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The Silent Sentinel

DECEMBER 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.

SUBVETS'S ANNUAL CHRISTMAS PARTY

The Christmas Party will be at VFW Post 3787 on Twain St. on the 15 Dec 2012. Doors open at 1:30pm and dinner at 2pm. There will be door prizes & fun for all.

\$20 per person and you have a choice of Roast Beef or Cornish Hen.

Please RSVP by Dec 11th (Base MTG), POC is Bill Earl at 619-887-0456 or email at dinkysan@yahoo.com

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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.

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Would like the SILENT SENTINEL emailed: YES _____ NO _____

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

DECEMBER 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 11 December, 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**

Submarine Losses in November Originally Compiled by C J Glassford



- ALBACORE (SS 218) - 86 Men on Board:
 Possibly Sunk, on 7 November 1944, by Japanese Mine, Off the Northern Tip of Honshu :
 " ALL HANDS LOST "
- GROWLER (SS 215) - 85 Men on Board:
 Probably Sunk, on 8 November 1944, by Japanese Destroyer, Escort Vessel, and Coastal Defense Vessel, Off Mindoro :
 " ALL HANDS LOST "
- SCAMP (SS 277) - 83 Men on Board:
 Sunk, on 11 November 1944, by Japanese Naval Aircraft, and Coast Defense Vessel, in Tokyo Bay Area :
 " ALL HANDS LOST "
- CORVINA (SS 226) - 82 Men on Board:
 Torpedoed and Sunk, on 16 November 1943, by Japanese Submarine, South of Truk :
 " ALL HANDS LOST "
- SCULPIN (SS 191) - 63 Men on Board:
 Damaged, on 19 November 1943, by Japanese Destroyer, and later Scuttled, North of Truk :
 " 21 SURVIVED POW CAMP "
- CAPELIN (SS 289) - 78 Men on Board:
 Sunk, on 23 November 1943, by unknown Causes, Either by Japanese Aircraft, Minelayer, or Japanese Mine in the Northern Celebes, or perhaps a Hull Defect reported "Prior" to Her Departure from Darwin, Australia :
 " ALL HANDS LOST "



This is the last time that you will see the notice below. It has been running in the Sentinel for four months. I have received the names and addresses of our members who have no ability of receiving the Sentinel electronically. Starting in January 2012, only these select few will continue to get the hardcopy version. For the rest of you, an email address will be necessary. Mike Hyman

CHANGES TO SENTINEL DELIVERY: YOU MUST READ THIS!

The officers of San Diego Base realize that a very small number of Silent Sentinel readers do not have any access to the Internet. So before we go any further, I want you non computer folks to know that the paper version of the Sentinel will still be provided to you via the U.S. mail. Over the years, some of you non computer persons have written to me saying how much you look forward to receiving the Silent Sentinel every month, expressing thanks for still receiving it in a paper version. At the same time, each and every one of you fellows who have written me, have also made it very clear that you do not have a computer and that unless you are provided monthly with a paper copy of the Silent Sentinel, you would not have any copy at all.

Guys, rest assured that the officers of San Diego Base, the base membership, and the editor of the Silent Sentinel—namely, me—appreciates each and every one of you, our fellow shipmates; and that unlike the plethora of entities, principalities, powers, and agencies filling today's world—with usefulness and quality levels *inversely* proportional to their financial intakes—we here at San Diego Base will not forsake any of you non computer guys on account of the almighty dollar. Still, the costs of producing a paper newsletter are excessive, rising every day, and something needs to be done to fix it.

Consequently, this is the plan. If you honestly do not have access to a computer, then please write me—even if you have done so before—with the words: “I do not have access to a computer. I need the Sentinel paper copy via the U.S. mail” (make sure that you include your correct mailing address)—and you'll continue to get your copy in the U.S. mail without interruption.

On the other hand, if you do indeed have access to a computer—and can receive the Sentinel as an email attachment (or as a download via the San Diego Base website)—then I will need from you an email address in order to send you the electronic version.

If you are receiving the Silent Sentinel electronically already, then you need not do anything.

Guys, keep in mind that I am taking each of you at your word as a qualified submariner concerning this matter. And please also note that this whole thing is not for my personal benefit (it's the same amount of work for me—hardcopy or electronic); rather, this is all for your shipmates who have no other way in which to receive the Silent Sentinel other than by the U.S. mail.

Please note that the December 2012 edition will be the last hardcopy version of the Silent Sentinel other than the small number of Sentinels which will continue to be printed for you folks without any computer access.

Please do not delay in getting back to me on this. If you receive the *Silent Sentinel* by U.S. mail, I absolutely must hear back from you! If you have responded in writing since receiving the September 2012 *Silent Sentinel* then there is no need to do so again. You are covered!

My address follows:

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Thanks,
Mike Hyman, Editor

Navy to stop training military dolphins in San Diego

Utsandiego.com, Nov. 24

The Navy plans to shut down a program it has long run at Point Loma to train dolphins to detect underwater mines and keep enemy swimmers away from warships, mainly because the mammals are no longer needed.

The effort to identify such threats is “moving forward on newer, high-tech anti-mine capabilities,” said Lt. Commander Chris Servello, a spokesman for the Navy.

The program will be closed within the next five years, but the Navy will continue to care for the roughly 24 bottlenose dolphins that are part of the Navy Marine Mammal Program.

The Navy’s decision was first reported Nov. 19 on NavyTimes.com, and was confirmed Saturday by Servello.

The Navy formally began using dolphins in 1960, studying the animal’s sonar and deep-diving physiology. Researchers believed that such studies could lead to improvements in the design of torpedoes and other underwater weapons. The Navy also saw the potential of using dolphins to detect and mark mines and watch for human swimmers who might try to attack warships. The program was initially centered at Point Mugu, but was moved to Point Loma in 1967.

An official Navy history of the program says, “Dolphins are used for these tasks because their extraordinary natural biological sonar capabilities enable them to find objects in waters where hardware sonars do not work well due to poor acoustic environmental conditions. The swimmer defense system was deployed to Vietnam in 1970-71 and to the Persian Gulf in 1987-88.”

Military dolphins also were used during the Iraq war in 2003. The Humane Society of the United States said at the time that it opposed the use of marine mammals by the military but that it would not second guess the Navy during a period of conflict.

Mine-detection equipment and systems have become steadily better in recent years. As Defense News pointed out recently, some U.S. ships, including mine-sweepers from San Diego, are replacing older detection equipment with the more sophisticated SeaFox mine neutralization system. The Navy also is increasing its use of the Mark 18 Mod 2 Kingfish, an unmanned underwater vehicle that’s currently being operated in the Persian Gulf.

Iran Navy to unveil missile-launching warship

Presstv.com, Nov. 26

Iranian Navy Commander Rear Admiral Habibollah Sayyari says the country will unveil an indigenously-made missile-launching warship in the coming days.

“One of the new achievements of the Navy of the Islamic Republic of Iran is Sinai 7 missile-launching warship... which will be unveiled on Wednesday (November 28),” Sayyari said on Monday.

“Two new Ghadir-class submarines will also become operational on Wednesday and an advanced simulator for instructing the personnel of Ghadir submarine will be unveiled,” the Iranian commander added.

The Ghadir-class submarine was first unveiled in 2007. The 120-ton vessel has excellent shallow-depth performance and can conduct prolonged coastal missions.

The Iranian commander added that the second phase of the construction process of Sahand destroyer would also be initiated in the southern port of Bandar Abbas.

Iran’s Navy first unveiled the indigenously-made Sahand destroyer in Bandar Abbas on September 8 alongside the overhauled super-heavy Tareq 901 submarine.

Sayyari added that two hovercrafts, BH7 and SRNX (Tondar) will also join the Army’s Navy on Wednesday.

The Iranian commander said Jamaran destroyer is currently patrolling Bab el-Mandeb Strait along with the 23rd fleet of Iran’s warships.

Jamaran, Iran’s first domestically-built destroyer, was launched in the waters of the Persian Gulf in February 2010.

The 1,420-ton destroyer is equipped with modern radar systems and other electronic warfare capabilities, has a top speed of up to 30 knots and a helipad and also features highly advanced anti-aircraft, anti-surface and anti-subsurface systems.

In recent years, Iran has made great achievements in the defense sector and attained self-sufficiency in essential military equipment and systems.

Iran has repeatedly assured other nations, especially its neighbors, that its military might poses no threat to other countries, insisting that its defense doctrine is based on deterrence.

New Challenges Face Philippines 20 Years After U.S. Pullout

Kyodo News, Nov. 25

SUBIC BAY, Philippines, Nov. 26 — When the last batch of American troops left this former U.S. naval base on Nov. 24, 1992, marking the complete closure of U.S. military bases in the Philippines, many Filipinos rejoiced over what they regarded as the triumph of patriotism and genuine independence, never mind apprehensions over the projected negative impact on the economy and security.

“It was a resounding victory for our people’s long struggle against foreign military forces on our land which had undermined our foreign and security policy, and kept us hostage and made us a launching pad for so long to U.S. interventionist wars in Asia and other parts of the world,” University of the Philippines professor Roland Simbulan said at a recent gathering here in the Subic Bay Freeport Zone.

“Filipino patriots consider that day historically significant because it marked the end of 470 years of foreign military bases and foreign troop presence on Philippine soil, which began during the Spanish colonization and extended almost permanently during the American colonial period and beyond Philippine independence in 1946,” he added.

The pullout of American soldiers also cured at a certain level the social problem of prostitution, restored the self-confidence and pride of the local people, who, for the longest time, felt they were being treated as second-class citizens in their own land, and encouraged a major cultural transformation in the immediate community, local college professor Edgar Geniza said in a separate interview.

“It was good for the Philippines and for the people of Olongapo (which is directly outside the U.S. naval base). If there was no base pullout, I wouldn’t have taken the civil engineering licensure exam and my master’s degree. I would have only been satisfied working as a technical person,” shared Marco Estabillo, a former apprentice in the U.S. Navy who is now among the senior managers of the Subic Bay Metropolitan Authority, the agency governing the zone.

Environmentalists and labor activists also hailed the shutdown of the bases as it ended the country’s suffering from alleged toxic waste disposal and exposure to unhealthy working environments, specifically sites with asbestos.

And as the years went on, Simbulan said the conversion of Clark Air Field in Pampanga province and Subic Naval Base into economic centers disproved the “doomsday scenario” for the country’s economy painted by some U.S. officials and pro-American Filipinos.

“Subic is very successful. It’s a showcase,” SBMA chairman Roberto Garcia declared in a recent Kyodo News interview.

“In the past 20 years, we have been able to attract \$8 billion in accumulated investments. And this has provided all of these 92,000 accumulated jobs. It provides a very big economy for the Philippines,” he added.

But recent developments both within the Subic Bay Freeport Zone and the country’s lingering territorial disputes, particularly with China, have posed new challenges for SBMA.

Internally, SBMA is not really making money, incurring in fact a cumulative loss of 7 billion pesos (about \$170.73 million) because of foreign loan obligations and underutilized facilities.

The Subic Bay International Airport, which was constructed by the Americans in the 1950s, has been idle for the last few years after package delivery company FedEx Corp. moved its operations to China, while only 4 percent of Subic's seaport capacity is currently being utilized, owing to alleged monopolization of port operations in the capital Manila.

"SBMA is going down. It's very difficult for SBMA to stand without having to ask for financial assistance from the national government at this point," said Leonardo Mesiano, a former SBMA official and currently an investors' coordinator.

Mesiano disclosed that the Subic Bay Freeport Zone, which has a land area of 67,452 hectares, also has no more space to sell to potential business locators.

Some of the present locators are also complaining about additional collections, inconsistent administrative procedures, and an unfriendly policing attitude by SBMA, all of which, Mesiano said, could drive investors away.

Mesiano urged the SBMA leadership to improve its services, speed up its efforts to expand the zone's territory to accommodate new investors, work with the national government to transfer some shipping companies from the ports of Manila to Subic, and allow the U.S. military to use the idle Subic airport for a fee as he projects it would stimulate further economic activity, aside from the security assistance it could provide the Philippines.

Acknowledging the challenges, Garcia said a five-year strategic plan had been designed to reutilize the airport, initially bring up the seaports' utilization rate to 20 percent, and boost further the already booming tourism activity in Subic.

"The vision is to make this the premier Freeport in Asia because of our location as the center of Asia, our cost-advantage, and the natural infrastructure left by the Americans," Garcia said, citing plans of developing the maritime business, particularly shipbuilding and repair, following the "successful example of Hanjin Heavy Industries" of South Korea in Subic.

For the airport, Garcia said he initially proposed its conversion into a large amusement theme park like Singapore's Sentosa to be able to draw in at least 5 million tourists. It was also projected to bring in \$5 billion in investments and provide at least 50,000 jobs.

But it was shelved because of the Defense Department's intention to let the Philippine Air Force use the airport amidst the country's lingering territorial dispute with China over resource-rich areas in the South China Sea.

On Friday, Defense Secretary Voltaire Gazmin told Kyodo News that "the SBMA is supportive of the Armed Forces of the Philippines' plan to move into Subic."

Garcia said earlier, however, that he expects the national government to compensate SBMA for usage of the airport.

Aware of the territorial disputes and the U.S. military's pivot to the Asia-Pacific region, Garcia acknowledges that Subic "definitely" will have an important role to play, especially because of its close location to the disputed Scarborough Shoal where a tense standoff between Philippine and Chinese vessels took place early this year.

He cites the already increasing number of visits of U.S. military vessels in Subic.

"The Philippines was never preoccupied with defending its borders. But now, because of the China issue, the Philippines is now forced (to boost its territorial defense). Since we don't have the capability, it's the U.S. that will provide that protection, even just by mere presence," Garcia said.

According to SBMA records, 56 U.S. Navy vessels and submarines visited Subic Bay from January to September this year, higher than the 55 for the entire 2011 and 51 in 2010. And these figures are significantly higher compared to 15 in 2004 and 18 in 2005.

Garcia said that "as long as it's done on a temporary basis and within the framework of the Visiting Forces Agreement," he welcomes port calls and visits by U.S. military ships because of their economic impact on Subic, citing for example the estimated \$4 million spent by visiting U.S. troops during 10 days last October.

But Simbulan wants the government to stop clinging to the United States and further diversify its security ties with other countries, including even China, which, he said, is already an economic superpower.

"For our national interest, it is better to engage China more in a diplomatic way rather than be confrontational," he told Kyodo News.

"The problem really here is strengthening our defense capabilities. Our Navy is very weak, as is our Air Force, and this is the result of too much dependency on the U.S.," he added.

For him, it is best for the Philippines to look at its long-term economic ties with China and simultaneously develop the country's defense capability, as it also resolves the problem diplomatically with the help of the Association of Southeast Asian Nations.

"Why go back to the past if we have proven in the past 20 years that there is life after the bases?" Simbulan said.

But with the present realities about China's aggressive assertion of its claims in the South China Sea and the existence of the Philippine-U.S. Mutual Defense Treaty and Visiting Forces Agreement, Simbulan's prayer might be too remote from the policy that the government is taking.

Perhaps total independence from the United States can start if a recent congressional resolution that stemmed from alleged dumping of hazardous waste from a U.S. Navy ship in waters off Subic last October leads to termination, at first, of the Visiting Forces Agreement.

Drone Sub-Hunter to Patrol Seas

Even without a captain at the helm, the Pentagon hopes this drone will chase down enemy subs.

By Eric Niler, news.discovery.com, Nov 20, 2012

Anti-submarine warfare has long been accomplished by steely-eyed captains who search the oceans before dropping countermeasures like depth charges or shipboard torpedoes to knock out enemy subs. The job requires skill and experience, plus the latest in sonar and radar technology.

But now the Pentagon wants to build a drone sub-hunter that can chase enemy craft for up to two months at a time without any human operator at the helm.

Instead of being launched at sea, as smaller ocean-going drones are at present, the "Continuous Trail Autonomous Vessel" will leave its berth, patrol along the U.S. coastline and then chase enemy subs until they leave. The only time a human will be involved is navigating the robot ship in and out of crowded harbors.

The drone will not be armed, nor will it hide from its opponent.

"The challenge is to create a planning system that is able to track the submarines and at the same time to avoid surface traffic in a way that conforms to the rules of the road," said John Dolan, principal systems scientist at the National Robotics Engineering Center at Carnegie Mellon University, which is working with the Virginia-based contractor SAIC on the \$58 million, three-year contract.

Dolan said CMU roboticists will be trying to build something new, a vessel that "doesn't give up" no matter what kind of weather conditions it faces at sea or how its prey is behaving.

"This thing has to be out on its own for a long period of time without human intervention," Dolan said. "Even if the unforeseen happens."

The exact specifications of the DARPA project are not known, such as length or power supply. CMU scientists are working on the autonomy and control systems, while SAIC is building the platform. The vessel has to be able to navigate the ocean while pursuing a submarine, and sending back updates to naval commanders back home or nearby.

The reasoning behind building such a ship is simple, according to one naval expert: money.

"For any nation, building a warship is among the most expensive capital things you can do," said Cmdr. Bill Sommer, program officer for undersea warfare at the Naval Postgraduate School in Monterey, Calif.

Sommer said the size of the naval fleet is shrinking over time, while each ship has to do more at sea.

"That's why we need autonomy," Sommer said. "We've got to have more ears and cover the ground reliably."

For engineers building drones, whether on land, in the air or at sea, one of the biggest problems to overcome is the so-called "sense-and-avoid" issue, or building a system that can detect other vessels or airplanes and move away.

Right now, for example, federal aviation authorities won't let drone aircraft fly over U.S. airspace, with a few exceptions.

International maritime laws say that each ship, whether it's supertanker, fishing boat or pleasure craft, must be able to "maintain an adequate watch," according to Sommer, and be able to avoid a collision. How that watch will be maintained with a robot ship is yet to be determined.

Once it is up and running, the robot ship will be able to sail for up to 80 days and travel 6,200 kilometers (3,852 miles) without refueling, according to DARPA documents.

CNO Greenert: 'We're Not Downsizing, We're Growing' - Especially In Pacific

AOL Defense, Nov. 16

WASHINGTON — Full speed ahead and damn the drawdown — that's the confident note that the Navy's top admiral struck today.

"We're not downsizing, we're growing," declared Adm. Jonathan Greenert, the Chief of Naval Operations, at the National Press Club. "The ship count is going up and the number of people is going up."

Adding up new ships commissioned minus old ones retired, "we started the year at 285 ships and we've grown to 287 ships," Greenert said, and "we will grow the navy from roughly 287 today to 295 ships by 2020."

Caveat emptor, however: Those figures still fall well short of the 313 "battle force" ships the Navy has long said were necessary. (Adding to the ambiguity, what counts as a "battle force" ship has changed over the years). They also count on current budget plans coming to fruition — including, for ships to be bought after 2017, the Navy's notoriously optimistic 30-year construction plan — despite the political near-certainty that defense budgets will be cut further, either under sequestration, to which the Navy is especially vulnerable, or as part of a deal to avert it.

So while the CNO talked up long-term growth, he also admitted the Navy's near-term strains. "Optempo [operational tempo] has been a little higher than I expected at this time a year ago," he said. "We need to reconcile how we're going to continue to support that."

In particular, the Navy is assessing whether it needs to keep two aircraft carriers and their support ships in the Persian Gulf at all times — an increasingly difficult task now that the 50-year-old USS Enterprise is about to retire while her replacement, the unfortunately named Gerald Ford, will not be commissioned until 2015.

"We need 11 carriers to do the job [worldwide]; we have ten carriers today," said Greenert. That mismatch requires longer deployments at sea — at least seven months instead of the traditional six for the foreseeable future — and a comprehensive

reexamination of how the Navy can man, maintain, and station its warships most efficiently.

No wonder, then, that the CNO emphasized not just fleet size but a global reshuffling to meet the new Pacific-focused strategy: "It's not just the number of ships, it's the number of ships forward and what type."

Except for its aging Perry-class frigates, the last of which was commissioned in 1989, the post-Cold War Navy has invested heavily in small numbers of high-cost, high-performance, "multi-mission" ships, from carriers to Arleigh Burke destroyers, Virginia attack submarines, and various amphibious warfare ships to deploy Marines. In recent years, however, the Navy has begun building less expensive, more specialized ships again.

Most controversial is the LCS, the Littoral Combat Ship, which critics charge is too fragile for major wars and too short-ranged for trans-oceanic missions. But Greenert emphasized the LCS "will deploy and operate forward, and we'll rotate the crews" from bases in the United States while the ships themselves remain in friendly ports overseas, close to their intended areas of operation; the first experiment with this concept will come next year with LCS-1 Freedom in Singapore. "That'll free up some of our larger surface combats — our destroyers — to operate elsewhere."

Likewise, the LCS's smaller cousin, the Joint High-Speed Vessel (JHSV) has a helicopter pad and troop accommodations to take on missions in Africa, Latin America, and elsewhere for which the larger amphibious warfare ships are over-qualified, Greenert continued. Also taking on less-demanding missions will be the Afloat Forward Staging Base, converted from an obsolete amphib, and the Mobile Landing Platform, a kind of floating pier and supply base derived from a commercial oil tanker design. All three specialized classes, he said, "will free up amphibious ships to do other jobs in other parts of the world."

Finally, the Navy is exploring new approaches to mine warfare in the Middle East, where anxieties run high that the Iranians will try to mine the Strait of Hormuz. (That China also has about 100,000 mines tends to get overlooked). While Greenert declined to predict what Iran would do, he reiterated he is "confident" the Navy can reopen the Strait as needed.

"We have made some great strides in countermine warfare over the last year," said the CNO, citing new investments in that traditionally neglected speciality, from remote-controlled mine-hunting "neutralizers" to a massive multi-national exercise in and around the Gulf. One thing the fleet's learned from these wargames is that "you don't need a mine countermeasures ship and a large helicopter drawing a sled to clear these things out," Greenert said. "Smaller ships [from foreign navies] can become very effective."

So where do all the big ships "freed up" by these expedients go? The Pacific.

"The Asia-Pacific has been a long-time focus for the U.S. Navy," Greenert emphasized.

"About half of what we deploy annually is in the Asia-Pacific and about half of those are homeported there," primarily in Japan. The Navy is now adjusting its West Coast:East Coast ratio of ships from the current 55:45 to a planned 60:40, and that Pacific 60% will include the Navy's most advanced and powerful vessels.

But, Greenert went on, "there's much more to this rebalance than ships." At the Navy War College, Navy research programs, and other intellectual centers that shape the future fleet, he said, "the benchmark will be what is needed in the Western Pacific."

In the near term, the Navy is also working ever more closely with both traditional allies in the Pacific — like Korea and Japan — and new partners — like Vietnam, which he hopes to visit next year. (When pressed, the CNO also reiterated his support for the politically doomed Law of the Sea Treaty as a basis for regional cooperation).

That engagement, Greenert said, also has to include China. "We need to continue the dialogue and build upon the dialogue that we have today," he said, noting that a longstanding series of talks between U.S. Navy captains (grade O-6 in the military ranking scheme) and their Chinese PLA Navy counterparts has recently expanded to include some lower-ranking admirals (grade O-7 and up). He even put in a good word for Chinese naval forces that are operating against pirates in the Gulf of Aden, albeit outside the international counter-piracy coalition to which the U.S. belongs.

So while many Navy-booster beat the drum loudly on the potential Chinese threat, the Chief of Naval Operations is clearly hoping to avoid a new Cold War in the optimistically named Pacific Ocean. *Editor's Personal Comment: Nuts!*

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Submarine brings war to Canadian shores

Cape Breton Post, Nov. 19

The German submarine that sank the Newfoundland ferry S.S. Caribou, on a dark October night back in 1942, was actually the first of a new class of U-boat that was designed to operate off the east coast of the United States and Canada. With its extended range of more than 8,000 miles, it could bring the European war to the shores of the New World, and it did.

Topics : Royal Navy , Cape Breton Post , Cape Breton , Kiel , Germany

U-69 was built in the city of Kiel, located at the northern tip of Germany on the Baltic Sea. Launched in October of 1940, she underwent extensive training exercises in the Baltic, before slipping into the Atlantic ocean in February of 1941. On her first patrol she sank three ships, and over the next two years would go on to sink 13 more, for a grand total of more than 70,000 tons of Allied shipping.

U-69, like the rest of her new class, was about 220 feet long and only 20 feet wide. She could travel at a speed of about 18 mph while on the surface, but was only capable of about seven or eight mph when submerged. She could safely dive to a depth of more than 700 feet, which would come in very handy when trying to evade depth charges. However, if for some reason she went below 800 feet, then the pressure of the water would crush her hull like an eggshell. She usually went to sea with a crew of 46 officers and men.

Although U-69 was a new class of submarine, designed to travel farther and stay at sea longer than the older subs, the comfort of the crew was not a top priority in the German submarine service. (The same was true in the Allied submarine forces.)

There were no showers or bathtubs, and only two tiny toilets, one of which often could not be used, as it became a storage space for extra food when leaving on a long patrol. During these patrols, which would often last three or four months, the crew could not wash, shave, or even change their clothes. (The men were, however, allowed one change of underwear and one change of socks.)

At the start of each patrol fresh food and vegetables were stuffed (literally) into every nook and cranny of the submarine. After little more than a week, however, what fresh food was left over would usually start to go bad. Then it was basically tinned rations for the rest of the trip. The crew also had to contend with the constant presence of noxious fumes from the diesel engines, or from the huge batteries which were used when travelling underwater.

When the Caribou was sunk by U-69, which was travelling on the surface, the naval escort HMCS Grandmere dropped three sets of depth charges over the spot where the submarine was last seen submerging in the darkness. However, under the command of Captain Ulrich Graf, the sub was successful in evading the underwater explosions, and later escaped into the open ocean. Three weeks later U-69 returned to its base at St. Nazaire in occupied France.

In early January, 1943, U-69 left for a combined patrol (wolf pack) in the middle of the North Atlantic. This time, however, her luck ran out, and she was depth charged off the east coast of Newfoundland by the Royal Navy destroyer HMS Fame. Damaged and forced to the surface, the submarine that sank the Caribou was rammed by the escort vessel, and sank into the depths with the loss of all 46 officers and crew.

Undersea Tech Goes Civilian

Strategy Page, Nov. 18

November 18, 2012: Over the last two decades, luxury boat builders have begun building recreational submarines in large quantities. There are now hundreds of them in use, some built by hobbyists. All this is the result of decades of new developments in materials and engineering techniques that make constructing effective subs cheaper and easier.

At the low end you have hobbyist home-builts that cost less than \$50,000 for components, plus over a thousand hours of labor by the do-it-yourself submarine builders. Commercial subs starts at a \$100,000 or so for small one, two and three seaters. Some of these low cost subs can do down 1,000 meters (3,100 feet) and are sometimes used by ocean researchers. So far, no one has been killed using recreational subs, and over ten million people have travelled underwater (usually short distances as part of a tourist activity) in them. There is also a growing second-hand market.

Submarine construction technology has come a long way in the past century, and it's possible to build these boats at an affordable cost, although some of the luxury models cost over \$100 million. They are safe, and there are a growing number of them out there. This is driven, in part by the demand by ocean researchers, oil companies and other underwater commercial operators who need small, affordable submarines. A few companies have gained a lot of experience building subs for non-military underwater operations which has created a cadre of information and technicians who can build these recreational subs.

Some of these submersible pleasure craft look like streamlined yachts while on the surface. The upper deck, including the bridge, is outside the pressure hull. When submerging, everyone goes below, and the upper deck gets flooded. If you get close to one of these yachts, it becomes obvious that they are built to dive. Military subs are still not used to encountering this civilian traffic underwater. The military boats have the right of way, but military boats are now warned to exercise extra care when approaching coastal areas used by civilian subs.

Owners of these luxury subs tend to be secretive, and the builders have agreed to some government oversight, especially to make sure militarized subs, that can carry torpedoes or mines, are not built using the civilian technology. But there is no law against anyone owning one of these submarines, and it's feared that it's only a matter of time before drug dealers, gun runners, or even terrorists, get their hands on some of them. Some police officials believe this has already happened, but no one is saying much. In South America there is already an illegal submarine construction industry turning out boats for transporting cocaine.

Most civilian subs don't dive as deep as military subs, and are not built for combat. They have staterooms and large windows. But they do have carrying capacity, and that could be put to criminal uses. Already, Colombian gangs have been caught trying to build subs, using Russian advisors. And at least one submersible (a sub that travels just below the surface) was caught carrying cocaine.

Cruiser Damaged In Collision To Miss Deployment

By Sam Fellman, Navy Times, Nov 15, 2012

WASHINGTON - The cruiser damaged in an Oct. 13 collision with a submarine now rests on blocks in a Mayport, Fla., repair facility and will miss its upcoming deployment.

The news is another sign the San Jacinto's collision with the attack sub Montpelier was more severe than the two hulls rubbing paint.

The ship entered the dry dock, operated by BAE Systems, on Nov. 1 for four months of repairs, Naval Sea Systems Command said in a news release. The initial price tag is \$9.7 million.

"The primary focus of the emergent dry-docking availability is to repair the sonar dome and peripheral hull and equipment damaged during the collision," NAVSEA said in the release. "The Navy and BAE will

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inspect the ship over the next several days to determine what additional repairs, if any, may be required.”

San Jacinto is expected to complete its repairs and leave dry dock in February, NAVSEA said, and will miss its upcoming deployment. Another ship is likely to be tapped for the early 2013 cruise.

“We will be able to meet all operational commitments by shifting available assets to deploy in place of San Jacinto,” said Lt. Cmdr.

Mike Kafka, a spokesman for Fleet Forces Command.

Kafka was unable to immediately say which ship would deploy in the cruiser’s stead.

Officials have not disclosed the cause and the circumstances of the collision between the cruiser and the Montpelier.

Both ships are part of the Truman Carrier Strike Group, which is slated to deploy early next year, and the mid-October training was part of their work-ups. During this exercise, the cruiser’s bow slammed into the stern of the submarine.

Kafka said the Navy’s safety and command investigations of the mishap are ongoing. He was unable to provide a cost estimate of Montpelier’s damages, including a severed top rudder and what officials have characterized as “structural damage” to the stern and the after-most main ballast tank.

Officials plan to tow the sub up to Norfolk, Va. for dry-dock repairs by the end of the year.

Officials aren’t saying whether Montpelier will make its upcoming cruise, a situation that seems increasingly unlikely.

Kafka said that no crew members on either ship had been disciplined as a result of the mishap.

One unexpected upside: The cruiser’s crew will get to winter in Florida. The crew, home-ported in Norfolk., is bunking in two berthing barges while their ship gets fixed.

The Navy pivots to Asia.

Foreign Policy - Adm. Jonathan Greenert, Nov.14

Our nation’s security priorities, and our military, are in transition. In the Middle East, we ended the war in Iraq and are reducing ground troops in Afghanistan with the shift of security responsibilities to Kabul. At home we are reassessing our military’s size and composition as we seek to align our spending with our resources. And around the world we face a range of new security challenges, from continued upheaval in the Arab world to the imperative of sustaining our leadership in the Asia-Pacific. These challenges place a premium on the flexibility and small ground footprint of naval forces, which are being deployed longer and more often to advance our nation’s interests.

The Department of Defense’s January 2012 strategic guidance, Sustaining U.S. Global Leadership - Priorities for 21st Century Defense, addressed this new environment and our security priorities in it. Overall, the strategy focuses on important regions and current readiness and agility, while accepting reduced capacity and level of effort in less critical missions. In particular, the strategy directed that our military rebalance toward the Asia-Pacific while continuing to support our partners in the Middle East. Naval forces will be at the heart of both efforts.

After two decades of ground conflict in the Middle East, our security concerns and ability to project power in the region both center on the sea. U.S. ground forces continue to draw down in Afghanistan and around the region, so our commanders increasingly rely on naval aircraft to support and protect troops. Meanwhile, Iranian leaders speak provocatively about impacting maritime traffic throughout the Arabian Gulf. In response, we turned to maritime forces, doubling our minesweeping forces in the Gulf and deploying an additional carrier strike group to the region.

The focus of our rebalance, the Asia-Pacific, is fundamentally a maritime region. Our friends there depend on the sea for their food and energy, while more than 90 percent of trade by volume makes its way through the region over the water. Maritime security for Pacific nations is a matter of economic survival. Militarily, the vast maritime distances in the region make access via the sea essential to deterring and defeating aggression. Our fleet deployed in the Asia-Pacific will exploit the mobility of being at sea to project power against aggressors and avoid attacks, while their reinforcements and supplies will arrive via the ocean from the United States or regional bases.

The importance of the Asia-Pacific, and the Navy’s attention to it, is not new. Five of our seven treaty allies are in the region, as well as six of the world’s top 20 economies. We have maintained an active and robust presence in the Asia-Pacific for more than 70 years and built deep and enduring relationships with allies and partners there. While we remain present and engaged in the Middle East to address today’s challenges, the Navy will build on its longstanding Asia-Pacific focus by rebalancing in four main ways: deploying more forces to the Asia-Pacific; basing more ships and aircraft in the region; fielding new capabilities focused on Asia-Pacific challenges; and developing partnerships and intellectual capital across the region.

Deploying more forces to the Asia-Pacific

The most visible element of our rebalance toward the Asia-Pacific region will be an increase in day-to-day military presence. Although it is not the only way we are rebalancing, forces operating in the region show our commitment to the Asia-Pacific and provide a full-time capability to support our allies and partners. About half of the deployed fleet is in the Pacific — 50 ships on any given day. These ships and their embarked Marines and aircraft train with our allies and partners, reinforce freedom of navigation, and deter conflict. They are also the “first responders” to large-scale crises such as the Great East Asian Earthquake and Tsunami in 2011.

The long distance between the continental United States and Asia makes it inefficient to rotate ships and aircraft overseas for six to nine months at a time. To avoid this transit time and build greater ties with our partners and allies, more than 90 percent of our forces in the Asia-Pacific are there permanently or semi-permanently. For example, about half of our 50 deployed ships are permanently home-ported in Japan and Guam along with their crews and families. Our logistics and support ships use rotating civilian or military crews to obtain more presence for the same number of ships.

Although we plan to reduce our future budgets, the Navy will continue to increase its presence in the Asia-Pacific region. The benchmark year of the Defense Strategic Guidance is 2020, and by then the Navy Fleet will grow to approximately 295 ships. This, combined with the impacts of our plans for operations and basing, will increase the day-to-day naval presence in the Asia-Pacific by about 20 percent, to 60 ships by 2020. In addition to growing the fleet, three factors will allow us to increase the number of ships in the Asia-Pacific by 2020:

First, we will permanently base four destroyers in Rota, Spain over the next several years to help defend our European allies from ballistic missiles. Today we do this mission with 10 destroyers that travel in rotation to the Mediterranean from the United States. The six destroyers freed up in the process will then be able to rotationally deploy to the Asia-Pacific.

Second, new Joint High Speed Vessels (JHSV) and Littoral Combat Ships (LCS) under construction today will enter the fleet and take on security cooperation and humanitarian assistance missions in South America and Africa, allowing the destroyers and amphibious ships we use today for those missions to deploy to the Asia-Pacific. These amphibious ships will begin deploying instead to the Asia-Pacific in the next few years to support Marine operations, including those from Darwin, Australia. Additionally, the new JHSV and LCS are also better suited to the needs of our partners in Africa and South America.

Third, we will field more ships that spend the majority of their time forward by using rotating civilian or military crews. These include the JHSV, LCS, and our new Mobile Landing Platforms and Afloat Forward Staging Bases (AFSB).

In addition to more ship presence in the Asia-Pacific, we will increase our deployments of aircraft there and expand cooperative air surveillance operations with regional partners. Today we fly cooperative missions from Australia, the Philippines, and Thailand, where we build our shared awareness of activities on the sea by either bringing partner personnel on board or sharing the surveillance information with them. We may expand these operations in the future to new partners concerned about threats from piracy, trafficking, and fisheries violations. To expand our surveillance capacity, the Navy version of the MQ-4 Global Hawk unmanned air vehicle will operate from Guam when it enters the fleet in the middle of this decade.

Basing more ships and aircraft in the region

To support our increased presence in the Asia-Pacific, we will grow the fraction of ships and aircraft based on the U.S. West Coast and in the Pacific from today’s 55 percent to 60 percent by 2020. This distribution will allow us to continue to meet the needs of Europe, South America, and West Africa while more efficiently providing additional presence and capacity in the Asia-Pacific.

Each ship that operates from an overseas port provides full-time presence and engagement in the region and delivers more options for Combatant Commanders and political leaders. It also frees up ships that would otherwise be needed to support a rotational deployment. Today, we have about two dozen

ships home-ported in Guam and Japan. In 2013, with the USS Freedom, we will begin operating Littoral Combat Ships from Singapore, eventually growing to four ships by 2017. The LCS will conduct maritime security operations with partner navies throughout Southeast Asia and instead of rotationally deploying to the region, the ships will stay overseas and their crews will rotate in from the United States, increasing the presence delivered by each ship.

Fielding new capabilities focused on Asia-Pacific challenges

We will also bolster the capabilities we send to the Asia-Pacific. Using the approach described in the Air-Sea Battle concept and in concert with the U.S. Air Force, we will sustain our ability to project power in the face of access challenges such as cruise and ballistic missiles, submarines, and sophisticated anti-air weapons. Air-Sea Battle's operations to disrupt, destroy, and defeat anti-access threats will be essential to maintain the credibility of our security commitments and ability to deter aggression around the world. Our improved capabilities will span the undersea, surface, and air environments.

Undersea

The Navy's dominance in the undersea domain provides the United States a significant advantage over potential adversaries. Our undersea capabilities enable strike and anti-surface warfare in otherwise denied areas and exploit the relative lack of capability of our potential adversaries at anti-submarine warfare. We will sustain our undersea advantage in part through continued improvements in our own anti-submarine warfare capability, such as replacing the 1960s-era P-3 Orion maritime patrol aircraft with the longer range and greatly improved sensors of the P-8A Poseidon.

We will also field improved platforms and systems that exploit the undersea domain for power projection and surveillance. In the coming years, newer, multi-mission Virginia-class submarines with dramatically improved sensors and combat systems will continue to replace aging Los Angeles-class submarines. With their conversion from Cold War-era ballistic missile submarines, our four Ohio-class guided missile submarines (SSGN) are now our most significant power projection platforms. During Operation Unified Protector, USS Florida launched over 100 Tomahawk missiles at Libyan air defenses to help establish a "no-fly" zone. When she and her counterparts retire in the mid 2020s, the Virginia-class submarine "payload module" will replace their striking capacity with the ability to carry up to 40 precision-strike cruise missiles, unmanned vehicles, or a mix of other payloads.

Improved sensors and new unmanned systems allow us to augment the reach and persistence of manned submarines, and are essential to our continued domination of the undersea environment. These unmanned vehicles will enhance the persistence of undersea sensing, and expand its reach into confined and shallow waters that are currently inaccessible to other systems. This will enable detection of threats, for example, to undersea infrastructure.

Surface

But undersea forces have limited effectiveness at visible, day-to-day missions such as security cooperation, humanitarian assistance, missile defense, and freedom of navigation. Surface ships will continue to conduct these operations and show our presence in the Asia-Pacific. Our surface fleet and embarked personnel will continue to be the most versatile element of the naval force, building partner capacity and improving security in peacetime and transitioning to sea control and power projection in conflict. Their credibility and their ability to execute these missions depends on their ability to defeat improving threats, especially anti-ship cruise missiles (ASCM) and anti-ship ballistic missiles (ASBM).

We will defeat ASCMs at long range using an integrated fire control system that combines the proven Aegis weapon system and upgraded airborne early warning aircraft with new long-range anti-air missiles on cruisers and destroyers. To defeat ASCMs at short range, the Navy is upgrading point-defense missiles and electronic warfare systems to destroy incoming missiles or cause them to miss by deceiving and jamming their seekers.

Navy forces will defeat ASBMs by countering each link in the operational chain of events required for an adversary to find, target, launch, and complete an attack on a ship with a ballistic missile. The Navy is fielding new systems that jam, decoy, or confuse the wide-area surveillance systems needed to find and target ships at long range. To shoot down an ASBM once launched, the fleet will employ the Aegis ballistic missile defense system and SM-3 missile. And, to prevent an ASBM from completing an attack, the Navy is fielding new missiles and electronic warfare systems over the next several years that will destroy, jam, or decoy the ASBM warhead as it approaches the ship.

To improve the ability of surface forces to project power, we will field new long-range surface-to-surface missiles aboard cruisers and destroyers in the next decade and improve our ability to send troops ashore as new San Antonio-class amphibious ships replace their smaller and less-capable 30-year-old predecessors over the next two years.

Air

The Navy and Air Force will improve their integrated ability to defeat air threats and project power in the face of improving surveillance and air defense systems. This evolution involves the blending of new and existing technology and the complementary use of electronic warfare, stealth, and improved, longer-range munitions. The carrier air wing in Japan recently finished upgrading to F/A-18 E/F Super Hornet strike fighters with improved jamming and sensor systems and the new E/A-18G Growler electronic attack aircraft. This air wing will also be the first to incorporate the F-35C Lightning II, which will enable new operational concepts that combine the F-35C's stealth and sensor capability with the payload capacity of the F/A-18 E/F to project power against the most capable air defense systems.

Developing partnerships and intellectual capital

Perhaps most importantly, rebalancing the Navy's emphasis toward the Asia-Pacific region includes efforts to expand and mature our partnerships and establish greater intellectual focus on Asia-Pacific security challenges.

First, we are increasing the depth and breadth of our alliances and partnerships in the Asia-Pacific. Our relationships in the region are the reason for our engagement there and are the foundation of our rebalanced national security efforts. Our connection with Asia-Pacific allies starts at the top. Our naval headquarters and command facilities are integrated with those of Japan and South Korea and we are increasing the integration of our operating forces by regularly conducting combined missions in areas including anti-submarine warfare and ballistic missile defense. We are also establishing over the next year a headquarters in Singapore for our ships that will operate there.

We build our relationships with operational experience. The Navy conducts more than 170 exercises and 600 training events there every year with more than 20 allies and partners — and the number of events and partners continues to grow. Our 2012 Rim of the Pacific Exercise, or "RIMPAC," was the world's largest international maritime exercise, involving more than 40 ships and submarines, 200 aircraft, and more than 25,000 Sailors from two dozen Asia-Pacific countries. This year RIMPAC included several new partners, such as Russia and India. It also incorporated naval officers from Canada, Australia, and Chile as leaders of exercise task forces. Like our other exercises, RIMPAC practices a range of operations, building partner capacity in missions such as maritime security and humanitarian assistance while enhancing interoperability with allies in sophisticated missions such as anti-submarine and surface warfare and missile defense.

Second, we are refocusing attention on the Asia-Pacific in developing and deploying our intellectual talent. The Naval War College is the nation's premier academic center on the region and continues to grow its programs on Asian security, while the Naval Postgraduate School expanded its programs devoted to developing political and technical expertise relevant to the Asia-Pacific. We continue to carefully screen and send our most talented people to operate and command ships and squadrons in the Asia-Pacific.

Third, as described above, the Navy is sharpening its focus on military capabilities needed in the Asia-Pacific. Most important is the ability to assure access, given the distances involved in the region and our treaty alliances there. Having a credible ability to maintain operational access is critical to our security commitments in the region and the diplomatic and economic relationships those commitments underpin. We are developing the doctrine, training and know-how to defeat access threats such as submarines and cruise and ballistic missiles through our Air-Sea Battle concept. With Air-Sea Battle, we are pulling together the intellectual effort in needed areas, including intelligence and surveillance, cyber operations, anti-submarine warfare,

ballistic missile defense, air defense, and electronic warfare. The Air-Sea Battle Office leads this effort with more than a dozen personnel representing each military service.

Our credibility in these missions rests on the proficiency our forces deployed every day in the Asia-Pacific. We increased our live-fire training in air defense and in surface and anti-submarine warfare by more than 50 percent, and expanded the number and sophistication of training events we conduct in theater with our partners and allies. For example, in RIMPAC 2012, U.S. allies and partners shot 26 torpedoes and more than 50 missiles from aircraft and ships against a range of targets and decommissioned ships.

A Global Fleet

Even as we rebalance to the Asia-Pacific, the Navy will remain engaged around the world. We will maintain our presence to deter and respond to aggression in support of our partners in the Middle East. In Europe we will build our alliance relationships. Our basing of ballistic missile defense destroyers to Spain is part of this effort, as an element of the overall European Phased Adaptive Approach. The home-porting of U.S. ships in Europe will yield greater opportunities for integration with European forces as well.

In South America and Africa we will shift, as the Defense Strategic Guidance directs, to “innovative, low-cost approaches,” including JHSV, AFSB, and LCS. In contrast to our approach today, which is to send the destroyers and amphibious ships we have when available, these new ships will be better suited to operations in these regions and will be available full-time thanks to their rotational crews.

The Asia-Pacific will become increasingly important to our national prosperity and security. It is home to the world’s largest and most dynamic economies, growing reserves of natural resources, and emerging security concerns. Naval forces, with their mobility and relevance in peacetime and conflict, are uniquely poised to address these challenges and opportunities and sustain our leadership in the region. With our focus on partnerships and innovative approaches, including new ships, forward homeporting, and rotational crewing, the Navy can rebalance toward the Asia-Pacific while being judicious with the nation’s resources. We will grow our fleet in the Asia-Pacific, rebalance our basing, improve our capabilities, and focus intellectually on the region. This will sustain our credibility to deter aggression, preserve freedom of maritime access, and protect the economic livelihood of America and our friends.

Pentagon taps SAIC to build unmanned submarine-spying sea vessel

Nextgov.com, Nov. 14

Science Applications International Corp. won a \$58 million prime contract from the Pentagon to develop an unmanned sea vessel that spies on enemy submarines while operating with minimal supervision, the defense contractor announced.

The autonomous surface vessel will be able track a diesel-electric submarine for months over thousands of kilometers, the company said. It was funded out of a military venture capital arm initiative called the Anti-Submarine Warfare Continuous Trail Unmanned Vessel program. The Defense Advanced Research Projects Agency experiment aims to create a new maritime drone that can operate with “sparse remote supervisory control,” contract databases reveal.

New autonomous capabilities could expand the use unmanned surface vessel systems at sea. “Current unmanned surface vessel systems and concepts are operated as close adjuncts to conventional manned ships — they are launched and recovered from manned ships, tele-operated from manned ships and are limited to direct support of manned ship missions,” a December 2011 solicitation document reads.

The technology, if successfully developed, could allow surveillance missions to be carried out with less effort, needing a shore-based operator just “intermittently monitoring autonomous performance.” One challenge DARPA-funded scientists will have to address would be building a machine that can navigate the seas safely without colliding into other ships, a tender indicates.

SAIC’s three-year contract would involve the design and construction of a prototype. SAIC was also funded in an earlier phase of the initiative to draw up a blueprint.

Oregon Iron Works and Christensen Shipyards have been slated for partners in ship design, construction and propulsion, according to the SAIC statement. Carnegie Mellon University was tapped to develop vehicle’s autonomous capabilities, with National Robotics Engineering Center’s Senior Systems Scientist Brett Browning and Associate Director of Operations Pete Rander serving as key investigators, the university said in a statement. NASA’s Jet Propulsion Lab was also picked to team up with SAIC.

Caught In A Sting: Royal Navy Officer Who Tried To Pass Submarine Secrets To Russian Spies

By Edward Devenney, mirror.co.uk, Nov 14, 2012

He tried to contact the spies when he was due to serve on HMS Vigilant – a submarine which carries Trident nuclear missiles

A Royal Navy officer tried to pass nuclear submarine secrets to the Russians because he wanted to “hurt the Navy,” a court heard yesterday.

Petty Officer Edward Devenney, 30, tried to contact the spies when he was due to serve on HMS Vigilant – a submarine which carries Trident nuclear missiles.

He had previously been on hunter-submarine HMS Trafalgar and offered to supply details of the crafts’ movements, previous missions and secret codes.

But unknown to Devenney, who has been in the Royal Navy for 11 and a half years, he had been talking to MI5 agents posing as their Russian counterparts.

The Old Bailey in London heard he had been drinking heavily and angry a course he had been due to take had been “binned” because of cuts.

Yesterday he admitted breaching the Official Secrets Act.

At an earlier hearing Mari Reid, prosecuting, said: “The position is that the defendant is a serving naval petty officer on board a nuclear submarine.

“He contacted a foreign embassy in November last year. An intelligence operation was conducted by the British Secret Service.

“Two of their officers contacted him and after a series of exchanges of texts and telephone conversations they arranged to meet him.”

She said at the meeting, which was recorded, he told them his full name and claimed to be a chief petty officer.

She added: “He said he had passed training and was due to take a course but due to the cuts that was, in his words, ‘binned’.

“He said he was going to leave the Navy and that is when he thought, ‘I will stay, and that is when I got the idea to hurt them a bit more’.

“He was asked if he wanted to hurt the Navy and he said ‘Yes, but not so much that I get caught’.

“He said he had worked on a number of submarines since 2004 and that because of the nature of his work he had access to the communications systems, the periscope and other information relating to electronic warfare.”

Ms Reid went on to detail the ways in which Devenney said he was able to help them.

She said: “He told them he had worked on another submarine and described a specific operational task which was undertaken by those on that vessel.

“He told them about the status of his current submarine, about the cycle of his current submarine, its refitting work, maintenance report and firing test missiles.

“He provided certain dates and destinations. He told them he wanted to hurt the Navy but was not looking for a reward.”

His barrister Lord Carlisle said at yesterday’s hearing: “He is a man of good character who has done very well in the Navy despite some personal difficulties.

“He is well educated and he certainly understands the seriousness of the matters for which he appears.

“At the time the events complained of took place he was in a poor mental state and drinking heavily.”

Devenney appeared at the Old Bailey yesterday and admitted spying between November 18 last year and March 7 this year.

He gathered details of programmes used to encrypt secret information which could be useful to an enemy.

Devenney denied a second count of communicating information to another person and this will not be pursued by prosecutors.

He will be sentenced on December 12 at the Old Bailey, when parts of the hearing will be held in secret.

Analysis by former MI5 intelligence officer Annie Machon

This story has a very retro feel to it. During the cold war the Russians and British were obsessive in gathering information about the movements of ships and submarines.

I'm not sure how interested we are today. We don't view the Russians as the threat we once did. Terrorism is the focus now rather than foreign powers. But the Russian security community in London has been active more recently... look at the death of former KGB man Alexander Litvinenko in 2006.

It sounds like Edward Devenney had fairly low-grade military information. The worry would be what else he might give up in future

How he was caught is likely to have been fairly simple. Lines of communication to the Russian embassy would have been monitored and there would have been someone on the inside.

I've read this man described as a disgruntled employee and that is a classic piece of spin by the intelligence community.

He is more likely to be unhappy with the way the military have been acting abroad, but he is being discredited.

Rescue Of Indian Submarines Demonstrated At Naval Exercise

By S. Anandan, *thehindu.com*, Nov 14, 2012

Four Indian naval submarines, from both *Sindhughosh* (EKM) and *Shishumar* (HDW) classes, took part in the Indo-U.S. exercise, *Indiaex-2012*, held off Goa early this month where the compatibility of the submarine rescue system of the U.S. Navy with Indian Navy submarines was tested for the first time.

The fortnight-long exercise, meant to demonstrate the rescue of personnel from a disabled submarine, held special significance for the Indian Navy, which operates an ageing fleet of submarines but does not have a Deep Submergence Rescue Vessel (DSRV) of its own.

During the sea phase of the exercise, the Submarine Rescue Diving and Recompression System (SRDRS) of the U.S. Navy's Undersea Rescue Command was pressed into action to bring to safety Indian submariners holed up in Indian submarines simulating various distress scenarios. In all, four Indian submarines took the dive, one daily, during the mock-up.

Responding to the distress alert, a pressurised rescue module from the launch and recovery system fitted on board a non-military vessel was launched and manoeuvred to the required depth to mate with the forward hatches of the submarine in distress. Pressure inside the submarine and the rescue system was equalised before opening the hatch to effect the safe transfer of personnel.

The Indian submarines that took part in the exercise underwent minor modifications to be able to pair off with the pressurised module, which can secure up to two dozen personnel at a time.

INS *Nireekshak*, Indian Navy's deep sea diving support vessel with an on-board submersible capsule called 'Bell', assisted in the conduct of the exercise providing safety back-up. It also documented the procedures key to developing interoperability with the U.S. Navy in submarine rescue operations.

Commander S.S. Sarna, Commanding Officer of *Nireekshak* that is based in the Southern Naval Command in Kochi, termed the interaction with the U.S. Navy in the niche field of submarine rescue a professionally satisfying experience.

While it has been toying with the idea of buying a couple of DSRVs for sometime now, the Indian Navy still has a lot of ground to cover in possessing a failsafe submarine rescue capability. At present, it relies a great deal on Russian-made pressurised escape suits in the *Sindhughosh*-class submarines and rescue spheres that can be punched out during trouble (as in fighter aircraft) in *Shishumar*-class submarines.

Nireekshak's clearance divers operating out of 'Bell' could also be of help at limited depths.

France Creates SAMs For Subs

Strategy Page, Nov. 9

November 9, 2012: France is now developing SAMs (surface to air missiles) systems for submerged diesel-electric submarines under attack by helicopters or fixed wing aircraft. One system uses a periscope-like device that pushes a missile launcher above the water where one or more *Mistral* (similar to the U.S. *Stinger*) missiles are fired at any nearby helicopters or low flying aircraft. A second system launches a larger *Mica* missile via a torpedo-like device. While *Mistral* has a max range of six kilometers, the *Mica* (normally carried by jet fighters) has a range of up to 80 kilometers.

The French are pretty confident these systems will work, as similar weapons have been developed and built (but never actually used) before. For example, four years ago Germany successfully tested IDAS (Interactive Defense and Attack system for Submarines) by launching an anti-aircraft missile from a submerged submarine (U-33, a Type 212 equipped with Air Independent Propulsion). IDAS is still in development and not expected to enter service for at least two more years.

The IDAS anti-aircraft missile is 2.45 meters (7.6 feet) long, 180mm in diameter, and weighs 118 kg (260 pounds). It has a 13.2 kg (29 pound) warhead and a range of at least 15 kilometers. The main targets will be ASW (Anti-Submarine) helicopters and low flying ASW aircraft. Two IDAS missiles fit into a metal frame that in turn fits into a torpedo tube. The IDAS missiles take about a minute to reach the surface, ignite its rocket motor, spot any target within range, and go after it. If the IDAS misses, the air bubble from the torpedo tube launch of the missile will reach the surface, indicating where the sub is. At that point the helicopter or aircraft can drop a torpedo. The sub has countermeasures for these torpedoes but these devices are not guaranteed to work every time, or against every type of torpedo (some are better at detecting, and getting around, countermeasures).

The sub commander would use IDAS if he calculated that a helicopter was likely to spot him with active sonar sonobuoys or dipping sonar. IDAS can also be aimed at a surface ship (as in the bridge or a helicopter sitting on the platform at the rear of the ship. This is done using the fiber optic link, which can be used to designate a target. Otherwise, the missile uses its heat seeking sensor.

Even when missile systems like this are available for use, it's uncertain if any navy will buy them. The concept of anti-aircraft missiles for subs is several decades old and never actually used. But it's possible, so new models keep showing up.



Minutes for Submarine Veterans San Diego, 13 November 2012

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

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 – 38 members and one guest present.

Treasurer’s report: Treasurer was present and his report will be presented in the newsletter and any questions or comments can be submitted to the Treasurer.

Call for Committee Reports:

Chaplain Binnacle List: Al Strunk, Charlie & Lee Marin, Bill Butler. Please let the Chaplin know if any other members should be on the Binnacle list.

Parade Committee: La Mesa Flag Day Parade

Membership Committee: 313 members, Pay your dues or national will drop you.

Scholarship Committee: No report.

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 Subvet breakfast will be 31 Mar 2013, at 0800 to 1200.

We have lowered the cost of breakfast back to 6 dollars. The next food handler’s class will be announced later.

Election Committee: All officer positions are open.

Float Committee:

1930 – Base Commander called for a Break....

1940 – Base Commander called meeting to order.

Old Business

Christmas Party is at 15 December at 2pm.

Unfinished Business

Float repairs: It was decided not repair the float but to build a new float and get a new trailer.

Newsletter printing: the printer has been retired. We will be printing a limited number of copies.

New Business

We need to come up with a way for fund raising. Possible of selling hot dogs.

Holland Club Inductee: Mario Resutcrecelon

Sailing List:

Jim Bilka	David Ball	Joel Eikam
Russ Moledano	Met Weltzien	Richard A. Smith
Bill Earl	Jack L. Addington	Bob Farrell
Bob Oberting	Ray Ferbrache	Phillip Richeson
Phill Richeson	Mario Resutcrecelon	Maria Resucrecelon
Bob Coates	Paul Hitchcock	David Kauppinen
Dennis Mortensen	Bob Bissonnette	Warren Branges
Bud Rollison	Al Poblete	Joe Acay
Len Heiselt	Bill Fernstrom	Peter Lary
Jack Stangle	Roy Bannach	Ron Gorence
Ed Welch	Tom Polen	John Grienberger
Russ Filbeck	Jack Kane	Dan Kallevigt
Ed Farley	Rocky Rockers	

Funding Spat Could Sink USN Virginia-Class Sub

By Christopher P. Cavas

The U.S. Navy wants it. Industry wants it. Democrats and Republicans want it. Appropriators and authorizers want it. Everybody, it seems, wants to put a second Virginia-class nuclear submarine back in the fiscal 2014 budget, keeping the service and its industrial suppliers on a two-boats-per-year building schedule.

But if an agreement isn't reached before too long, a wonky, inside-the-Beltway disagreement on the kind of money used to pay for the sub could kill it, scuttled by an impasse over funding mechanisms.

All four lawmaking entities that oversee the U.S. Defense Department have addressed the absence of the sub, which the Navy cut from plans for 2014 and moved to 2018 for affordability reasons. Service leaders don't object when the move is characterized as a calculated risk, with a reasonable chance that Congress — pleased and supportive about the overall Virginia-class program — would find some way to restore the boat.

And that they have. House and Senate authorizers and the Senate Appropriations Committee support paying for the sub in installments, called incremental funding. It's a method frowned on by Congress and the White House.

But the scheme is commonly used to pay for very costly programs such as aircraft carriers and big-deck assault ships, and virtually all consumers know that paying for something on the installment plan is a way to make expensive items more affordable.

The Navy also supports the idea, even though objections continue at the Office of Management and Budget, the White House entity that oversees the executive budget process.

But House appropriators remain adamantly opposed to incremental funding for the submarine, using the oft-repeated argument that the method obligates future congresses to commit money to programs they may not agree with.

The House's fiscal 2013 defense appropriations bill, approved in July, forbids the Navy from paying for the submarine incrementally. Instead, it defers a new auxiliary ship, provides an additional \$723 million in advanced funding for the sub program — needed to buy long-lead items for the 2014 sub, such as the reduction gear — and directs the Navy to find full funding elsewhere for the additional 2014 boat, seeking savings within the existing nine-sub multiyear procurement plan.

But the deleted afloat forward staging base (AFSB) ship saves only \$38 million, a pittance against the overall \$2.6 billion cost of the submarine. And putting the burden back on the Navy to find more than \$1.2 billion that would be needed for the sub in the 2014 budget only gets service planners back to square one, asking how to fit it all in.

"The Navy doesn't have it," one Pentagon source said of the chances of finding full funding.

The submarine, hull number SSN 793, will be the second unit in Block 4 of the Virginia-class program. If it were to be added to 2014, the nine-boat Block 4 group would grow to 10 vessels, and the Navy, according to a report by Congressional Research Service analyst Ron O'Rourke, estimates it would save \$700 million over the 10-boat group through a variety of efficiency factors.

O'Rourke, in his report, noted that \$700 million would be the equivalent of about 27 percent of the cost of a Virginia-class sub, making that much of an additional sub self-financing.

General Dynamics Electric Boat and Huntington Ingalls Newport News Shipbuilding share equally in building the submarines, with each shipyard building specific portions of the subs and alternating in final assembly. Work schedules are calculated years in advance, and while neither company would turn down additional work — a problem the yards would love to have — disruptions could occur as the second boat is squeezed back in, with possible cost ramifications.

"Shipyards plan pretty tight," one industry analyst said. "Also, the delays change the cost — there's a factor there.

"But," the industry analyst added, "it still works out good because of the block buys."

An Old Argument

The Navy also is fighting to keep the AFSB ship, which would be built at General Dynamics' National Steel and Shipbuilding (NASSCO) yard. The San Diego shipbuilder, a strong performer held in high regard by the Navy, is struggling with a low order book, and the AFSB is key to keeping the work force employed until more ships come along.

The debate over incremental funding is an old one, and avoiding tying up future budgets with multiyear obligations is the standard objection.

But multiyear procurement plans are themselves a form of incremental funding, some observers point out, as is the standard three-year funding profile of every submarine — two years of advanced procurement plus a third year of full funding. And in an era of declining budgets, the installment plan is attractive.

“If we're getting poorer, with other fiscal hurdles to get over, wouldn't you be seeking additional flexibilities — multiyear procurement, economic order quantities, even multiyear or incremental funding?” asked the industry analyst.

A Capitol Hill staff member had a similar take.

“One frustrating part is that when you fully fund the sub up front, most of the money sits around, sometimes three to four years,” the Hill staffer noted.

“At a time when we're trying to stretch every shipbuilding buck, does it make sense to have \$2.5 billion sitting around?” the staffer asked. “We can do this a better way. We kind of do this as it is.”

The issue is not likely to be decided until around March, at the end of which the continuing resolution now funding the U.S. federal government runs out and when a number of Hill observers expect the 2013 spending bill to be decided.

Until then, both the Navy and its congressional supporters remain hopeful the second 2014 submarine will become a reality. “I do think the guys on House Appropriations really want the boat, that they're supportive of the program and want to keep it at a high production rate. I do think it will happen,” the Hill staffer observed. “We all agree we want to and need to do this, but there's just this one little sticking point.”

Ex-Sailor In Va. Beach Arrested In Espionage Sting

By Tim McGlone, The Virginian-Pilot

NORFOLK—A retired Navy cryptologist from Virginia Beach was arrested Thursday on a charge of trying to pass secret information to Russian agents.

Robert Patrick Hoffman II, a 20-year veteran who retired last year as a petty officer first class, was jailed pending a bond hearing Tuesday.

The charge of espionage or attempted espionage carries a maximum penalty of death, but the U.S. Attorney's Office said the government would not seek it. The maximum otherwise is life in prison.

Hoffman, 39, made an initial appearance in federal court Thursday afternoon. U.S. Magistrate Judge Tommy E. Miller told him he would be appointed two attorneys.

The FBI conducted a sting operation that snagged Hoffman, according to an indictment handed up Wednesday and unsealed Thursday. Hoffman is accused of believing he was passing secret information to Russians “pertaining to methods to track submarines, including the technology and procedures required,” the indictment says.

But in truth, Hoffman passed the information to an unidentified undercover FBI operative posing as a Russian, the indictment says. It goes on to say Hoffman should have known that the information passed would have been used to injure the United States.

The indictment provides no further details of the undercover operation. It describes the information passed as “secret,” one level below “top secret,” and says the unauthorized release of such information “could reasonably result in serious damage to the national security.”

Hoffman, a native of Buffalo, N.Y., joined the Navy in 1991 and held a top-secret clearance by the time he retired a year ago. Three times throughout his career, he signed nondisclosure agreements.

Few other details are known about Hoffman. There was no answer at his home address in the 700 block of Holladay Court in the Aragona neighborhood. One neighbor said she did not know him.

Of his 117 Facebook friends, four are from Belarus.

When he arrived in court Thursday, he was wearing a green T-shirt that read "Bred to Fight" on the back and had a colorful print of a rooster. He answered the judge with "yes" and "no" replies but said little else.

When he left the courthouse, he grinned at news photographers.

Assistant U.S. attorneys Robert J. Krask and Alan M. Salsbury declined to answer questions after the proceeding. A spokesman for U.S. Attorney Neil M. MacBride said the office would have no comment.

While there have been relatively few spy cases here, the Hoffman case bears striking similarities to the region's most notorious spy ring - the John A. Walker Jr. case. Walker and his family members were convicted of, among other things, passing secrets about American submarines to the Russians.

Walker, however, spied for the Soviet Union for 18 years before he was caught in 1985. He is serving a life sentence but will be up for parole in 2014.

Navy Pins First Nuclear-Qualified Female Submariners

By Ed Friedrich, Kitsap Sun

BANGOR — The Navy awarded dolphins to the first three women to qualify in submarines Wednesday, including two from Naval Base Kitsap-Bangor.

Amber Cowan and Jennifer Noonan joined USS Maine blue crew members James Barclay and John Schaeffer in a pinning ceremony at Deterrent Park. All are junior-grade lieutenants. Another woman, from the USS Wyoming at Naval Submarine Base Kings Bay, Ga., also received dolphins.

The sailors reported to the boat about a year ago after 15 months of Nuclear Power School, prototype training and Submarine Officer Basic Course. Since then, they've been learning their jobs while being pulled to all parts of the boat to perform or observe things. They had to qualify as officer of the deck and engineering officer of the watch, perform damage-control and display leadership.

The Submarine Warfare Insignia, known as dolphins, is the pin worn above the breast pocket to show that the sailor is qualified for submarines.

"We weren't really submariners until today," said Noonan, a reactor control assistant. "We were on the boat, but not supporting the boat."

Cowan, a main propulsion assistant from Colorado and the University of Washington, said she now feels like part of the crew.

"I see it as that point where I have demonstrated the knowledge and the instinct to perform safely and smartly in all areas of the ship and its missions," she said. "... This day is really a mark of acceptance and confidence the crew has in me."

The four sailors, lined up on the hull of former submarine USS Woodrow Wilson, were pinned by a person of their choice while the boat's executive officer, Lt. Cmdr. Bill Johansson, read passages from "Submarine Operations in World War II." Cowan's husband, Naval Flight Officer Lt. Adam Cowan, traveled from Virginia to pin her, returning the favor of her attaching his wings in 2009.

Each sailor spoke briefly, thanking the assembled crew for helping them qualify. Barclay had already earned silver dolphins as an enlisted submariner.

"I'm going to wear these gold dolphins with great pride," he said. "Though I won't have it on my uniform, I'll always have the silver dolphins to remind me where I came from."

Everybody fell into a receiving line and shook the four sailors' hands.

Noonan, from the Boston area and Cornell ROTC, said becoming a submariner was difficult, but not because she's a woman.

"There's really no reason women can't do it, so I don't feel like a role model," said Noonan, whose father came from Massachusetts for the event. "I don't feel like we broke down any barriers."

The four newly qualified submariners all have completed strategic deterrent patrols with the USS Maine, a ballistic-missile submarine.

At Bangor, there are three women on each of the two crews of the Maine and the cruise missile-carrying USS Ohio. Two on each crew are on their first Navy assignments and a more experienced supply officer serves as their mentor. Three of the four supply officers have qualified in submarines, but they didn't have to go through nuclear training. Lt. Britta Chistianson of Ohio's gold crew was the first, earning her supply dolphins in June.

The next group of female submariners will begin arriving at boats in January, assigned to the ballistic-missile USS Louisiana at Bangor and the guided-missile USS Florida at Kings Bay.

Each crew comprises 15 officers and about 140 enlisted men.

NFA: The Navy's Best-Kept Secret?

By John "Jay" Ostaffe and Michael D. Overby

Anyone who has spent much time around either submarines or the Bahamas is likely to have heard of something called AUTEK. Not many people know much about it since it involves submarines and testing to ensure the subs and their weapons work well. AUTEK's main base is on Andros Island, a short flight from Nassau. A key part of AUTEK is its North Atlantic Treaty Organization (NATO) Naval Forces Sensor and Weapons Accuracy Check Sites (FORACS), known as NFA. AUTEK was picked for its access to the Tongue of the Ocean, a remarkable site protected from the open Atlantic so ambient noise is at a minimum. Here's the surprisingly readable and detailed entry on it from Wikipedia:

"Chosen because of its ideal natural characteristics, and its climate which permits year-round operations, the TOTO is a U-shaped, relatively flat-bottomed trench approximately 20 miles (32 km) wide by 150 miles (240 km) long with a depth which varies gradually from 3,600 feet (1,100 m) in the south to 6,600 feet (2,000 m) in the north. Its only exposure to the open ocean is at the northern end, and except for this ocean opening, the TOTO is surrounded by numerous islands, reefs, and shoals which make a peripheral shelter isolating it from ocean disturbances, particularly high ambient noise which degrades undersea tests and evaluations."

The following piece is a clear bit of advocacy by NFA's Navy guardians in a time of enormous budget uncertainty. Given how rarely service people reach out to the media to write on the record op-ed pieces — especially about test sites — we decided to run it. The Editor.

Naval operations are complex and risky, particularly against 21st-Century "hybrid" and "irregular" threats and challenges. In these demanding and dangerous environments, commanding officers (COs) must be confident that their onboard sensors, weapons, combat systems and links will work as intended.

For that, the North Atlantic Treaty Organization (NATO) Naval Forces Sensor and Weapons Accuracy Check Sites (FORACS) Atlantic Undersea Test and Evaluation Center (AUTEK), known as "NFA" for short, is a "one-stop shop" to assure COs that their ship systems are accurately and precisely instrumented to deliver situational awareness—the foundation for mission success.

Although co-located with AUTEK, a U.S. Navy national test asset, NFA is one of the Navy's "best-kept secrets." The NFA test team has a long history testing submarines and surface ships. They are often integrated with other test teams, such as Combat System Ship Qualification Trials (CSSQT) or Weapon Systems Accuracy Trials (WSAT), to maximize test periods and minimize impacts to the ships under test. And yet, people are surprised when they learn of NFA's central role in assuring weapon and sensor accuracy and effectiveness.

FORACS dates from the mid-1960s when the Navy discovered problems with its torpedo testing range at Dabob Bay off the Hood Canal leading to Washington's Puget Sound. The range was clocking errors in sonar inputs that were off by as much as 20 degrees. These findings prompted the Bureau of Ships, the predecessor of the Naval Sea Systems Command (NAVSEA), to establish a deep-water test and evaluation facility and test ranges off Florida's east coast. Headquartered in West Palm Beach, NFA was the Navy's operational field activity to measure dynamic errors in its platforms.

Back then, the Navy and NATO's priority was to counter the Soviet submarine threat with accurately calibrated anti-submarine warfare sensor and weapon systems. In the 1960's NATO navies had also become aware that their shipboard systems were performing significantly below their designed capability, resulting in significant sensor accuracy errors.

In 1977 the NATO FORACS Office (NFO) was established in Brussels as a multinational alliance activity, an early example of what today is called "Smart Defense." (FORACS exemplifies Smart Defense in this era of tight national defense budgets and reduced national infrastructures. FORACS is a premier, operationally focused example of how NATO is moving toward increased multinational cooperation, interoperability and use of shared assets.)

Four years later the first European range, the NATO FORACS Norway (NFN), near Stavanger, was established. In 1984, the NATO FORACS Greece (NFG) range became operational at Soudha Bay, Crete, and nearby Cape Drapanos. In 1994, the U.S. FORACS V site (co-located at AUTEK) affiliated with the NATO FORACS program as NFA, becoming the Alliance's third instrumented, fixed test range. In addition to fixed facilities, all three NATO FORACS sites support portable testing teams that can deploy virtually anywhere in the world to test and assess operational combat system performance after repairs to major defects or battle damage.

Sensor/weapon/information exchange accuracy and interoperability are fundamental requirements for intra-service, joint and multinational use of cooperative engagement systems that rely on accurate plots. NFA and its sister FORACS sites provide accuracy assurance by measuring errors in sensor performance and testing the full combat system in static and dynamic conditions. The U.S., Norwegian, and Greek NATO FORACS sites perform precision dynamic calibration measurements of the accuracy of target and navigation sensors against common geographical references to satisfy national requirements and meet NATO material readiness

standards. The testing process assesses design specifications of new and upgraded systems, validates performance following new construction and overhaul, and, most critically, assesses real-time operational capability. If a ship has a particular sensor accuracy, performance or interoperability problem, FORACS can design a test tailored to investigate it and to restore or improve overall combat system performance.

NFA facilities test the full range of all in-service systems. At the basic level, testing measures bearing, range, heading and positional sensor errors. The ranges have an undersea capability to test submarine and surface ship sonar and other underwater sensors and communications. All ranges can test for blind spots in antenna radar patterns, and, with mine countermeasures once again a concern, range facilities have installed specific capabilities to test mine-hunting and -avoidance capabilities.

“The United States receives a high return on its investment in our affiliation with the NATO FORACS Project” says Patricia Hamburger, director of integrated warfare systems engineering (SEA 05H) at Naval Sea Systems Command. “The Supreme Headquarters Allied Powers Europe requires all multinational operational units joining NATO formations to use FORACS to ensure interoperability for joint-service and multinational operations. The three sites provide baseline assessments that ensure that U.S. and allied warships can operate together to carry our critical missions and tasks in operations as varied as Active Endeavour in the Mediterranean Sea, Ocean Shield anti-piracy missions off the coast of Somalia, and the naval contributions to International Security Assistance Forces in Afghanistan.”

The test process has evolved from purely stand-alone sensor technical testing to system-level integrated testing, thus enabling the platform to perform as a fully integrated combat system. Dynamic range testing now includes much more command operationally focused serials—such as the three-day Operational Capability Confidence Checks (OC3s)—that can provide technical analysis of tactical procedures by replicating theater-specific threats.

OC3s deliver relevant operational capability to the entire spectrum of maritime operations. All OC3 tests are tailored to individual needs, and they provide the commanding officer with the assurance that the ship’s combat system has maximized its ability to enter an operational theater and counter all threats. FORACS issues comprehensive reports to ship personnel, to material commands for evaluation of maintenance and design performance, and to operational commands for measurements of combat readiness.

“The leadership and commitment of NAVSEA 05H and Naval Undersea Warfare Center enable the U.S. Navy to sustain this vital sensor accuracy test service,” Hamburger underscored. “We measure and assess reality, not what we think or hope might be the case.”

Navy’s mysterious magnetic silencing getting overhaul

The Day, Dec. 3

New equipment installed in channel of Thames River

At the bottom of the Thames River last week, Navy divers dug up the sensors and cables that measure magnetic signatures of military ships and submarines.

Even though the Navy is replacing the 20-year-old underwater range with a new one, most people don’t know the range exists. And even those who have heard about it sometimes don’t understand what it really does.

A steel-hulled ship is surrounded by a magnetic field. As the ship moves through the water and traverses the Earth’s natural magnetic fields between the North and South poles, the ship’s magnetic field changes.

The Navy checks its vessels to make sure the magnetism present in the hulls will not trigger magnetic mines or make the ships easier to detect.

The only Magnetic Silencing Facility in the Northeast is operated by the Naval Submarine Base in Groton. When military ships pass over the sensors and cables at the center of the channel, the information is converted into a computer file and Preston E. Tone-Pah-Hote Jr., who oversees the range operations, interprets the results.

The information is relayed to Navy officials, who determine whether the magnetization needs to be reduced. The range is also used by Coast Guard vessels and NATO ships.

Removing or neutralizing a magnetic field is a process known as degaussing, and the local range is often called a “degaussing range.” It is even described as such on a chart in Tone-Pah-Hote’s office.

But, Tone-Pah-Hote said, it technically is not. He does not have the ability to help a ship calibrate the degaussing equipment it has on board. Coils are wound in specific locations within the hull and the electric current that flows through them can be adjusted to reduce the ship’s effect on the Earth’s magnetic field.

The range is a “check range” since it checks ships’ magnetic characteristics. Because those measurements fall under the umbrella of degaussing, the name “degaussing range” seems to have stuck.

Surface ships in the Atlantic normally go through a similar range in Norfolk, Va., or one in Mayport, Fla. The USS Bainbridge (DDG 96) and other ships used the local range when the one in Norfolk was repaired from 2010 to earlier this year. A magnetic treatment facility in Kings Bay, Ga., can minimize the level of permanent magnetism.

Tone-Pah-Hote, who served 24 years in the submarine force, estimates he takes about 300 measurements a year - anytime a naval ship enters or leaves the harbor he checks it. His office on the water’s edge near Fort Trumbull has a great view, but none of the quirky equipment one might expect when hearing the name “Magnetic Silencing Facility.”

The work on the new range, which began Nov. 1, is expected to cost \$3.5 million and be finished in August. Tone-Pah-Hote said he does not expect any channel closures while the work is being done.

Iran shows new submarines and warships, touts self-sufficiency in defense

Washington Post, Nov. 28

Iran's state television has posted a short video that shows what the Iranians say are "indigenously built" warship and submarines. The two Ghadir class submarines, which can fire missiles and torpedoes at the same time, and the Sina-7 warship were launched at Bandar Abbas, near the Strait of Hormuz.

Iranian submarines unveiled near Strait of Hormuz on Wednesday. In the video, Iranian navy commander Habibollah Sayyari also boasted of the country's ability to build its own destroyers and submarines.

Thanks to the Islamic Revolution, Iran has acquired the know-how to build submarines. No one believed that we would reach a point where we would build destroyers capable of carrying helicopters and missiles in the Sea of Oman and oceans ... because it's a very difficult task to build destroyers and submarines.

The Ghadir class submarine is said to be able to operate in shallow waters.

Iran's Sina-7 is said to be equipped with anti-ship missiles. (Screenshot from Press Tv)

Iran also showcased a hovercraft, which looked similar to the one they unveiled a few weeks ago. Iran's defense minister was quoted saying the hovercraft would be used for "offensive reconnaissance operations" and "midrange amphibious missions."

The unveiling of these navy vessels comes a day after the Associated Press reported that a diagram leaked by officials from a country critical of Iran's atomic program shows the country is working on a nuclear bomb more powerful than the one that destroyed Hiroshima.

The New York Times' Thomas Erdbrink tweeted that Iran has also said that it will be announcing "new details" about the RQ-170 drone that the country claimed to have downed last year.

CORRECTION: An earlier version of this post incorrectly said that Iranian officials leaked the diagram. The diagram was leaked by officials from a country critical of Iran's atomic program, according to AP. The post has been updated.

Iran unveils unusually coloured blue submarine

Dailytimes.com (Pakistan), Dec. 2

It looks like the Iranian Navy really wanted people to see its new submarine. In a live broadcast on state TV on Wednesday, the Islamic Republic showed off a new Sina 7 submarine that is painted in an unusually bright turquoise blue hue.

So, why exactly would any military want to design its ship in a colour that can be easily spotted? The Daily Mail speculates that the ship's designers mistakenly chose the colour, believing it would help the craft blend in with the ocean's waters.

Launched from Bandar Abbas, near the Strait of Hormuz, the Sina 7 and two Ghadir-class submarines represent the first wave of the country's "indigenously built" warships, Iran said.

"Since the beginning of the Islamic Revolution, we have learned not to ask for help from other countries and stand on our own feet in meeting our demands," Iranian Navy commander Habibollah Sayyari said during the broadcast.

"Thanks to the Islamic Revolution, Iran has acquired the know-how to build submarines." daily times monitor

Submarine hero took on Nazi 'Beast'

Thiissomerset.co.uk, Nov. 30

IN the evening of February 22, 1944, listeners to the BBC heard for the first time the story of one of the most audacious naval actions undertaken in the Second World War.

The broadcast paid tribute to the men of Operation Source, the attack early on the morning of September 22, 1943, by midget submarines, or X-craft, against the pride of the German battlefleet, the Tirpitz. Hidden in her lair at Kaafjord in northern Norway, the ship, a sister to the Bismarck, was a menacing threat to the Royal Navy and described by Winston Churchill as "The Beast". There had been several attempts to destroy her over the previous two years - none had been successful. Lieutenant Godfrey Place, the commanding officer of X7 in Operation Source, was awarded the Victoria Cross, the nation's highest award for gallantry, for his role in the attack. Churchill was later to write: "There was an agreeable new fact before us. The Tirpitz had been disabled by the audacious and heroic attack by our midget submarines."

As winter approached in 1943, the successful passage of X7 to Norway had been a remarkable feat in itself. Towed by the conventional submarine, HMS Stubborn, Godfrey Place and his crew had to cope with broken towing ropes on several occasions en

route as well as a German mine becoming snared on the boat. In an incident that characterises Place's remarkable talents it was reported to him that "there is something bumping up against the bow."

He looked through the periscope to see that there was indeed something bumping against the bow, but couldn't make out what.

He said: "I'll go and have a look", to which the reply was "You'd better hurry, it's a mine."

Godfrey Place went on deck and recognised the mine as "a German one, it was half-hitched around the tow and had come to rest against X7's bow."

It was painted green and black and one horn was broken. To keep it off the casing he gingerly placed his foot on its shell and loosened its mooring wire from the tow rope, breathing more deeply as it floated astern. Many years later he recalled, almost nonchalantly, that it was a "perfectly safe sort of mine".

Following a childhood spent partly in Uganda and Northern Rhodesia, where his father was employed as a lawyer in the Colonial Service, Godfrey Place joined the Royal Navy at the age of 13, when he entered Britannia Royal Naval College. At the outbreak of war he was serving as a midshipman in the cruiser HMS Newcastle, encountering enemy battlecruisers in the hostile waters of the North Sea. In 1941 he joined the Submarine Service and was posted to Malta, an island under siege and close to starvation, where he served in both British and Polish submarines, and was invested with the Polish Cross of Valour by General Sikorski.

On returning to England he was invited to tea at the Ritz by a senior naval officer who asked if he would like to sink the Tirpitz. An answer of "no" was not on the menu - he was one of the first to join the midget submarine flotilla in September 1942.

After the attack against the Tirpitz he was taken prisoner by the Germans and spent the rest of the war in a camp made famous by escape attempts using a dummy of a British naval officer, "Albert RN". On his return from Germany, a senior officer wrote of Place: "One cannot help becoming aware of the absolute determination, resource, unflinching example and sheer power of this dynamic nugget."

These talents were apparent over the next 25 years, during which he served as a Fleet Air Arm pilot in the Korean War, as well as serving at Suez, Nigeria and at the withdrawal from Aden. When he retired in 1970 he was the only serving naval officer holding the Victoria Cross.

Somerset and Dorset were home to Godfrey Place and his family for more than 40 years. Initially living in West Camel, he moved to Corton Denham in the early 1960s. Here he was a much respected member of the community, serving as a churchwarden at St Andrew's Church. He was also chairman of the Victoria Cross and George Cross Association from 1971.

For more than 15 years he, along with his wife Althea, owned and ran the saddlers Mabers in Sherborne. He died in December 1994 and his funeral was held in a packed Sherborne Abbey. He is buried in St Andrew's churchyard, where his headstone carries a poem he wrote when a prisoner of war. On his death, his wife received many letters of condolence, but one summarises this most exceptional officer:

"He was a man whose gallant and distinguished service to his country will always be remembered."

Paul Watkins is a qualified veterinary surgeon who lives near Cheddar. His first book, *Midget Submarine Commander*, is published by Pen & Sword Books Ltd.

New Era Of Sub Training Ahead With Opening Of Groton Facility

By Jennifer McDermott, The Day, Nov 29, 2012

Groton - From his post at the top of the submarine's sail, Lt. Andrew Pyle looked out Wednesday at the buoys that mark the entrance to New London Harbor. He saw New London Ledge Light to his right.

Sailboats darted in front of the submarine, and Pyle had to react. It began to snow, and the sea grew rougher.

But Pyle was not in a submarine returning to the Naval Submarine Base. He was in a building at the Naval Submarine School.

The school now has a full-size replica of a submarine bridge so officers can train to stand at the top of the sail and navigate during the transit in and out of ports.

The trainer can simulate U.S. ports and foreign ports where submarines are likely to stop during a deployment. If the submarine was supposed to be in the Gulf, Pyle would have seen traditional sailing vessels, or dhows.

A prototype is at the Naval Undersea Warfare Center in Newport, R.I. This is the first in the fleet; a ribbon-cutting will be held Friday.

On Wednesday, students in the Submarine Officer Advanced Course practiced pulling into Groton.

The trainer is inside a dome where fans mimic the wind and 16 projectors produce a 360-degree image of the world's harbors and oceans. The students use binoculars to zoom in on the image.

The trainer doesn't move, but the rolling waves are so realistic that even experienced submariners sometimes feel a little queasy.

Pyle said he's not prone to seasickness, but he holds onto the railings even though he knows there's no need to. He's getting ready for his next assignment on the blue crew of the USS Wyoming. After more than two years at an assignment on shore in Naples, Italy, Pyle said he needed to hone his skills.

"Being able to do this over and over boosts my confidence about going back to sea and stepping into a position where I'll have more responsibility," he said.

In another room that was set up like the control room of a submarine, the rest of the students gathered data, looked at charts and performed the jobs that any piloting team would be doing in a control room when pulling into port.

Lt. Cmdr. Angel Rodriguez, the course director, said the instructors do try to surprise the students with unexpected problems to see how they react. There could be a man overboard or malfunctioning navigation equipment.

“It’s not a gloom-and-doom scenario, but close to it,” he said. “We want to build their confidence that they don’t need computers. They can look at raw data to safely navigate the ship. We prove that by taking away a lot of their equipment.”

Most of the time, submariners are submerged, so there aren’t a lot of opportunities to handle the ship on the surface, Rodriguez said. And, he said, the “seas are getting more congested, so it’s more incumbent on us to make sure we’re proficient on the surface.”

Students used to train by looking at the ocean through a headset. Now, they can manipulate the equipment and an entire team can work together on the bridge, Rodriguez said. When they graduate in March, these students will become navigators, weapons officers and engineers on submarines.

Lt. Will Villarreal, a student, said the training is the best he has ever had. He said “submarining is a perishable skill” and the school is where “the growing pains happen.”

“It is stressful,” Villarreal said. “But we learn how to function under that stress because, quite literally, we’re going to be in the same boat as everyone we’re supposed to be keeping safe.”

The USS Hartford collided with a Navy amphibious ship in the Strait of Hormuz in 2009, and the Navy paid about \$120 million to repair the Los Angeles-class submarine.

The Navy bought the equipment for the school’s trainer while the state, through the unique partnership it has with the Navy to upgrade the base, paid for the addition to Nimitz Hall to house the trainer. The state legislature authorized \$40 million in 2007 to strengthen the base’s military value in order to guarantee its future.

Before the ribbon-cutting, there will be a brief ceremony to transfer money from the state to Groton and Ledyard. The towns will buy land around the base to prevent development from encroaching on base operations.

Report challenges key Pentagon spending assumption

Reuters, Nov. 27

(Reuters) - As the U.S. military grappled with budget cuts over the past year, one thing Defense Secretary Leon Panetta made clear was the Pentagon must avoid reductions in training and maintenance that would lower the force’s readiness to fight.

But a report released by a Washington think tank on Tuesday challenged that assumption, concluding that a short-term cut in readiness funding could free up cash to develop weapons and equipment needed to be ready in the future.

Several teams of defense experts brought together by the Center for Strategic and Budgetary Assessments to re-envision U.S. defense strategy in a time of tight budgets concluded that a short-term reduction in readiness spending could be done with little risk.

“These teams reasoned that, ‘well, we’re coming out of a decade of war and frankly our force is very ready,’” said CSBA fellow Mark Gunzinger, a former deputy assistant secretary of defense and retired Air Force colonel who helped lead the exercise.

Rather than spending to maintain a high state of readiness, the teams reasoned they could reduce readiness spending and invest that money in “modernization programs which will help us be a better prepared force in the future,” Gunzinger said.

The finding was one of several made when the CSBA assembled seven teams of defense experts this summer to look at how the Pentagon should address the likelihood of additional budget cuts in the coming years.

The report released on Tuesday is one of a series produced by think tanks following the U.S. elections as Congress returns to Washington looking for ways to avert massive across-the-board spending cuts due to hit defense and other federal programs in early January.

President Barack Obama and Congress agreed last year to cut projected national security spending by \$487 billion over the next decade. The Pentagon faces another \$500 billion in across-the-board cuts beginning in January unless Congress can agree over the next month on an alternative.

But even if Congress is able to reach a deal to avoid the automatic spending cuts - a process known as sequestration - there is a growing realization in Washington that the Pentagon is likely to face more reductions, possibly as much as the \$500 billion envisioned under sequestration.

Panetta has warned that a new round of defense cuts would force the Pentagon to go back to the drawing board and redesign the military strategy adopted earlier this year.

The CSBA exercise asked seven teams of defense experts - including Pentagon civilians, congressional aides and think tank scholars - to do exactly that: to re-envision the strategy approved in January assuming defense spending will be cut by another \$519 billion, the amount likely under sequestration.

CSBA scholar Todd Harrison, who also worked on the project, said the most successful team, as recognized by the participants, was the one that looked at what kind of military the United States would need in 20 years and then worked backwards to decide how to achieve that goal.

Harrison said the teams generally agreed with the new U.S. military strategy, which calls for a shift in focus to the Asia-Pacific region. But several thought the Pentagon did not have the right mix of ships, aircraft, weapons and equipment to carry out the strategy, he said.

Many potential U.S. adversaries, like China or Iran, are developing missiles and other weapons aimed at preventing U.S. planes and warships from operating against them at close range. To counter that threat, the United States needs systems that can operate at longer ranges.

To fund development of those systems, some teams called for deep cuts in active duty ground forces, steep reductions in civilian defense personnel and reductions in readiness funding. Most called for reductions in the purchase of F-35 strike fighters, the Pentagon's costliest weapons system.

A majority of the teams emphasized four critical capabilities for the future: special operations forces, cyberspace assets, long-range strike bombers and unmanned aircraft and more submarine and unmanned undersea vehicles.

Iran's navy launches new submarines, hovercrafts: report

Xinhua.com, Nov. 28

TEHRAN, Nov. 28 (Xinhua) — The Islamic republic launched two upgraded versions of the indigenously-built Ghadir-class light submarine and two overhauled hovercrafts, Press TV reported Wednesday.

In the ceremony held in Iran's southern port city of Bandar Abbas to launch the naval vessels, Iran's Navy Commander Rear Admiral Habibollah Sayyari said that the country has reached self-sufficiency in the defense sector and can now meet its defense demands, according to Press TV.

"Since the beginning of the Islamic revolution (in 1979), we have learned not to ask for help from other countries ... (but to) stand on our own feet in meeting our demands," Sayyari was quoted as saying.

"Thanks to the Islamic revolution, Iran has acquired the know-how to build submarines. No one believed that we would reach a point where we would build destroyers capable of carrying helicopters and missiles in the Sea of Oman and oceans ..." he said.

According to Press TV, the Ghadir-class submarine was first unveiled in 2007. The 120-ton vessel has shallow-depth performance and can conduct prolonged coastal missions.

Sayyari said last week that the Islamic republic would hold a major naval drill dubbed Velayat 91, or Guardianship 91, in the 10th month of the next Iranian calendar year (from Dec. 21, 2012 to Jan. 20, 2013), to display the navy's might and deterrence power.

The report did not mention the location of the exercise. Iran has conducted naval drills in its southern waters.

The Iranian commander also said that the navy has plans to send a fleet of warships to the Mediterranean Sea and the Atlantic Ocean.

Russia To Make New Super Silent Torpedoes?

Pravda.ru, Nov 26, 2012

The appearance of a new submarine, especially a nuclear-powered cruiser equipped with missiles, is always an outstanding event, since it represents the security of a country. How can one make it as invulnerable as possible and not too expensive at the same time? It turns out that it is not that hard: the submarine only needs to be outfitted with silent weapons.

The shipyards of Sevmash have already built two serial underwater cruisers of the 955th type (Borei) - Yury Dolgoruky and Alexander Nevsky before. Presently, the company is building another sub of this project - Vladimir Monomakh. Afterwards, there will be a fourth strategic cruiser of this series - St. Nicholas. In total, according to the weapons program before 2017, it is planned to build eight submarines of this type to thus completely renovate the Russian fleet of strategic submarine.

Of course, such submarines are very expensive, and all of us would really like to see them equal or superior to similar subs of the United States, Britain, France and China in terms of performance. The noise factor is especially important at this point, since it is the noise of the submarine that makes it easy to detect.

Everything on board submarines makes noise. Noise is produced by pumps that push the water through the contours of the nuclear reactor, by steam turbines, electric motors and even by the water propeller. Weapon systems of the submarine make a lot of noise too. Missiles, torpedoes and cruise missiles are very noisy when they are being launched. Everything that makes all this noise, unmask the submarine and a helps the potential enemy find and destroy it.

But is it possible to create such a weapon that would be highly effective and absolutely silent at the same time? It turns out that it is possible, especially for deep-water submarines. Large submersion depths, such as one kilometer, like of the K-278 Komsomolets submarine, serves as a measure of security and protection from anti-submarine weapons - at least, the existing ones.

However, launching missiles and torpedoes from such depth is quite problematic not to mention the fact that missiles and torpedoes roar so loudly under the water that detecting them at a distance is an easy nut to crack.

However, creating a fundamentally new and also totally silent weapon for deep-water submarines is not so hard. Imagine something like a large deep-water bomb in a tear-drop case with cross-like rudders at the stern and a massive released cargo at the nose. Containers with such shells are placed on the bottom of the sub, because the sub shoots them “underneath itself.” The new type of weapons that can be called as follows: “gravitational self-propelled projectile,” or, for short, GSPP.

Approaching a target at a great depth, an aircraft carrier for example, the submarine gets ready for attack, the control system of a projectile receives data on the speed, the course of a target and a distance to it. All parameters of the trajectory are calculated, the projectile is discharged and starts to sink. In this case, naturally, a projectile gains a certain speed. At this very moment, the rudders of the projectile change its trajectory towards the target. The shell continues to sink, but it approaches the target, almost silently, because it does not have an active engine.

When the projectile reaches a certain point of the trajectory, the system discharges the ballast. The ballast drowns and immediately begins to surface, but again, it moves towards the surface along the trajectory guided by the rudders, and thus covers a long distance, as the on-board computer calculates it as horizontal as possible.

Finally, closer to the enemy ship, the homing guidance system is activated, possibly together with an engine that will provide high accuracy. That’s it! The enemy’s vessel is thus struck from underneath, where every surface ship is most vulnerable. The trajectory of the projectile in the direction of the target will be reminiscent of a silhouette of a house with the roof ridge upside down.

It would also be possible to develop a fundamentally new type of small deep-water submarine for this type of weapon. A small size means that the sub will not be too expensive, and it would be possible to build many of such submarines. In addition, it will not have missiles on board, so the price would be relatively low. Finally, just because the new sub would be quiet, they would pose a serious threat to any aircraft carriers.