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The Silent Sentinel

APRIL 2010



Our Creed

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



Holland Club Inductees are from Left to Right: Frank Tomazin, Joseph Peluso Jr., Arthur Davis, Joel Eikam, Donald Andersen, Donald Thompson, Joseph McCoy, Richard Wolz, Thomas Warner

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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*

APRIL Meeting

Our monthly meetings are held on the second Tuesday of the month at VFW Post 3787, 4370 Twain Ave., San Diego. Our April meeting will be on 13 April 2010. 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

No new names reported--and
you already know the others.

Submarine Losses in March

Submitted by C J Glassford



BARBEL (SS 316) - 81 Men on Board:
Sunk, on 4 February 1945, by Japanese Naval Aircraft, In South China Sea,
Palawan Passage:

“ALL HANDS LOST“

SHARK #1 (SS 174) - 58 Men on Board:
Sunk, on 11 February 1942, by Japanese Destroyer, in Makassar Strait, 120
Miles East of Manado, in the Celebes
Sea : “ALL HANDS LOST“

AMBERJACK (SS 219) - 74 Men on Board:

Probably Sunk, on 14 February 1943, by Combined Efforts of a Japanese Seaplane, Torpedo Boat, and Submarine Chaser, Off Cape St. George, New Britain:
 “ ALL HANDS LOST “

POMODON (SS486) - Duty Section on Board

Battery Explosion and Fire, on 21 February 1955, from Hydrogen Buildup during Recharging of batteries, At San Francisco Naval Shipyard : “ 5 MEN LOST “

GRAYBACK (SS 208) - 80 Men on Board:

Probably Succumbed, on 27 February 1944, to Damage Inflicted, by Land Based Japanese Naval Aircraft suffered the day before, in the East China Sea: “ ALL HANDS LOST “

TROUT (SS 202) - 81 Men on Board:

Most likely Sunk, on 29 February 1944, by Japanese Destroyer, in the Philippine Sea Area, Off Formosa:

“ ALL HANDS LOST “



Calendar of Events

Next Parade: Linda Vista (San Diego) Multi-Cultural Fair and Parade - 24 April 2010. Parade begins at 11:00am. Form up at corner of Genesee and Linda Vista between 9:00am and 10:00 am. If you are planning on attending please e-mail Jack Kane at jkane32@cox.net or call 619-602-1801. Jack needs to know if you are marching or riding. He also needs to know if you need a ride to the parade site or can offer someone else a ride to and from.

Rest of 2010 Parade Schedule

June 5th, 2010 - La Mesa Village Flag Day Parade - 10:00am

July 4th, 2010 - Julian Independence Day Parade - Time TBD (either 11:00am or Noon)

November 11th, 2010 - San Diego Veterans Day Parade - Time TBD (probably 11:00am)

San Diego Submarine Community Birthday Ball

The San Diego Submarine Community will celebrate the 110th birthday of the United States Submarine Force at the San Diego Marriott Hotel and Marina on April 17, 2010. Our guest speaker will be RADM Douglas J. McAneny, Commander, U.S. Submarine Force, Pacific Fleet. The event begins at 1700. The uniform is dinner dress blue, full dress blue is optional and formal attire for civilians. For additional information or tickets, please contact LSCS(SS) Michael Murphy at (619) 553-8729 or via e-mail at michael.l.murphy@navy.mil.



San Diego Base Officers Taking the Oath of Office: Left to Right / Charlie Marin - Past National and San Diego Base Commander, David Ball - Treasurer, Jim Bilka - Junior Vice Commander, Bob Bissonette - Commander, Bill Earl - Senior Vice Commander.

Women [Also] To Serve On [UK] Submarines

By John Kay, The Sun (UK), March 9, 2010

Women will be allowed to serve on UK submarines for the first time, it was revealed yesterday.

The first 20 female submariners will sail on Vanguard-class subs carrying Trident nuclear missiles.

But allowing women on submarines could lead to sex scandals, it was claimed last night.

Some Navy chiefs fear Wrens and male sailors living together in close quarters will break strict "no touching" rules.

Initially, five women officers will be deployed with each of the four Vanguard-class nuclear subs' 135-strong crew. But a naval source said last night: "There is concern over what might happen.

"If there was a sex scandal it would be impossible for anyone to be taken off until the sub returned from its three-month patrol. The Navy will go to great lengths to make sure that the first women are officers with impeccable credentials."

The Navy was hit by a string of scandals after Wrens were allowed to go to sea in 1990. The stories died away as the novelty wore off.

Until now female crew have been barred from subs due to fears that three months underwater could cause pregnant women to miscarry. But year-long tests have proved there is no risk.

Designers say Vanguard subs can be easily converted to give women their own area with showers and bunks.

The Royal Navy has suffered problems recruiting submariners. An MoD spokesman said: "The policy on women serving in submarines is under review. This review is expected to be completed later this year."

Retired Albania Submarines Up for Sale

Balkan Insight, March 8, 2010

The Albanian government announced last Thursday that it has put up for sale as scrap metal two retired Soviet made submarines –once the glory of its navy fleet.

The Albania navy once had four Soviet built Whiskey class submarines docked in the Pashaliman base in Southern Albania.

The subs were donated from the Soviet Union in 1958, three years before Albania withdrew from the Warsaw Pact and the Soviets abandoned the Pashaliman base.

Officially the submarines were retired in 1998, after they were looted a year earlier following the anarchy caused by Albania's Ponzi scheme crisis.

Apart from the two subs that have gone on sale, one of the submarines sank in the Pashaliman base in 1997, while the remaining ship is to be transformed into a naval museum.

Okada: Nuclear Weapons Ban Unchanged

Asahi Shimbun (JAPAN), March 11, 2010

TOKYO - Foreign Minister Katsuya Okada made clear Wednesday that the government will not alter its policy of barring nuclear weapons from Japanese waters and territory.

The policy comes a day after Okada released a report on a three-month investigation into secret pacts on nuclear weapons between Japan and the United States.

The investigation concluded that three secret pacts existed, including one that allowed U.S. warships carrying nuclear weapons to make port calls in Japan or pass through Japanese territorial waters.

Okada said there was no possibility of the administration led by Prime Minister Yukio Hatoyama reviewing Japan's three non-nuclear principles of not possessing, manufacturing or allowing nuclear weapons to be brought in.

Okada announced the policy at Wednesday's session of the Lower House Foreign Affairs Committee.

Liberal Democratic Party lawmaker Itsunori Onodera asked Okada if the government would ask Washington if U.S. warships making port calls in Japan are carrying nuclear weapons.

Okada replied that there is no need to confirm this "because we can determine from the appearance (of the ship whether it can carry nuclear weapons)."

Calling for a more vigorous approach, Onodera said, "Using this opportunity, there is a need to coordinate interpretations (about the bringing in of nuclear weapons) with the United States."

Onodera also pointed out that the decision by the United States in the 1990s to remove nuclear weapons from U.S. ships only involved tactical weapons and that there is still the possibility that submarines and aircraft carrying strategic nuclear weapons could make port calls or land in Japan as well as pass through and over Japanese territory.

Okada replied, "We would be able to identify by the model of ship or aircraft whether it is carrying strategic nuclear weapons."

In an earlier interview with The Asahi Shimbun, Okada said of the U.S. nuclear arsenal, "A major trend now is reducing the role of nuclear weapons, so I believe it will be extremely difficult to reverse (the removal of nuclear weapons from surface ships)."

Okada was also asked about the effect the investigation would have on relations with the United States.

"Most of the documents were those released by the United States," Okada said. "Because information disclosure is the foundation of democracy, they may think that democracy in Japan has matured."

Meanwhile, in Washington, Philip Crowley, assistant secretary of state for public affairs, said: "This investigation was a Japanese government matter. I don't think that it's going to significantly affect cooperation between the United States and Japan."

Foreign Ministry officials were busy Tuesday and Wednesday visiting local government officials to discuss the issue.

In Yokosuka, Kanagawa Prefecture, Hiroyuki Namazu, director of the ministry's Status of U.S. Forces Agreement Division, explained the results of the investigation to Mayor Yuto Yoshida on Wednesday and apologized for problems that may arise for residents.

"There was no clear response about what would happen in the future so I am not satisfied," Yoshida said.

Navy Submarine Sails After Six-Year Upgrade

Ministry of Defence (United Kingdom), March 11, 2010

The nuclear-powered Royal Navy submarine HMS Triumph has set sail for sea trials following a major six-year refit which has significantly improved her capabilities.

Built by VSEL at Barrow-in-Furness, Triumph was commissioned in October 1991 and is the seventh and last of the Trafalgar Class.

Since commissioning, Triumph has completed a number of notable patrols from the North Atlantic to the Far East.

The next few months will see her conduct extensive tests at sea, ensuring that the modifications made to her propulsion and command systems withstand the demanding environment at sea both when surfaced and dived.

Captain Mike Robinson, the Superintendent Submarines for Devonport, said:

"HMS Triumph sails for sea trials with significant safety and capability improvements, equipping her to provide a substantial contribution to Defence during her second commission."

Following her planned acceptance back into the Royal Navy fleet later this year, her crew will then also be tested by the rigours of operational sea training.

The work, the last Trafalgar Class submarine refit and refuel to be undertaken, was carried out in partnership with the Royal Navy's major contractor, Babcock.

The company's Submarine Operations Director (Devonport), Gavin Leckie, said:

"The quality of HMS Triumph as she leaves for sea trials, and timely completion of this extensive refit, is testament to the skill, dedication, and close teamwork by all involved, and the clear leadership from the Defence Equipment and Support agency project contract manager, Babcock project manager, and the submarine's commanding officer."

The refit has taken six years to complete and cost nearly £300m. Over 1,000 personnel have worked on the submarine in this time, totalling 2.75 million man-hours, including Babcock employees, ship's staff and various other external contractors.

Capability improvements have included installation of the latest sonar systems, and an upgrade for the Tomahawk land attack cruise missile system.

A new command and control system has been installed, as well as a new internal fibre optic computer systems network and enhanced satellite communications system. An additional ballast pump has been installed to aid rapid deballasting, and a number of safety improvements added to fire-fighting and escape capabilities.

HMS Triumph will now undergo a three-month sea trials programme before returning to the Royal Navy's operational fleet for ongoing duties.

India Signs Weapons Deals Worth \$4bn With Russia

By Rahul Bedi, Irish Times, March 12, 2010

THE INDIAN government has approved a clutch of agreements with Russia for military hardware estimated at more than US\$4 billion (•2.9 billion) ahead of prime minister Vladimir Putin's day-long visit to New Delhi today, spawning a possible arms race in a highly volatile region.

The cabinet committee on security (CCS) headed by prime minister Manmohan Singh confirmed the long negotiated and highly contentious \$2.34 billion deal to refurbish Admiral Gorshkov, the 44,500-tonne second-hand aircraft carrier which the Indian navy acquired in 2004 for the price of its refit.

Russia had originally agreed to retrofit the 23-year-old decrepit carrier crippled by a fire in 1994 for \$975 million, but the eventual cost of resurrecting it had almost tripled, resulting in bitter acrimony with Moscow, the largest supplier of assorted weaponry to India for more than four decades.

The carrier is now likely to be delivered in 2013, almost four years behind schedule, because of the price wrangle.

The CCS also agreed the \$1.2 billion purchase of 29 additional MiG 29K maritime fighters that would form part of the air arm of an aircraft carrier under local construction at Kochi in southern India.

Military officials said India would also sign an agreement to acquire 40 additional Su-30MKI multi-role fighters to augment depleting force levels in the airforce, as Soviet-era MiG variant combat aircraft were retired. By 2017 the Indian airforce plans on operating some 280 Su 30MKIs, of which some 150 were being constructed locally under licence.

Mr Putin's visit will also set the stage for the induction of the Nerpa Akula-II nuclear-powered submarine into the Indian navy later this year under a 10-year lease for an estimated \$700 million. India would then become the world's sixth nation, after the five nuclear-weapon states of Britain, China, France, Russia and the US, to operate a nuclear-powered submarine.

The Russian prime minister is also expected to sign agreements on the joint development of a fifth generation stealth fighter and a multi-role military transport aircraft, costs for which will be shared equally between Moscow and Delhi.

India and Russia have agreed to extend their strategic and military partnership by another decade to 2020. This includes the supply of material and maintenance contracts worth some \$10 billion to Moscow, which remains India's largest material supplier. Mr Singh, meanwhile, is also likely to ask Mr Putin for access to nuclear reprocessing technology for civilian use.

Russia is currently constructing two 1,000MW light water plants in India's southern Tamil Nadu state, with four more proposed, but that number is likely to increase exponentially.

In December 2009 Russia signed an agreement with India to expand civil nuclear co-operation that was free from all restrictions, guaranteeing against any future curbs or events.

Pakistan Navy Conducts Missile Tests

CNN, March 12, 2010

Islamabad, Pakistan — Pakistan's navy said it test-fired missiles in the Arabian Sea on Friday to send a message to "anyone harboring nefarious designs" against the country.

The test of "strike capability" is a show of force to Pakistan's enemies, the navy said in a news release.

It included anti-surface and air-to-surface missiles, as well as missiles fired from a submarine.

"While reassuring Pakistan navy's commitment of defending the motherland, this strike capability would also send a message of deterrence to anyone harboring nefarious designs against Pakistan," the statement said.

Lynn: Navy, DOD To Shoulder SSBN(X) Cost Without Separate Fund

By Christopher J. Castelli, Inside the Navy, March 15, 2010

The massive cost of replacing the Navy's nuclear ballistic missile submarines will be shouldered in the coming years by diverting funds from other naval and Pentagon programs and perhaps by boosting the defense budget, but the program should not get its own special funding stream, according to Deputy Defense Secretary William Lynn.

Congress has pondered whether the \$85 billion SSBN(X) sub program ought to be funded outside the shipbuilding account to avoid cutting other ships to pay for the subs. At a Jan. 20 House Armed Services seapower subcommittee hearing, Congressional Research Service analyst Ron O'Rourke said the handling of ballistic missile defense funds could provide a precedent for putting nuclear deterrence systems in a separate account.

At the same hearing, defense industry consultant Loren Thompson argued maintaining the shipbuilding budget at \$15 billion annually and funding SSBN(X) subs entirely from a separate account would solve the Navy's shipbuilding problems. He bemoaned fiscal tradeoffs between nuclear deterrence programs and priorities such as tactical aircraft.

But according to Lynn, those are exactly the sort of tradeoffs that should be made in the defense budget. Although the Navy's shipbuilding plan calls for buying a dozen SSBN(X) subs starting in fiscal year 2019, Lynn said it is too early to create a detailed, "budget-quality" submission for those years because other future needs are unknown.

"You need to know, what are the other requirements? What's the mix between manned and unmanned aircraft in the Navy plan at that point?" he told sister publication *Inside the Pentagon* in a brief interview.

Lynn dismissed the idea of funding SSBN(X) from a separate pot of money.

"There isn't a budget class for strategic programs," he said. "All of the programs that all of the services have contribute to the nation's security. They don't contribute to the Navy's security, they contribute to the nation's security. So I don't know exactly what the definition of a strategic program is in that context. The suggestion that somehow there's some split there — that I don't buy."

The Pentagon does not have a formula to determine how much of the SSBN(X) program's funding should come from the shipbuilding account, other naval programs, DOD programs or future growth in the defense topline, Lynn said, noting the department will seek to strike a balance.

"We have to recognize this is a big program and it's going to be hard for the shipbuilding program to absorb it," he said. "So you're going to have to take some measures. Some of those measures will probably come from elsewhere in the Navy. Some of them might come from elsewhere in the department."

The Navy's 30-year shipbuilding plan best captures DOD's thinking on the issue, he said. DOD estimates each sub will cost \$6 billion to \$7 billion; the Congressional Budget Office puts the unit cost at \$7 billion.

Noting the annual shipbuilding budget is on the order of \$13 billion to \$15 billion, Lynn said, "You can't dedicate half of the budget to one ship. You're going to have to increase that shipbuilding budget to accommodate that requirement. So the question then is how do you increase it?"

The SSBN(X) funding almost surely cannot come all from the shipbuilding budget, he said.

"So some of the increase would probably have to come from other naval programs, some of it would have to come from other DOD programs and some of it might have to come from growth in the topline," Lynn added. He told the House Budget Committee March 4 that SSBN(X) provides a good reason to see "some level of real growth extending out in a predictable fashion for the defense budget."

A draft of the Navy's long-term shipbuilding plan contained two scenarios depending on whether the Navy pays for SSBN(X) "out of hide," O'Rourke said Jan. 20. ITP first reported the details of the draft plan Dec. 7, 2009.

"By drafting these two scenarios, the Navy is in effect reviving a debate about whether a service should pay out of hide for platforms that serve a national mission of strategic nuclear deterrence," he said. The draft warned the cost of SSBN(X) could force shipbuilding cuts and industry consolidation unless the service scores funding for the project. It also noted the Navy might want to incrementally fund the subs, spreading the cost of each over more than one year.

But the final version of the plan, submitted to Congress earlier this year, contains only one scenario that omits those deep cuts and tones down warnings about losing shipyards. Pentagon Cost Analysis and Program Evaluation Director Christine Fox cited the consolidation risk at a Feb. 4 committee hearing. The Navy has launched an industrial base study to assess the impact of its long-term shipbuilding plan.

The 30-year report to Congress projects shipbuilding spending at an average of \$14.5 billion in the near term (FY-11 to FY-20), \$17.9 billion in the mid term (FY-21 to FY-30) and \$15.3 billion in the long-term (FY-31 to FY-40). Defense Secretary Robert Gates has said the near-term estimates are accurate, the mid-term estimates are uncertain and are based on studies, and the outyears toward the end of the 2030s are "mainly fantasy because nobody knows."

In the interview, Lynn and DOD comptroller Robert Hale said officials need not determine how exactly to fund SSBN(X) in the FY-12 budget process. But a congressional source noted the program is not as far away as it appears — nearly \$1 billion is budgeted for design work in FY-15.

As Women Join Subs, Male Force Holds Steady

By Rick Maze, *Navy Times*, March 14, 2010

The Navy appears to be hedging its bets on whether women are going to work out as members of submarine crews.

In written testimony provided Wednesday to a Senate committee, the Navy's assistant secretary for manpower said efforts are underway to begin training women to serve in submarines, beginning with officers assigned to large guided-missile and ballistic-missile submarines.

"As a measure of extra caution, the Navy will not reduce the number of male officers training and qualified for submarine duty until we have experience with successfully placing female officers in those roles," said Juan Garcia, in a statement for the Senate Armed Services Committee's subcommittee on personnel.

No questions about the Navy's plans were raised during the hearing.

Garcia said the plan to end the ban would lift "one of the last gender barriers" and also helps "insulate us from the anticipated surge in hiring by the civilian nuclear power industry in the decades to come.

"Because of the critical mission and demanding environment of the submarine force, we envision a gradual and measured approach to this integration," Garcia said. Initial efforts will concentrate on officers serving in bigger subs "where the existing infrastructure will accommodate these changes without material alteration," he said.

New Workout Program Designed For Sailors Deployed At Sea

By Mark D. Faram, *Navy Times*, March 16, 2010

The Navy plans to roll out a new fitness program this summer that doesn't require weights — or even a gym. And although it has boosted physical readiness test scores, the real reason for the program is to cut down on work-related injuries while giving sailors a workout they could do anywhere.

Designed for sailors relegated to confined spaces on warships, flattops and submarines, the Navy Operational Fitness and Fueling

Series includes workouts and nutritional information that its creators hope will change the way sailors look at fitness and food. The program is in the final stages of development and will be fleet-ready by June.

"This comes at fitness from a totally different direction than anything I've ever seen in the Navy," said Fleet Master Chief (SW/AW) Tom Howard, the senior sailor at Fleet Forces Command. "The exercises are designed to strengthen what sailors do most on the job; lifting, pushing, pulling and carrying."

Those movements cause the greatest loss of work days in the military, said Diana Strock, a senior adviser for health and fitness at the Center for Personal and Professional Development and the Navy Health Research Center.

"In 2007, injuries were the single greatest cause of hospital stays among sailors and Marines at Navy medical treatment facilities," she said. "So the idea is to condition sailors for exactly what they do and you'll decrease the incidence of injuries."

The Navy recruited Florida-based Athletes' Performance Institute to solve the injury problem. API trains professional athletes trying to improve their game or recover from injuries.

"Professional athletes train to the movements of their particular sport or the position they play, and the same model can be applied anywhere," said Harold Hill, a former Special Forces soldier who works as a fitness expert for API.

Hill said special operators, specifically SEALs, have used similar workouts for the past seven years. The fitness and fueling series is a customized version of a fitness program developed by author and exercise expert Mark Verstegen. The program is based on the idea that the best path to overall fitness comes through strengthening the body's core muscles.

API officials accompanied Navy fitness and nutritional experts to eight surface ships of all sizes, a submarine and an F/A-18 Hornet squadron. More than 750 sailors took part in focus groups and exercise tests.

The Navy and API experts spent most of 2009 putting 90 exercises together into four fitness programs: big decks, surface warships, submarines and group PT.

The underway environment took center stage.

"We found that sailors face two problems while at sea or doing group PT; confined spaces and limited equipment," Strock said. The exercises are designed to be done in 30 to 60 minutes, depending on the workout.

Each workout can be done with or without equipment and has three levels that increase in intensity, complexity and repetitions. Exercises vary with the platform; the sub series has no workouts with gym equipment, for example.

"Sailors told us they wanted a program that was easy to understand and eliminated the guess-work," Strock said. "They also told us not to put this in a manual, as it would never get used."

The solution: Provide the workouts on pages that can be downloaded, printed and laminated at the local command. CDs containing the program will be available for those with limited bandwidth.

As the Navy prepares for the roll-out, fitness experts will train the Navy's fit bosses and command fitness leaders in the new system. In addition, commands will be provided with fitness kits that will include laminated sets of workout cards and stretch bands that are required for some of the exercises. Sailors will be able to purchase these kits, though a retail price has yet to be set.

Acing your PFA

Officials say the purpose of the program isn't to help ace the physical fitness assessment, but those who've been testing the system have seen their scores go up.

"There's a reluctance to tie this into the semiannual PFA, but I think there's a connection to be made here," said 48-year old Cmdr. Chuck Hollingsworth, deputy commander of CPPD who has seen his scores go up from "outstanding" to "excellent" in just a few months.

"I've always done well on the PT test, but in recent years, sitting behind a desk, I saw myself slipping," he said. "I have some problems with my back and that makes doing sit-ups difficult, and I was in a rut in my run times."

After four months of training with the fitness and fueling cards, he shaved 90 seconds off his 1.5-mile run. The key, he said, was training his whole body.

"Lots of people train to the PT test. They do push-ups, sit-ups and run," he said. "But that doesn't train the whole body. ... I like the fact that I can get better at doing sit-ups without having to do thousands of sit-ups."

He also said the fitness options have helped eliminate his back problems, and he gets a good workout in 30 to 45 minutes.

"The exercises I was doing conditioned my back, glutes and hamstrings," he said. "I didn't tighten up after doing my max sit-ups and then going on the run as I did in the past."

Germany Now World's Third Largest Arms Exporter

Der Spiegle, March 15, 2010

German arms exports more than doubled during the last five years, according to a new report, placing the country behind just the US and Russia on the list of the world's largest weaponry exporters. The opposition in Berlin wants more oversight.

When it comes to arms exports, few will be surprised that the US tops the list, with 30 percent of global expenditures on arms going to weaponry from America. Second place is likewise hardly a shocker — 23 percent of the world's weapons originate in Russia.

Third place, though, is raising more eyebrows. According to the 2009 annual report put together by the Stockholm International Peace Research Institute (SIPRI), Germany's weapons exports have more than doubled in the last five years, to 11 percent of the global total. German submarines and tanks, the report makes clear, have gained a number of loyal customers.

Given Berlin's tentative forays into geopolitics in recent years — against a backdrop of deep domestic skepticism about German involvement in conflicts across the globe — it is perhaps not surprising that the opposition is up in arms at the SIPRI ranking.

Indeed, the Greens are now demanding greater parliamentary oversight for arms exports. "This report shows that we need more stringent control over and sharper criteria governing arms exports," Green leader Claudia Roth told the *Kölnischer Stadt-Anzeiger*. Parliament must finally get the right to monitor the government's weapons exports, she continued, adding that such control was commonplace elsewhere.

Dangerous Arms Race

Most of German arms sales go to NATO member states, with Turkey and Greece counting among the country's best customers along with South Africa. Still, Roth said that there is a "powder keg situation" in some regions in the world and the export of weapons to such areas could result in dangerous arms races.

The Stockholm-based SIPRI also warned about of arms races in volatile regions such as the Middle East, North Africa, South America as well as South and Southeast Asia. Arms transfers to South America have risen by 150 percent over the last five years, in comparison to the years 2000-2004, the report found. In Southeast Asia the wave of weaponry could "destabilize the region, jeopardizing decades of peace," the institute warned.

The researchers found that the worldwide trade of rockets, fighter jets, weapons and munitions was up by 22 percent over the last five years. Expensive fighter jets have proven particularly attractive, with their sale making up 27 percent of total arms sold.

"Resource-rich states have purchased a considerable quantity of expensive combat aircraft. Neighboring rivals have reacted to these acquisitions with orders of their own," said Paul Holtom, head of the SIPRI Arms Transfers Programme, in a statement.

'Very Critically'

China and India lead the pack of arms importers, but Singapore and Algeria made the top 10 for the first time. Indeed, Singapore arms imports increased by 146 percent during the period of 2005-2009 against the years 2000-2004. Malaysian arms purchases increased by 722 percent during the same period.

SIPRI regularly comes up with higher estimates of German arms exports than the German government, primarily due to the fact that the institute includes compensation deals in their statistics in addition to the sales of used weaponry and "presents."

The SIPRI report found that warships made up 44 percent of German arms exports with tanks contributing an additional 27 percent.

Jan van Ajen, deputy floor leader of the far-left Left Party, called the increase in German arms exports "horrible" and called for a ban. "There shouldn't be any jobs in this country devoted to the death of other people," he told the *Frankfurter Rundschau*.

Rainer Arnold, security spokesman for the opposition Social Democrats, told the newspaper, however, that he finds "nothing objectionable" about German companies supplying weapons to NATO allies. Deliveries to other countries, he continued, must be viewed "very critically."

Russia To Launch New Nuclear Submarine On May 7

Novosti, March 15, 2010

A new Russian nuclear-powered multipurpose attack submarine will be launched May 7, an official said Monday.

Construction of the Severodvinsk, a Project 885 Yasen (Graney) class submarine, began in 1993 at the Sevmash shipyard in the northern Russian city of Severodvinsk but has since been dogged by financial setbacks.

"A floating out ceremony for Russia's new Severodvinsk nuclear submarine at the Sevmash shipyard has been scheduled for May 7," the shipyard spokesman said.

Graney-class nuclear submarines combine the ability to launch a variety of long-range cruise missiles (up to 3,100 miles or 5,000 km) with nuclear warheads, and effectively engage submarines, surface warships and land-based targets.

The submarine's armament includes 24 cruise missiles, including the 3M51 Alfa SLCM, the SS-NX-26 Oniks SLCM or the SS-N-21 Granat/Sampson SLCM. It will also have eight torpedo launchers, as well as mines and anti-ship missiles such as SS-N-16 Stallion.

Severodvinsk is expected to enter service with the Russian Navy by late 2010.

Last year, work started on the second sub in the series, the Kazan, which will feature more advanced equipment and weaponry.

Russia's Navy commander, Admiral Vladimir Vysotsky, has said that the construction of new-generation nuclear-powered ballistic missile and attack submarines was a top priority for the Russian Navy.

CO Of Attack Sub Fired For 'Drunkenness'

By Philip Ewing, Navy Times, March 16, 2010

The commanding officer of a Pearl Harbor-based attack submarine was fired Monday after he was found guilty of "drunkenness" and "conduct unbecoming an officer," in nonjudicial punishment, a spokesman said Tuesday.

It was the seventh CO firing of 2010.

Cmdr. Jeff Cima, skipper of the attack submarine Chicago, was relieved by Capt. Daryl Caudle, commander of Submarine Squadron 3, after allegations regarding Cima's behavior during a March 10 visit with a Naval Reserve Officer Training Corps unit, said Lt. Cmdr. Dave Benham, a spokesman for Submarine Force Pacific.

Benham said he could not give more details about the visit or Cima's alleged misbehavior. He said Cima has been temporarily assigned to the staff of SubRon 3.

The squadron's deputy commander, Capt. James Horten, has temporarily taken command of Chicago until a permanent replacement is named, Benham said. Horten is a former commander of the attack sub Olympia.

Cima's career has included tours aboard the attack submarines Drum and Pasadena, as well as with the ballistic-missile submarine Pennsylvania, culminating with a stint as executive officer of Pennsylvania's Blue Crew.

He graduated from Boston College in 1991 and received his commission through Officer Candidate School.

Other skipper firings this year:

- Capt. John Titus Jr. was fired Jan. 8 as CO of Naval Supply Corps School in Georgia. An investigation found that he did not adequately punish a subordinate accused of fraternization.

- Capt. Holly Graf was fired Jan. 13 as CO of the Yokosuka, Japan-based cruiser Cowpens for "cruelty," a spokesman said.

- Capt. Glen Little was fired as CO of Naval Weapons Station Charleston, S.C., after he was arrested Jan. 26 on a charge of solicitation of prostitution.

- Cmdr. Scott Merritt was relieved as head of Naval Support Activity North Potomac on Feb. 12 following nonjudicial punishment. Sources told *Navy Times* the NJP involved fraternization with junior Navy personnel.

- Cmdr. Timothy Weber, the CO of the Norfolk, Va.-based destroyer Truxtun, was relieved Feb. 17 for having an inappropriate relationship with a female officer in his command, according to a Navy statement

- Capt. William Reavey Jr., CO of Naval Air Station Pensacola, Fla., was fired Feb. 26 for "inappropriate conduct," officials said.

William H. Barnes III Dies, Submarine Acoustics Expert

By Emma Brown, Washington Post, March 17, 2010

William H. Barnes III Navy Submarine Researcher

William H. Barnes III, 86, a Navy Department engineer who studied the acoustics of nuclear submarines for more than 30 years, died March 8 at the Mandrin Chesapeake Hospice House in Harwood. He had congestive heart failure.

Mr. Barnes spent his career working from a research and development center in Annapolis and retired in the mid-1980s. He then became a consultant for Vector Research and Radix Corp.

William Henry Barnes III was a native of New Rochelle, N.Y., and a 1948 graduate of the U.S. Naval Academy at Annapolis. In 1958, he received a master's degree from Georgetown University.

He served in the Navy from 1948 to 1955, including on a destroyer in the Battle of Inchon during the Korean War. After resigning from active duty, he served in the Navy Reserve, rising to the rank of captain before retiring in 1984.

A lifelong tennis player, he was a member of the Naval Academy's tennis team and a coach for the varsity team at Georgetown. He enjoyed jiggerbugging with his wife to big band music.

He was a member of St. Mary's Catholic Church in Annapolis and served as a eucharistic minister at a local nursing home.

Survivors include his wife of 60 years, Fay Anderson Barnes of Annapolis; three daughters, Kathleen Barnes Davies of Annapolis, Cynthia Barnes Powell of Severna Park and Jamie Barnes Greenberg of Arnold; and six grandchildren.

A-RCI Submarine Sonar Signal Processing Upgrades Is Aim Of Lockheed Martin Contract

Military & Aerospace Electronics, March 18, 2010

Sonar systems designers at the Lockheed Martin Corp. Mission Systems and Sensors segment in Manassas, Va., are improving and integrating the Acoustics Rapid COTS Insertion program — better known as A-RCI — under terms of a \$26.6 million contract modification awarded Wednesday.

The A-RCI program integrates and improves towed array sonar, hull array sonar, sphere array sonar, and other sonar sensor processing on Los Angeles-, Seawolf-, and Virginia-class fast attack submarines, as well as Ohio-class ballistic missile- and cruise-missile submarines.

These submarine sonar system improvements are incorporated via rapid insertion of commercial off-the-shelf (COTS) hardware and software. Lockheed Martin sonar experts will improve interfaces to the legacy systems; perform signal processing enhancements; display enhancements; and incorporate government-furnished software algorithms.

Lockheed Martin will do the work in Manassas, Va., and should be finished by this June 2010. Awarding the contract were officials of the U.S. Naval Sea Systems Command in Washington.

For more information contact Lockheed Martin Mission Systems and Sensors online at lockheedmartin.com/ms2, or Naval Sea Systems Command at navsea.navy.mil.

Sen. Says Solid Rocket Motor Costs Will Double, Navy Disagrees

By William Matthews, Defense News, March 17, 2010

Okay, everyone agrees - the cost of solid rocket motors is going up. The question is how much.

Sen. David Vitter, R-La., insisted again March 17 that the cost of solid rocket motors that the U.S. military needs for its intercontinental ballistic missiles will double if President Barack Obama gets his way.

Vitter blames Obama's space strategy, as spelled out in the 2011 budget, which would cancel NASA's Constellation program.

Constellation is developing the next rocket and crew capsule to take humans into space. The current launch vehicle, the space shuttle, is to retire this year.

With Constellation over budget and behind schedule, the Obama administration favors encouraging private space companies to develop the next generation of launch vehicles.

While others praise Obama's plan to invest in commercial space companies, Vitter worries that one of the real losers in all this will be the U.S. military.

His logic: NASA is the nation's biggest customer for solid rocket motors, so if NASA drops out of the market, prices for everyone else will double. The military needs solid rocket motors for Minuteman ballistic missiles, submarine-based Trident ballistic missiles, missile interceptors and all sorts of tactical missiles.

The Navy, which has studied the matter, says prices will probably rise, but they won't double.

During a Senate Armed Services strategic forces subcommittee hearing, Rear Adm. Stephen Johnson, said he expects solid rocket motor prices to rise 10 to 20 percent. He assured Vitter that 100 percent price growth is not likely. Johnson heads Navy strategic systems programs.

Vitter, who has been sounding this alarm since the 2011 budget was unveiled Feb. 1, seemed unconvinced.

NASA provides 70 percent of the business that sustains the solid rocket motor industry, he said. If that vanishes, costs for other customers must increase more than 20 percent.

Not so, said Johnson. NASA's requirements are so different from the military's - think size and weight - that eliminating NASA's demand will not cause military rocket costs to double.

"It's a valid concern," Johnson told Vitter. And costs may rise, possibly 20 percent. But they won't double.

In other testimony, senior Air Force officials said they plan to spend \$5.5 billion over the next six years to modernize U.S. bombers. Those are the B-52, the newest of which is 48 years old; the B-1, which has been flying since 1986; and the B-2, which dates to 1993.

While upgrading data links, targeting pods and avionics, the Air Force will also begin designing a new bomber that could be manned or unmanned, supersonic or subsonic. It didn't come up in the subcommittee hearing, but the Air Force has said that the study alone will cost \$2 billion to \$4 billion a year, with the aim of developing a new bomber by 2020.

'Madness' To Send Submarine To Falklands

By David Perry, The Press and Journal (United Kingdom), March 18, 2010

The UK Government was warned last night that sending a nuclear submarine to the Falklands in support of a major drilling campaign by a North Sea-based rig would be "madness".

The warning came from former Scottish Labour MP Tam Dalyell, who famously campaigned for years over the way a British submarine sank the Argentine cruiser the Belgrano during the Falklands war.

Mr Dalyell spoke out as the Ministry of Defence refused to comment on reports that it had sent the 5,000-tonne HMS Sceptre, armed with conventional weapons, to the area following mounting concern in Argentina over the drilling by the rig Ocean Guardian, which is owned by Diamond Offshore Drilling, of Dyce.

It has started drilling for Desire Petroleum in waters north of the Falklands.

Mr Dalyell said the drilling itself was "folly of a huge order".

A Desire spokesman said the results from the first well would be published "by the end of this month".

A source described the report concerning the submarine and an earlier report that the rig had been "buzzed" by Argentine aircraft as "rubbish" and reports that the rig has actually found oil as "wild speculation".

The company's share price has risen from around 80p at the beginning of the year to around 105p.

A spokesman for the Ministry of Defence said: "We do not discuss submarine operations."

A Foreign Office spokeswoman said some results from drilling could emerge next week, but it would be longer before anyone could claim to have found commercially exploitable quantities and five years before extraction could begin.

She said the UK supported the Falklands in developing an offshore oil industry but would like to develop good relations with Argentina.

Gordon Liberal Democrat MP Malcolm Bruce, whose constituency includes Dyce, said he did not know if a submarine had been sent to the South Atlantic but he would not be surprised if one were.

Nothing should be done to aggravate relations with Argentina, he said.

But if there was an attempt to interfere with the drilling operations he would expect the UK Government to "respond to protect our interests".

He said he would contact Diamond over the situation.

Greece To Resell German Submarine: Minister

Expatica International News, March 17, 2010

Greece hopes to earn some 350 million euros (480 million dollars) by reselling a German-built submarine whose delivery was dogged by technical concerns, the Greek defence minister said on Wednesday.

"The Germans are pricing the Papanikolis submarine at 300 million, let us calculate 350 million without being over-optimistic," Defence Minister Evangelos Venizelos told a news conference.

Athens in 2006 had refused to accept delivery of the submarine built by German contractors ThyssenKrupp after Greek Navy inspectors declared it defective during test runs off the port of Kiel.

But Venizelos on Wednesday insisted that "improvements" had been carried out at ThyssenKrupp's HDW shipyards and that the Greek Navy was now prepared to declare the vessel seaworthy.

"This is what (the Navy) have told us, this is what they will tell Greek parliament as well," he said

He added: "This discussion about a listing submarine which we are trying to sell... is harmful to the public interest."

Greece in 2000 had ordered four new 214-class submarines and an overhaul for three of its older 209-class submarines from HDW. Most of the order was to have been carried out at Hellenic Shipyards near Athens, which were acquired by HDW in 2002, three years before it merged with ThyssenKrupp.

Athens has already paid out 2.03 billion euros on the project out of a total estimated cost of 2.84 billion in current prices with nothing to show for it, the minister said.

Venizelos on Wednesday said plans to overhaul two of the older submarines would now be scrapped and that two new submarines would be ordered instead at a cost of 500 million euros apiece.

The Greek government, struggling with a debt crisis and facing a huge effort to restructure the economy, hopes that the submarine deal will smooth the way for ThyssenKrupp to shed 75 percent of its stake in the struggling Greek shipyards to the Abu Dhabi Mar group.

It has said the sale offers a chance to save the jobs of 1,300 workers.

Venizelos also said another "major" project to purchase French frigates would also be carried out.

"A difficult and long negotiation at state and commercial level is ongoing (on the issue)," he said.

Navy Chef Shows Popular Submarine Dish!

Navy SEALS Blog, March 18, 2010

A culinary arts student usually has one ultimate thing on his or her mind: run the kitchen of a swanky, snooty restaurant. And the one of the kitchens that they may not think of running is one situated inside a sub, like the USS Florida. Some may even think, what do they serve there anyway? Gruel?

Not quite, according to a feature on myFox Tampa Bay. Pecan-crusting Chicken Salad, anyone? Yup, that is one of the items on the USS Florida menu – a real crew favorite, in fact. The Navy Chef aboard the USS Florida – Navy Culinary Specialist 2nd Class Juan de Jesus – shared the secret behind this popular submarine dish, and maybe even lit a spark of inspiration in some students in Chamberlain High School, who just might want to follow in his footsteps.

For Navy Week, de Jesus graced Chamberlain High School's Culinary Operations Academy with his presence, sharing stories about life aboard a sub and about being the source of gastronomical treats and nutrition of the people who are defending our nation while they are out at sea.

And what this Chef serves the mess hall is not some meat slapped on a plate – no sir. Presentation is still key, as it is in your favorite restaurant, and de Jesus' skills did seem to make an impression with the kids. De Jesus' experience – "the things that he has been through, places he has been to and things he has learned through the Navy" – were among the things that caught students' attention.

Navy Downplays Concern About Sexual Assault On Submarines

By Jeff Schogol, Stars and Stripes, March 18, 2010

Women will soon be aboard submarines, but how will submarine crews deal with sexual assaults?

That question was raised by one of my colleagues at Navy Times Thursday at a roundtable with Navy officials on sexual assault prevention.

The reporter noted that submarine crews live in very close quarters and can spend months submerged.

"I believe we've already been operating in that environment for years," said Rear Adm. Daniel Holloway, director of manpower, personnel, training and education.

"No. 1: On our frigates and our destroyers today, very close quarters. In our individual augmentees and support overseas, whether it's inside the camp fence line or in a foxhole, and in our mine countermeasures, our mine sweepers, our women today serve side by side."

When asked how an alleged perpetrator or victim could be taken off a submarine, Holloway said submarines can surface to evacuate sailors having a medical crisis.

"We view the sexual assault, and the mental health condition, re-victimization, her or his safety, the same way as appendicitis," he said.

In such cases, the submarine rendezvous with a surface ship and the sailor is usually taken off by helicopter, said Lory Manning, director of the Women in the Military Project, a non-profit group that looks at policy and law on what women can do in the military.

"It's not something that would be unique to a rape," she said in a phone interview Thursday.

Crimes such as male-on-male rape already happen on submarines from time to time, said Manning, a retired Navy captain.

"In fact there are more male-on-male rapes in the military than male-on-female rapes," she said.

France Ask To Share Navy Subs

The Sun (UK), March 19, 2010

THE UK has rejected offers to share the Navy's nuclear submarine duties with France, reports said today.

France offered the deal to carve up nuclear submarine patrols in a scheme to create a joint nuclear deterrent.

But UK officials have so far rejected the deal as politically unacceptable.

Both countries currently follow a system of "continuous at-sea deterrence," running at least one nuclear-armed submarine which is submerged and undetected at any given time.

But the system has faced criticism from disarmament campaigners who question its use in a post-Cold War world.

An unnamed French official was quoted as saying: “We have talked about the idea of sharing continuity at sea as part of a larger discussion about sharing defence burdens.”

A British official confirmed the French approach, but said the suggestion would cause “outrage” during an election campaign.

Britain’s political parties are gearing up for a ballot which is expected to be held on May 6.

French President Nicholas Sarkozy and Prime Minister Gordon Brown discussed the idea at a London meeting in March 2008, according to reports.

A joint declaration afterwards said the two countries would “foster our bilateral dialogue on nuclear deterrence”.

The two leaders met again in London last Friday and “discussed some issues on the nuclear agenda”, Downing Street said, but refused to comment on the joint deterrence idea.

Safety Issues Linger as Nuclear Reactors Shrink in Size

By Andrew E. Kramer, The New York Times, March 18, 2010

MOSCOW — When the Soviet Union introduced its Alfa class submarine — at the time, the world’s fastest — the subs were the bane of American sailors. Now, the reactors that powered those submarines are being marketed as the next innovation in green power.

Environmentalists say the technology is outdated and potentially dangerous, and marketing it as green energy is an abuse of nuclear power’s good green name.

The Russians are not alone in pushing the idea that the next generation of nuclear reactors should have more in common with the small power plants on submarines than the sprawling installations of today.

The kinds of marine reactors the Russians are promoting, though, also happen to create a byproduct — used fuel — that no one knows how to handle. Right now, that spent fuel is being stored at naval yards in the Russian Arctic.

In most nuclear facilities, the used fuel, which is highly radioactive, is removed from the reactor and stored in a pool of water. But in the Soviet submarine model currently advanced by a Moscow company, the spent fuel ends up frozen along with the reactor and stored away. No engineering solution has been devised yet to decontaminate the fuel.

In fact, the technology caused a number of mechanical accidents when it was used in Soviet submarines from the 1970s until the early 1990s.

Kirill Danilenko, the director of the Russian company, Akme Engineering, said that the technology could be made safe, with no greater risk of meltdown than that at a larger nuclear plant. His vision is that small reactors will become so common that utilities can connect them and “build power plants like Lego sets.”

The promise of miniature reactors powering homes, offices and schools is still years from being realized. The first Russian design, a pontoon-mounted reactor intended to be floated into harbors in energy-hungry developing countries, is already being built. But most promoters expect small reactors to come online at the end of this decade.

The plans are going ahead in Russia and elsewhere in the face of criticism that a diffuse nuclear infrastructure — the idea that many midsize cities, for example, could have their own small reactor — is inherently risky.

But once the science is perfected, such reactors are potentially far cheaper to build for every unit of electricity generated than traditional nuclear power plants.

This is no small matter as capital expenses are the largest cost for nuclear power, making it more competitive with coal.

Around the world, much of the nuclear industry is embracing the tried-and-true economics of serial production. In serial production, reactor cores, like Ford cars, would be rolled off an assembly line, then shipped to the site of a plant. They could be used separately or as modules for a more powerful generator. This would be possible, however, only if a reactor were small enough to fit on a railroad car.

American companies are promoting nine designs for small reactors, according to the Nuclear Energy Institute, a trade group in Washington. The International Atomic Energy Agency, the Vienna group overseeing civilian nuclear power, has estimated global demand for small nuclear reactors could reach 500 to 1,000 reactors by 2040.

The category is defined as reactors making less than 300 megawatts of electricity, or the amount needed to power 300,000 American homes. That is roughly a quarter of the energy output of big reactors.

Small reactors have other advantages, too. They would fit the existing steam-generating equipment in old coal plants, for instance, making it easier to put nuclear facilities in current coal-burning energy plants. And small reactors have at least one nonproliferation benefit over their larger cousins: they can be loaded with fuel in the factory, reducing the need to ship fuel separately.

Some models are tiny. One, for example, would be small enough to fit into a shipping container and would be trucked from site to site, like a diesel generator, except that it would need to be refueled only once every seven years or so.

Proponents point out that Russian nuclear regulators and the United States Department of Energy have both endorsed small reactors. In America, companies with designs include Westinghouse, the maker of traditional reactors; Babcock & Wilcox, a maker of submarine reactors for the Navy; and NuScale, a start-up that spun out of an Oregon State University research project.

The Russian company, Akme, is an acronym for atomic complex for small and medium energy and sometimes renders its name in English as Acme.

Akme’s goal is to produce a prototype of a 100-megawatt nuclear reactor small enough to fit into a typical American backyard by 2019.

The company was founded in December as a joint venture of Rosatom, the state nuclear power corporation, and a private electricity company owned by the Kremlin-connected oligarch Oleg V. Deripaska. It has \$500 million in start-up capital.

A minireactor will likely cost about \$100 million.

The design Akme chose is peculiar because it is cooled with a molten lead alloy, not water. In fact, the Soviet Union was the only nation to deploy liquid metal reactors at sea. Introduced in the 1970s, they packed enough power to propel submarines more than 45 miles per hour underwater. In fact, they were so powerful they compelled NATO to design an entirely new class of torpedo.

But this cold war design is not without its drawbacks. The Bellona Foundation, a Norwegian environmental group and authority on nuclear waste in the Arctic, says the lead alloy coolant tended to freeze when the reactor had to be shut down in emergencies. That turned the reactor into an inaccessible block of lead, steel and waste.

The group documented an accidental freezing of the core on one submarine, K-123, in the early 1980s after an emergency shutdown in the Kara Sea. The vessel limped back to base. The only way to repair it, though, was to remove the reactor segment, a job that took nine years. (The former Russian naval captain working for Bellona who revealed these and other details of reactor failures in a report in the 1990s was put on trial for revealing state secrets.)

Today, hardened liquid-metal reactor cores litter the Arctic. While small, they still weigh hundreds of tons. No facility exists to melt out the lead alloy, which is itself lethally toxic, and extract the spent fuel rods. They remain an unsolved legacy of the Soviet submarine program; several are stored at a naval yard in Gremikha, on the Arctic Sea near Norway, according to Bellona.

The product can hardly be called green, Igor Kudrik, a researcher at Bellona, said in a telephone interview.

The Russian nuclear industry, in its eagerness to capitalize on the booming global demand for nuclear power, including new applications like small reactors, has dusted off unsafe designs, Mr. Kudrik said. “They haven’t come up with anything new,” he said.

A spokeswoman for Akme said the company could not comment on military waste. Company officials said the commercial design would have to compete on safety, as well as economics, and that passive safety features would be built into the product. Anna Kudryavtseva, a vice president, said the nonmilitary version of the liquid-metal reactor would be “maximally safe even in not very capable hands.”

U.S. Experts: Yuan-Class Boat Is Extremely Difficult To Be Detected Can Help China-Ma
Military Quotes, March 17, 2010

March issue of Hong Kong "Asia-Pacific Defense" magazine published in the U.S. Navy technical experts William Matthews article reviews the Chinese Navy's submarine force modernization achievements. According to U.S. intelligence agencies published a research report and China's domestic media, public reports, the article focused on the ability of China quiet submarines that the size of China's submarine force is expected to remain stable, including the ability to have a stronger anti-detect a new generation of conventional submarines .

To the "quality over quantity" changes

The article said that the Chinese Navy submarine force in recent years, continue to promote the modernization of the direction of "quality over quantity," the direction of change. Chinese navy for its 094-type "Jin"-class nuclear submarines equipped with the "Waves" -2-type ballistic missile, to demonstrate its commitment to the development of strategic deterrence capability. The boat "attacks on the United States from the Western Pacific," so that China's first sea-based access to more reliable nuclear counterattack capabilities, but its noise level is still more than 30 years ago, the Soviet Union's D-III class submarines.

Federation of American Scientists Christensen experts believe that, according to the Pentagon's public parameters, if the Type 094 submarine attack in China's coastal waters, the missile can only be landed in Seattle, some 800 kilometers away from the sea, so it is still a "regional arms , "only to Japan, Guam, the U.S. military facilities at risk. If the submarines to venture far into the sea, but also vulnerable to excessive noise has been found in advance, and then sunk by U.S. forces.

However, China's conventional submarines is not as fragile as some people imagine. In some environments, they demonstrated very good ability to mute, even though the United States Navy to detect and track submarines, China still has some advantages.

Also been pursuing anti-detecting ability

Matthews, analysts say around 2000, the Chinese Navy began to design the 3rd generation, "Yuan" class submarines, has been the construction of three. It is learned that, "Yuan" class submarines have more could be circumvented by the U.S. Navy anti-submarine technology, the means available, which will force the U.S. to upgrade ahead of schedule, including all surface ships including an aircraft carrier anti-submarine equipment.

Navy SSBN(X) Ballistic Missile Submarine Program: Background and Issues for Congress

By Ronald O'Rourke, Defense Legislation Blog, March 22, 2010

Ballistic missile submarines (SSBNs) carry submarine-launched ballistic missiles (SLBMs), which are large, long-range missiles armed with multiple nuclear warheads. The SSBNs' basic mission is to remain hidden at sea with their SLBMs, so as to deter a nuclear attack on the United States by another country. Navy SSBNs form one leg of the U.S. strategic nuclear deterrent force, or "triad," which also includes land-based intercontinental ballistic missiles (ICBMs) and landbased long-range bombers. The Navy currently operates 14 Ohio (SSBN-726) class SSBNs, the first of which is projected to reach the end of its service life in 2027.

The Navy is currently conducting development and design work on a planned class of 12 nextgeneration ballistic missile submarines, or SSBN(X)s, which the service wants to procure as replacements for the 14 Ohio-class boats. The SSBN(X) program, also known as the Ohio-class replacement program, received \$497.4 million in research and development funding in the Navy's FY2010 budget, and the Navy's proposed FY2011 budget requests an additional \$672.3 million in research and development funding for the program. Navy plans call for procuring the first SSBN(X) in FY2019, with advance procurement funding for the boat beginning in FY2015.

The Navy preliminarily estimates the procurement cost of each SSBN(X) at \$6 billion to \$7 billion in FY2010 dollars—a figure equivalent to roughly one-half of the Navy's budget each year for procuring new ships. Some observers are concerned that the SSBN(X) program will significantly compound a challenge the Navy faces concerning the affordability of its long-term shipbuilding program. These observers are concerned that procuring 12 SSBN(X)s during the 15- year period FY2019-FY2033, as called for in Navy plans, could lead to reductions in procurement rates for other types of Navy ships during those years. The Navy's report on its 30-year (FY2011- FY2040) shipbuilding plan states: "While the SSBN(X) is being procured, the Navy will be limited in its ability to procure other ship classes."

Potential FY2011 issues for Congress include the following:

- the accuracy of the Navy's preliminary estimate of the procurement cost of each SSBN(X);
- the prospective affordability of the SSBN(X) program and its potential impact on other Navy shipbuilding programs; and
- which shipyard or shipyards will build SSBN(X)s.

Options for reducing the cost of the SSBN(X) program or its potential impact on other Navy shipbuilding programs include procuring fewer than 12 SSBN(X)s; reducing the number of submarine-launched ballistic missiles (SLBMs) to be carried by each SSBN(X); designing the SSBN(X) to carry a smaller SLBM; stretching out the schedule for procuring SSBN(X)s and making greater use of split funding (i.e., two-year incremental funding) in procuring them; funding the procurement of SSBN(X)s in a part of the Department of Defense (DOD) budget other than the Navy's shipbuilding account; and increasing the Navy's shipbuilding budget.

This report focuses on the SSBN(X) as a Navy shipbuilding program. CRS Report RL33640, U.S. Strategic Nuclear Forces: Background, Developments, and Issues, by Amy F. Woolf, discusses the SSBN(X) as an element of future U.S. strategic nuclear forces in the context of strategic nuclear arms control agreements.

Submarine Programmes Top SE Asian Wish Lists

Jane's Defence News, March 23, 2010

Viewed from a maritime perspective, the countries of Southeast Asia are positioned between two regional powers – China and India – that have both the economic and demographic potential to achieve a global military status.

To the north, China is flexing its financial muscles and increasing the size and capabilities of both its surface and subsurface fleets; to the west, India is making slow but steady progress as it seeks to recapitalize its ageing fleet and establish an indigenous naval industrial complex.

Vietnam has signed an agreement with Russia for the acquisition of six Kilo-class (Project 636) submarines. This model was on display at the Euronaval 2006 exhibition in Paris. (IHS Jane's/Patrick Allen).

Both of these nuclear-armed states regard Southeast Asia as key to their national security. In this region lies one of the world's most important maritime chokepoints, the Strait of Malacca, through which passes the majority of seaborne trade between the Far East on one side and southern Asia, Africa, Europe and the Middle East on the other.

There is a wide disparity in the levels of naval capability among the countries of Southeast Asia. Singapore has the financial clout and industrial expertise to build technologically advanced surface combatants, while Indonesia and Malaysia are also increasing their capability in the high-end warfighting spectrum with the procurement of vessels from both foreign and domestic shipyards. Thailand – possessing the region's only operational aircraft carrier – occupies the middle ground with a mix of frigates and corvettes both ancient and modern. Vietnam relies on Russia for the supply of new units for its small surface fleet, but, with a current commitment to acquire new submarines, it could leapfrog Thailand into the upper echelons of the regional naval pecking order.

The remaining countries – Brunei, Cambodia, Myanmar, Papua New Guinea and the Philippines – either have small fleets of patrol ships for coastal operations or are relying increasingly on ageing corvettes and donations of foreign vessels to maintain a piecemeal naval capability.

WWII Sub Memorial Opens At Liberty Station

10News.com, March 25, 2010

SAN DIEGO — It took 14 years of fundraising, planning and dealing with bureaucracy, but a memorial to submariners lost in World War II has opened at Liberty Station.

The memorial, called the 52 Boats Memorial, honors the 52 submarines that were lost in World War II. It consists of 52 American Liberty Elm trees, 52 flags and 52 granite memorials to the ships and men who were lost.

“Oh, it means a great deal. We’re not looking for glory. It’s a remembrance for most of us,” said World War II submarine veteran **C.J.**

Glassford.

Hundreds turned out for Thursday’s dedication, including around two dozen men who served in subs in World War II. Along with the 52 boats lost, 3,505 men lost their lives.

The project was driven by **Doug Smay**, whose father served in submarines during World War II. He was also a submariner years later.

“They used to say if you saw five submariners in Honolulu during the war, one of them wasn’t coming home. One in five were lost,” said Smay.

The memorial is two long sidewalks, flanked by the trees, flags and plaques. People looking at them Thursday said they were moving and appropriate. For those who served in the Silent Service, they meant even more.

“Submarines have been my life; always have been and I guess they always will be,” said Glassford.

Ninety percent of the money for the project was raised through private donations.

Oceanology: Tethered Antenna Keeps Subs In Touch

New Scientist Magazine (UK), March 24, 2010

Robotic submarines have always had trouble when it comes to picking up GPS signals and communicating with their operators. That’s because radio signals do not travel far underwater. If the submarines do not surface regularly in order to check their position, they run the risk of drifting off-course.

This problem could now be solved, thanks to a wing-like antenna that piggybacks on small submarines. The antenna ascends to the surface on a tether as and when needed, enabling satellite communications, including GPS readings. It can even carry a camera to serve as a kind of periscope for the sub’s controller.

People-carrying submarines have long been able to raise communications equipment to the surface while staying submerged. Jake Piscura, a mechanical engineer who designed and built the new antenna at Brooke Ocean Technology in New Bedford, Massachusetts, says the dramatic reduction in the size and power requirements of GPS and communications chips in recent years is making a similar feat possible for small robot submarines with limited supplies of power.

Robert Headrick of the US Office of Naval Research in Arlington, Virginia, which funded Piscura’s work, says the US Navy is interested in using autonomous subs to patrol harbours, keeping watch for seaborne attacks. The tethered antenna would let these subs stay in constant contact while remaining hidden.

Impractical Folly Of Coed Submarines

Don’t Ask And Don’t Tell If It Makes Any Sense

By Michael Farady, Washington Times, March 26, 2010

Unless Congress intercedes, the U.S. Navy plans to station women on submarines. The change in policy was announced with no fanfare and has stirred almost no debate. Won’t some wizened old salt please speak out? No? OK, then I’ll take the plunge.

The only sure benefit of stationing women on subs is establishing equality of opportunity. Essential to realizing this ideal is the professionalism of military personnel. Never mind allegations that sexual harassment is rampant.

The practical concern the new policy aims to address has to do with smarts. Sub duty requires personnel of above-average IQ. Intelligence is everywhere in short supply, so the Navy is always in a pinch to staff the sub fleet. Adding women to the candidate pool might help. But there is a catch.

The military fervently woos women, but with little success. Just 15 percent of Navy personnel are women. As a rule, women are more difficult to entice into the military, harder to keep and generally less available for duty (e.g., because of pregnancy) than men are. I don’t see how the Navy’s difficulty in staffing subs would be affected much by adding women to the mix - there simply aren’t many to begin with.

At least some of the few women who are suitable for sub duty will opt out. Submariners must endure a weird and claustrophobic environment. “The total living area for more than 130 people is equivalent to a medium-size house,” states a report prepared for the Navy. And, while at sea for months, one can’t leave the house to go for a walk or visit family. Not everyone can put up with this.

In general, women tend to avoid high-stress jobs, particularly those that involve travel. Psychologists suggest that women are especially vulnerable to social stress. So how will they adapt to the forced camaraderie of life on a sub combined with the isolation that comes from being trapped at the office for months at a time, 20,000 leagues under the sea, with a boatload of men?

Apparently, cost is no barrier to conducting this experiment. The only estimate I’ve come across (from 10 years ago in a newspaper column) is that reconfiguring subs for coed service would cost in the neighborhood of \$4.5 million per ship. Reuters news agency reports that the Navy has 71 subs, but it doesn’t say how many are scheduled to be retrofitted. So the final cost, which appears to be prohibitive, is a mystery.

Well, I don’t suppose we have a choice, given the sorry performance record of the sub fleet.

What’s that you say? The fleet is performing adequately if not splendidly? Hmm. The handyman code instructs, “If it ain’t broke, don’t fix it.” So why are we doing this?

The reason the Navy is going down this ill-advised path is political correctness. Officers know that speaking out against PC nonsense is career suicide. So only a few (usually disgruntled malcontents with one foot out the door) even contemplate raising the appropriate questions.

Political correctness has a way of putting certain values on a pedestal while making other concerns vanish. When considering whether to put women on subs, gender equity is in the first category, practicality is in the second.

Touching base with reality, one might wonder: Can we afford this? Does it make sense even to attempt what heretofore has been considered imprudent if not foolish?

Luckily, the military has a policy that can be adapted to quell these concerns: Don’t ask, don’t tell.

(Michael Farady served as a Navy clinical psychologist and now conducts independent research on sex and gender. His article on the girl-crisis movement appears in the March issue of *Review of General Psychology*.)

Russia To Help Vietnam Build Submarine Base: Minister

Xinhua, March 25, 2010

MOSCOW — The Russian Navy will help Vietnam build a submarine base, Defense Minister Anatoly Serdyukov said Thursday.

Russia and Vietnam have bright prospects of bilateral military and technical cooperation, he said, as “Vietnam needs a submarine base and the Russian Navy will provide help.”

Vietnam also invited Russia to take part in the construction of a ship repair plant, which may later service Russian warships, said Serdyukov, who recently paid an official visit to Vietnam and held talks with his Vietnamese counterpart Phung Quang Thanh during the trip.

“They (Vietnam) will also need rescue and auxiliary vessels,” he added.

He claimed Russia is ready to help Vietnam build naval aviation, as soon as the Vietnamese military solved its financial problems.

According to the Russian Defense Ministry, Vietnam’s arms orders to Russia steadily increased in the past two years. In 2008, the total value of the two countries’ arms contracts exceeded 1 billion U.S. dollars at the first time. The number reached 3.5 billion U.S. dollars in 2009 and has already surpassed 1 billion in the first quarter of this year.

CNO: Smoking Ban For Subs In The Works

By Lance M. Bacon, Navy Times, March 28, 2010

The smoking lamp will soon be out aboard all subs, according to the Navy's top officer.

"We're going to stop smoking on submarines," Chief of Naval Operations Adm. Gary Roughead told Navy Times on March 23.

The move is not yet official, so Lt. Cmdr. Mark Jones, a spokesman for Submarine Force, would say only that Vice Adm. John Donnelly "is examining the options of changing the policy of smoking in a submarine to improve the overall health of the entire crew."

Jones would not speculate on when a decision will be made, but a final order likely will come soon. The catalyst for change is the effect of second-hand smoke on crew members who remain submerged for months at a time.

"That atmosphere moves around the submarine," Roughead said. "You don't smell it, but the damaging things from the smoke are still present."

China Struggles With Stance On Nuclear Power As Summit Nears

By John Pomfret, Washington Post, March 29, 2010

BEIJING — Two weeks before the United States hosts a summit on nuclear security, one of its most important invitees, China, has yet to RSVP.

Chinese President Hu Jintao will be in the neighborhood for a meeting in Brazil three days after the Washington summit is scheduled to end April 13. But China's coyness in accepting an invitation that went out to the leaders of more than 40 countries reflects an uncertainty about how to deal with the Obama administration's call for a nuclear-weapons-free world and its role as a rising nuclear power, even while the United States and Russia move to cut their nuclear stocks, according to Chinese government sources and Western analysts.

Officials in Washington had assumed that China would not participate in the summit as punishment for a \$6.4 billion U.S. weapons sale to Taiwan that was announced in January. But some U.S. officials and analysts say China's failure to announce its intentions suggests that the government is trying to figure out how it can take part.

"China is going to have to weigh its desire to punish the United States with its own desire to send a signal to the world that they are a responsible player that need not be viewed as threatening," said Christopher P. Twomey, an expert on China's nuclear strategy at the Naval Postgraduate School in Monterey, Calif.

China is also concerned that developments in Washington could make its participation in the summit politically difficult at home. First, China is sensitive about how the Obama administration will describe it in the upcoming Nuclear Posture Review, which is expected before the start of the summit. China was named as a targeted country in a leaked portion of the last report in 2001.

China also wants to ensure that the Treasury Department does not brand it a currency manipulator in a report due to Congress by April 15. The Obama administration has called on China to allow its currency, the yuan, to appreciate against the dollar to help right a huge trade imbalance between the two countries.

Being named a currency manipulator "would be a big loss of face for President Hu if he attends the meeting," said a Chinese government source with knowledge of the discussions surrounding the upcoming summit.

China's interest in the nuclear summit has increased since the United States and Russia announced last week that they had agreed to reduce their limits on deployed long-range nuclear warheads by 30 percent, to 1,550 each.

"China has been actively participating in the preparatory work of the Nuclear Security Summit, and I believe China will send a delegation to the summit," said Wang Baodong, spokesman for the Chinese Embassy in Washington. "But it's not decided yet as to who will head the Chinese delegation."

China has a good story to tell when it comes to nuclear security.

An upcoming report by the Washington-based Project 2049 Institute identified China's nuclear weapons storage site deep inside Shaanxi's Qinling mountain range. The report, by Mark Stokes, a former U.S. defense attaché in Beijing, concluded that the storage center is perhaps one of the most secure nuclear weapons stockpile facilities in the world, the Defense News reported this month.

China is also involved in projects with the United States to improve security at its civilian nuclear power plants, according to Linton Brooks, former head of the National Nuclear Security Administration. Brooks described that cooperation as "fairly extensive."

But China seems unsure about how to engage other countries in a discussion with respect to its nuclear weapons strategy. Unlike the United States and Russia, China has little experience in arms control talks. It has conducted one discussion of its nuclear strategy with the United States — a meeting in April 2008 between experts from the People's Liberation Army and the Defense Department in Washington.

China canceled subsequent meetings after the Bush administration sold weapons to Taiwan in October 2008. China has since rebuffed Obama administration attempts to resume the dialogue. And despite repeated invitations, the head of China's strategic forces has never been to the United States, preferring such places as Bulgaria.

Li Bin, director of the Arms Control Program and deputy director of the Institute of International Studies at Tsinghua University, said China is not reluctant to talk about its nuclear strategy. It's just that China's strategy, he said, needs little explanation: Beijing has declared that it won't use nuclear weapons first. But most Western analysts and officials do not take that stance seriously.

"On one hand, the Western experts tell us not to abandon no-first use," Li said. "On the other, they say it's not credible. We can never win."

Compared with the United States and Russia, China has a tiny nuclear arsenal. It probably has less than 100 delivery systems and an estimated total of 800 warheads, experts say. The United States has more than 2,000 deployed long-range warheads and an estimated 5,000 working warheads.

Nonetheless, the U.S.-Russian deal comes at a time when China is modernizing and increasing the scale of its nuclear arsenal, Twomey said. China has deployed a new mobile rocket called the DF-31A that can reach anywhere in the United States. China is beginning to put to sea a genuine sea-based deterrent in the form of the Jin-class nuclear submarine armed with a variant of the DF-31.

Twomey said the United States is concerned that as it and Russia decrease their forces, China might attempt a "rush to parity" by building more Jin-class submarines or by placing multiple warheads on their land-based mobile missiles. That would make future arms control measures in the United States almost impossible.

Twomey and Chinese officials said there is a growing realization in China that the longer it waits to engage the United States on the nuclear issue, the more difficult it will be to affect the rules being hammered out between Moscow and Washington.

Another conundrum for China is deciding which official, if not Hu, to send to the summit in Washington.

Hu is the only member of the Communist Party's all-powerful Standing Committee of the Politburo who sits on the Central Military Commission. His apparent successor, Vice President Xi Jinping, did not get on the military commission in the last round of promotions, so he probably wouldn't be asked.

Premier Wen Jiabao could go; he has no military experience but does chair the National Energy Commission. However, it would be unusual for both leaders to be in the Americas at essentially the same time.

J. Guy Reynolds

Vice Admiral, USN (Ret.) (Age 72)

Of Alexandria, Virginia died peacefully in the presence of his family on Monday, March 29, 2010.

A 1959 Naval Academy graduate, Vice Admiral Reynolds served the Navy honorably and with distinction for 33 years. He held senior positions in the operational Navy, and on Navy staffs and in key positions in acquisition, intelligence, research and development, test and evaluation, and international programs. His distinguished sea service included time aboard the submarines USS ROBERT E. LEE (SSBN 601), USS JACK (SSN 605), USS BENJAMIN FRANKLIN (SSBN 640), USS SAM HOUSTON (SSBN 609), as well as command of USS PINTADO (SSN

672), the submarine tender USS SPERRY (AS 12), Submarine Squadron THREE, and the Submarine Force, United States Pacific Fleet. The Admiral's numerous service awards included the Distinguished Service Medal, Defense Superior Service Medal, and the Legion of Merit.

Since retirement, Admiral Reynolds consulted with numerous organizations in his areas of expertise including international programs, business development, defense policy, nuclear power, mergers and acquisitions, program management and executive placement. He was a member of the Defense Science Board, the past Chairman of the Board of MariPro, Inc., served on numerous advisory boards and served as the President of the Naval Submarine League, Washington, DC.

Survivors include his wife, Jan (Trefethen) Reynolds formerly of Kittery, Maine; and three children, Cathy Quirk; Jim Quirk and his wife Lynne; Peter Reynolds and his wife Susan; two brothers Bob and Jack Reynolds and his wife Ruth, and sister, Ann King; four nieces Cathy Boicken, Sandy and Claudette Reynolds, and Kelli King; three nephews, Kenneth and Kent King, and Russell Reynolds. He has four grandchildren, Lauren and Andrew Quirk, and Nicholas and Victoria Reynolds.

The family will receive friends from 6:00 to 8:00 p.m. Wednesday, April 7th at the Everly/Wheatley Funeral Home, 1500 West Braddock Road, Alexandria, Virginia, 22302. A memorial service at the Funeral Home Chapel will be held during visitation at 7:00 p.m. The funeral service will be at the United States Naval Academy Chapel at 12:30 p.m. Thursday, April 8th, followed by interment at the United States Naval Academy Cemetery with full military honors. A reception will immediately follow at the Naval Academy Officers' Club.

In lieu of flowers, the family asks that expressions of sympathy please take the form of contributions to the Dolphin Scholarship Fund, 4966 Euclid Road, Suite 109, Virginia Beach, VA 23462 or the Naval Submarine League, P. O. Box 1146, Annandale, VA 22003-9146 in loving memory of VADM J. Guy Reynolds.

N.Korean Submarine 'Left Base Before the Cheonan Sank' *Chosun Ilbo, March 31, 2010*

Amid rampant speculation that the Navy corvette Cheonan sank due to a torpedo attack by a North Korean submarine or semi-submersible, there are reports that South Korean and U.S. intelligence agencies detected a submarine disappearing and reappearing at a North Korean submarine base on the west coast not far from the site of the wreck around Friday, the day the ship sank.

A South Korean government source said on Tuesday, "Scrutiny of pictures taken by U.S. spy satellites reveals one submarine in North Korea's Sagot naval base some 50 km away from Baeknyeong Island disappeared for a few days before Friday last week and returned to base later."

The source said North Korean submarines or semi-submersibles "occasionally disappear from the base and come back, so it's difficult at the moment to relate this to the sinking of the Cheonan. We are currently establishing the exact circumstances."

Defense Minister Kim Tae-young on Monday told the National Assembly's Defense Committee that North Korean semi-submersibles can fire two torpedoes.

The Sagot base is home to North Korea's core west coast naval forces including some 20 submarines and semi-submersibles.

Russia Pushes For Gulf Naval Sales *United Press International, March 30, 2010*

DOHA, Qatar — Russia's arms industry is pushing hard for a major breakthrough into the lucrative Gulf market at the Doha International Maritime Defense Exhibition in Qatar, the only navy-oriented defense showcase in the Middle East.

Qatar's Peninsula newspaper reported that defense analysts are "saying that market demand for maritime defense in the region is expected to reach more than \$30 billion in the next 20 years."

Saudi Arabia is looking for new frigates but it has been buying them from France for decades and is likely to do so again. Like the United Arab Emirates, it has been building up its naval forces over the last two decades from a coastal defense force to one with blue-water capabilities and reach.

Russia's negotiations with France to buy a Mistral-class amphibious assault ship for \$540 million-\$675 million and then possibly use the technology to build another three in Russia in partnership with warship-builder DCNS of Cherbourg may not exactly be a great pitch for Russian naval builders but it doesn't seem to have dampened Moscow's drive to boost its warship sales.

The Soviet Union's Cold War clients in the region — Syria, Algeria, Libya and Yemen — operate naval units from Kilo-class SSK diesel-electric submarines, Polnochy landing craft, Nanuchka-class corvettes and Osa-class missile craft.

Some are so out of date that they cannot be considered operational. Syria's three submarines, purchased during the Cold War, haven't been to sea for years.

So Russia's naval sales prospects in the Gulf aren't too promising, The United States, Britain, France and Germany remain the leading suppliers of naval vessels, from frigates to mine countermeasures ships.

The Doha showcase, known as DIMDEX, opened Monday and features more than 150 international companies from 35 countries that specialize in maritime defense.

That is a priority issue in the Gulf because of the need to protect offshore oil and gas fields and terminals as well as the shipping lanes through the Gulf, the Arabian Sea and the Red Sea that carry around one-fifth of the world supplies.

Russia's state-run arms exporter, Rosoboronexport, noted that "Russian design bureaus have great capabilities for the development of new ship projects on order from foreign partners or for joint design efforts with foreign shipbuilders.

"At present, Russia can offer baseline ship projects of all classes for such cooperation — from heavy aircraft carriers to small patrol craft and auxiliary vessels."

It offered more than 500 projects involving combatant vessels, including 8,000-ton missile destroyers, submarines and patrol boats.

Some time ago, Saudi Arabia talks about possible acquiring attack submarines, particularly after Iran got three Kilo-class attack boats from Russia in the 1990s.

But nothing ever came of that and it's unlikely that any of the Gulf states, with the possible exception of the United Arab Emirates, which has built up naval and air forces that allow the seven-state federation to punch well above its weight, are interested in developing an underwater warfare capability.

Indeed, the centerpiece of the emirates' naval buildup is the Baynunah program, valued at \$776 million and counting, that involved the construction of six multi-role, missile-armed corvettes.

Abu Dhabi Ship Building, the flagship of the federation's mushrooming defense industry, is building these along with Constructions Mecanique de Normandie, the French designer. The emirate navy is seeking two new frigates but these too are likely to be acquired from CMN in partnership with ADSB.

The Saudis have been discussing major arms deals with Moscow lately, mainly to induce Russia not to provide regional rival Iran with advanced S-300PMU air-defense systems to protect its nuclear facilities against U.S. or Israeli attack.

So far as is known, the prospective sales focus primarily on air-defense and armor, and with the United States pledged to provide an array of weapons systems to its Gulf allies worth \$20 billion to its Gulf allies over the next decade there wouldn't seem to be much wiggle room for the Russians.

But with Saudi-U.S. relations dipping ever since Sept. 11, 2001, the Russians might get lucky.

This is the their first participation at DIMDEX so they're probably not entertaining expectations of large sales this time around with major defense contractors Raytheon, Lockheed Martin and Boeing of the United States, Europe's Thales and Germany's ThyssenKrupp Marine Systems all displaying their wares.

Pentagon Denies Sub Test-Fired Trident Missile

Associated Press, March 31, 2010

WASHINGTON — The Defense Department denied Wednesday that the United States test-fired a submarine-launched ballistic missile capable of carrying nuclear warheads during a joint military exercise with Saudi Arabia.

A Western military official in Saudi Arabia, speaking on condition of anonymity because of the sensitivity of the issue, said a Trident missile was launched Wednesday out in the kingdom. But Lt. Col. Jonathan Withington, a Defense Department spokesman, said there was no launch of Trident or any other missile during the exercise, which began last week.

The U.S. has been strengthening missile defenses in allied Arab nations in the Gulf to help counter any potential missile strike from Iran. Like its nuclear work, Iran's missile program is of top concern to Washington and Arab nations wary of Tehran's growing influence in the region.

The Western military official in the Saudi capital, Riyadh, said U.S. Lt. Gen. Patrick O'Reilly, head of the Missile Defense Agency, attended the test launch, but a second defense official in the United States said that while O'Reilly was in the region last week, he did not attend a missile launch.

Associated Press Writers Salah Nasrawi in Cairo, Pauline Jelinek in Washington and Abdullah al-Shihri in Riyadh, Saudi Arabia, contributed to this report.

Birds Or North Korean Midget Submarine?

Korea Times, April 1, 2010

A large flock of birds or a North Korean midget submarine?

That is one of the questions surrounding the inexplicable sinking of the ROK Navy's patrol ship, the 1,200-ton Cheonan, off Baengnyeong Island in the West Sea (Yellow Sea) last Friday night.

As things stand now, just an hour after an explosion on the Cheonan broke it into two before it sank, its sister frigate Sokcho fired 130 rounds from its 76mm main canon.

This took place at 10:57 p.m.

The Navy and the Defense Ministry maintained that the shooting took place as part of a standard procedure following a large object detected on the frigate's radars.

Later, it explained that it was a flock of birds that duped radar operators as an unidentified object.

Conspiracy theorists contend is that it was a North Korean vessel that infiltrated South Korean waters on a mission to damage a Navy vessel and that the Navy is trying to cover this up because of fear of heightened tension rising between the two Koreas.

This theory is lent credence as eight years ago, the South Korean Navy won a victory in a skirmish with North Korea and, considering military tendencies to get even with the foes, it can't be ruled out that it was a North Korean attempt to score a South Korean kill.

The Ministry of National Defense said Thursday it did not detect any North Korean submarines near the western sea border last Friday night when the Cheonan naval ship was hit by an unexplained explosion.

In a 27-page news release, the ministry reiterated the target to which the nearby Sokcho frigate was firing after the Cheonan sank has been found to be a group of birds, following an analysis of Sokcho's radar and electrical optics tracking systems.

Right after the incident occurred around 9:20 p.m. in waters off Baengnyeong Island near the sea border with North Korea, the Navy's 2nd Fleet Command directed the Sokcho, which had been conducting a mission 49 kilometers south of the Cheonan, to move up to the scene after raising a security alert, it said.

The Sokcho met a "fast-moving" target, near the island, toward the North 10:55 p.m. and recognized it as an enemy at that time. Under the direction of the fleet command, the ship started shooting 76mm cannons toward the target, 9.3 kilometers away.

The 76mm gun has a range of 12 kilometers and the ship's 40mm gun has a range of 8 kilometers. That's why the Sokcho ship chose the 76mm cannon attack, said the ministry.

But the ship's radar later showed that the target had split and united into one repeatedly, a move seen to be that of a flock of birds, it said.

As for possible moves by North Korean submarines near the NLL at the time of the sinking, the ministry said there had been no such activities.

"We didn't detect any movement by North Korean submarines near the NLL (when the Cheonan sank), and there is a low possibility of North Korea's dispatch of submarines to the South," said Rear Adm. Lee Ki-shik of the information and operations bureau at the Joint Chiefs of Staff.

"But we're still open to all possibilities, including a submarine intrusion, and are investigating the cause of the accident in a scientific and objective manner," Lee said.

Russian Submarine Not Too Secret Facts For April 1st

Molten Eagle, April 1, 2010

Last Friday, we compared Russian submarine crew complements to certain U.S. counterparts. Interestingly, after 145 years of submarining, the ratio of officers to men is the same for the Confederate Hunley (1:7) as for the modern marvel, USS Seawolf (SSN-21).

Two Russian sub classes, however, Alphas and the radically new Severodvinsk had/will have opposite or highly contrasting ratios of about 7:1 and 1:1, respectively. To understand why, we must first realize the makeup of the Russian navy. Russia's naval manpower is comprised of conscripts serving one year terms and volunteers (Officers and Ratings). As of 2008 the conscription term had been reduced to one year.

Most could agree it might be a losing proposition to send one-year conscripts on highly secretive submarine missions while trying to maintain a high degree of national security; so apparently do Russian admirals.

But there are even more startling claims concerning the Severodvinsk due to be launched in May of this year (we will not hold our breath)...

The submarine will have a crew of 50, suggesting a high degree of automation in the submarine's different systems. The newest U.S. attack sub, the Virginia-class submarine, has a crew of 134 in comparison. If true, this might imply that many of the automated equipment could have been developed from the highly automated project 705 Lira, which is considered as the most automated nuclear attack submarine of all times (the entire half of the boat with reactor and propulsion was unmanned and controlled from the control room).

Women In Submarines Face Health Issues

By Rowan Scarborough, Washington Times, April 5, 2010

On the surface, the Navy's leadership has sounded exuberant in speaking publicly about its recent decision to begin deploying female sailors in the cramped confines of combat submarines by next year.

But behind the scenes, the prospect of coed submarines is presenting medical and ship-construction challenges.

A specialist on undersea medicine is warning Congress that the air inside a submarine can be hazardous to fetal development.

"Atmosphere controls are different between ships and a submarine's sealed environment," retired Rear Adm. Hugh Scott, a former undersea medical officer, told *The Washington Times*. "There are all types of organic traces that off-gas into the air that have to be removed by mechanical means. You just can't open a window and let them out."

Adm. Scott said the Office of Naval Research contacted him about serving on a panel to study women and submarine issues, but he never heard back. A spokesman for the office said he had no immediate information on any submarine study.

The Navy is following the template it is using to allow gays in the military. Defense Secretary Robert M. Gates voiced support for removing the ban on gays, then ordered a study to determine the impact on combat readiness and military families.

During congressional testimony this year, Navy Secretary Ray Mabus and Adm. Gary Roughead, chief of naval operations, enthusiastically endorsed placing Navy women in subs.

But a comprehensive study apparently has not been conducted and now a working group is being formed to ease the integration.

"There was no study done that prompted leadership to change their minds," said Lt. Justin Cole, a Navy spokesman. "It's been an issue of career progression."

Lt. Cole said the Navy is forming a "Women in Submarines Cross-Functional Working Group" to pave the way for mixed-sex subs once a 30-day deadline passes for Congress to oppose the move.

That does not seem to be an obstacle. When Mr. Mabus and Adm. Roughead testified, no lawmaker objected or asked questions about the impact.

"It is a good plan," Adm. Roughead testified. "I can assure you of that and the submarine force is prepared to execute."

Said Mr. Mabus: "One of the things that we're going to do in this integration is to make sure that any questions are answered by the force, any questions are answered by the families, and that we are very open, transparent about exactly how we're doing this. But we think this is a great idea and that it will be done very smoothly and very professionally and that it will enhance our war-fighting capabilities."

Conservative groups worry about the sexual tension created when young men and women are confined to close quarters during long submerged deployments.

The Navy must figure out how to carve out special women's berthing space in what are already the tightest living and working places in the fleet.

It also must ensure that independent duty hospital corpsman (submarines normally do not deploy with physicians) know women's health issues.

Adm. Scott has written a letter to House Armed Services Committee Chairman Rep. Ike Skelton, Missouri Democrat, who supports an end to all-male submarine crews.

"I have serious concerns about the risk to the safety and normal development of an embryo-fetus in the submarine environment," wrote Adm. Scott, who was director of undersea medicine and radiation health at the Navy's Bureau of Medicine and Surgery.

Adm. Scott said a certain percentage of female sailors embark on deployments pregnant or become pregnant during the cruise.

"Unlike surface ships, the sealed environment of the submarine atmosphere poses an increased risk to the normal development of a woman's embryo-fetus," he said.

"In addition, the nature of the operational mission coupled with a very limited medical capability aboard a submarine will significantly increase the risks of survival for women who may be stricken with complications of abnormal pregnancies while under way."

He said a sub's confined atmosphere is a soup of carbon monoxide, carbon dioxide, aerosol trace elements and "other hazardous substances" — all of which cannot be removed because the ventilation system would be too large. He cited studies that documented the dangers a submarine's air poses to the unborn.

Adm. Scott also raised the issue of combat effectiveness. "Considering that unit cohesiveness, morale and combat effectiveness of the U.S. submarine force and strategic defenses of the country are in the balance, it would be prudent to avoid making any hasty decisions before having all of the facts," he said.

The Navy's plan is to start with adding female officers next year aboard its two largest boats, the 160-sailor Ohio-class ballistic-missile submarines and guided-missile submarines. Women would have private staterooms so no immediate renovations would be needed. Ballistic-missile boats are at sea 24 hours a day, seven days a week, as a deterrent to nuclear attack.

Once female officers gain deployment experience, the Navy will begin assigning enlisted women in large enough numbers to create a "critical mass" so they do not feel isolated, Mr. Mabus said.

"We think we have learned a lot from integrating women into our surface ships almost 20 years ago and that those lessons are very applicable today," Mr. Mabus said.

Not everything has gone smoothly. After Congress in 1993 lifted the ban on women on combat surface ships (but not subs), reports surfaced of readiness problems as pregnant sailors were sent home.

One ship had so many pregnant sailors that the news media dubbed it the "Love Boat." A 1997 study by the Navy Personnel Research and Development Center found female sailors often forgot to take birth-control pills and experienced more unwanted pregnancies and higher abortion rates than shore-based women. The Navy Times reported last year that the number of pregnant sailors in deploying units had nearly doubled to 3,125. The Navy, which has 54,000 servicewomen, wrote a 37-page instruction manual on how to handle expectant mothers. They may not serve aboard ship, or in forward deployed billets, after the 20th week of pregnancy.

Wreckage Of WWII Sub Found

By David Johnson, OA Online, April 04, 2010

Now, most World War II veterans are battling bad knees and fading hearing, but almost 70 years ago they faced German tanks and Italian bullets and Japanese mines.

Many U.S. servicemen were not able to grow old enough to experience arthritis, and some weren't even able to be properly laid to rest.

Although Jarrold Clovis Taylor's family had a memorial in September 1944 and a plaque with his name is in the Ector County Cemetery, his body was never there, and for almost 66 years, no one knew where he or any of the other 77 sailors from the USS Flier had gone to rest.

Clovis Taylor was born March 1, 1921, in Electra to J.G. and Beulah Taylor; he was their first child. Nine more siblings survived to join him during the next 17 years, and his 87-year-old sister Eunice Wittie, now of Stephenville, remembers him well.

"I envied him because he was so good looking, and I was a girl and thought I should be the pretty one," Eunice said. "He was well-liked by everybody."

Newspaper clippings preserved by the family chronicle of some of the awards Clovis received while in high school in Electra, such as most representative boy and president of the freshman class of 1938. He also worked at the movie theater, for the same people who owned the newspaper, and was a member of the Texas National Guard.

"He was a very active person," Eunice said.

In March 1940, Clovis joined the Navy and went to San Diego. During the attack on Pearl Harbor in 1941, he was on the battleship USS Pennsylvania, which was hit but still able to sail. During 1942, he saw several battles, including Midway.

He then enrolled in submarine school at New London, Conn., graduated from there in March 1943, and began his service on the USS Flier, a Gato-class submarine.

Navy reports say that during the Flier's three patrols, it earned one battle star and sank a total of 10,380 tons of Japanese shipping.

But Eunice said the last time she saw Clovis, he had a bad feeling about another patrol on the Flier.

"'Sis, if I go back on the Flier, it'll be my third time out, and there's an old Navy superstition that the third time you go out on the same submarine, I probably won't be coming home again,'" she quoted Clovis as saying.

On Aug. 13, 1944, the USS Flier struck a naval mine in the Balabac Strait of the Philippines and quickly sank.

Fourteen people made it off of the ship, but only eight survived the swim and were rescued. Electrician's mate, first class, Jarrold Clovis Taylor wasn't one of them.

The Taylors had moved to Odessa in the summer of 1943, but in September 1944 Eunice was back in Electra visiting a friend. A telegram about the Flier came to her grandparents, and Electra being a small town, the news found its way to her. She took got on a bus and went back to Odessa.

"I cried the whole way home," Eunice said.

Eunice said the Navy later sent a letter to their mother telling them that Clovis' duty put him below deck, and only those above deck had been able to get out and swim.

"We lost all hope after that," Eunice said.

For many years, no one knew exactly where the Flier had been sunk.

In 2008, the last surviving crew member of the Flier died, but Ensign Al Jacobson spent his life searching for the sub, and his family gave a production company named YAP Films all of the information Jacobson had collected during his life.

In spring 2009, father-and-son professional divers Mike and Warren Fletcher of the TV show "Dive Detectives" used that information to locate the wreckage of a submarine in the same area the Flier was lost. YAP Films gave the findings to the U.S. Navy, which announced Feb. 1 that it had determined the wreck could only be that of the Flier.

March 19, Mary Bentz of the USS Flier Family Search Team contacted the Odessa American about locating family members of Clovis Taylor because records showed he had relatives in the area.

A search turned up four surviving siblings who lived in Odessa: brothers Duane and Dearl Taylor and sisters Glenda Haynie and Jeri Noe.

Duane, who said he was too young to remember Clovis well, provided an album of family photos and press clippings of Clovis, and the contact information of some of his family, including Eunice Wittie.

Sisters Frances Dumond and Leona Wimberly currently live in Junction; brother and WWII Army veteran Robert Taylor died in 1997 in Odessa, and sister Joletta Taylor died in 2005 in Kerville.

"The whole family has been so elated that this has come up," Eunice said. "We have talked all day long. ... We can finally have a closure about this now."

Bentz, whose uncle went down with the submarine the USS Grunion in 1942, was also quite pleased.

"This has just been great," Bentz said. "This is exciting news."

Bentz said that only five of the 52 submarines lost during WWII have been located, but at last count, only eight crewmembers of the Flier remained needing family contacts.

The Flier Search Team is planning a memorial ceremony for the men of USS Flier on Aug. 13 at the Great Lakes Naval Memorial and Museum located in Muskegon, Mich.

“We have to never forget these people,” Bentz said.

“It’s a sad situation that boys had to fight for the county, and we were so proud of them,” Eunice said. “Hopefully it will never happen again.”

Torpedo Attack Likeliest Cause of Shipwreck

Chosun Ilbo, April 5, 2010

Military authorities believe that a strong external shock was the reason for the sinking of the Navy corvette Cheonan, on March 26, with a torpedo, mine or depth charge the most likely to generate enough impact. The most likely suspect is a torpedo.

Torpedo, Mine or Depth Charge?

Torpedoes and mines attack from under the surface of the ocean, while depth charges are thrown into the water from airplanes or ships to hit submarines. Torpedoes travel between 60 km/h to 70 km/h powered by propellers and can hit targets that are between hundreds of meters to tens of kilometers away. Torpedoes also use sonar detectors to zero in on their targets.

In contrast, mines have no propulsion mechanisms and simply await their targets while floating on the surface of the ocean or submerged. They either collide with unsuspecting ships or are drawn to vessels by the sounds of their propellers or their magnetic fields. This causes floating mines to have a much smaller attack radius than torpedoes.

Depth charges are limited in terms of their targets or methods of attack compared to torpedoes or floating mines. They simply explode due to underwater pressure after sinking into the depths.

Why a Torpedo?

If any of the depth charges that were stored at the rear of the Cheonan had exploded, the blast could not have caused the vessel to split in half. And the absence of any suspicious aircraft or vessels near the South Korean Navy corvette at the time of its sinking rules out the possibility of depth charges being used against it.

There are two possibilities regarding a mine. One is an accidental collision and the other is an intended attack. There is no chance that a mine left over from the 1950-53 Korean War had been floating around for 60 years until it hit the Cheonan. And mines laid near Baeknyeong Island around 1975 to prevent a landing by enemy forces have all been deactivated, Defense Minister Kim Tae-young told lawmakers on Friday. It is highly unlikely that a North Korean mine had simply floated south, since that would be completely opposite the direction of the currents in that area, and officials say it would have been far too difficult for North Korea or another enemy to set a floating mine there so that it would eventually make contact with the Cheonan because the corvette sank in an area where it only traveled 15 times before and which is more frequently used by fishing boats.

Even if torpedo fragments are found at the site of the sinking, it would still be very difficult to determine the mode of attack. Two North Korean mini-submarines were unaccounted for during March 24 and 27, but it remains unclear whether this may have any direct link to the Cheonan, government and military officials said.

Norwegians To Raise Submarine

Gold Investment Stocks, April 3, 2010

The Norwegian Government has announced that the wreck of the WW2 German submarine U-864, which contains 65 tons of mercury, is to be raised, and that the contaminated seabed be covered with clean sand. The submarine, which lies off the Norwegian west coast near Fedje, north of Bergen, has long been considered an environmental hazard by environmental groups and local people. However, experts have disagreed on whether or not the wreck should be raised or if it would be better to build a sarcophagus which would isolate the mercury from the marine environment, thereby eliminating the pollution hazard.

French Re-enter Pakistan Sub Fray

By Usman Ansari, Defense News, April 5, 2010

ISLAMABAD — In a surprising move, France’s DCNS appears to have re-entered the drawn-out competition for the Pakistan Navy’s next-generation submarine.

“We are looking at Chinese, French and German submarines, but we are still negotiating,” said Capt. Mobin Ashraf Bajwa, the Navy’s media affairs director. He declined to say which submarine had been offered by DCNS.

Bajwa confirmed the French re-entry into the competition when asked about recent local media reports that Pakistan had decided to buy the Chinese Type-041A Yuan-class diesel attack submarine, a largely unproven design that is only in limited operation with the People’s Liberation Army Navy.

“The news that we are contracting seven submarines from the Chinese is false,” he said. “These are just negotiations.”

The initial competition, which started in the middle of the last decade, came down to proposals from French company DCN (now DCNS) for its Marlin submarine and Germany’s HDW for its Type 214. The Navy evaluated both designs, and in 2007, it recommended that the government buy the Type 214.

When negotiations yielded no signed deal with HDW by last year, the Navy confirmed it was considering a Chinese design — thought to be the Type-041A Yuan-class SSK— alongside the Type 214.

In 2008, Stephane Castelli, a DCNS representative here, said the Marlin had been absorbed into the Scorpene family as its most advanced variant and was essentially still available. No sources here would disclose whether DCNS is offering Pakistan the Marlin or another variant of the Scorpene, which arch-rival India has purchased in a convoluted deal.

Castelli said only that these were matters “of a confidential nature.” DCNS previously said the Marlin was a hybrid design with a proposed diesel-liquid oxygen air-independent propulsion (AIP) unit, incorporating technologies from the Scorpene and the French Navy’s Barracuda attack submarine. Its dimensions were comparable to an ALP-equipped Scorpene. Its performance was slightly better than Pakistan’s current DCN-designed Agosta-90B AIP-equipped subs, with improvements in stealth being the greatest difference.

Nevertheless, the Marlin existed only on paper, and the Navy gravitated toward the Type 214.

Usman Shabbir, a defense analyst at the Pakistan Military Consortium, said consideration of a Chinese option is not unprecedented. “In the 1990s, when the Navy was looking for new submarines, it did look at a Chinese option but didn’t like what it saw,” he said.

But Chinese submarine technology may have improved enough to make a Chinese option more viable now, he said.

However, “going for the Marlin/ Scorpene may cause considerable political problems if the Navy now goes for a French sub after declaring the Type 214 to be technologically superior and its first choice,” he said.

Shabbir said the reason for his caution about a French option was the corruption scandal that surrounded the selection of the French Agosta-90B submarine in the 1990s, and current Pakistani President Asif Ali Zardari’s perceived, but unproven, role in that scandal. The episode is well remembered in Pakistan for leading to the dismissal of Adm. Mansurul Haq, then the chief of Naval Staff.

The initial deal is expected to be for three submarines, but Bajwa said the Navy still intends ultimately to field 14.

With such a large number as a reward, all three competitors are likely to fight hard to secure a contract.

Shabbir believes the French are trying to rescue a 40-year-plus submarine cooperation relationship with Pakistan, something until recently they thought they had lost to the Germans.

With memories of the Agosta-90B scandal still imprinted in the collective memory in Pakistan, however, there will be much greater scrutiny of the deal now that the French are once more involved.

US Navy Plans To Ban Smoking In Submarines: Report

Agence France-Presse, April 5, 2010

WASHINGTON — The top US naval officer has vowed to stop people lighting up in submarines, where the confined atmosphere has serious passive smoking implications, a report said Monday.

“We are going to stop smoking on submarines,” Chief of Naval Operations Admiral Gary Roughead told a recent meeting of senior submariners, according to the Navy Times magazine.

Navy spokesman Lieutenant Commander Mark Jones confirmed a ban could be in the pipeline, telling AFP: “We are currently looking at changing the policy, but we have not changed the policy.”

At present, smoking on US submarines is up to the commanding officer’s discretion and there are designated areas on many vessels where the crew are allowed to smoke.

“That atmosphere moves around the submarine. You don’t smell it but the damaging things from the smoke are still present,” Roughead was quoted as saying by the Navy Times.

A Pentagon study last year carried out by the American Institute of Medicine revealed that soldiers smoke a lot more on average than civilians and that the wars in Iraq and Afghanistan had seen a spike in smoking.

The last official figures for the US military, in 2005, showed that almost one third of personnel in the armed forces, 32 percent, smoke as opposed to just one in five of the American population as a whole.

Jones said up to 40 percent of US submariners smoke, making it all the more important to look into a ban for the overall health of American sailors.

Russia Eyes \$5 Billion In Arms Sales To Venezuela: Putin

Reuters, April 5, 2010

MOSCOW - Russian may sell \$5 billion worth of weapons to Venezuela, Prime Minister Vladimir Putin said on Monday after a visit to the South American nation.

Putin met Venezuelan President Hugo Chavez in Caracas on Friday to discuss oil, defense and nuclear energy cooperation, although no new arms agreements were signed.

The United States expressed concern about possible arms proliferation following such a deal with Venezuela, one its most prominent foes in the region.

Chavez says his growing arsenal is aimed at countering a planned increase in the U.S. military forces in neighboring Colombia, Washington’s closest ally in Latin America.

“Our delegation has just returned from Venezuela and the overall volume of orders could exceed \$5 billion,” Putin was quoted as saying by Russian news agencies at a meeting with arms industry officials.

Putin said the figure included \$2.2 billion in credit lines for Russian arms received by Chavez during his eighth visit to Moscow in September, including T-72 tanks and the S-300 advanced anti-aircraft missile system, RIA news agency reported.

The reports did not give any further details.

In Washington, State Department spokesman P.J. Crowley told a news briefing:

“We’re hard pressed to see what legitimate defense needs Venezuela has for this equipment.”

“If Venezuela is going to increase its military hardware, we certainly don’t want to see this hardware migrate to other parts of the hemisphere.”

In recent years, Venezuela has bought more than \$4 billion worth of weapons from Russia, from Sukhoi jet fighters to Kalashnikov assault rifles.

During his Moscow visit in September, Chavez recognized the independence of two pro-Russian rebel territories in Georgia. President Dmitry Medvedev said then that Russia would supply Venezuela with all the arms it asked for.

Chavez wants to reinforce the Venezuelan military with Russian missiles, tanks and diesel submarines. He says he wants to resist what he calls U.S. imperialism in Latin America

Repair Cost For Sub Hartford Nearly \$87M

By Lance Bacon, Navy Times, April 6, 2010

The Navy will pay another \$36.6 million to repair the fast attack submarine Hartford after a collision March 20, 2009, with the amphibious transport dock New Orleans. This will bring the total repair cost to \$86.9 million.

General Dynamics Electric Boat was awarded the contract April 1. It will cover the final fabrication and installation of the hull patch, bridge access trunk, port retractable bow plane and the sail. The work, which will be performed primarily in Groton, Conn., is scheduled to wrap up by November.

This is the fourth contract awarded for Hartford's repair work. Though the contracts total \$139.2 million, the company was able to do the work for less than estimated, according to Bob Hamilton, Electric Boat spokesman. The previous three contracts totaled \$102.6 million, but most of those funds expired Oct. 1, the start of the new fiscal year.

The Los Angeles-class sub collided with New Orleans in the Strait of Hormuz. New Orleans, which was on its maiden deployment, suffered a 16-by-18-foot gash in its hull that ripped open a fuel tank and two ballast tanks and required \$2.3 million in repairs.

Cmdr. Ryan Brookhart was relieved of command of Hartford on April 14, 2009, due to loss of confidence. A Judge Advocate General Manual investigation found an informal atmosphere, crew complacency, a "weak" command and inferior submariner skills led to the "avoidable" accident. Specifically, the navigator was listening to his iPod during a critical evolution, watchstanders were known to sleep on the job, and stereo speakers were rigged for music in the radio room.

New Nuke Plans Not Seen Swaying SSBN Sub Buy

By Emelie Rutherford, Defense Daily, April 7, 2010

The Obama administration's new nuclear-weapons direction will not likely significantly alter the Navy's plans to buy a dozen new ballistic-missile Ohio-class submarines starting later this decade, a naval analyst said.

The Nuclear Posture Review (NPR) unveiled yesterday calls for reducing U.S. nuclear-force levels while still maintaining a strategic deterrent that includes the triad of ballistic-missile submarines, nuclear-capable aircraft, and ICBMs, Defense Secretary Robert Gates said at the Pentagon.

The NPR jibes with the new Strategic Arms Reduction (START) treaty President Barack Obama and Russian President Dmitry Medvedev are set to sign tomorrow.

The administration is crafting this new nuclear policy as it also is grappling with paying for the \$85 billion SSBN-X Ohio-class submarine program, which is set to begin in the fiscal year 2011 budget this October.

Ronald O'Rourke, a specialist in naval affairs at the Congressional Research Service, said yesterday he does not see a major impact on the Navy's SSBN program resulting from the START treaty. The agreement lowers for each country the allowed tally of deployed strategic warheads, as well as launchers, nuclear-armed missiles, and heavy bombers.

O'Rourke, speaking at a "Sea Power in the 21st Century" event at the Heritage Foundation in Washington, noted the reduction in strategic nuclear weapons called for in the treaty is not a deep-percentage drop.

"If the NPR is broadly consistent with the numbers that are in that treaty, then my understanding is we are not looking at a deep reduction in numbers, but rather a fairly mild one compared to the numbers the United States was previously planning toward," O'Rourke said. "And what that would mean is that you are not necessarily looking at a scenario in which numbers of strategic nuclear weapons on the U.S. side are so deeply reduced that it would necessarily cause a rethinking or a complete change in the anticipated numbers of these SSBNs or in the number of (missile) tubes."

He said the number of tubes on the ships potentially could drop, but said he did not expect any great reduction.

The Navy plans to buy 12 SSBNs from FY '19 to FY '33 at a cost of \$6 billion to \$7 billion each in FY '10 dollars; that figure is roughly half of the Navy's annual shipbuilding budget.

Some lawmakers fear the SSBN program will hamper plans to increase the size of the Navy's fleet.

Gates last month acknowledged the submarine effort "will suck all the air out of the Navy's shipbuilding program" in the latter part of this decade.

"Some tough choices are going to have to be made, either in terms of more investment or choices between the size of surface fleets you want and the submarine fleets," Gates told the House Appropriations Defense subcommittee on March 24.

Strategy Review Backs Ballistic-Missile Subs

By Jennifer Grogan, The Day, April 7, 2010

Groton - A review of U.S. nuclear strategy found that the country should continue with a "robust" ballistic-missile submarine program, which bodes well for Electric Boat since the company is working on the design of the next-generation ballistic-missile submarine.

The Nuclear Posture Review states that ballistic-missile submarines are the "most survivable leg of the U.S. nuclear triad" of nuclear-capable missiles, aircraft and submarines. There appears to be no "viable near or mid-term threats" to the survivability of these submarines, the review said.

EB President John P. Casey called this language “encouraging.”

“The skilled workers of Electric Boat look forward to working with the Navy on the design and construction of the next generation of these submarines as the Ohio replacement program advances,” Casey said in a statement Wednesday.

The administration included about \$700 million in the defense budget to continue developing a new ballistic-missile submarine to replace the current fleet of Ohio-class, or Trident, submarines. Last year’s budget provided \$495 million for the program.

EB is hiring designers and engineers to work on the design.

The Nuclear Posture Review describes how the United States will reduce the role and number of its nuclear weapons. Administration officials have called it the most comprehensive review of U.S. nuclear strategy since the end of the Cold War.

Jointness A Threat To Beating China: Analyst

By Christopher P. Cavas, Defense News, April 8, 2010

The Pentagon’s relentless pressure on each of the armed services to cooperate more fully with each other and pool their resources could leave the United States unprepared to face its most capable potential adversary, a key strategist said April 7.

“The secular religion of jointness,” said Bryan McGrath, is making the Department of Defense “ill-prepared” to defend commercial globalization that in turn is underwritten by sea power.

“The inability to do this leaves our country ill-prepared to meet the one adversary we could face - China,” he added.

McGrath, a retired U.S. Navy officer who was the primary author of the service’s latest maritime strategy, spoke in Washington at a Heritage Foundation panel on sea power.

“Jointness has made our armed services the envy of the world,” McGrath noted. “No nation can match our ability to synchronize combat power. It is also a paradigm of acquisition and strategic planning.

“But jointness has gone too far,” he charged. “It is an impediment to intellectual and strategic thinking.”

With a need to embrace and support the needs of the land services, the Navy, McGrath said, is unable in the current climate to strongly advocate for sea power. A military strategy that clearly favored sea power over airpower and land power would never make its way out of the Pentagon, he said.

“Sea power must receive greater emphasis as an enabler of a grand strategy in a multipolar world,” he declared. “But I fear it will not.”

The Pentagon has not yet faced up to the challenges represented by a growing Chinese blue-water navy, McGrath said. “We are whistling past the graveyard.”

A response to the Chinese should be based on a maritime strategy, McGrath said. “We must find a way to have a national debate about sea power and its centrality to the world.”

The Chinese themselves are pointing the way, McGrath observed.

“We must find a way to embrace Confucian duality as effectively as the Chinese do. We should work to encourage good behavior, but we need to be thinking more about what a war with China would look like. Planning to fight a war with China does not guarantee a war or make it more likely. It simply means that nations should be prepared to fight and win a war they cannot afford to lose, in this case with China.”

In response, one veteran naval strategist rose from the audience to challenge McGrath.

The Navy often is described as arrogant in its relations with other services, observed Dick Diamond, a retired naval officer. “Now you have us believe the Navy is drinking the Kool-Aid of jointness.”

A key test as to how far the Navy and Air Force are embracing jointness, Diamond noted, will be the release in about two months of internal reports on the Air-Sea Battle, a Navy-Air Force effort to pool their resources to meet tactical challenges on the battlefield. “The report that the joint Air Force-Navy cell gives their leadership, and what their service chiefs sent forward to the secretary of defense, will answer the question of whether the services are really on board with jointness or not,” Diamond told a reporter Wednesday. “It will be a perfect laboratory.”

Sources Explain Ongoing Developments in N.Korean Submersible Technology

Chosun Ilbo (South Korea), April 7, 2010

North Korea has stealth submersibles equipped with heavy attack torpedoes, intelligence sources speaking on condition of anonymity claimed Tuesday. The anonymous sources said the North’s Shark-class submersibles and Yugo-class midget submarines are covered with “special tiles” that can evade sonar and some models of the Yugo-class subs are armed with 533 mm torpedoes.

The sound-absorbing tiles are reportedly made by mixing chlorine rubber with silicon compounds. But one intelligence source said the North experienced some difficulty developing an adhesive glue to attach them to submarines or submersibles. The source claimed the North developed various models of Yugo-class subs, one of which was seized by South Korea when it became entangled in fishing nets in waters off Sokcho, Gangwon Province in 1998.

The Yugo-class subs can travel underwater for four to five hours but are said to have difficulties traveling fast due to battery capacity. Semi-submersibles can travel at a speed of more than 40 knots (84km/h) on the surface, but their big disadvantage is their noisy Swedish-made engine, the sources claimed. North Korea’s underwater weapons are made by Taean Electrical Appliance Plant of Kangson Steel Works near Nampo in South Pyongan Province, a source said.

Thresher Remembered; Sub Disaster Marks 47th Year At Portsmouth Shipyard; Families Honor Victims

By Jason Claffey, Foster’s Daily Democrat, April 11, 2010

KITTERY, Maine — For the families of the 129 men who perished when the Portsmouth Naval Shipyard-built USS Thresher submarine sank 47 years ago, there are no graves to visit. The bodies of their loved ones were never recovered, leaving them to mourn in a void as large as the sea.

That changes during a memorial service held every year.

Saturday afternoon at Traip Academy, a crowd of about 300 gathered to remember the worst sub accident ever in terms of loss of life.

“The ripples have dissipated, but the memories of that day have drawn us here today,” said Portsmouth Naval Shipyard Commander Bryant Fuller, who gave the service’s introductory remarks in the school gymnasium.

Faulty piping was blamed for causing the Thresher to sink below crush depth while it was conducting a test trial off the coast of Cape Cod. At the time, the nuclear-powered, fast-attack sub was the most advanced in the world.

Lori Arsenault, daughter of Thresher crew member Tilmon Arsenault, said it’s important for her family and others to get together every year and keep the memories of their loved ones alive.

“We need each other,” she said.

Her father, a decorated World War II veteran, operated the Thresher’s nuclear reactor. When he wasn’t in uniform, he liked to play the organ and taught Lori and her brother, Bill, how to play. She said he would often have her play in front of his buddies to show off.

“He was so proud of me,” she said.

Before he left for the fateful mission, she said he promised to build wooden blocks to prop up the organ pedals so she could reach them.

Similar stories circulated among the dozens of families gathered during the hour-long ceremony.

“It brings us back to such good times,” Arsenault said.

In one of the ceremony’s most poignant moments, the family of Billy Max Klier, an engineman aboard the Thresher, laid wreaths at the water’s edge of the Portsmouth Naval Shipyard. The family included his wife, Mary Ferrall; son, Billy Klier; and two grandchildren, Michael and Andrea.

The Thresher’s sinking led to the establishment of the SUBSAFE safety program that has prevented a similar disaster, according to Al Ford, director emeritus of the Navy’s Submarine Safety and Quality Assurance program based in Washington, D.C. He flew up to speak at Saturday’s ceremony.

“The changes their sacrifice brought about are alive and vibrant today,” Ford said.

Fuller said he has signed about 60 SUBSAFE certificates over the year for new and overhauled subs.

“Every time I give that signature, I think about the Thresher,” he said.

A single sub — the USS Scorpion — has sunk since the Thresher tragedy, though the Scorpion was not SUBSAFE-certified. The Scorpion sunk from a possible mechanical failure in 1968 near the Azores while it was observing Russian naval activity. Ninety-nine men perished.

The Thresher had been conducting a test trial off Cape Cod during its doomed mission. It was accompanied by the USS Skylark.

On April 10, 1963, the Thresher sent the Skylark a message saying, “We are experiencing minor difficulties, we have a positive up angle, and are attempting to blow. Will keep you informed.”

Minutes later, the Skylark received two garbled messages. Its radar then detected a high-energy, low-frequency disturbance. It turned out to be Thresher imploding, as it had fallen below crush depth.

The men who perished included crew members, Portsmouth Naval Shipyard officer observers, shipyard civilian workers, and contractor technicians.

Submarine Force To Honor Triton’s Historic Voyage

By Jennifer Grogan, The Day, April 10, 2010

Robert Perkins said it was an honor to be on the crew of the first ship to circumnavigate the world while submerged.

“But we were just doing our duty,” said Perkins, a radioman on the USS Triton (SSRN 586).

Led by Capt. Edward L. “Ned” Beach Jr., the Triton followed many of the routes taken by Ferdinand Magellan, cruising 46,000 miles in 84 days to complete the first submerged circumnavigation in 1960.

Fifty years later, the Submarine Force is celebrating that feat at the 110th Submarine Birthday Ball at Foxwoods Resort Casino tonight.

Beach’s wife, Ingrid, and crew members who were on the historic deployment will attend, including Perkins, who traveled from Florida. Master Chief Petty Officer of the Navy Rick West is the guest speaker for the ball.

“A lot of people never cross the equator. On that trip in 1960 we crossed it four times,” said Dave Boe, who served as a torpedoman.

“And we came away with experiences that affected us the rest of our lives,” added John Kuester, the submarine’s cook and baker.

Crew members from all stages of the submarine’s life and their family members are in southeastern Connecticut for the weekend to attend their reunion and the birthday ball. Many went to a Naval Submarine School graduation on Friday for a basic enlisted submarine class named after the Triton.

“To be a part of all of this, it really feels like we’re still part of the Navy,” Boe said. “It has brought back a lot of memories.”

Retired Adm. Henry “Hank” Chiles Jr., who served on the Triton from 1963-1966, told the class that they will “write the history of the next generation of the U.S. submarine service.”

“It’s a great responsibility,” he said. “You’re not just going to write it, you’ll make it, you’ll be a part of it. Your ship will be a part of you, just like Triton is for everyone sitting alongside you in this room.”

Each graduate received a certificate of completion and a commemorative coin celebrating the 50th anniversary of the Triton’s accomplishment.

“We’ll have other reunions, but this will be the top of the line,” said Henry Jackson, the reunion chairman who was on the crew in 1969 when the Triton was decommissioned. “For the Triton, it’s a once-in-a-lifetime event.”

Sweden To Invest In New Submarines

The Local (Sweden), Apr 11, 2010

The Swedish military is set to shell out billions of kronor for two new state-of-the-art submarines while also upgrading two older vessels, defence minister Sten Tolgfors has revealed, defence minister Sten Tolgfors has revealed.

Writing in the Sunday edition of Stockholm daily Svenska Dagbladet, the minister conceded that the Baltic Sea area remained stable, with only Kaliningrad and St. Petersburg breaking the circle of EU and NATO-affiliated countries.

“However, one can never rule out long-term risks and incidents, which could also be of a military nature,” Tolgfors wrote.

The multi-billion kronor investment is to be included in next week’s spring budget proposal, he added.

Ship builder Kockums said in February that it had signed a contract with FMV (the Swedish Defence Materiel Administration) regarding the construction of next-generation submarines.

“This is an important first step, not only for Kockums, but for the Swedish Armed Forces as a whole,” said Kockums CEO Alfredsson in a statement released at the time.

“We shall now be able to maintain our position at the cutting edge of submarine technology, which is vital in the light of current threat scenarios. HMS Gotland demonstrated what she is capable of during two years of joint exercises in the water off the USA. This next-generation submarine marks a further refinement of technology”, he said.

Until now however the Swedish government had not given any indication of the scope of its plans. Along with the two new vessels, two Gotland class attack submarines will also receive major upgrades as part of the investment.

Tolgfors said the move would ensure that Sweden’s submarine fleet maintained its “top international calibre”. The minister also shared Kockums’ view that the next-generation Swedish submarine would attract a great deal of interest abroad and would likely lead to export deals in the future.

China Faces Nuclear Diplomacy With Awkward Baggage

Reuters, April 11, 2010

Chinese President Hu Jintao takes tricky baggage to the nuclear security summit opening on Monday, representing a superpower in the making that is a relatively small nuclear arms state, wary of its big peers.

The meeting in Washington D.C. hosted by President Barack Obama will focus on making atomic sites and materials safer from theft and terrorist attack, not broader questions about arms controls and cuts.

But the unprecedented 47-nation meeting that could test China’s approach of staying inside the exclusive club of five official nuclear weapons states and yet sometimes acting as an outsider, critical of the biggest nuclear powers.

“China wants to be grouped with the recognized (nuclear) weapons states, but also wants to be seen as a voice for the demands of the non-nuclear developing world,” said Jing-dong Yuan, an expert on China’s nuclear arms policies at the Monterey Institute of International Studies in California.

For all its rising wealth and military spending, China keeps a relatively small stockpile of perhaps 200-240 nuclear warheads. Since China conducted its first nuclear test in 1964, it has said it will never be the first to use such weapons in any conflict.

Yet China is gradually upgrading its nuclear missiles, developing new submarines capable of firing nuclear missiles. It also has not ratified the Comprehensive Nuclear-Test-Ban Treaty, probably until the United States does.

Washington has urged Beijing to be more candid about its nuclear arsenal to avoid possible catastrophic miscalculations.

China is likely to counter those pressures by urging the other powers to embrace its “no-first-use” vow, demanding the two biggest atomic powers make firmer arms cuts, and calling for greater heed to the needs of developing countries wanting to develop nuclear energy, said several experts.

“I think that during the Non-Proliferation Treaty review (in May) and in future nuclear non-proliferation treaties, we’ll certainly give more due to the voice of the developing countries,” Major General Zhu Chenghu of China’s National Defense University told a forum in Beijing this month.

“Although there have been major reductions, their symbolic significance far surpasses their practical significance.”

“SETTING THE RIGHT TONE”

After a bout of quarrels between Beijing and Washington that prompted speculation President Hu would not attend the summit, his presence will be a reassuring signal that Beijing values both bilateral ties and nuclear security.

China faces no pressing threats to the security of its atomic plants and stockpiles and is not among the problem countries grabbing attention in Washington, said Li Bin, an expert on nuclear proliferation at Tsinghua University in Beijing.

“This (summit) is a largely symbolic promotional exercise,” said Chu Shulong, also a professor at Tsinghua, who studies international security. “The issues are important but it is also about setting the right tone for subsequent negotiations.”

The Obama administration’s recent nuclear posture review urged greater “transparency” from China. After signing the new arms cut pact with Obama, Medvedev said other nuclear states should do more to follow their lead.

“Nobody expects China to provide exact numbers” about its nuclear arms, said Yuan, the California-based expert. “But what they want is a clearer sense of why China is modernizing its nuclear arsenal, where this leads.”

Members of the U.S. Senate could make an issue of China when debating whether to ratify the new arms cut pact with Russia, and also if Obama asks the Senate to ratify the Comprehensive Test Ban Treaty. Some U.S. opponents of deep nuclear arms cuts have said the reduction could allow China to “sprint to parity.”

Beijing has no such intentions and will not take well to demands to disclose more about its nuclear weapons, said Chu.

“At the same time that the United States is pushing the world to do more to prevent nuclear proliferation, it can’t even ratify this (Test Ban) treaty,” he said. “China’s doesn’t like feeling subjected to double standards,” he added.

But Chu said there was much in Obama's nuclear initiatives that China will welcome, including reducing the number of countries that could be targeted by U.S. nuclear strikes.

Unlike a nuclear posture review by the Bush administration released in 2002, Obama's did not mention conflict over disputed Taiwan — the self-ruled island that Beijing claims as its own — being a potential trigger for using U.S. nuclear weapons.

Minutes of 9 March 31, 2010

Bob Bissonnette opened the meeting @ 1900.
 Bob Bissonnette read our CREED.
 Jim Bilka lead us in the Pledge of Allegiance.
 CJ Glassford lead us in prayer.

A bell was tolled for the following boats lost in the month of March:

USS PERCH (SS 176)	3 MAR 1942	NO LOSS OF LIFE
USS GRAMPUS (SS 207)	5 MAR 1943	ALL HANDS LOST
USS H-1 (SS 238)	12 MAR 1920	4 MEN LOST
USS TRITON (SS 201)	15 MAR 1943	ALL HANDS LOST
USS KETE (SS 369)	20 MAR 1945	ALL HANDS LOST
USS F-4 (SS 23)	25 MAR 1915	ALL HANDS LOST
USS TULLIBEE (SS 284)	26 MAR 1944	79 MEN LOST 1 SURVIVED
USS TRIGGRT (SS237)	26 MAR 1945	ALL HAND LOST

A moment of silence was observed.

All E-Board member were present with the exception of the secretary.
 The Jr. Vive Commander introduced past officers, new members and guests.
 52 members were present.
 The base treasurer gave his report.

The following Holland Club members were inducted: Don Anderson, Art Davis, Joel Eikam, Frank McCoy, Joseph Peluso Jr., Daniel Thompson, Frank Tomazin, Tom Warner and Richard Woltz.

Committee chairmen gave their reports: Chaplain's Binnacle List, Parade, Membership, Scholarship, Storekeeper, Breakfast and Nominations.

Parades:

Riverside Parade 4/17/10
 Linda Vista Parade 4/24/10
 La Mesa Flag Day Parade 6/5/10
 4th of July Parade in Julian
 Veterans Day Parade 11/11/10

Voting:

Forty-three votes were cast. All the base officers were reelected for another term:
 Base Commander: Bob Bissonnette
 Sr. Vice Commander: Bill Earl
 Jr. Vice Commander: Jim Bilka
 Secretary: Manny Burciaga
 Treasurer: David Ball
 Held 50/50 drawing and raffle

Good of the Order:

Old Timer Luncheon on 4/16/10
 Submarine Birthday Ball on 4/17/10
 52 Boat Dedication on 3/25/10 @ Liberty Center

SAILING LIST

Jim Bilka	Donald Anderson	Fred Fomby
Frank Walker	Charlie Marin	Bob Bissonnette
Davis Ball	Charlie Tate	Bob Farrell
Dan Eberhardt	Benny Williams	Paul Hitchcock
Joel Eikam	Frank McCoy	Tom Polen
Jim Maldon	Harry McGill	Bob Oberting
Jack Addington	Mert Weltzien	Tom WarnerRon Gorence
Joe Peluso	George Bisharat	Jack Ferguson
David Kauppiner	Dan Thompson	Roy Bannach
Jack Kane	Bob Coates	Wayne Kirsy
Robert Chapman	Dennis Mortensen	Lin Schima
Phil Richeson	Chuck Babcock	CJ Glassford
Chet Huffman	Ben Rollison	Dick Wolz
Ray Ferbrache	Frank Tomazin	Chuck George
Glenn Gerbrand	Art Davis	Steve Lamprides
Bill Earl	Don Mathiowetz	Matt Baumann
Mike Hymann	Robert G.Wielage	

Bob Bissonnette adjourned the meeting @2015