhafi's airstrips and air defenses while the Air Force planes bombed them and Navy planes jammed their radars — and even Libyan tanks. That cleared the way for the months-long bombing campaign. Halfway around the world, the Navy and Air Force also worked together to help Japan recover from its earthquake and mitigate the damage to a nuclear reactor. They've also started using the same stuff: the Navy's Broad Area Maritime Surveillance program is an Air Force Global Hawk spy drone that carries Navy-specific sensors. And the Air Force has begun testing out its long-range bombing and strike capabilities for use over the Pacific — as with the last month's secretive "Operation Chimichanga" — efforts that will partner with the Navy.

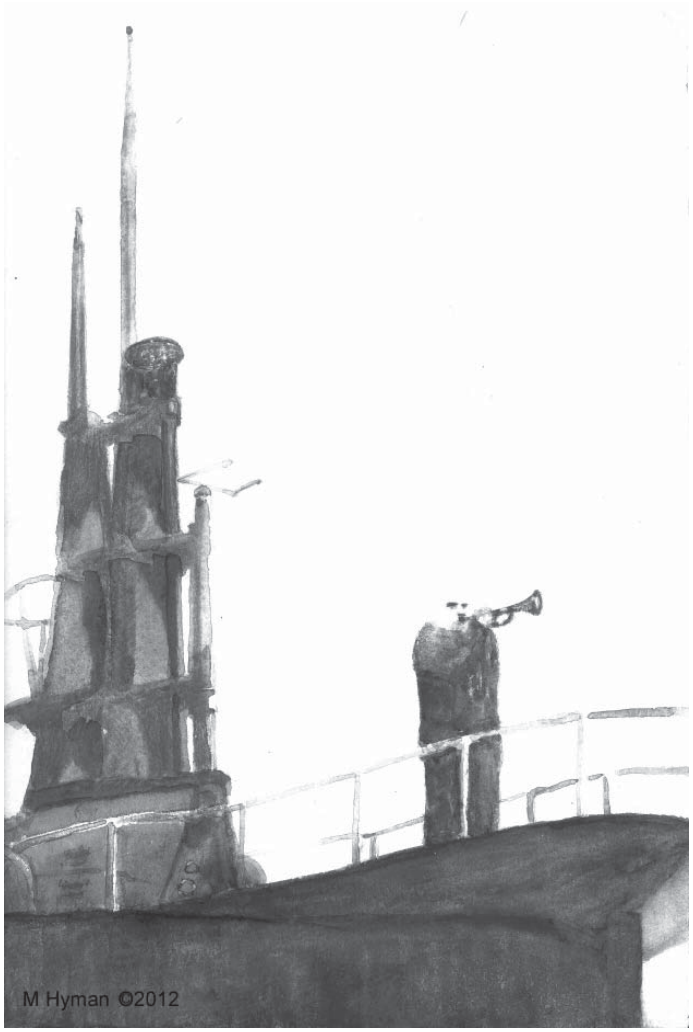
Now Greenert and Schwartz want to take that teamwork and make it "more of an assumption in the future," as the Navy chief put it. They've got "more than 200 initiatives" to get the Air Force's chocolate into the Navy's peanut butter, ranging from combining headquarters staffs to examining data-link protocols for information sharing.

But the problem right now is that those protocols, by and large, don't yet exist. And the further the Navy and Air Force get out to sea, the harder it is for planes, ships and subs to share data: the bandwidth aboard Navy ships alone, for instance, is already taxed by distance.

Asked about the problem by Danger Room, Schwartz was up front that "data links [are] a foundational element here of what we're talking about."

Schwartz said both services are working on a "next-generation data link" for ship-to-plane communication, which involves thinking through "how much data the links should carry [and] its low probability" of an adversary intercepting the information traveling across the pipes. "We're not thinking about this in the airman's or the Sailor's stovepipe anymore," he said. "We will come to a decision on what exactly those interfaces should look like." In other words, they don't know yet.

And that's totally fair; AirSea Battle is a young concept that the Navy and Air Force is still fleshing out. (Phil Ewing of DoDBuzz jokingly tweeted, "Air-Sea Battle is everywhere & it is nowhere. It is everything & it is nothing.") Schwartz conceded that connecting "legacy platforms" — ships and planes built in the Reagan era, for instance — are "more difficult to deal with." But Schwartz is already thinking about technical fixes for the connectivity problem: he talked about "communication gateway capability" that "could be lighter-than-air" rather than aboard a plane or a ship. (That sounds intriguingly like using the military's experimental giant blimps, currently the subject of a fight between the Air Force and Congress, as big-ass floating cell towers or data relay points.) As a stopgap, Schwartz said both services already have developed unspecified data "gateways" that "allow translation between one format or another." Neither service, however, has decided yet about how deeply these gateways and other communications integration tools will be built into the



architecture of the ships, planes, subs and drones of the future — like the Air Force's next-next-generation Long Range Bomber or the aircraft carriers the Navy will build after 2017.

Other technological challenges may be more fundamental. The U.S. Navy has a huge advantage in stealthy submarines. But the more the subs have to communicate with the outside world, particularly over vast distances, the greater the likelihood that an adversary can intercept their electronic signatures.

And that's on top of higher-level concerns about the uber-concept. Schwartz and Greenert insisted, repeatedly, that AirSea Battle is "agnostic" about any particular adversary or region of the world. (coughChinacough) But a mega-plan to ensure that the U.S. dominates the skies, seas, spaceways and electronic passages of Planet Earth may sound provocative when translated into Mandarin, Russian or Farsi. That is, unless the Navy and Air Force's big communications

WiFi For The Warfighter

With MUOS satellite launch, Navy sees future of better connectivity

By Daniel P. Taylor, Seapower Magazine, May 2012

After blasting off from Cape Canaveral Air Force Station in Florida earlier this year, the U.S. Navy's next-generation satellite — meant to provide communications to warfighters all over the world — is finally circling Earth.

The Lockheed Martin Space Systems-built Mobile User Objective System (MUOS) satellite will be a critical asset to the Navy as it seeks to replace a legacy constellation of Ultra-High Frequency Follow-On (UFO) satellites that are dwindling in capability as they age. Still, it will be a while until the sea service can retire those satellites completely.

The launch of MUOS-1 on Feb. 24 is the first of what will be five launches until the Navy has a full constellation of four working satellites providing connectivity to the ground, with one on-orbit spare.

According to Lockheed, the new satellites will feature a wideband multiple-access payload — technology that will provide a 16-fold increase in transmission throughput over the current UFO satellites. To put it simply: just one MUOS satellite will have four times the capacity of the 10-satellite UFO constellation.

Lockheed beat out a team led by Raytheon in 2004 for a program initially valued at $3.2 billion with all options exercised. Lockheed received an award of $339.6 million to build the fifth and last satellite last year. The Navy's fiscal 2013 budget proposal calls for $167 million for the MUOS program, which will be used for preparation for the launch of MUOS-2 next year.

The MUOS program has experienced its share of setbacks. The initial launch was supposed to take place in 2010, when the contract was first awarded.

The Navy is pressing ahead to get the program on track, according to a statement from the program office in response to questions from Seapower.

Since the Feb. 24 launch, the program office has been checking out the spacecraft's health and performance, testing payloads and preparing for a full evaluation of the satellite, according to the statement.

"Initial operational capability for MUOS will occur when the first satellite is on orbit, the program manager has verified nominal operational performance, the required satellite control and network management equipment are operational, support personnel are trained and in position, logistics support capability is in place … and Multi-Service Operational Test and Evaluation-1 has been successfully completed," the program office said, adding that all of that should wrap up this summer.

The program will achieve full operational capability once all satellites and the spare are in orbit and all of the above parameters are met, which should happen about four years later.

To support the transition from the legacy satellites to the new ones, the MUOS satellites have two payloads — one legacy UFO-like payload and one Wideband Code Division Multiple Access (WCDMA) payload, which supports the new MUOS capability. After on-orbit checkout of MUOS-1, which should take about six months, operational forces will be able to use the legacy payload.

WCDMA "will also undergo a limited checkout, but will not be made operational until the MUOS ground station is completely deployed and the second MUOS satellite completes its on-orbit checkout in accordance with the established MUOS fielding plan," the program office stated.

Capt. Paul Ghyzel, Navy communications satellite program manager, said in a statement that warfighters will see a big difference once they have full access to MUOS.

"Right now … users have to be sitting in one place, stationary, with an antenna pointing straight at a satellite to be able to use narrowband SATCOM [satellite communications]," he said. "As we bring MUOS online, we'll bring capability that allows them to move around the battlespace and be able to continue to communicate beyond the line of sight."

A MUOS terminal would allow a user to place a telephone call or send data at 10 times the capacity of today's systems.

"Whether it's in vehicles, on ships, in submarines, in aircraft or simply carried by service members who are dismounted from vehicles and on the move, this system was designed to bring them voice and data communication services, both in point-to-point mode and through netted communications," Ghyzel said. "Those capabilities have not existed with previous programs."

Warfighters will be connected to the MUOS satellites through ground control facilities. Besides satellite control facilities at Naval Satellite Operations Center in Point Mugu, Calif., and Schriever Air Force Base, Colo., the Navy has four more ground sites in Hawaii, Western Australia, Italy and Chesapeake, Va.

"Those are the stations where the traffic from the user terminals, as it comes down from the satellite, gets routed to and processed to complete the calls, depending on the nature of the traffic," Ghyzel said. "They will handle voice calls, data calls and they'll connect the users in the field to the Global Information Grid."

The power of the MUOS system lies in its ability to simply handle higher traffic volume due to more lines of access, Mark Pasquale, MUOS program manager for Lockheed Martin, said in a recent interview.

"Four MUOS satellites provide 16,000 accesses to the warfighter worldwide," he said. "The current UFO system with the Navy provides about 1,000 accesses."

Pasquale compared the legacy system to a phone line. Even when the phone is not in use, it's still dedicated to just one particular person. MUOS assigns those access lines to different places and people depending on the need.

"We also have a priority-based system, so if we do reach capacity, those most important users, as defined by [the Defense Department], will get the priority to get access and bump those lower-priority users," he said. "I really look at it as if you're going from a land-line phone to a computer-based Internet system."

And the fact that warfighters can use MUOS just about anywhere — and even when they are moving — means they do not have to put themselves in harm's way to communicate, Pasquale said.

"It provides beyond-line-of-sight communications for the warfighter so they don't have to be in direct-sight view," he said. "We have communications on the move, so they're able to communicate while in transit, and they don't have to sop and get to an open area in order to make the call."

China's "Small Stick" Approach To South China Sea

By David Lague, Reuters, May 15, 2012

HONG KONG - In a month-long standoff between China and the Philippines over a disputed shoal in the South China Sea, Beijing has so far refrained from sending warships from its increasingly powerful and modern navy to enforce its territorial claims.

Instead, China has deployed patrol vessels from its expanding fleet of paramilitary ships to Scarborough Shoal, known in Chinese as Huangyan Island. Naval experts say the intent is to minimize the risk of conflict and contain any regional backlash.

After alarming some of its neighbors in recent years with assertive behavior in the South China Sea, China has turned to "small stick" diplomacy, using unarmed or lightly armed patrol boats from fisheries, marine surveillance and other civilian agencies rather than warships.

Shen Dingli, a security expert at Shanghai's Fudan University, said the role of these vessels was to demonstrate "soft power" and avoid the impression that China was engaged in gunboat diplomacy.

"Therefore, it is more peaceful and moral," he said.

Beijing, however, has shown no sign of compromise in a standoff that began when Chinese civilian patrol vessels last month intervened to stop the Philippines from arresting Chinese fisherman working in the disputed area. More such incidents are likely unless the Philippines can provide a counterweight to the challenge, either on its own or with allies, security analysts say.

China's tough stance comes at a time of spectacular political scandal and swirling rumors of high-level infighting over the sacking of the once high-flying Chongqing Party boss, Bo Xilai.

Political analysts say the ruling Communist Party will be anxious to show that it is has the unity and strength to defend any challenge to the country's territory ahead of the once-in-a-decade leadership later this year.

Senior leaders vying for top positions will also be keen to shore up their nationalist credentials with the politically powerful military.

Rocks, Reefs And Resources

Both nations claim sovereignty over the group of rocks, reefs and small islands about 220 km (132 miles) from the Philippines with patrol vessels and fishing boats from each side deployed to the area in an increasingly acrimonious confrontation.

China's defense ministry last week took the unusual step of denying reports it was preparing for war, but the People's Liberation Army Daily, the military's mouthpiece, warned the Philippines was making "serious mistakes" in maintaining its claim.

"We want to say that anyone's attempt to take away China's sovereignty over Huangyan Island will not be allowed by the Chinese government, people and armed forces," it said.

Manila has called for the United Nation's International Tribunal on the Law of the Sea (ITLOS) to rule on the dispute in the strategically important and resource-rich sea. Half the world's merchant fleet tonnage sails across the sea and around these islets each year, carrying $5 trillion worth of trade.

While Beijing has thus far kept its navy at a distance, the Philippines, like most regional nations, is well aware it would be overwhelmingly outgunned by China's powerful military if it came to a fight.

After more than two decades of double digit increases in defense spending, China has an expanding fleet of advanced warships, submarines — now the largest in Asia — and long-range strike aircraft.

However, if Beijing resorts to force, it would almost certainly drive other claimants to territory in the South China Sea — including Vietnam, Malaysia and Indonesia — closer together. Those three countries, along with the Philippines, are members of the Association of Southeast Asian Nations, which is creating an EU style-community that also envisions joint security.

Regional nations also have begun to cement closer military ties with the United States. Starting with a trip late last year, U.S. President Barack Obama has touted a "pivot" toward the economically dynamic Asia-Pacific region in an effort to reassure nervous allies of the U.S. commitment as China flexes its economic and military muscle.

"Containable Events"

That means China will likely continue to send a strong message with its civilian patrol boats while keeping its real firepower in reserve, according to security experts.

"It is much easier for paramilitary vessels to assert sovereignty claims with less probability of escalation to armed violence," said Christian Le Miere, a maritime security researcher at the International Institute for Strategic Studies in London.

"It allows for more containable events and incidents."

Other Asian nations have also been expanding their paramilitary fleets in recent years, particularly Japan which has a powerful coastguard. China's use of these vessels, however, is drawing the most attention.

An early indication of the effectiveness of this strategy was China's sustained harassment in early 2009 of the U.S. spy ship Impeccable in the South China Sea off Hainan Island.

Chinese patrol boats and surveillance ships buzzed and tormented the Impeccable for days, at one point even attempting to grapple its underwater sonar array used to identify and track submarines.

"If China had deployed naval ships, the response of the U.S. might have been more aggressive," says Le Miere who has studied the use of paramilitary ships in Asia.

For China, devoting more resources to these forces fills an important gap in its maritime power between its massive merchant fleet and its expanding, blue water navy.

Disjointed Coordination

Chinese maritime specialists have called on Beijing to devote more attention to the civilian agencies responsible for enforcing domestic law and maintaining order in its territorial waters

The main Chinese government agencies that deploy patrol vessels in the South China Sea and other coastal waters are the Maritime Safety Administration, the Maritime Police of the Border Control Department, the Fisheries Law Enforcement Command, the General Administration of Customs and the State Oceanographic Administration

Other, smaller agencies including provincial governments and local police and customs also send patrol boats and surveillance vessels to sea.

The paramilitaries that China has sent to Scarborough Shoals include the 1,300-tonne Haijian 75 and 1,740-tonne Haijian 84, advanced surveillance vessels from the State Oceanographic Administration.

Beijing also stationed the 2,580-tonne Yuzheng-310, it's most advanced fisheries law enforcement vessel, off the disputed shoal.

Some Chinese and foreign experts have criticized the disjointed coordination of these forces.

Outspoken People's Liberation Army Strategist, Major General Luo Yuan, in March called for China to establish a unified coast guard, similar to those of Japan, the United States and Russia.

In interviews with state-controlled media, Luo said up to nine agencies were now responsible for enforcing maritime law which sometimes led to waste and inefficiency.

"If China integrated these forces, it could act more flexibly when maritime incidents occur," he said.

As tension mounted at Scarborough Shoal, the Brussels-based International Crisis Group warned in a report late last month that China's poorly coordinated and sometimes competing civilian agencies were inflaming frictions over disputed territory.

"Any future solution to the South China Sea dispute needs to address the problem of China's mix of diverse actors and construct a coherent and centralized maritime policy and law enforcement strategy," it said.

Navy Let Its Sub-Hunting Skills Slide While China & Iran Built More Submarines

defense.aol.com, May 16

VIRGINIA BEACH, VA: During a decade of relentless focus on counterinsurgency, the military has let other skills erode, skills it will have to struggle to get back even as budgets tighten. In particular, the capacity of the US and allied navies to hunt enemy submarines has suffered even as potential adversaries like China and Iran have built up their sub fleets.

That's not to say it wasn't necessary to put Afghanistan and Iraq first — just that we've paid a price. "They were good choices," said Rear Adm. Phil Davidson of the Navy's Fleet Forces Command, speaking at the annual Joint Warfighting Conference hosted by the US Naval Institute and the electronics industry group AFCEA. "They were needed for the current fight," Davidson went on, "but these choices were not without cost."

Nor is the problem unique to the US. Across Europe, "our specialist skills have begun to perish," agreed Royal Navy Admiral Tony Johnstone-Burt, the chief of NATO's "Allied Command Transformation." Like Davidson, the British admiral particularly noted gaps in anti-submarine warfare.

Historically, the US and Royal Navy have both made sub-hunting a top priority ever since World War I and II, when German U-boats twice came close to cutting the supply lines across the Atlantic — a feat many NATO commanders feared the Soviet submarine fleet would try to replicate in the event of World War III. Today there are new naval threats from China and Iran, which operate in entirely different waters from the traditional trans-Atlantic threat and, in the Iranian case, in the narrows and shallows of the Persian Gulf, where it's far easier for submarines (and mines) to hide than in the open ocean.

The Navy's long-term solution for this shallow-water sub hunt is the Littoral Combat Ship, a small, high-speed vessel built to take different "mission modules" so the same vessel can switch from hunting subs to fighting small attack boats to clearing mines. For now, however, the LCS sub-hunting module is still in development, with entry in service in fact delayed until 2016.

Meanwhile the fleet that actually exists has lost its traditional focus on fighting submarines. For example, said Davidson, the Navy's P-3 Orion reconnaissance planes used to spend twice as much time training for anti-submarine warfare (ASW) as they did other intelligence, surveillance, and reconnaissance" (ISR) missions. Since 2001, however, the P-3s have increasingly been pressed into service over Afghanistan and Iraq, Davidson said, to the point that "we have a force with three to four times the experience flying ISR overland as doing ASW."

While the Army and Marines look forward to a lower pace of operations that will allow them to rethink their missions for the post-Afghanistan world, the Navy cannot. "Demand is up," not down, said Davidson. "The deployment strain right now for the Navy is as great or greater as it's been any time in the past ten years." The recent deployment of the USS Bataan and its battle group for ten and a half months may have been extreme, but the old expectation of six to seven months at sea is gone, he said, with carrier strike groups typically deploying for nine months at a stretch. That means more wear and tear on the fleet, less time and money to train.

Russian Designer Charged of Leaking Bulava Secrets Abroad

Rusnavy.com, May 15

A responsible person of a "closed-type" enterprise in Sverdlovsk region was charged of disclosure of classified information about strategic missile Bulava to foreign intelligence. The unnamed employee will face the closed-door trial in the nearest days in Yekaterinburg, reported Interfax on May 12 referring to a source in law enforcement authorities.

According to the source, the suspected person works in a research-and-production complex designing strategic missile control systems. The employee is charged of transferring "state secret information related to strategic armaments".

Officially, law enforcement authorities have not commented this information so far. However, the case is under control of Russian General Procuracy.

Solid-propellant three-stage missile R-30 Bulava is meant to be key armament of Borei-class nuclear-powered ballistic missile submarines. The missile can be launched from underwater and on the move. Bulava is capable to destroy targets at the range up to 8,000 km and carry 6-10 nuclear reentry vehicles with yield of 150 kiloton each.

Most of 13 first test launches of Bulava failed. However, the recent series of tests held in 2010-2011 was successful, and the missile was recommended for commission to Russian Navy. As is expected, SLBM Bulava will be put in service in Oct 2012 and make the core of maritime element of Russia's nuclear triad.

Submarine school begins turning out computer wizards

The Day, May 11

Groton - When a computer breaks, a novice can usually tinker with it to fix a basic problem.

But at some point, you need a professional, said Master Chief Petty Officer Travis Brummer. The submarine force has reached that point.

This week at the Naval Submarine School, 16 sailors began learning how to operate and maintain the state-of-the-art computer systems and networks on board submarines. They will be the first sailors formally trained and certified to do so.

"Now the submarine force will get much more effective, trained and certified information systems technicians," said Brummer, the command master chief at the Center for Information Dominance at Corry Station, Fla.

The Navy created a new job, or rate, for submariners in December called Information Systems Technician Submarines and launched the 19-week Information Systems Technician "A" School at the submarine school as a learning site for the center to train sailors for the job.

Until now, a sailor in another job on a submarine volunteered to work on the computers.

But that put the sailor at a disadvantage when he had to take tests for his regular job because he spent so much time away from it, said Chief Kevin Dingman, the site director.

And, Dingman said, "Technology has grown to the point where you can't do it part-time anymore." There are dedicated information systems technicians on ships that have larger crews and more space.

Brummer and Dingman said they couldn't discuss the cyber warfare aspects of the training but did say submarines can better defend against security threats with these new information systems technicians on board.

The "A" School is followed by two other courses, for a total of 11 months of training. The Navy's goal is to eventually graduate 96 students annually. The size of the submarine crews is not expected to change, Brummer said.

On the second day of class, Seaman Caleb Allen, 28, who joined the Navy in December, said the instructor had already "gone over everything that makes a computer tick." The pace of the course, Allen said, is "insane."

Seaman Recruit Darius Sellers, 18, said working on computers had always been a hobby and that he was looking forward to turning his hobby into a career. He fixed the computer at his church in South Carolina and recorded the sermons, he said.

"I think it's important. You need someone who can fix all that stuff when things go wrong," Sellers said. "You need constant communications throughout the boat and with the rest of the fleet."

SUBMARINE AUTHORS DON KEITH AND GEORGE WALLACE PUBLISH NEW NOVEL; MOVIE BASED ON BOOK IN PRE-PRODUCTION

Authors George Wallace andDon Keith will publish their latest novel July 4, 2012. ***FIRING POINT***(Signet/Penguin, 704 pgs.) is a taut, fast-paced thriller, set in Russia and beneath the polar ice pack, and tells the story of an American nuclear submarine crew and a team of Navy SEALs who are called upon to rescue the kidnapped Russian president. In the process, they will attempt to avert World War III.

FIRING POINT was co-written by well-known submarine historian Don Keith and former submarine skipper George Wallace and is the duo's second novel together. The first, ***FINAL BEARING***, was a national best-seller and is still available wherever books are sold, including a new release as a Kindle eBook from Amazon.com.

The latest novel has also been optioned by Relativity Films (*Act of Valor*, *Social Media*, *The Fighter*) and is in pre-production as a major motion picture under the working title of ***HUNTER KILLER***. The film will be produced by Neal Moritz (the *Fast and Furious* films, *21 Jump Street*, *I Am Legend*, *xXx: State of the Union*) with a 2013 release planned.***FIRING POINT*** will also be available as an audio book from www.audible.com.

Commander George Wallace retired to the civilian business world in 1995 after twenty-two years of service on nuclear submarines. He served on two of Admiral Rickover's famous "Forty One for Freedom," the USS *John Adams* SSBN 620 and the USS *Woodrow Wilson* SSBN 624, during which time he made nine one-hundred-day deterrent patrols through the height of the Cold War.Wallace served as Executive Officer on the *Sturgeon*-class nuclear attack submarine *Spadefish*. *Spadefish* and all her sisters were decommissioned during the downsizings that occurred in the 1990s. The passing of that great ship served as the inspiration for ***FINAL BEARING***.

Wallace commanded the *Los Angeles*-class nuclear attack submarine USS *Houston* SSN 713 from February 1990 to August 1992. During this tour of duty he worked extensively with the SEAL community developing SEAL/submarine tactics. Under Wallace's command, the *Houston* was awarded the CIA Meritorious Unit Citation. He currently lives with his wife, Penny, in Alexandria, Virginia.

The Naval Submarine League recently declared Don Keith to be "the most prolific historian of U.S. submarine history." He has written five critically books on World War II submarines and his book ***THE ICE DIARIES*** told the story of the historic voyage of USS *Nautilus*, the world's first nuclear-powered vessel, beneath the polar ice pack to the North Pole in 1958. That book was co-written with the commander of the submarine who took her there, the late Captain William Anderson. The book was submitted for consideration for the Pulitzer Prize.

Keith's latest historical work is ***UNDERSEA WARRIOR***, the inspiring biography of World War II's first true submarine "ace," the remarkable and controversial Dudley "Mush" Morton and his storied sub, the *Wahoo*. He was a recent guest on a segment of cable television network C-SPAN's "Book TV" to discuss that book. That program is available from Keith's web site. Keith resides with his wife, Charlene, in Indian Springs Village, Alabama.

For more information on Don Keith N4KC and his works, visit www.donkeith.com.

Oceanside's INDEPENDENCE DAY PARADE

AMAZING AMERICAN HEROES

Dancers
Floats
Equestian Units

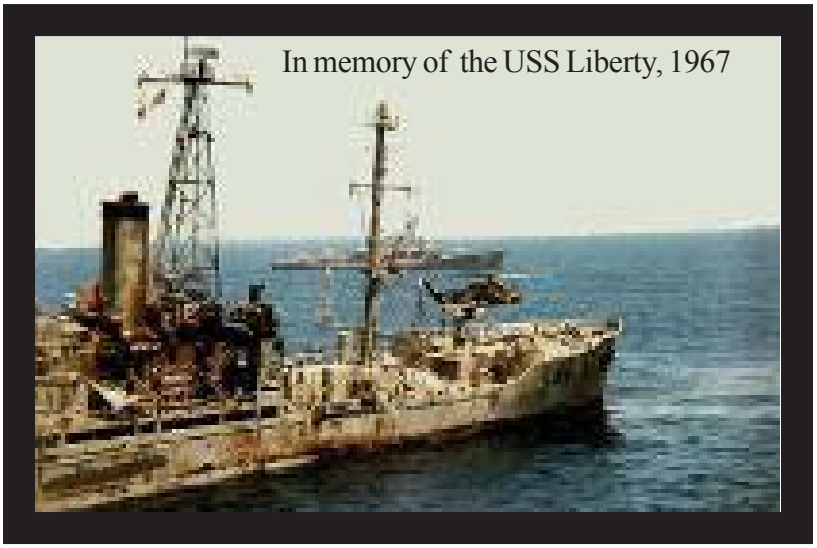
Military Units
Family Fun
Classic Cars

Marching Bands
Scouts
Twirlers

OceansideParade.com

Saturday, June 30th
Downtown Oceanside
10:00 a.m.

Coast Highway from Wisconsin north to Civic Center Drive.
First unit steps off at 10:00 a.m.



Navy Standardizes Command Qualifications

Jun 11, 2012
Navy News| by Chief of Naval Personnel

WASHINGTON — Chief of Naval Operations, Adm. Jonathan Greenert, approved an instruction governing the Navy's Command Qualification Program June 4, setting the standards for qualifying and screening Navy commanding officers.

OPNAV Instruction 1412.14 guides officer communities on how to formally establish a written command qualification program and how to formally screen prospective officers for command.

Prior to the release of this instruction, command qualifications were left to the individual officer communities. Following an internal review of the different programs, leadership determined common threads needed for effective command which could be highlighted during a standardized screening and qualification process.

"This program will strengthen the caliber of our leaders and provide for a more ready, capable fleet by ensuring we select the right people for command by adhering to clear, consistent professional qualification standards. This process recognizes each community's unique professional standards, while reinforcing the necessarily high expectations we hold for those in command Navy-wide," explained Adm. John Harvey, commander, U.S. Fleet Forces.

While the instruction primarily provides guidance to community leaders and mandates standards, it also contains some requirements and expectations for prospective commanders. During Command Leadership School (CLS), which is now mandatory, candidates will complete a written examination that covers specific professional knowledge requirements and participate in a 360Â° assessment of their strengths and weaknesses with the help of certified counselors.

Capt. Michael Slotsky, commanding officer of CLS, explained how the students will be impacted by this training.

"Prospective commanding officers will now demonstrate and reflect in writing how they will apply tenets of good leadership, bedrock principles of authority-responsibility-accountability and Navy Regulations as they prepare for command. Individual student's self-awareness and leader development will also be enhanced through the 360 assessment and coaching they will receive," said Slotsky.

The new instruction also tasks affected officer communities to develop and prescribe a set of professional qualification and oral board standards that reflect the needs of their communities. Once an officer from their community has achieved the knowledge standards required, demonstrates mastery of the required skills, and sits an oral board with officers in command, community leaders will ensure their candidates receive a formal review by an administrative board.

Responsibility will no longer end at the change of command for the out-going commander according to the new instruction. Commanding officers being relieved by their executive officer as part of a community's "fleet up" program will be required to certify, in writing, their executive officer is ready for the demands unique to their command. This letter will be reviewed by their immediate superior in command, who will endorse the certification to the type commander or community leader prior to the executive officer assuming command.

Speaking to the benefits these changes will have for the Fleet, Vice Adm. Richard Hunt, commander, Naval Surface Forces said, "This program puts rigor back into the qualifications and requirements needed so we have our best leaders in command."

To learn more about the standards and requirements for command contained in OPNAV Instruction 1412.14, visit the Navy Personnel Command website at www.npc.navy.mil.

Navy Issues Guidelines In Light Of USS Miami Fire

By Jim Haddadin, Fosters.com, June 9, 2012

KITTERY, Maine: Navy investigators believe the fire that ravaged a nuclear submarine at Portsmouth Naval Shipyard last month was kindled by an undisclosed "heat source" that was sucked into a vacuum cleaner.

The Navy issued new guidelines for storing and emptying the vacuum cleaners this week after disclosing that a vacuum cleaner is being eyed as the fire's point of origin.

On Wednesday, the Navy said the vacuum was stored in an unoccupied part of the USS Miami's forward area, but disclosed few other details.

A second announcement released Friday afternoon provided some additional information. According to the Navy, investigators believe the fire started with a "heat source being vacuumed up and igniting the debris in the vacuum cleaner."

The announcement goes on to state the "vacuums" involved in the incident were not plugged in, and there was no apparent defect that would have caused the "vacuums" to ignite.

Foster's Daily Democrat requested clarification Friday from the Navy regarding how many vacuums were involved in the fire.

"I cannot confirm that it was a single vacuum," shipyard public affairs specialist Gary Hildreth said in response. "Multiple vacuums were stored in the same area, but none of them were plugged in."

According to the Navy announcement, the equipment involved in the fire was used to clean work sites at ends of shifts. The vacuum was a model typically found in shop environments.

Hildreth declined to comment on the nature of the "heat source" that sparked the fire.

In the wake of the incident, all public shipyards have now been directed to empty industrial-style shop vacuums each shift or remove them from ships, according to Friday's announcement.

"Additional inspections of ships have also been conducted for fire safety and fire fighting response with special attention on temporary services and the stowage of combustible materials on board," the announcement states.

All Navy ships and shipyards use some form of vacuum cleaner, according to the announcement.

Naval Sea Systems Command is reviewing all models of vacuum cleaners in use on ships, and will issue guidelines on what models are authorized for use by the end of June.

Seven people suffered minor injuries during the May 23 blaze, which spread through the forward area of the USS Miami, a nuclear-powered submarine undergoing an overhaul. The fire continued to burn for more than 10 hours before it was extinguished.

The Navy has approximated the damage at $400 million, plus another $40 million for so-called "secondary effects," such as disruption to other planned work across all Navy shipyards and the potential need to hire private contractors.

Navy engineers are conducting a full technical assessment including internal and external hull surveys and damage assessments to develop a detailed cost estimate to restore the forward end compartment.

The Navy is conducting formal Judge Advocate General Manual (JAGMAN) and Safety investigations to address lessons learned, and corrective actions to preclude recurrence. Initial reports of their conclusions and recommendations are expected in the next two weeks.

Navy officials have indicated the USS Miami can be salvaged, but have not decided whether to carry out the repairs. They are expected to make the decision by the end of the coming week, Maine Sen. Olympia Snowe said in an announcement Wednesday.

As the Navy continued to investigate the accident this week, Seacoast-area firefighters received national recognition for their part in helping to extinguish the fire.

Emergency responders from at least 21 Seacoast-area communities provided aid during the fire. Others traveled from Logan International Airport in Boston, and from as far away as Groton, Conn., to assist.

The U.S. Senate on Thursday passed a resolution recognizing the firefighters, emergency first responders, and USS Miami crew.

Sponsors included Sens. Olympia Snowe, R-Maine, Kelly Ayotte, R-N.H., Richard Blumenthal, D-Conn., Scott Brown, R-Mass., Susan Collins, R-Maine, John Kerry, D-Mass., Joe Lieberman, I-Conn., and Jeanne Shaheen, D-NH.

The resolution commends the "service of all those who successfully contained the fire, minimized damage to the submarine, and ensured there was no loss of life," according to an announcement from Snowe's office.

"Their exemplary efforts during those 10 hours in tight quarters filled with noxious smoke and searing heat, while minimizing damage and ensuring there was no loss of life, receives our unending praise and commendation," reads a joint statement released by the lawmakers Friday.

Commander, Submarine Squadron 11 Holds Change of Command

From Submarine Squadron 11 Public Affairs, June 10, 2012

NAVAL BASE POINT LOMA, Calif. (NNS) — A pier side change of command ceremony was held for Commander, Submarine Squadron 11; and Commander, Submarine Forces U. S. Pacific Fleet Representative West Coast, aboard Los Angeles-class submarine USS San Francisco (SSN 711), June 8.

Capt. Thomas Ishee relieved Capt. Richard Correll as commanding officer.

Commander, Submarine Force, U.S. Pacific Fleet Rear Adm. James F. Caldwell Jr. was the guest speaker at the ceremony. He congratulated Correll on a job well done and remarked that Ishee comes to Submarine Squadron 11 with impressive credentials and many successes.

"I look forward to serving with you," said Ishee, "and to supporting the crews of Squadron 11 units, who proudly serve our great country."

While under Correll's command, Squadron 11 oversaw submarines deployed to the Arabian Gulf, Western Pacific, Southern Pacific and the Arctic. Correll also oversaw the successful implementation of the East Pacific Integrated Training Syndicate (EPITS) initiative, which has greatly enhanced Anti-Submarine Warfare training in the Third Fleet.

Ishee thanked Correll for his thorough turnover and commended his successful command tour.

"Congratulations on a truly outstanding tour as Squadron 11's commodore, and best of luck to you on your follow-on assignment," said Ishee.

Correll's next assignment will be director, Submarine Officer Distribution, Navy Personnel Command in Millington, Tenn.

Ishee entered the submarine force in February 1988, with early sea tours aboard USS Sea Devil (SSN 664), USS Narwhal (SSN 671), USS Tunny (SSN 682) and USS La Jolla (SSN 701). He reported as commanding officer of USS Key West (SSN 722) in March 2006, where the ship completed a Western Pacific deployment, earned a Battle Efficiency "E" award, and was awarded the Pacific Fleet Arleigh Burke Trophy. He later served as director of Operations for Commander, Submarine Group 7. Most recently, he managed the U.S. Pacific Command portfolio of plans for the Office of the Under Secretary of Defense for Policy.

Submarine Squadron 11 is located aboard Naval Base Point Loma in San Diego and consists of six Los Angeles-class nuclear-powered attack submarines, three Torpedo Retrievers, and a floating dry-dock. The squadron staff is responsible for providing training, material and personnel readiness support to the six submarines.

Yesterday's Enemies

St. Louis Post Dispatch, June 6, 2012

In Germany, Israel and southeast Asia, a whole new world.

As if further evidence was needed about how profoundly the world has changed, today's 68th anniversary of D-Day comes with confirmation, in chapter and verse, that Germany has built four nuclear-weapons-capable submarines for

Israel. A fifth is under construction near the old U-boat works in the Baltic port of Kiel. A contract for a sixth was signed this spring. Several more are under consideration.

Meanwhile, on the other side of the world, U.S. Defense Secretary Leon Panetta is winding up an eight-day tour of the Asia-Pacific region. Earlier this week, Mr. Panetta visited a U.S. supply ship berthed in Cam Ranh Bay, Vietnam. He was working on a deal that someday could see U.S. warships use Vietnamese harbors as they counterbalance China's dominance in the region.

Germany and Israel working together. Vietnam looking to the United States for protection against Chinese influence. How things do change.

The German magazine Der Spiegel this week confirmed details of the long-reported German-Israeli submarine deal. Reporters interviewed officials of both countries and toured the submarine Tekumah in the Israeli port of Haifa.

There was no official confirmation that the Dolphin-class diesel-propelled boats carry nuclear warheads. Reporters were not allowed to visit weapons decks. But former German officials said there was never any doubt that the subs would be capable of launching small cruise missiles with nuclear warheads.

Today's submarines can fire cruise missiles from torpedo tubes, the missiles then emerging from the sea to fly to their targets. Each German-made sub has standard 533-millimeter torpedo tubes, capable of firing the Israeli-made "Popeye" cruise missile. But in response to a special Israeli request, the magazine reported, German engineers designed four additional tubes large enough to accommodate U.S.-made Tomahawk missiles should the United States ever agree to sell them.

Even the Popeyes, with their 900-mile range, could rain havoc across Iran, particularly if an Israeli sub slipped into the Persian Gulf. In the Cold War argot of "mutually assured destruction," the subs provide Israel with a "second-strike" deterrent.

"In the end, it's very simple," Israeli Defense Minister Ehud Barak told Der Spiegel. "Germany is helping to defend Israel's security. The Germans can be proud of the fact that they have secured the existence of the State of Israel for many years to come."

In the South China Sea, things are a little more nuanced. China has asserted its maritime rights throughout 1.4 million square miles from the Straits of Taiwan south to the Malacca Straits and Singapore. This concerns its southeast Asian neighbors and opens an opportunity for the United States.

A third of the world's shipping operates in the South China Sea; the United States is determined to exert a greater security presence there.

Mr. Panetta told a regional security conference in Singapore last weekend that the United States gradually would redeploy its defense forces around the globe so that 60 percent of them, instead of the current 50 percent, were in the Pacific basin. This is in keeping with President Barack Obama's pledge last year to "pivot" toward the Pacific because of its increasing economic and trade importance.

China, of course, holds more than $1.2 trillion of U.S. debt. But the United States imported nearly $400 billion worth of Chinese goods last year. The two nations' interests are far more aligned than they are opposed. History suggests it's wise to remember that.

Early Estimate Pegs USS Miami Sub Fire Damage Up To $500 Million

By Colin Clark, AOL Defense, June 5, 2012

WASHINGTON: The Navy is telling Congress that the nuclear-powered USS Miami suffered
$400 million to $500 million in damages from the impressive fire that injured seven and left the ship a smoldering mass at drydock.

The estimate is being provided at congressional request and is not, we hear, to be considered definitive. But the Navy is eager to let Congress know the extent of the damage as soon as possible to allow appropriators the chance to build funding into the Overseas Contingency Operations (OCO) portion of the defense spending bill so the boat can be redeployed as soon as possible.

The May 23 fire struck the Los Angeles class boat in the early evening and persisted through much of the night. The fire roared through the forward compartment, which includes crew living, the torpedo room and command and control spaces. Those command and control facilities will be expensive to repair. The good news is that the nuclear reactor and the propulsion systems do not appear to have been damaged. The greatest concern among Navy experts was the double pressure hull and whether it had been compromised by the fire. That does not appear to be the case.

We hear the fire will add at least four to six months to the original time the USS Miami was scheduled to be in drydock at Portsmouth Naval Shipyard in Maine.

That raises the issue of how the Navy will cover the longer-than-planned absence of one of its most important assets. A naval expert familiar with the issue said the Navy has some flexibility.

"One option for compensating for the Miami's delayed return to service would be to extend the length of some attack submarine deployments that take place during the months that the Miami was originally scheduled to be available for deployment but now won't be. Deployment extensions of one month are a possibility, but they could also be shorter or longer than a month," the source said in an email.

Since this is a submarine and nothing is simple when it comes to scheduling the sailors and their boats, there care other options. "An extension might be longer than a month, for example, if the submarine in question is currently scheduled for a deployment of less than six months. Another option would be to move around scheduled maintenance activities on some attack submarines so as to make them available for deployment during the months that the Miami was originally scheduled to be available for deployment but now won't be. Another option would be to simply cancel or reduce some lower-priority missions that were to have been performed during those months, if there are any such missions."

The Navy will not get a replacement boat should the Miami be deemed a loss or Congress refuse to pony up money for the repairs. However, given the persistent and fairly widespread concern about the rate of boat building for the Virginia class — the replacement for the Los Angeles class — it's unlikely the Hill will turn the Navy away.

Here's a list of nuclear submarines that have been rebuilt after serious accidents.

In January 2005, the San Francisco (SSN-711) ran into a sea mount a few hundred miles from Guam while traveling at hgh speed. The front end of the submarine was badly damaged. The ship was repaired by replacing its front end with that of sister ship Honolulu (SSN-718), which was scheduled for deactivation.

In March 2009, the Hartford (SSN-768) was damaged in a collision with the New Orleans (LPD-18) in the Strait of Hormuz. The Hartford was previously damaged in a grounding in the Mediterranean in 2003.

Germany Creates New Nuclear Front in the Middle East

SpyGhana.com, June 6, 2012

On June 3, 2012, in the Sunday edition of the German Der Spiegel, the Editor in Chief Georg Mascolo wrote that "months-long research proves that the submarines Germany supplies to the Israeli navy make use of equipment capable of carrying nuclear weapons;" the article claims that this was confirmed by German officials.

This statement contradicts earlier remarks by German Chancellor Angela Merkel, who said that the vessels cannot carry nuclear weapons. The contradicting statements apparently damage Germany's position.

Yet, an important clue explaining the contradiction was hidden in the article. Der Spiegel disclosed that Germany is conducting negotiations with Pakistan over the sale of nuclear submarines. This means that the German interest is now to change the public status of these submarines.

Apparently the time for the signature of the agreement with Pakistan is approaching. Keeping the nuclear capabilities of these submarines secret once another country purchases them would have been practically impossible; especially when the two countries purchasing them are not in friendly terms.

Germany probably chose the timing of this disclosure as an answer to Israel's recent purposeful insults towards Germany (see Germany's Humiliation). In any case, a new front is being opened in the Middle East, this one certified as being the quietest of all. German Dolphin-class subs are even quieter than nuclear-propelled submarines.

Netanyahu's Fast and Humble Reaction

Coincidences exist; yet, it is difficult to consider as a coincidence an urgent interview given two days later, on June 5, by Israel's Prime Minister to Kai Diekmann, Chief Editor of the German tabloid Bild, Europe's most popular newspaper, in Jerusalem. Netanyahu said in the interview that the "submarines supplied by Germany to Israel are a very important addition to our national security," and that "through them, [Germany] demonstrates its commitment to Israel's security."

He also said that he attributes "great seriousness to Germany's concern for Israel's security." Netanyahu forgot to mention the Der Spiegel scoop; even stranger was that he didn't mention Pakistan. This is quite odd for an otherwise ultra-aggressive Netanyahu, to the extent of irradiating an almost apologetic attitude.

On March 2012, at Israel's embassy in Berlin, Israel and Germany signed an agreement for the supply of the sixth Dolphin class submarine to Israel. The agreement was achieved after a delay caused by Germany conditioning the deal on concessions to the Palestinian Authority.

On December 2011, the German Welt am Sonntag claimed Germany had told Israel the previous November that it could not go ahead with the sixth submarine purchase unless Israel transferred the Palestinian frozen budget to its legal owner, the Palestinian Authority (see Sanctions on Israel Redeem Germany).

An upset Netanyahu surrendered on November 27 and opened the way to the last leg of the negotiations process, which ended in March. As analyzed in Six Million Submarines, these submarines are the most strategic and expensive weapons owned by Israel.

They form the basis for its second strike capabilities, its capability to respond to an initial nuclear attack. Germany helped Israel in its dearest project by providing state-of-the-art technology and the financial means needed to purchase it.

In May 2012, the fourth Dolphin submarine—the first in the second batch of three—was supplied to Israel. There are talks about a new agreement on three more submarines; this would increase the Israeli fleet of U-Boats to a total of nine by the end of this decade.

Yet, while the ink on the new submarine agreement was still drying, Israel announced on March 25, a planned re-freezing of the Palestinian budget. The offensive move was strengthened by a decision to ban the Human Rights Council of the UN. "Ignore all phone calls from Rights Council Commissioner," said Israel's Foreign Affairs Minister to the Israeli envoy in Geneva (see Israel Hits Back at UN, Palestine and Germany).

Israel humiliated Germany thrice. First, by unfreezing Palestinian monies in order to reach an agreement on the sixth submarine, and then freeze the money right after its signature; this was followed by the cultural banning of Germany. Israel declared German Nobel laureate Gunter Grass persona non grata in Israel, and rejected Richard Wagner's music by the Israeli Opera as an overture for a show by a U.K.-based Israeli choreographer (see Germany's Humiliation).

Germany sized the opportunity to unofficially announce the new deal with Pakistan. This is a game-changer for Israel. By the end of this decade, a new nuclear front will exist in the Middle East.

Pakistan and Israel

Pakistan does not officially recognize Israel, though there is not an active war between the two countries. Yet, Pakistan is a nuclear country which is involved in an active war-race with India. Both countries are said to have a nuclear arsenal of the same order of magnitude Israel has (see Hiroshima, Tel Aviv: The December 2012 NPT Conference). Until now, Pakistan's second strike capabilities were limited, thus calming Israel's fears.

In this context it is relevant to mention that Pakistan backs the same nuclear strategy as India, what is known as "Credible Minimum Deterrence." This means it formally declares "no first use" of nuclear weapons while keeping a "second strike" capability. Known as "minimal deterrence," this is opposed to the "mutually assured destruction" policy of the Cold War. If Germany will supply dolphin submarines also to Pakistan, the latter would have assured its second strike capabilities against Israel.

The weapons' systems being purchased by Israel and Pakistan are formidable and apparently unmatched in their technical capabilities. The new German submarines feature an air-independent propulsion system which uses hydrogen fuel cells; this is safer than previous closed-cycle diesel engines and steam turbines, cheaper than a nuclear reactor, and quieter than both.

The boats leave an undetectable exhaust of water in the sea, leaving no fuel traces during use, storage or refueling. This improved propulsion system is of undisclosed performance, but according to sources in the Israeli Ministry of Defense, it gives the boats capabilities similar to those of nuclear submarines in their range. As explained in Six Million Ships, almost every point on the planet is accessible to a nuclear attack from such a submarine.

Arrogance of Power

Benjamin Netanyahu—as the entire Israeli leadership—is notorious for his arrogance of power and violence. "I have the power, so I can do whatever I like, regardless the law," is their motto. These are not my words; the term "Arrogance of Power" was used in relation to Israel by Justice Goldstone in his report about Operation Cast Lead to the UN Human Rights Council, which defined Israel as a terror inflicting organization.

They are so used to their arrogance, that they didn't hesitate to openly insult Germany—one of their best allies—time and again. The same attitude can be seen—though on a lower tone—towards Israel's main ally, the USA, see Obama, Bamba and the Logo Wars.Yet, things change. The world is getting tired of what can only be defined as a nation that worships violence.

Germany's response was swift; a few years from now, Israel will face a new nuclear front. The answer of Germany's Minister of Defense to the accusation that Germany is acting against Israel's interests was astonishing: "Pakistan is the West's partner in the War on Terror." As of now, this has been enough to provide us with a refreshing glimpse into a much humbler Israel.

Germany Defends Submarine Export To Israel

New Straits Times, June 5, 2012

BERLIN: The German government on Monday defended its export to Israel of submarines capable of carrying nuclear warheads, saying the delivery is no more than a continuity with previous administrations.

"Delivery of those submarines was definitely without armament, and the German government is not involved with any sort of speculation about any sort of weaponry equipment in the later stage," said German Chancellor Angela Merkel's spokesman Steffen Seibert.

He said the deal was "in the continuity of their predecessor governments."

German news weekly Der Spiegel revealed on Monday that Israel had the submarines supplied and largely financed by Germany equipped with nuclear-tipped cruise missiles, stirring controversies on the morality and legality of German submarines being used as part of an Israeli atomic arsenal.

According to the report, the German government was not totally unaware of Israel arming the nuclear warheads onto the Dolphin-class vessels, which were sold to Israel at a discount price, with the German government paying some of the cost.

German opposition Social Democrats has demanded a responsive explanation on whether the federal government knew if the submarines delivered by Germany can be potentially equipped with nuclear warheads.

Germany is one of Israel's staunchest allies but has recently criticised Israel Prime Minister Benjamin Netanyahu's pro-settlement policies in the West Bank and the annexed east Jerusalem as undermining peace efforts with the Palestinians.

The news report further said the German government had hoped to see Israeli concessions on settlements on Palestinian land and approval for the completion of a sewage treatment plant in the Gaza Strip in exchange for the delivery of the submarines. — BERNAMA

Exclusive Video: Life Aboard a Stealth Sub

By Spencer Ackerman, Wired.com, June 4, 2012

UNDERWAY ON THE U.S.S. MISSISSIPPI — Only when my feet are above my head do I remember I'm on a submarine.

I tried to catch a quick nap in my rack, the narrow metal bunk bed on the U.S.S. Mississippi assigned to me, since it's easy to lose track of time when you go days without seeing the sun. But suddenly the sub pitches forward — sharply. I slide down the mattress, noticing that my socks are about 20 degrees above my head. One hand grabs the edge of the bed for support and the other protects my Kindle Fire from smashing onto the floor. So much for that nap.

A few minutes later, the ship levels out — before dipping in the opposite direction. This is a maneuverability and steering exercise called "Angles and Dangles." It's vaguely nauseating to those who haven't been on a sub before. It's also the exception to a surprisingly smooth, uncomplicated underwater trip across hundreds of miles from the Florida coast to Pascagoula, Mississippi.

Having never been on a sub before, I came aboard the Mississippi not knowing what to expect. Would it be claustrophobic? Would there be any privacy? Would the Mississippi's crew go stir-crazy? As it turned out, all these questions had the same answer: no.

The Mississippi is, as its crew constantly reminds a visiting reporter, a warship. On its lower level is a hydraulic conveyor belt to send 27-foot-long torpedoes and Tomahawk missiles screaming through or out of the water at a target. While the Navy hasn't fought a sub-on-sub battle in decades, submarine warfare is hardly obsolete. The fast-attack submarine, smaller and lighter than its siblings carrying ballistic missiles, is silent, stealthy and, as I learn, steady even at 20 knots. Its lockout trunk, a bay for allowing divers on and off while underwater, can insert and extract SEALs on clandestine missions; and its advanced sonar arrays make it a predator of the deep.

But as the above video shows, being on a sub takes a little getting used to.

For one thing, the crew of 138 sailors is in constant close proximity to each other. That's obviously nothing new for submariners, but it's hard for an outsider to understand without experiencing it. The passageways of the Mississippi aren't wide enough for two-way traffic, but people still need to duck through them going in all directions, so everyone learns early on how to give up his personal space. That gets reinforced when it's time to use the very narrow, multi-stall bathrooms.

The Mississippi can stay submerged for 90 days at a stretch, so during four days on board ahead of its June 2 commissioning ceremony, the crew doesn't seem perturbed by the mostly-underwater trip from its Connecticut shipyard to its Pascagoula destination. Before and after a six-hour workshift, enlisted sailors exercise in the makeshift gym in the torpedo room — a weight bench next to a couple ellipticals and stationary bikes — bide time until the next meal, watch evening movies in the mess and, inevitably, crack on each other. Pack a deck of cards if you go aboard.

And the mood isn't much different amongst the boat's officers. Although the 14 officers aboard eat in the fancier wardroom, their newly inaugurated tradition is for junior officers to play the embarrassing contents of their iPods to provide mealtime ambiance, with the captain present.

Then there's the food — the astonishingly delicious food. The "Gator Pit," as the kitchen crew calls itself, could win awards on Top Chef or Chopped. For a tiny undersea kitchen, it pumps out four meals a day, starting at 5 a.m., of comfort food that shouldn't be so delicious, seeing as how the nearest supermarket is hundreds of miles up and away. That's freshly chopped garlic accenting those hand-sliced potato wedges. It's a miracle that the crew doesn't plump up, especially considering how few people the gym can accommodate at once.

Meals serve another role, as Master Chief Bill Stoiber, the chief of the boat, explains. With florescent lights shining constantly, they're the best way to keep your body clock aware of what time it is. It's not easy to communicate with the outside world once you're underwater, so setting regular schedules for checking in with your family is a non-starter. Sleeping on a sub is a matter of grabbing half an hour of unconsciousness whenever you can grab it.

And all that is a testament to how steady the sub is. Thanks to the relentless monitoring of the "trim" or evenness of the boat, rapid dives and ascensions are barely perceptible. Maybe you'll lean forward a bit, but you probably won't lose your balance. At least not until it's time for Angles and Dangles.

Video link: http://www.wired.com/dangerroom/2012/06/video-mississippi-sub/

Congresswoman Tours Fire-Damaged Submarine In Maine

By Jennifer McDermott, The Day, June 4, 2012

The first member of Congress to go inside the USS Miami since it caught fire says she saw charred wires dangling overhead and glass panels that had melted off equipment.

Everything was covered in soot, and the intense smell of smoke still hung in the air from the May 23 fire, U.S. Rep. Chellie Pingree said.

"It looked just as eerie and damaged as you would imagine after a fire burned for 10 hours inside a small space," Pingree, D-Maine, said in an interview after the brief tour of the Groton-based attack submarine at the Portsmouth Naval Shipyard.

But despite the damage, Pingree was hopeful the sub can be saved. A team from Electric Boat was at the shipyard Monday to help the Navy assess the damage.

Pingree said she would support a congressional appropriation to pay for the repairs if that's the route the Navy chooses. She said she plans to encourage the Navy to upgrade the equipment for firefighters at the naval shipyards because some of the safety gear was too large for the tight spaces.

The Miami (SSN 755) was in a dry dock at the shipyard for maintenance and upgrades when it caught fire at 5:41 p.m. May 23 and burned until 3:30 a.m. the next day. The investigation into the cause and damage assessment is expected to take about three weeks.

If there's a silver lining, Pingree said, it's that shipyard workers had taken much of the equipment out of the submarine before the fire so they could perform the maintenance.

A crucial factor in whether the repairs are feasible is the condition of the hull, Pingree said. She initially heard the Navy was encouraged by the early tests but she said no one knows for sure what the final assessment will show.

She said it's important to repair the Miami and build more attack submarines because the number in the fleet will drop below 48, the stated number required for missions, as the older Los Angeles-class submarines retire more quickly than they are replaced. The fleet is projected to hit a low of 39 in 2030.

Pingree said she thinks Congress will support paying for the repairs, "given the need to keep this ship in the fleet."

As she was leaving the Miami Monday morning, a contingent of Electric Boat employees was climbing aboard.

Robert Hamilton, a company spokesman, said a team went to the shipyard Monday at the Navy's request. He said the employees planned to stay one day to help evaluate the damage but could be available longer if necessary.

EB built the Los Angeles-class submarine for $900 million. It was commissioned at the Naval Submarine Base in Groton in 1990 and arrived at the Portsmouth shipyard in March for a 20-month overhaul.

The fire damaged the torpedo room, command and control spaces and berthing areas. The reactor had been shut down for more than two months at the time of the fire and the nuclear propulsion spaces were not affected, according to the Navy. No weapons were on board.

Pingree saw the engine room and reactor.

"A little smoke got in but it was completely sealed off and there looks to be absolutely no damage," she said.

The submarine was ventilated after the fire and shipyard workers were allowed to start the cleanup May 29. By the time Pingree visited, much of the debris had been removed.

The impact on the environment was limited because the fire was contained within the hull and the submarine is in the dry dock, according to the Navy. Oil on the floor of the dry dock caused a small sheen in the water adjacent to the dock. The shipyard used an oil containment boom and absorbent boom and cleaned the floor of the dock, the Navy said.

At the shipyard, Pingree also met with firefighters who helped extinguish the blaze. She praised them for their courage and listened to their thoughts on what worked well fighting the fire and what didn't. She said she learned about equipment on the market that would have been more practical.

"Even the size of their helmets was excessive for trying to get into those small spaces," said Pingree, who said she would encourage the Navy to approve a request for new equipment.

The Navy said in a response to a list of questions about the fire that it could not speculate on any courses of action until the investigation is complete.

Israel Deploys Nuclear Weapons on German-Built Submarines

By: Joan.Russow, Pej.Org, June 3, 2012

A German shipyard has already built three submarines for Israel, and three more are planned. Now SPIEGEL has learned that Israel is arming the submarines with nuclear-tipped cruise missiles. The German government has known about Israel's nuclear weapons program for decades, despite its official denials.

Germany is helping Israel to develop its military nuclear capabilities, SPIEGEL has learned. According to extensive research carried out by the magazine, Israel is equipping submarines that were built in the northern German city of Kiel and largely paid for by the German government with nuclear-tipped cruise missiles. The missiles can be launched using a previously secret hydraulic ejection system. Israeli Defence Minister Ehud Barak told SPIEGEL that Germans should be "proud" that they have secured the existence of the state of Israel "for many years."

In the past, the German government has always stuck to the position that it is unaware of nuclear weapons being deployed on the vessels. Now, however, former high-ranking officials from the German Defense Ministry, including former State Secretary Lothar Rühl and former chief of the planning staff Hans Rühle, have told SPIEGEL that they had always assumed that Israel would deploy nuclear weapons on the submarines. Rühl had even discussed the issue with the military in Tel Aviv.

Israel has a policy of not commenting officially on its nuclear weapons program. Documents from the archives of the German Foreign Ministry make it clear, however, that the German government has known about the program since 1961. The last discussion for which there is evidence took place in 1977, when then-Chancellor Helmut Schmidt spoke to then-Israeli Foreign Minister Moshe Dayan about the issue.

The submarines are built by the German shipyard HDW in Kiel. Three submarines have already been delivered to Israel, and three more will be delivered by 2017. In addition, Israel is considering ordering its seventh, eighth and ninth submarines from Germany.

The German government recently signed the contract for the delivery of the sixth vessel. According to information obtained by SPIEGEL, Chancellor Angela Merkel made substantial concessions to the Israelis. Not only is Berlin financing one-third of the cost of the submarine, around •135 million ($168 million), but it is also allowing Israel to defer its payment until 2015.

Merkel had tied the delivery of the sixth submarine to a number of conditions, including a demand that Israel stop its expansionist settlement policy and allow the completion of a sewage treatment plant in the Gaza Strip, which is partially financed with German money. So far, Israeli Prime Minister Benjamin Netanyahu has met none of the terms.
Check back on SPIEGEL International on Monday for the full English-language version of SPIEGEL's cover story on Germany's cooperation with Israel over its submarine program.

Iran Is Far More Capable Of Stealth Naval Warfare Than Most Ever Imagined

By Walter Hickey, Business Insider, May 31, 2012

Tehran's announcement on Tuesday that its Navy had upgraded and repaired one of its three submarines without assistance from the Russians who built it confirmed what many already feared.

Iran, after years of embargo and isolation, has developed a domestic military industrial complex capable of maintaining their military without external aid — not unlike what Pakistan did in the years before they independently developed nuclear weapons.

In the past, Iran's navy was reliant upon Russia to repair their subs — three twenty-year-old acquisitions from the Soviets — when repairs or maintenance were required. This time, Moscow rejected the Iranian's request for parts and plans, instead demanding that the repairs of the Tareq take place in a Russian shipyard.

According to the commander of the rag-tag Iranian navy — Admiral Habibollah Sayar — that demand stoked Iranian fears that the trip would be a one-way expedition, an attempt by Russia or Western powers to reclaim a third of Iran's underwater naval capability.

Instead, the Iranians reverse-engineered the necessary adjustments from scratch. The Iranians developed and built replacement parts in Iran for the first time. According to an article disseminated by the Agence France-Presse news agency, the navy designed, built, and replaced:

Engine components as well as the diving system

The ailerons (wing-like stabilizers near the stern)

The submarine's propeller

Several electronic units and pumps

It's true that the Iranian Navy is comprised largely of pre-revolution frigates and destroyers. But for the first time, the nation claims to have the capability to domestically maintain portions of their fleet — specifically, the part that hangs out under the sea, able to kill from beneath.

Underwater Drones A Necessary Luxury For Russian Navy

By Ilya Kramnik, The Voice of Russia, May 31, 2012

The rescue vessel "Igor Belousov", currently under construction for the Russian Navy, is going to receive autonomous underwater vehicles for rescue operations and deep-sea research. Manned mini-submarines and unmanned vehicles occupy an increasingly important place in the structure of the naval forces of different countries of the world, and are used for both combat and "humanitarian" missions. Such systems are able to significantly increase the effectiveness of surface ships and submarines by means of providing constant and careful control of the underwater space.

As technology developed, underwater vehicles (originally created as a means of studying the seabed) acquired much wider functions beyond search-and-rescue works and carrying out special operations. The first underwater robots appeared back in the 1950-1960s, but the real boom of multi-functionality began at the turn of the century, when the technological possibility to produce unmanned vehicles capable of carrying out the most complex operations both without human participation and with external control was achieved. Unmanned vehicles have become a "magic wand" in situations, when the use of manned vessels was too risky or technically impossible.

Underwater robots can perform the following main functions without human interaction: combat mine fields and other underwater obstacles; increase the detection range of submarines' hydro acoustic complexes; monitor and repair underwater objects; and explore the relief of the seabed and water mass. All this exceed the limits of military tasks. Such capabilities are needed for both naval fleets and civil organizations.

Originally underwater robots were too large to use them from conventional ships and submarines. Special carriers were created for operating such devices. Today they are still being used. For example, the SSN-23 nuclear submarine "Jimmy Carter" of the US Navy, which was put into service in 2005. This submarine, initially designed as a standard multi-purpose submarine of the Seawolf project, at the stage of construction has undergone changes in order to make the use of underwater robots possible.

Special underwater vehicle carriers allotted to the Russian Navy provide wide possibilities for working with large multipurpose systems, both unmanned and manned. However, technical equipment miniaturization allows creating underwater robots of the size of conventional torpedoes, sea mines, and even smaller than that. Alongside supplying the appropriate interface capabilities of the control system of a submarine, it allows for the use of such vehicles from standard submarines.

Information concerning Russia's new and modernized submarine capabilities remains a state secret. That is why it is difficult to estimate whether or not the Russian Fleet is keeping up with its foreign rivals in this sphere. However, as far as the non-restricted sphere is concerned –equipment for the search and rescue service of the Navy with submersibles for various purposes – it can be stated that although the Russian Navy still lags behind the leading fleets of the Western countries, it fills up that gap.

In previous years – in addition to the already mentioned Igor Belousov, which will be equipped with an underwater robot and two manned vehicles – the search-and-rescue service of the Navy received several British-made autonomous "Panther" vehicles.

Russian deep-water submersibles "Rus" and "Consul" – which are designed not only for rescue operations, but also for deep-sea research – are valuable acquisitions. Consul has successfully passed a diving test at a depth of 6500 meters. According to experts and based on the design of its solid sphere, it is capable of diving even deeper.

Consul was built in Russia, while its predecessors – the "World" underwater vehicles – were custom-built in Finland for the USSR. All the same, the percentage of foreign components in Russian vehicles is high; in particular electronics and precision mechanical units. Alas, the problem cannot be solved by simply increasing the order for underwater vehicles. In this case a well-functioning "general purpose" industry is needed that should not be dependent exclusively on the defense complex. Otherwise new high-tech productions may turn out to be hothouse plants that will die in adverse climate change conditions, just the way it happened to the greater part of the Soviet Union's hi-tech military technologies after 1991.

Inside the Navy's Newest Spy Sub

Gizmodo.com, May 29, 2012

The Navy's newest fast-attack submarine is speeding down the Florida coast, on its way to its commissioning ceremony in its namesake state, at 15 knots. And it's getting outraced by dolphins.

Hours before the U.S.S. Mississippi dives several hundred feet beneath the Atlantic, its sail juts proudly into the warm, whipping southern air. Submariners allow me to see the highest point on the sub for myself - provided I can keep my balance up three steep levels' worth of ladder and hoist myself out onto a platform the size of a fancy refrigerator. A harness hooked to an iron bolt on the sail keeps me from falling to my death. There's no land in sight, just blue water turned white around the sub's wake, a tall BPS-16 military radar spinning in front of us, and a family of dolphins jumping out of the surf in front of the 377-foot boat.

Apparently it's typical. Where subs travel in the southern Atlantic, dolphins tend to tag along, eager to say hi to their large, silent playmate. "Dolphins like to sing," notes Petty Officer Joshua Bardelon, a 32-year old from Pascagoula, the site of the Mississippi's destination, who supervises the boat's sonar systems.

Those systems are part of why Navy Secretary Ray Mabus is eager to take possession of his newest Virginia-class submarine when it formally joins the fleet on June 2. As much time as it spends listening to dolphin symphonies, the Mississippi is everything from a weapon to destroy other ships to an electronic-attack system to a stealthy transport for Navy commandos.

The multiple sonar arrays allow the submarine to detect other ships before it's detected itself. Underway, the boat is dead silent except for the hum of the air conditioning, an indication of the classified tools that mask the Mississippi's acoustic and electronic signatures to maintain its exceptional stealth. Then comes the boat's electronic warfare capabilities - which its crew will discuss only vaguely.

"If I'm at periscope depth and I stick my periscope out of the water, people who are looking for me will be using a radar system to find me," says the sub's commander, Capt. John McGrath, a 20-year submarine veteran. "But I will know that that radar is in the area and I will use that to my advantage."

Some of its other weapons are more traditional. The torpedo room, down in the deepest level of the boat, hosts 16 intimidating metal tubes, each wider than bicycle wheels, the bays for its 28-foot torpedoes and Tomahawk missiles. The room looks like a machinist's workshop, except for the exercise bikes and the racks where the torpedomen sleep beside their weapons - the primary means for the Mississippi to complete its future missions: hunting and destroying enemy ships and subs.

"There are two types of ships in the Navy," explains Chief Nathan Holmes. "We have submarines, and we have targets."

Even though the Mississippi isn't on a combat mission - which is why the Navy allows me to tag along on a boat overflowing with classified systems - McGrath is eager to demonstrate that his boat is a predator, not prey. After I climb down from the sail, he orders the boat's pilot to dive to 155 feet, a way-station depth that's far enough underwater to avoid sea traffic but shallow enough so he can get surface rapidly should something go wrong. When nothing does, McGrath orders the pilots to continue on to a depth of 400 feet. The faster the captain wants to go, the deeper he dives.

The dive is surprisingly imperceptible. Even though we've just dropped 400 feet in a minute, I barely lean forward. If I had been drinking anything, it wouldn't have spilled.

That's the case during my entire four-day stint on the boat. With the exception of a 20-minute exercise in dipping the Mississippi up and down - a queasy affair nicknamed "Angles and Dangles" - I've had rockier trips aboard surface ships. The fast-attack submarine is downright placid, even at 20 knots.

The steadiness will be an asset for one of the Mississippi's other missions: aiding Navy SEALs. There's a special bay, called a lockout trunk, that allows a tinier sub to dock and deposit a small number of SEALs onboard. Once they're aboard, the Mississippi will become a Navy special warfare platform - as are many subs that don't carry nuclear missiles - performing reconnaissance missions and getting SEALs stealthily in and out of where they need to go. The Virginia class' smaller size allows the sub to "be more maneuverable in a littoral," says Master Chief Bill Stoiber, the chief of the boat, or senior enlisted man aboard, making it particularly useful for SEAL insertion missions. After the summer, the Mississippi will head for southern Florida to test its special-warfare skills.

As much as the Mississippi is the newest in new for Navy subs, not everything aboard is super-advanced. Satellite connectivity is limited. Submariners like to stay autonomous when they're below the waves, but that means that information aboard the sub largely stays on the sub, and outside information doesn't always reach the boat quickly. The Mississippi rises to periscope depth - that is, shallower than 60 feet below, so its periscope can stick its neck out of the water - in order to fire off e-mails or receive communications through classified and unclassified-but-secured networks. Even so, submariners roll their eyes at how slow their connection speeds are. (Think dial-up. In the late '90s.)

When the sub needs it, it can request extra satellite bandwidth from the Navy - often to send off a video or larger data file. But that "spot beam" is only for special occasions, and it's a one-off event. Persistent, available undersea bandwidth is a challenge the Navy hasn't yet figured out how to solve.

Then there are the traditional joys of life aboard a submarine. The Mississippi is home to 138 men, who have to get very comfortable with each other, since there's nowhere to go for privacy. The halls are barely wide enough for two people hugging the walls to traverse. Submariners are billeted up to 47 per room, stacked up in threes on narrow racks. A typical deployment entails six months of living in these cramped conditions, and the Mississippi is capable of staying underwater for 90 days at a stretch.

Still, the ship makes a virtue out of solitude. The food is unexpectedly excellent. It's difficult to store bread underneath the sea without it molding or going stale - and there's no place to buy more - so the kitchen bakes it fresh every day. It's tempting to forego a lunchtime hot dog just to eat a delicious empty roll an hour old.

The most striking demonstration of the crew's tightness comes in the control room. Unlike older subs, the Virginia class doesn't hive away its sonar stations. The dark room, illuminated by dozens of screens displaying torrents of highly classified data, joins up the pilots, navigators, weapons experts and sonar technicians. Five sonar techs stare at screens filled with green representations of the sounds of the ocean while they listen through headphones. Should they hear an enemy ship they're hunting, they can holler at the fire control station on the other side of the control room that it's time to attack.

For now, one of those techs passes me his cans. When I put them on, all I hear is a high-pitched squeak that sounds a little like a squeal of glee. Dolphins.

Torpedo Tests And Sonar Techs Life On A Sub

Wired.com, May 30, 2012

Video Link:
http://www.wired.com/video/latest-videos/latest/1815816633/torpedo-tests-and-sonar-techs-life-on-a-sub/1659342451001
Photos from the related artice: http://www.wired.com/dangerroom/2012/05/uss-mississippi/?pid=1223&pageid=81509&viewall=true