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San Diego, CA 92120-3404

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# *The Silent Sentinel*

***December 2008***

***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.**

# COME ONE, COME ALL
# SAN DIEGO BASE CHRISTMAS PARTY

*Tuesday Night 9 Dec 2008 at the VFW*

*No-Host bar 5-6pm  Start Meeting and Dinner 6pm-????*

*Dinner: Salad, Chicken Breast or Pork Loin, Mashed Potatos, Mixed Veggies, Roll, and dessert*

*Cost: $20 per person  Please RSVP by **5 DEC** to Bob Bissonnette 619-251-7095 or Bill Earl 619-280-4053*

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# San Diego Base

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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.***

**NAME:** _____

**ADDRESS:** _____

**CITY/STATE/ZIP:** _____

**EMAIL:** _____

**TELEPHONE:** _____

**Would like the SILENT SENTINEL emailed: YES_____ NO_____**

Robert Bissonnette
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Spring Valley, CA 91977-3748

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

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

## *December Meeting*

Our monthly meetings are held on the second Tuesday of the month at VFW Post 3787, 4370 Twain Ave., San Diego. Our November meeting will be on 9 December, 2008. The post is located one half block West of Mission Gorge Road, just north of I-8. The meeting and annual Christmas Party will begin at 6 p.m. No host bar begins at 5 p.m.

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

### BINNACLE LIST

Richard Fullen (recuperating in Santee)
Mike Hyman (Crohn's Disease)
C J Glassford (had pacemake put in and recuperating at home)
Larry Freske
Al Strunk (now recuperating at home and doing much better)
Bob Coates (doing well at home)

Submitted by Mike Hyman

### *Submarine Losses in November*

Submitted by C J Glassford

ALBACORE (SS 218) - 86 Men on Board:
Possibly Sunk, on 7 November 1944, by Japanese Mine, Off the Northern Tip of Honshu :
" ALL HANDS LOST "

GROWLER (SS 215) - 85 Men on Board:
Probably Sunk, on 8 November 1944, by Japanese Destroyer, Escort Vessel, and Coastal Defense Vessel, Off Mindoro :
" ALL HANDS LOST "

SCAMP (SS 277) - 83 Men on Board:
Sunk, on 11 November 1944, by Japanese Naval Aircraft, and Coast Defense Vessel, in Tokyo Bay Area :
" ALL HANDS LOST "

CORVINA (SS 226) - 82 Men on Board:
Torpedoed and Sunk, on 16 November 1943, by Japanese Submarine, South of Truk :
" ALL HANDS LOST "

SCULPIN (SS 191) - 63 Men on Board:
Damaged, on 19 November 1943, by Japanese Destroyer, and later Scuttled, North of Truk :
" 21 SURVIVED POW CAMP "

CAPELIN (SS 289) - 78 Men on Board:
Sunk, on 23 November 1943, by unknown Causes, Either by Japanese Aircraft, Minelayer, or Japanese Mine in the Northern Celebes, or perhaps a Hull Defect reported "Prior" to Her Departure from Darwin, Australia :
" ALL HANDS LOST "

## Membership Report for October/November '08

**New Members:** Welcome Aboard: James Wiley of Riverside, who qualified aboard the USS Shark (SSN591) in 1965, and Stephen Hall of Solana Beach, Drum (SSN677) in 1975.

**New WWII / Holland Club/ Life Members:** Charles Brown of Albuquerque, who qualified in 1944 on Bowfin; Calvin Moon of Allentown, 1944 on Razorback; Joseph Mehalick of Groton, in 1942 on Albacore; Seymore Phillips of Solana Beach, on Billfish in 1944; Wayne Braastead of Tucson, on SS69 in 1943 and Leland White of Chula Visea, who qualified on Muskallunge in 1943.

**Called to Eternal Patrol:** Brothers of the 'phin, Stan Paradis and Don Dougher.

**Status:** 334 members as of 11/15/08

**Dues:** Check your Sentinel mailing label (above name) to see if you will owe dues for 2009. From our By-Laws: "Dues are due and payable on January 1st each year and remain effective until December 31st of the same year. Dues not paid by 31 December are delinquent. All members whose dues are in arrears on February 1st of a current year will be dropped from all rosters." Accepting $ now—mail a check to me, made out to 'USSVI'.

**Database Errors:** (1) No Qualification dates for the following submariners: Chilcote (Pomodon), and Harer (Chub).

*RonG*

## *Commander's Corner*
## *Nov 2008*

Hello everyone and it is Tis the Season…If you missed our last meeting you missed the treat of listening to Congressman Duncan Hunter, Jr. talk to us about his goals he has during his term in office. He also talked about his tours of duty in Iraq and Afghanistan. He was a great guess speaker. And we had Morgan Fomby Thanks USSVI for the Scholarships she won over the last few years and with our help she in now a County Sheriff Dept officer located in Santee. This is where our Scholarship donations go towards and making our children and grandchildren better citizens.

This year we are holding our Christmas Party at the VFW on our meeting night. We will have a No-Host Bar from 5-6pm and start the meeting at 6pm. After the opening of our meeting we will suspend the meeting until Jan like we did last year. Then serve Dinner. The meal will be served by our friend from the VFW AUX. The cost will be $20 per person for Dinner and a ticket for door prizes. Please contact Bill Earl or myself for RSVP so we can get a head count for dinner. Dinner will be Chicken Breast or Pork Loin with the fixing and dessert. It will be a good time had by all. I have invited our WWII Shipmates from the San Diego Chapter and our Scamp Base Shipmates to Christmas Dinner. I hope they can join us for this Great get together!!!!

I would like to thank everyone Who Donated time and money to our organization for one program or another. Thanks to all the helpers we have had over the last year for Breakfast (including the VFW Ladies Aux), parades, 2009 Convention and many other events. THANKS!!!!!!!!!!!! I'm pretty excited about hosting the 2009 National Convention here in San Diego. It will be a lot of hard work and hard work getting there, but it will be very rewarding for all. If it wasn't for all of us working together to "Get it done," we would be in bad sharp. Thanks again!!!!!!!!!!

Well, until we meet again, be safe and have fun in Life.

Your Base Commander,
Bob Bissonnette

## Veterans Day 2008, San Diego



## SUBVETS to Serve Thanksgiving Dinner

On Thanksgiving Day, Nov. 27, SUBVETS will serve more than 850 traditional Thanksgiving dinners to SUBASE and Naval Submarine School Sailors far from home, as well as local police officers on duty and some of our senior citizens. This is the seventh year of this significant effort, fully supported and funded by the generosity of submarine veterans, local businesses, industries and citizens. Donations of money, food or volunteer assistance will be greatly appreciated in meeting this objective. Contact John Carcioppolo at thanksgiving@subvetsgroton.org or call (860) 514-7064.

## USS Albany Returns From Deployment

*By Mass Communication Specialist 2nd Class Xander Gamble, Commander, Submarine Force Public Affairs, November 19, 2008*

NORFOLK (NNS) — The Los Angeles-class fast attack submarine USS Albany (SSN 753) returned to Naval Station Norfolk Nov. 18 following a seven-month deployment in support of the maritime strategy.

Commanded by Cmdr. Thad Nisbett, Albany initially left Norfolk April 25, on a regularly scheduled deployment in support of the USS Nassau (LHA 4) Expeditionary Strike Group.

Among the family members celebrating the homecoming were Dan and Peggy Demorett who came to see their son,

**Treasury Report - October 2008**

| | | | |
|---|---|---|---|
| **Checking Account Balance @ 9/30/2008** | | | **$ 2,270.12** |
| **INCOME for OCTOBER 2008** | | | |
| Opportunity Ticket Sales (from Nat'l) | | $595.00 | |
| Booster Club | | $50.00 | |
| Silent Sentinel Donation | | $10.00 | |
| Ship's Store | | $365.00 | |
| Mid Rats | | $36.00 | |
| 40/30/30 | | $38.00 | |
| Subtotal | | $1,094.00 | |
| **Membership** | | $0.00 | |
| Scholarship Income from 40/30/30 | | $38.00 | |
| Other Scholarship Income - Breakfast 10/31 | | $237.00 | |
| **Scholarship Income for October** | | $275.00 | |
| **Total Income for October (per Bank Stmt)** | | | **$ 1,369.00** |
| **EXPENSES for OCTOBER 2008** | | | |
| Veteran's Day Donatiion to Parade Reimb | | $100.00 | |
| Silent Sentinal Seals | | $32.22 | |
| Base Cdr 2008 Convention Expenses | | $681.25 | |
| Printer Monthly Maintenance | | $51.55 | |
| **Total Expenses for October (per Bank Stmt)** | | | **$ 865.02** |
| **Checking Account Balance @ 10/30/2008** | | | **$ 2,774.10** |
| **ASSETS** | | | |
| Base Checking **(10/30/08)** | | $2,774.10 | |
| Scholarship Fund Included in Base Checking | $548.00 | | |
| Base Savings **(9/29/08)** | | $9,323.36 | |
| Convention Account **(10/31/08)** | | $4,714.77 | |
| **TOTAL ASSETS** | | | **$16,812.23** |

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Machinist's Mate 2nd Class Alan Demorett, of Naples, Fla., return.

"We're going to celebrate his 21st birthday, which happened while he was underway," said Peggy.

"He called us from Norway on his birthday," said Mr. Demorett.

The family members of the crew picked up hobbies to keep themselves occupied while their loved ones were at sea.

"I started swimming, working out, and I started learning to play the violin," said Eugenie Gorham, of Lake Charles, La., who is engaged to Chief Electronics Technician Jordan Kahle. "The hardest part is not having my best friend to talk to."

Despite their busy operating schedule, the Albany crew was able to visit Souda Bay, Crete; Augusta Bay, Italy; Marseillles, France; Haakonsvern, Norway; Jebel Ali, United Arab Emirates and Bahrain.

"Being able to see foreign ports and seeing foreign cultures [is] just an eye opener," said Machinist's Mate 2nd Class Thadeus Dalusong, of Los Angeles.

Dalusong enjoyed Sicily because of the architecture.

"It reminds me of old Europe," he said.

Fast-attack submarines like Albany have multifaceted missions. They use their stealth, persistence, agility and firepower to deploy and support special force operations, disrupt and destroy an adversary's military and economic operations at sea, provide early strike from close proximity and ensure undersea superiority.

Albany is 360 feet long, displaces 6,900 tons of water, and can travel in excess of 25 knots when submerged.

For more news from Commander, Submarine Force, visit www.navy.mil/local/sublant/.

## Factbox: Space Shuttle Endeavour's Crew

*by Staff, The Post Chronicle, November 17, 2008*

The U.S. space shuttle Endeavour blasted off on Friday from the Kennedy Space Center in Florida on a 15-day mission to the International Space Station.

It carried a crew of seven:

Commander Chris Ferguson, 47, a U.S. Navy captain born in Philadelphia, married with three children. Attended TOPGUN pilot training school, flew as pilot on shuttle Atlantis in September 2006 on the mission that restarted construction of the International Space Station. Logged over 12 days in space.

Pilot Eric Boe, 44, a U.S. Air Force colonel born in Miami; married with two children. Logged more than 4,000 flight hours in 45 different aircraft. Served as NASA director of operations at Russia's cosmonaut training center in Star City in 2005 and 2006. He is one of three rookies aboard.

Lead spacewalker Heidemarie Stefanyshyn-Piper, 45, U.S. Navy captain born in St. Paul, Minnesota. Navy diver and salvage officer who flew on shuttle Atlantis in September 2006, when she made two spacewalks to install a truss holding a massive pair of solar wings. Logged over 13 hours of spacewalks.

Flight engineer and spacewalker Stephen Bowen, 44, U.S. Navy captain who was born in Cohasset, Massachusetts. Married with three children. He was the first submarine officer selected by NASA. First space flight.

## New Breed of U.S. Navy Radars Would Reveal Stealthy Subs

*By Jon W. Glass, Defense News, November 18, 2008*

Trying to spot a submarine periscope lurking in cluttered coastal waters is akin to identifying a floating beer can from 60 miles away. That's the challenge the U.S. Navy faces as it tries to track a growing fleet of modern diesel-electric submarines.

The Pentagon plans to do this by improving existing radars with new signal processing software and by rotating the radar antennas faster inside their radomes. The Navy is moving forward to develop Automatic Radar Periscope Detection and Discrimination (ARPDD) radars for Nimitz-class aircraft carriers and anti-submarine MH-60R Seahawk helicopters. These helicopters are scheduled for deployment with the carrier USS John C. Stennis battle group in 2009, though they would not start carrying ARPDD radars until 2013.

ARPDD will capitalize on millions of dollars worth of research by the Navy and industry since the end of the Cold War to develop a radar capable of ferreting out periscope-like targets and automatically alert the operator to take a closer look.

One key will be the radar's ability to boost its scan rate from zero revolutions per minute (RPMs) when it is staring in one direction to make an image, up to a classified RPM for the new ARPDD mode.

Automation is another key. Current radar systems can discern small targets. However, they generate a high rate of false alarms in busy littoral waters, where it's easy to mistake small vessels, wind-whipped whitecaps and debris for the telltale signs of a prowling submarine. Radar operators must constantly monitor screens and manually sort through target hits, consuming valuable time.

The Navy wants to field the radar on the MH-60Rs by 2013 and install it on all Nimitz carriers by 2016.

"It's one of the fleet's top priorities," said Capt. Dean Peters, the MH-60R program manager for Naval Air Systems Command at Patuxent River, Md. "The Navy's focus has shifted from a deep-water type perspective to the littorals, where you would be more susceptible to diesel-electric submarines."

U.S. officials are wary of China, with its growing number of Song- and new Yuan-class diesel subs, and of Russia, maker of the diesel-electric Kilos. More unpredictable are threats from such nations as Iran, which owns at least three of the stealthy Kilo subs, and North Korea.

The hard-to-detect diesel-electric submersibles could wreak havoc in such strategic chokepoints as the Strait of Hormuz, the narrow oil-export channel in the Arabian Gulf, or the Strait of Malacca, the shipping lanes in Indonesia, said Pat Bright, a senior military analyst with AMI International, a Bremerton, Wash., company that analyzes naval markets.

While ARPDD's precise capabilities are classified, there's no secret behind what makes it work - it's all about algorithms, computer power and radar-signal processing.

The Navy is following separate tracks to get the upgraded radars on the carriers and the MH-60Rs. In June, the Navy awarded a $144 million design-and-development contract to Lockheed Martin Integrated Systems of Owego, N.Y., to incorporate the radars on the helicopters.

Lockheed Martin builds the cockpit and air weapon system for the Seahawks, and the company passed along $71.5 million to Telephonics, Farmingdale, N.Y., to upgrade its existing AN/APS-147 radar systems into ARPDD systems. The electronics and communications firm built the AN/APS-147 for the Seahawks.

"The vast majority of the change is going into the signal processor, where we will remove certain processors in the box today and replace them with higher-power processing and higher data throughput rates at faster speeds," Telephonics' President Joe Battaglia said.

Researchers at the Navy's China Lake weapon division in California developed the complex algorithms that underlie ARPDD's ability. The mathematical equations are bundled into computer software programs designed to enable the radar to pick out a submarine periscope from among the surface clutter. Off-the-shelf quad processors - four computers bunched onto a single circuit card - are being used to bolster the AN/APS-147's signal-processing power by eight times.

Eventually, the ARPDD radar system could be installed in other aircraft, including UAVs, with only "minor tweaks" to account for differences in flight profile, Battaglia said.

Technology breakthroughs in recent years have shrunk processors and increased computing speed - the same kind of advances seen in desktop home computers. Now, the system being designed for the MH-60R is the size of a large toaster oven and is light enough to be installed by one person, said Rich Holmberg, director of Naval Helicopter Programs at Lockheed Martin's Owego division.

Flight tests in the Seahawks are scheduled for late 2009. "We expect it's going to work like gangbusters," Battaglia said.

The Navy anticipates awarding a production contract in late 2010 or early 2011 and installing the upgrades on the first MH-60Rs in 2013, Peters said.

On the Seahawks, ARPDD is being designed to provide battlegroups with wide-area submarine surveillance from a typical cruising altitude of about 7,000 feet and well beyond 60 nautical miles from potential targets. Visual cues built into the system will alert an operator when periscopelike objects are detected. The crew could then swoop down to 100 feet and use dipping sonar or sonobuoys to confirm a submarine's presence, Holmberg said.

"From the Navy's point of view, anti-submarine warfare probably is the most important mission to get right because the biggest problem for them is under the sea," said Owen Cote, associate director of MIT's Security Studies Program.

For the carriers, ARPDD evolved into a program known as the AN/SPS-74 CVN Periscope Detection Radar. Mounted on the mast of a carrier, the radar antenna would be less effective at longer ranges, offering more of a "terminal" defensive system, Cote said.

## Rep. Tauscher: New Reliability Program Needed For U.S. Nuclear Arsenal

'RRW is dead'

*By Carlo Muñoz, Inside Defense, November 19, 2008*

With the Defense Department's ambitious plan to revamp the Cold War-era nuclear arsenal all but dead, policymakers at the Pentagon and on Capitol Hill must develop a new plan to inject much-needed reliability into the stockpile, according to one senior lawmaker.

Rep. Ellen Tauscher (D-CA), chairwoman of the House Armed Services strategic forces subcommittee, said the demise of the plan, known as the Reliable Replacement Warhead (RRW) program, ultimately was due to mishandling by the Bush White House.

"RRW is dead, and I confess I did kill it, and it [needed] to be dead for lots of reasons," Tauscher said. "RRW, in the way it was articulated by the Bush administration, is not what we need and it certainly was not put in the context that people could understand."

The California Democrat's comments came during a Nov. 17 speech at the Center for American Progress in Washington.

The main reason behind RRW's demise, according to Tauscher, was the Bush administration's "fast-and-loose" approach to the role the weapon would play relative to the enhanced reliability of the nuclear stockpile.

The program, as envisioned, was designed to retrofit the entire U.S. fleet of ballistic missiles with warheads that are safer, more environmentally friendly and less expensive than the current warhead setup established during the 1950s.

The increased reliability of the new warheads would allow the United States to draw down its total ballistic missile arsenal, according to the National Nuclear Security Administration (NNSA) and Pentagon officials.

However, the program ignited a firestorm of controversy among lawmakers and nonproliferation proponents who argued the weapon's development — including the possibility of renewed underground nuclear testing — could insinuate a renewed U.S. effort to increase its ballistic missile stockpile.

"RRW became new weapons," Tauscher said. "People were allowed to believe we were creating new weapons."

It was that concern that prompted House and Senate authorizers, led by Tauscher and others, to slash the Pentagon's $23 million funding request to continue RRW development in fiscal year 2009.

Despite deep budget cuts to RRW, Tauscher said the need to instill additional reliability and surety mechanisms into the 2,200-warhead arsenal remains a priority.

"What we need to do is satisfy everybody's concern that we have a safe and reliable stockpile," she said. "There is a lot of reason for us to stand on the science and say we have been enormously successful, but we also have to say we cannot continue to spend all the money we have been spending to maintain hedge weapons."

Consequently, Congress did approve $13.3 million to finance a life-extension program for the existing weapons in the arsenal.

Further, NNSA is carrying out its own "advanced certification" study of the stockpile to address concerns drafted in response to an August 2007 study by the JASON Defense Advisory Group — an independent scientific panel run out of the MITRE Corp.'s federally funded research and development center — that said the RRW design is not ready for prime time.

"That is what advanced certification, or whatever we end up calling [it] would be, and that is worth talking about," Tauscher said on possible alternatives to RRW.

In the end, a successful approach to increased reliability in the nuclear arsenal will contribute to the overall goal of driving deeper cuts to the stockpile, particularly among hedge weapons — or those weapons held in reserve to back up fielded weapons in the case of a failure, Tauscher said.

"We are not going to build new weapons, but in order to go down to zero . . . you have to have unambiguous reliability on the [weapons] we maintain until we decide we can go to zero," Tauscher said. "We need to have savings, but we also need to have the optics of doing the right thing."

Whatever form that alternative approach to RRW may take, Tauscher believes the issue can gain traction within Congress and among the American public.

"I believe that we can work with our friends in the Senate, who are going to have to take those votes . . . and make it very clear to them that we have, through science, extended the life of these weapons beyond what people believed was natural," she said. "It is a big case, but we have to make that case to a lot of people, who frankly are doing a lot of things and are not initiated as well as we would like them to be," about the need for nuclear surety and reliability.

"You always change the name to protect the innocent," she said in reference to the RRW moniker. "The idea is not a bad idea, but RRW [was] not the idea."

## Lieberman, Inouye To Keep Senate Defense Panel Roles

*By Emelie Rutherford, Defense Daily, November 19, 2008*

The leadership of Senate defense panels will not be altered as much as previously thought next year after Democrats yesterday allowed Sen. Joseph Lieberman (I/D-Conn.) to remain chairman of the Senate Armed Services Airland subcommittee.

Sen. Daniel Inouye (D-Hawaii) also confirmed he will to keep the Senate Appropriations Defense subcommittee (SAC-D) chairmanship he now holds when he is promoted to chair the full appropriations panel in the new session that starts in January. That committee change has not been made officially.

Congress' biennial party leadership and rules reorganization began yesterday, and continues this week. All of the committee leadership decisions, though, may not be finalized for more than a month, congressional aides said.

Yet Senate Majority Leader Harry Reid (D-Nev.) confirmed Lieberman will not be kicked out of the Democratic caucus or lose his chairmanship of the Senate Homeland Security and Governmental Affairs Committee as retribution for supporting the failed presidential run of Sen. John McCain (R-Ariz.) and critiquing President-elect Sen. Barack Obama (D-Ill.). Reid told reporters yesterday, after the Democratic caucus met at the Capitol that a "vast majority" of Democrats want the independent from Connecticut to continue caucusing with Democrats.

Lieberman received a slap on the wrist for his party infidelity: removal from chairmanship of a global-warming-related subcommittee of the Senate Environmental and Public Works Committee.

He told reporters, "I particularly look forward continuing my work" on the Homeland Security and Armed Services panels, "and in that capacity to work as I have in the past with the new president, Barack Obama, and his administration to keep the American people secure here at home and to protect our freedom from enemies abroad."

Full Senate Armed Services Committee (SASC) Chairman Carl Levin (D-Mich.) is expected to retain that post, and Ranking Member John McCain (R-Ariz.) plans to resume the SASC GOP leadership role as well. The SASC subcommittee on emerging threats and capabilities will need a new GOP leader, because Ranking Member Elizabeth Dole (R-N.C.) lost her reelection bid.

Reid already has confirmed that Inoyue will become the Senate Appropriations Committee (SAC) chairman, because the panel's ailing leader, Sen. Robert Byrd (D-W.Va.), is relinquishing the post. Inouye, asked yesterday if he will remain SAC-D chairman, as he previously indicated he wants to do, said, "Oh yes."

SAC Ranking Member Thad Cochran (R-Miss.) may be named the SAC-D's new ranking member as well. Yet aides estimate Senate Republicans won't decide committee leadership roles until mid-to-late December.

The delay in Senate committee leadership decisions is due in part to the still-unknown outcomes of the reelection bids of Republican Sens. Norm Coleman (Minn.), Saxby Chambliss (Ga.), and Ted Stevens (Alaska).

Stevens, whom a federal jury found guilty last month on seven felony counts for failing to disclose gifts, cannot regain his former post of SAC-D ranking member in January even if he wins his reelection bid. Cochran has served as the SAC-D's ranking member since Stevens' July indictment.

Senate Republicans yesterday delayed a vote on expelling Stevens from their caucus, pushing the decision to tomorrow.

## General Dynamics To Maintain Nuclear Submarines

*By William Welsh, Washington Technology, November 19, 2008*

General Dynamics Electric Boat Corp. will furnish engineering and technical support for the Navy's nuclear submarine fleet under a $286 million contract.

According to the contract, Electric Boat will be responsible for design, engineering, material and logistics support, and research and development for operational nuclear submarines and submersibles, company officials said.

Electric Boat also will provide assistance with planning, scheduling and various technical aspects of submarine maintenance and modernization. The work also calls for the company to advise the Navy on how it can trim costs associated with nuclear submarine upkeep.

The contract might be worth as much as $1.8 billion over five years, company officials said.

Electric Boat, based in Groton, Conn., is a unit of General Dynamics Corp., of Falls Church, Va. The parent company ranks No. 6 on Washington Technology's 2008 Top 100 list of the largest federal government prime contractors.

## Israel Worried About Possible German Sub Sale To Egypt

*By Yaakov Katz , The Jerusalem Post, November 19, 2008*

Israel is increasingly concerned that Germany might sell Dolphin-class submarines to Egypt, top defense and political officials told The Jerusalem Post on Tuesday.

Cairo, officials said, has opened talks with Berlin aimed at having the Egyptian navy purchase several Dolphin-class submarines, regarded as one of the top diesel-powered submarines in the world.

Egypt is apparently interested in upgrading its aging submarine fleet, though officials regard it as strange that Cairo is looking to buy exactly the same submarine that Israel operates.

Israel currently operates three Dolphin-class submarines made in Germany. The construction of two more submarines - ordered following the Second Lebanon War in 2006 - is scheduled to be completed by 2010.

According to foreign media reports, Israel's submarines are capable of launching a "second strike" in the event of a nuclear attack against Israel.

The Dolphin-class submarines are the most expensive platforms in the IDF's arsenal. Germany donated the first two submarines to Israel as a gift after the first Gulf War, and split the cost of the third.

The three submarines in the Israeli fleet work on a diesel-electric propulsion system that requires them to surface after relatively short periods underwater to recharge the batteries that keep them running when submerged.

The two Israeli submarines under construction will be fitted with a new German technology that combines a conventional system of a diesel generator with a lead acid battery, and an air-independent propulsion (AIP) system, used for silent slow cruising, with a fuel cell equipped with oxygen and hydrogen storage.

Defense officials said they were concerned by Egypt's request to purchase the German submarines.

Egypt's navy has a larger fleet than Israel, including a number of large frigates and four Soviet-made Romeo-class submarines.

Likud MK Yuval Steinitz, a former chairman of the Knesset Foreign Affairs and Defense Committee, said that if the deal went through, the balance of power in the Middle East would be affected.

With the new submarines, Egypt would be able to covertly collect intelligence against Israel, he said.

"The Egyptian fleet is already three times bigger than the Israeli fleet except for one platform - submarines - which we both have approximately the same number of, although ours are clearly more advanced and efficient," he said. "If such a deal takes place, this will have a real impact on the sea power in the Mediterranean."

Steinitz said the German Dolphin-class submarine was one of the best in the world and would give the Egyptians the ability to close major ports and sea routes.

"It is also almost impossible to prevent an attack from a submarine," he said.

## DCNS Hoping To Double Sub Endurance With New Batteries

*Defense Daily, November 19, 2008*

French naval defense systems group DCNS recently said it is investigating the integration of new-generation Lithium-ion (Li-ion) batteries with SCORPENE submarines, a concept that promises to double submerged endurance.

DCNS presented the concept at the Undersea Defence Technology Pacific 2008 show in Sydney, Australia, last week.

Current-generation diesel-electric submarines use lead-acid batteries, DCNS said. To further improve the performance capabilities of its SCORPENE range, DCNS has been working on the integration of new- generation Li-ion batteries.

This new technology promises to double submerged endurance at high speed while at the same time reducing the indiscretion rate, increasing range, improving safety and requiring less maintenance, all essential criteria for submariners, DCNS added.

The SCORPENE design is compatible with both Li-ion batteries and the MESMA air-independent propulsion system (AIP). MESMA alone enables a SCORPENE to patrol at low speed for three weeks at a time without broaching the surface.

To achieve this breakthrough, DCNS has been working in close cooperation with Saft, a world leader in the design, development and production of high-technology batteries.

Saft assembles Li-ion cells to form battery modules and modules into a battery system, complete with the necessary control electronics and software, to power a submarine in complete safety, DCNS said.

According to the company, the Li-ion cells developed by Saft for this application are similar to those used on satellites and have already proven their long lifetime. Saft is also a major supplier of Li-ion batteries for both manned and unmanned underwater vehicles.

## Experts Blame Computer Glitch For Russian Nuclear Sub Deaths

*RIA Novosti, November 19, 2008*

MOSCOW, November 19 (RIA Novosti) — The deaths of 20 people on board the Nerpa nuclear submarine could have been caused by a computer glitch, not a crew member, a Russian daily reported on Wednesday. (INFOgraphic)

The tragedy occurred late on November 8 while the Nerpa was undergoing sea trials in the Sea of Japan. Three submariners and 17 shipyard workers died in the accident. There were 208 people, 81 of them submariners, on board the vessel at the time.

"We submariners are unanimous: a computer program failed. Previously, the submarine fire suppression system had always started manually on the commander's orders. Now it is launched electronically," Ensign Yevgeny Ovsyannikov, a technical specialist on the Nerpa, told Komsomolskaya Pravda.

He added that it was the first time this computerized system had been used on the submarine during the sea trials and that the computer had malfunctioned during tests in the dock.

An expert who requested anonymity suggested that a toxic form of Freon could have been used in the fire suppression system.

"A toxic additive, trichlorotrifluoroethane [C2F3Cl3], was used. It is cheaper than pure Freon. Possibly, they simply wanted to economize," he said.

He added that there were unmistakable signs of poisoning, which could not have been caused by Freon: "People were collapsing as though they had been shot."

Breathing Freon is generally safe, but if the concentration in the air is high then suffocation can result.

He said 46 people had been hospitalized, not 21 as officially announced.

It was previously reported that the deaths were caused by a crew member activating the fire safety system without permission or by the wrong data being entered into the temperature sensor.

Submariner Dmitry Grobov is suspected of having entered the wrong temperature data for the submarine's living quarters, which caused the fire suppression system to release the Freon gas.

However, former Navy officers have said they doubt that Grobov was solely to blame since it is impossible for one person to activate the system, which is security protected from unauthorized activation by multiple authentication levels.

The submarine's nuclear reactor was not affected by the accident, which took place in the nose section, and radiation levels on board remained normal.

Investigators earlier announced that they had brought criminal charges against the crew member, and that he faced up to seven years in jail if found guilty.

The incident is the worst for the Russian Navy since the sinking of the Kursk nuclear submarine in 2000 when all 118 sailors died.

The construction of the Akula II class Nerpa nuclear attack submarine started in 1991, but was suspended for over a decade due to a lack of funding. Akula II class vessels are considered the quietest and deadliest of all Russian nuclear-powered attack submarines. Based in the Russian Far Eastern city of Komsomolsk-on-Amur, the Amur Shipyard has built 270 vessels, including the Nerpa and another 55 nuclear submarines since it was established in 1936.

## Outside View: Nuke Sub Tragedy

*By Ilya Kramnik, United Press International, November 18, 2008*

MOSCOW, Nov. 18 (UPI) — An accident on the Nerpa nuclear-powered submarine claimed 20 lives, the largest number of casualties since the sinking of the Kursk submarine in 2000. The Russian and international press are highlighting the tragedy because it happened on a nuclear submarine, engendering many rumors.

We will know the details only when a government commission completes its investigation, but we can discuss the essence of the tragedy. First, to be clear, the submarine was not on combat duty but was still undergoing trials.

What happened on the Nerpa was a catastrophe, an accident that claimed human lives. Officially, the tragedy was provoked by the unauthorized operation of the fire extinguishing system.

Russian submarines are equipped with two fire extinguishing systems, an air-foam system designed to extinguish local fires and a smothering line system for extinguishing three-dimensional fires (with the exception of powder and ammunition fires), which releases Freon or its derivatives into the endangered compartment, replacing oxygen to extinguish the fire.

Freon is very effective for extinguishing 3-D fires but is highly toxic and is therefore a risk to any people who come in contact with it. This justified risk in a submarine is partly compensated by portable breathing apparatuses for the crew.

Manual initiation is required to activate the Freon system in a third-generation submarine, such as the Akula II class Nerpa nuclear attack submarine. There is one previous case recording a Freon release into the wrong compartment. It happened on a K-77 submarine in 1976 and was due to an assembly mistake made during repairs. The wrong number was painted on the wrong system at the shipyard.

All Russian submarines use this system, and we must assume that the Nerpa uses it as it has not been reported otherwise.

The crew members have access to portable breathing apparatuses, which ensure between 10 and 30 minutes of survival, depending on the intensity of breathing. The oxygen is used faster under hard work.

The command post can order a Freon release only if the fire alarm sounds or if they receive the necessary alert verbally via the audio system. It is true that fire alarm systems sometimes malfunction, which puts special emphasis on communication between the command post and the affected compartment. Freon activation is not automatic when the fire alarm goes off.

The Nerpa was completed only recently and was undergoing sea trials, which is why it had 81 sailors and more than 100 civilian specialists — workers and engineers from the shipyard, 208 in all. Most civilians lack military survival skills, but they work with sailors during trials to evaluate the systems.

What happened in the submarine's nose, where torpedoes are stocked?

The authorities say the 21 injured have no burns, which means there was no fire. There could be minor sources of fire and hence smoke in the compartment, which would have activated the fire alarm. As a result, the command post or somebody in the compartment may have decided to release Freon into the first and second compartments.

This made the atmosphere in the first (and possibly second) compartment unbreathable, and therefore lethal. Of the total number of 41 victims, 36 were civilian specialists who were most likely affected because they had not been trained or, less likely, because of a limited number of breathing apparatuses.

Workers and engineers taking part in building and testing submarines should be trained in survival procedures, including fire and the possible release of Freon.

And lastly, why were nearly three times more people on board during the sea trial? Overcrowding can only lead to commotion and disorder.

We can only hope that the proper conclusions will be drawn from the tragedy, and that it will not be repeated on the Nerpa or any other submarine.

(Ilya Kramnik is a military commentator for RIA Novosti. This article is reprinted by permission of RIA Novosti. The opinions expressed in this article are the author's and do not necessarily represent those of RIA Novosti.)

(United Press International's "Outside View" commentaries are written by outside contributors who specialize in a variety of important issues. The views expressed do not necessarily reflect those of United Press International. In the interests of creating an open forum, original submissions are invited.)Wife of one of the engineers visited him in the hospital and saw what condition the suffered people are. Many of them are frost-bitten and need expensive medical treatment. The Labour Union Leader of the factory "Zvezda", Olga Skripko, says that the "Zvezda" and "Era" labour unions decided to raise funds to help the sufferers. By now, they have raised more than 70 thousand rubles. She thinks that by Thursday when they are going to give money to suffered sailors and engineers this amount will have been raised.

Labour Unions suppose that the Head Officers of the Pacific Fleet dismissed several officers because "they speak too freely".

The Submarine "Nerpa" will have been put out to sea since November, 20 and engineering tests will go on afterwards.

Tragedy on the submarine "Nerpa" happened on November, 8. There were 20 suffocated because of the Freon gas that was injected after the fire system turned on. At that time there were 208 people, 81 of which were military personnel.

## Submarine Crew Accomplishes Mission, Earns Quals During Extended Patrol

*By Mass Communication Specialist 2nd Class Chantel M. Clayton, Fleet Public Affairs Center, Det. Northwest, November 16, 2008*

SILVERDALE, Wash. , (NNS) — The crew of the USS Maine (SSBN 741) (Blue) reached several milestones during its 40th strategic patrol, which ended in October.

The crew recently completed an unusually long patrol, according to Cmdr. John Tolliver, Maine Blue commanding officer.

"This patrol was 98 days long, which is pretty long as far as most patrols go. We also had to figure out, with ten-days notice, how to leave two-and-a-half weeks early. This was unusual and fairly strenuous on the crew, particularly on the family side," said Tolliver. "The crew pulled through very well, and they got it done perfectly, which is really wonderful."

Because of the long deployment, the crew was able to earn a sea service deployment ribbon.

"For a sea service deployment ribbon, the minimum requirement is 90 days, or if you do two 80 day patrols in a 12-month period that also counts," said Tolliver. "Maine Blue's second, third, fourth and fifth patrol in the Pacific have all been in excess of 80 days, and much of the crew has earned two sea service ribbons. It's not that common for us to earn this ribbon."

The crew took advantage of this long patrol to work on qualifications and other personal goals.

"When we set out for an over 90-day patrol, most of the crew took this as an opportunity to get things done for themselves," said Tolliver. "Most of the crew lost weight, and most of the crew set out to get advanced qualifications they weren't able to achieve before. When we finished the patrol, every officer was qualified in submarines, and we had very high numbers of advanced qualifications among the crew."

For some crew members, this was an opportunity to be qualified as a submariner and becoming part of the crew.

"It took 11 months for me to become qualified," said Lt.j.g. Robert Szeligowski, chemical radiological assistant. "It feels good. I feel like I'm more part of the wardroom. Now it's like we're all able to complete all tasks on board, stand all of the watches, and when a new guy comes, we will be able to train him, and he'll be able to see that we're fully qualified."

Crew members found ways to keep themselves busy while keeping morale up and Sailors motivated.

"During a long patrol, we keep ourselves busy by doing drills, training, and with work, we get so busy that we really don't have time to think about it," said Electronics Technician 2nd Class (SS) Gerrit Oakes, reactor operator. "You're always doing something, and when you're not doing something you get some time to work out or go to sleep. We have a special night halfway through the patrol, where we don't do any training that day. We get to use that day to do whatever we want, such as have card tournaments or find other fun things to do."

Tolliver credits the hard work of his crew and its can-do attitude for the success of this long underway period.

"I cannot be more proud of the crew and the families for getting done what we had to get done," said Tolliver. "We've had the hardest SSBN schedule in the Pacific this year. No one has spent as much time on the boat or as much time at sea as we have. They did it without complaint, and they've done it very well. We are here to get the job done and do it right."

For more news from Commander Submarine Group 9, visit www.navy.mil/local/csg9/

## Navy Secretary Urges New 'Quality Culture' In Shipbuilding

*By Megan Scully, National Journal, November 18, 2008*

Navy Secretary Donald Winter expressed disappointment Monday in the ability of both the Navy and its shipbuilders to maintain quality standards throughout the development and procurement of ships.

Winter has taken a tough-love approach with the Navy's many problematic shipbuilding programs since taking the helm of the service in early 2006. He told an audience at the Center for Strategic and International Studies that the Navy must inject more discipline in its requirements and design processes.

He suggested the Navy and industry create a "quality culture" that begins at the design stage of a program and continues through a ship's development. Shipbuilders and Navy program offices must work to reduce the high level of turnover at production facilities and must improve training, supervision and inspections, he added.

"Every quality analysis that's ever been done ... suggests that the hardest way to build quality is by inspecting at the end," Winter said in what may be one of his parting public comments about Navy shipbuilding programs. "You've got to start at the beginning; you've got to design the right way; you've got to build the right way."

Cost overruns and schedule delays have become common on many of the Navy's most expensive ship programs. Last year, Winter canceled the contract for the third and fourth Littoral Combat Ships because of extensive programs with the program. Earlier this year, he ordered the cancellation of the DDG-1000 destroyer program beyond construction of the second ship, but reversed that decision.

Winter recommended investing in the workforce and ensuring the Navy and industry have well-trained officials for acquisition, systems engineering, inspections and support work.

Winter said the Navy must grapple with the lack of competition in the shipbuilding sector, which includes only six domestic shipyards that do specialized work.

"Some people would suggest there is no real competition, in part because so many of our products are yard-specific and so it is more one of an allocation process than it really is a competition," he said.

And with the shipbuilding playing field expected to remain limited, Winter suggested the Navy rely on profit incentives to push industry to meet or exceed program goals.

Meanwhile, he said officials in the Navy's program offices and contractors must be held accountable for their performances.

"This cannot be a situation with entitlements," Winter said. "Everyone is not just entitled to continue in business and entitled to make a certain level of profit. It has to be earned."

Lawmakers, who have long secured funding for pet Navy projects, must enable the Navy to do that, said Winter, who added: "To some extent that, too, will be an interesting challenge."

## Report On Nuclear Security Urges Prompt Global Action Yearly Study Offers Agenda for New Administration

*By David E. Hoffman, Washington Post, November 18, 2008*

When armed men attacked South Africa's most closely guarded nuclear facility a year ago, they penetrated the detection systems at the perimeter, cut through an electrified fence and broke into the emergency control center, shooting one worker there in the chest before escaping.

The Pelindaba facility holds hundreds of pounds of weapons-grade, highly enriched uranium. Although the attackers last November did not steal any of it, the assault highlights what a new report describes as the increasingly global challenge of keeping nuclear materials from falling into the hands of terrorists.

The South African facility was better protected than dozens of other sites around the world that hold bomb-grade nuclear materials. Yet a team of four armed men made it into the control room and out without being caught.

The report, "Securing the Bomb 2008," the seventh annual study from Harvard University's Belfer Center for Science and International Affairs, is to be released today. The study was commissioned by the Nuclear Threat Initiative, a nonproliferation organization co-chaired by former senator Sam Nunn of Georgia.

President-elect Barack Obama pledged during the campaign to secure all nuclear materials at vulnerable sites within four years. Nunn said the challenge will be to keep that an urgent priority, given so many other competing demands.

"You have to decide whether it is urgent enough and important enough to be on the front burner," Nunn said. "Getting the other parts of the world to understand the urgency is also important."

In an agenda for the incoming administration, the report urges "a global campaign to lock down every nuclear weapon and every significant stock of potential nuclear bomb material worldwide as rapidly as that can possibly be done." The report also calls for the appointment of a senior White House official with daily responsibility for preventing a nuclear terrorist attack.

While there has been progress in the former Soviet Union in recent years, the report recommends broadening the effort to secure nuclear materials to include China, India, Pakistan and South Africa. The report says the weapons and the ingredients for a nuclear bomb exist in hundreds of buildings in dozens of countries.

About 130 research reactors around the world still use highly enriched uranium as fuel, and many of them have only "the most modest security measures in place — in some cases, no more than a night watchman and a chain link fence," the report says. The South African break-in "is a reminder that nuclear security is a global problem, not just a problem in the former Soviet Union."

In that case, according to the report, the intruders spent 45 minutes inside the secured perimeter of the nuclear compound without being engaged by security forces, then disappeared. It is not known who they were or what they were after. South African authorities arrested three people but released them without charge. The security manager and several of the guards on duty were fired.

South Africa had refused U.S. offers to remove the highly enriched uranium or to help improve security at the facility, the report said.

Matthew Bunn, associate professor of public policy at Harvard University's John F. Kennedy School of Government and author of the report, said many nations need to address weaknesses in guarding bulk supplies of bomb-grade uranium and plutonium. In the past, "almost all the cases of theft are bulk materials," as opposed to finished weapons, he said.

The report notes that "it is a sobering fact that nearly all of the stolen HEU and plutonium that has been seized over the years had never been missed before it was seized," referring to highly enriched uranium.

Russia still possesses "the world's largest stockpiles of nuclear weapons and materials, located in the world's largest number of buildings and bunkers," an estimated 250 structures at dozens of sites, the report found. The study concluded that "some serious weaknesses still remain" in Russia, including "widespread insider corruption and theft," "poorly trained and motivated conscript guards forces" and a poorly developed security culture.

The report also calls on the United States to get its house in order, pointing to the inadvertent flight of six nuclear warheads last year to Barksdale Air Force Base.

The report says it is plausible that a sophisticated terrorist group could make a crude nuclear weapon, but so far none has. "The use of a nuclear bomb would be among the most difficult types of attack for terrorists to accomplish," the report says, "but the massive, assured, instantaneous and comprehensive destruction of life and property that would result may make nuclear weapons a priority for terrorists despite the difficulties."

## Australia's Navy Orders 2-Month Christmas Shutdown

*By Rob Taylor, Reuters, November 18, 2008*

CANBERRA (Reuters) - Australia's navy has been sent on a two-month Christmas vacation, with military chiefs saying on Tuesday the long shutdown would not leave the country unprotected and was the only way to deal with staff shortages.

Navy commanders ordered all ships not on overseas operations to return to port over the traditional holiday, while docked vessels would have only a skeleton staff to maintain on-board security as other staff took leave.

"The stand down will not impact operations and is to ensure that our people who are not required on operations are able to take a meaningful period of time off and spend time with their families," Deputy Navy chief Rear Admiral Davyd Thomas said.

The navy, one of Asia's most advanced, faces serious staff shortages, with 2,020 skilled vacancies and a 27-percent yearly recruitment shortfall, exacerbated by 11 percent of staff quitting the service each year.

In March this year, the 12,000-strong navy admitted having only enough qualified submariners to operate half its six-boat submarine fleet, as the nation's mining boom was drawing seamen to higher paying jobs in outback mines.

Defence Minister Joel Fitzgibbon said the Christmas shutdown from Dec. 3 until Feb. 3 would help the navy become more family-friendly and be more flexible about childcare arrangements and work-from-home needs for personnel.

"There's no reason why we can't have a longer stand down period each Christmas and we're looking at all sorts of ways of encouraging people to stay," he told state radio.

Conservative opposition lawmaker David Johnston took a different view. "I have never seen a defence force charged with the protection of Australia saying 'we are going to have six to eight weeks off over Christmas because we think it is a good thing for the mums and dads'," he told reporters.

The navy, the smallest of Australia's military services, has been hardest-hit by resignations, with the drop-out rate rising from 6.8 percent in 2003 to 16 percent in 2005, before falling back slightly.

Thomas said 500 sailors would remain on active duty across Australia's north and in the Persian Gulf over the break to maintain security and deter people-smugglers after the interception of five vessels in recent weeks.

A patrol boat exercise with Indonesia began this week, while any emergency would see sailors immediately recalled to duty.

Australia, a close Washington ally, was an original member of the coalition which invaded Iraq and Afghanistan after the 2001 airliner attacks in the United States.

The country has embarked on $60 billion, 10-year defence buildup, including new missile destroyers, amphibious assault ships, tanks, helicopters and radar-evading fighter aircraft. The army is also recruiting extra combat soldiers.

The Australian Defence Association, representing military personnel, said the stand down was good news for sailors trying to manage careers and families.

"Lesser priority tasks at sea, particularly training, can be wound down a bit," association Executive Director Neil James told Australian Broadcasting Corp. television.

## Virginia-class Program Cited

*The Day, 16 November 2008*

The Virginia-class program office received the 2008 David Packard Excellence in Acquisition Award during a Nov. 5 ceremony at Fort Belvoir, Va.

The award recognizes Department of Defense civilians or military organizations, groups or teams that demonstrate exemplary innovation and best acquisition practices. The David Packard Award is the Under Secretary of Defense for Acquisition Technology and Logistics' highest award.

This marks the third time that the Virginia-class program office has earned the Excellence in Acquisition Award, honored previously in 1996 and 1998.

Electric Boat in Groton and Northrop Grumman Newport News in Virginia build Virginia-class submarines under a teaming agreement.

The program was recognized for excelling in four specific award criteria: reducing life cycle costs; making the acquisition system more efficient, responsive, and timely; integrating defense with the commercial base and practices; and promoting continuous improvement of the acquisition process.

"Earning the David Packard Award speaks volumes to the quality and ability of Virginia-class program office, the government support structure, and our shipbuilding partners," said Rear Adm. William Hilarides, Program Executive Officer for Submarines. "Their hard work has saved the Navy billions of dollars and ensured an active and robust submarine force."

The Navy commissioned both the USS North Carolina (SSN 777) and the USS New Hampshire (SSN 778) this year. USS Hawaii (SSN 776) completed the technical and operational testing required to certify the lockout trunk.

USS Virginia (SSN 774) conducted initial operational testing and evaluation in multiple mission areas that included the launch of the first three Tomahawk cruise missiles by the class in August.

The Virginia-class program will end the year by christening its sixth ship, New Mexico (SSN 779), on Dec. 13 at Northrop Grumman Shipbuilding in Newport News, Va.

# Ruling favors Navy range

Plans for submarine sonar training get a boost, despite risk for marine mammals

*The News and Observer, 14 November 2008*

The Navy says it needs to sharpen its skills at detecting quiet enemy submarines lurking off the nation's coasts by building a sonar training range in the Atlantic Ocean.

In a case involving Navy sonar exercises in the Pacific Ocean, the U.S. Supreme Court ruled last week in a split decision that the court should give deference to military preparedness over harm to marine mammals. In doing so, it lifted a court injunction on Navy sonar training exercises off the California coast.

The high court's ruling poses a potential hurdle to environmental groups that might eventually challenge a proposal for a sonar training range off the East Coast, near the calving grounds of endangered North Atlantic right whales. It might raise the ante for proving environmental harm when seeking an injunction.

"If the court can't issue an injunction, then the Navy will be able to proceed despite inadequate environmental analysis," said Derb Carter, director of the Southern Environmental Law Center's Carolinas office in Chapel Hill, who was involved in litigation with the Navy over a proposed landing field near a wildlife refuge.

"It could have the effect of creating a view within the Navy that they can essentially disregard the environmental impacts of their proposed activities and not give due consideration of impacts this would have on marine mammals and other ocean resources," Carter said.

Several whale strandings have been associated circumstantially with Navy sonar exercises, including a fatal beaching on the Outer Banks in January 2005. In most cases, scientists haven't pinpointed a precise cause. The Navy has acknowledged that its midfrequency sonar caused a fatal whale stranding in the Bahamas.

The Navy is studying sites on the Atlantic Coast for an underwater sonar range to train sailors in anti-submarine warfare. The range would provide a grid of hundreds of underwater microphones anchored on the ocean floor that would record ship movements and allow training exercises at depths of 120 to 900 feet.

The proposed sites include waters off North Carolina near Camp Lejeune; off South Carolina; off northeastern Virginia; and off northeastern Florida near Jacksonville.

The Navy's preferred location for the range has shifted in recent months from North Carolina to Florida because, with base realignment, most of the sub hunting aircraft used in the exercises will be stationed in Jacksonville by 2010.

Navy leaders celebrated the legal decision as vital to allowing sailors to train realistically and to the Navy's ensuring it's ready for anti-submarine warfare. They said the ruling dealt specifically with the California training exercises.

At the same time, the Navy says it does take seriously its obligations to minimize effects on marine mammals in all waters. The Navy expects to spend $26 million a year over the next five years on marine mammal research and the effects of sonar, said Jene Nissen, Fleet Forces Command project manager for the underwater warfare sonar training range.

While the Supreme Court might have raised the bar for lawyers to prove environmental harm, finding that proof might be easier on the East than the West Coast, said Michelle Nowlin, supervising attorney with the Duke University Environmental Law and Policy Clinic. Waters off the East Coast are a biologically rich area with more imperiled species.

***Atlantic's variety***

"On the Atlantic Coast, you have more critically endangered species – a greater variety of sea turtles, the North Atlantic right whale ...," Nowlin said.

The right whale migrates along the Atlantic Coast from Maine to Florida. Scientists say as few as 300 remain.

Scientists have linked several fatal whale beachings to the use of midfrequency sonar, though they don't understand exactly how the underwater pulses of sound harm the animals. The Navy has acknowledged that its midfrequency sonar caused a fatal stranding when 17 beaked whales beached in the Bahamas in 2000.

"We knew then that sonar had the potential to affect at least beaked whales," Nissen said. "The Navy embarked on an aggressive research endeavor trying to quantify or better understand what those effects are and how marine mammals may be affected by sonar."

The Navy also is doing a broader study of the environmental consequences of sonar and mine warfare training exercises in the Atlantic and Gulf of Mexico. The study is to determine whether the Navy should continue doing large-scale exercises up and down the coast as it has for years, focus exercises in one area, or perhaps move them seasonally.

The Navy's preference is to continue doing them as it does now. It's expected to issue a final environmental study by mid-December.

## Russia Tests Sea-Based Submarine-Launched Bulava Missile,

And Plans Deploying Land-Based RS-24 ICBMs to Outwit U.S. Missile Defense System Before it is Created: RS-24 Test-Fired Successfully for Third Time

*Defense Daily, December 1, 2008*

An increasingly bellicose Russia test-launched a sea-based ballistic missile from a submarine, and also readied plans to deploy a land-based nuclear-tipped missile that Russians claim can elude U.S. missile defense systems.

In one test, the Dmitry Donskoy submarine launched a Bulava missile with a multiple warhead that hit targets at the Kura training range in Kamchatka, according to Itar- Tass.

In the other test, a land-based RS-24 missile was fired for a third time, traveling a trajectory of 4,000 miles.

Russia is preparing to deploy the RS-24 land-based intercontinental ballistic missile (ICBM) that is said to be able to slip through U.S. ballistic missile defense (BMD) systems, according to the London Daily Telegraph, quoting Russian news agencies.

The RS-24s would be deployed at the end of next year at the Teikovo missile unit at a base northeast of Moscow.

These developments come after Russian President Dmitry Medvedev earlier, in a single week, personally witnessed a submarine ICBM launch, and a separate land-based ICBM launch.

Russia for months has attempted to intimidate the United States and European nations to abandon plans to construct a European Missile Defense (EMD) system.

While the EMD would guard Europe against missiles launched by a rogue Middle Eastern nation such as Iran, Moscow claims the EMD would threaten Russian ICBMs, a claim that U.S. leaders say is preposterous, since the EMD interceptors wouldn't be fast enough to catch Russian ICBMs.

Meanwhile, the Czech Republic and Poland have ignored Russian bluster and threats to use missiles to destroy the EMD system if it is built, with one house in the Czech parliament approving the plan Thursday, just before Americans sat down to Thanksgiving Day dinners.

In a related development, Russian President Dmitry Medvedev, in comments he may have thought would make him seem reasonable, told French journalists that he will forego placing Iskander missiles in an enclave near Kaliningrad, close to Poland, if the United States refrains from building the European Missile Defense (EMD) system. It would have a radar in the Czech Republic and interceptors in Poland.

Iran now possesses the Sajjil missile with a 1,200-mile range sufficient to strike Israel and parts of Europe, and is developing even longer-range missiles. Further, Iran has launched a missile from a submerged submarine, and announced plans for a space program, which would involve much the same technologies required for an ICBM that could strike targets in the United States.

President Bush has seen growing Iranian missile capabilities as a threat, along with the Iranian refusal to stop producing nuclear materials.

While Iran claims the materials would be used for electrical power generation, Westerners fear the materials would be used to fashion nuclear weapons that would be mounted on missiles.

Although Bush has been a strong proponent of the EMD system, and of missile defense generally, he leaves office next month. While President-elect Obama sees a need for missile defense in the face of the rising Iranian threat, it is unclear just how much support and funding he will provide to the EMD program, and to other missile defense systems.

## Finger On The Nuclear Button

*By Richard Knight, BBC News, December 2, 2008*

Within days of coming to power, Gordon Brown had to make a decision with potentially massive consequences for Britain and the world.

Would he, in the event of a surprise nuclear attack in which he was killed before he could react, want Britain's last line of defence – a lone Trident submarine on patrol somewhere under the Atlantic - to retaliate?

Brown wrote his answer to that question four times, in long-hand, in the form of letters addressed to the Royal Navy submarine commanders who, we must all hope, will never be required to read one of them.

The letters are sealed in a safe aboard each of Britain's four Trident submarines.

If Britain is substantially destroyed by a nuclear strike and the prime minister is killed, the captain of the submarine on patrol (one is always out there, armed and ready to strike) will open his safe, take out the prime minister's instructions, and act on them.

For a BBC Radio 4 documentary, The Human Button, we were given unprecedented access to Britain's nuclear weapons infrastructure.

We have seen how the system works, visited the secret command bunker upon which it relies and watched a firing exercise onboard HMS Vanguard, the submarine which is – right now – out there somewhere on patrol.

But the biggest question is, of course, the hardest to answer. Would Britain ever, in any circumstances, actually unleash its nuclear arsenal?

We are unlikely ever to know what Gordon Brown has decided. His so-called 'Last Resort Letters' will be destroyed unread when the premiership changes.

And only two decision-takers have ever revealed what they would have done in the almost unimaginable scenario of a bolt-from-the-blue attack.

Jim Callaghan, speaking to Peter Hennessy for a BBC documentary in 1988, said that "if we had got to that point where it was, I felt, necessary to do it - then I would have done it".

"I've had terrible doubts of course about this. And I say to you that if I had lived after having pressed that button, I would never, never have forgiven myself."

Now Lord Healey, too, has revealed what he would have done. As defence secretary in the 1960s, Healey was asked by Harold Wilson to be an 'alternate decision-taker'.

In a period of rapidly-escalating international tension, Healey would have been required to go to the Royal Air Force's Bomber Command bunker. (In those days the primary deterrent was carried not on Royal Navy submarines but by RAF V-Bombers - the Victors, Valiants and Vulcans.)

There he would have stood alongside the head of Bomber Command, ready to take the retaliation decision if Wilson was killed before he could take it himself.

"I did feel rather worried about it because I knew it would be a very difficult decision to take," he says.

"I realised I would find it very, very difficult indeed to agree to use a nuclear weapon – and I think most people would."

What if the head of Bomber Command had turned to him, as Soviet nuclear weapons were already raining down on targets across the United Kingdom, and implored him to retaliate? Britain is being obliterated forever, he might have said, at no cost to the enemy.

Healey is clear. "I think I would still have said that that, I'm afraid, is no reason for doing something like that.

"Because most of the people you kill would be innocent civilians."

Healey's admission is remarkable. At that time, in the very darkest days of the high Cold War, the threat of nuclear conflict sometimes felt close.

Today it does not. Yet the possibility remains. And as long as Britain retains its nuclear deterrent (and in 2006 the government decided that it would do so), someone, one day, might yet have to make that terrible decision for real.

## Deep-Diving NR-1 Wraps Up Its 40-Year Career

*By Andrew Scutro, Navy Times, December 1, 2008*

Its oven was actually a toaster taken out of a P-3 Orion. It had no shower, and there were four racks for 11 sailors. The officer in charge slept on the deck behind the conn. And since the Nixon administration, the elite crew of the NR-1 could live on the bottom of the ocean for up to a month at a time.

National Geographic magazine called it "The Navy's Inner Space Shuttle," and in many ways, the now retired nuclear-powered, deep-submergence boat capable of 3,000-foot dives was just that.

"I've been in it for a month, and it gets a little ripe," said Robert Ballard, sea explorer and former Navy man who, among scores of other finds, discovered the wreck of the Titanic in 1985 and John F. Kennedy's PT 109 in 2003.

Although he didn't use the NR-1 for those missions, he was aboard for countless explorations, and with its deactivation Nov. 21, he said he hates to see this one-of-a-kind ship retire.

"We've lost an asset, and it's too bad," Ballard told Navy Times.

Launched in Groton, Conn., in January 1969, for years NR-1 was a secret submersible built to dive so deep it had wheels for moving along the ocean floor. Because of its nuclear reactor, its dwell time was not limited by batteries like other submersibles. But it was not fast, managing a little more than 3 knots submerged.

"That's more than fast enough to operate near the ocean floor," said Cmdr. John McGrath, NR-1's final officer in charge. "I'm a big fan of the ship. I think it's an incredible chapter in Navy history."

In its time, NR-1 was manned by nuclear-qualified submariners who passed an interview with the director of naval nuclear propulsion, currently Adm. Kirkland Donald. McGrath is rarer still among this small fraternity of submariners, having previously served as NR-1 engineer from 1997 to 2000. He came back in 2007 and will oversee the yearlong process of de-fueling the sub's nuclear reactor before its voyage to the Navy's submarine graveyard in Puget Sound, Wash.

In its nearly 40-year career, the NR-1 was called for countless missions – from searching for wrecked and sunken naval aircraft to finding debris from the space shuttle Challenger after its loss in 1986.

On its final deployments, McGrath said, the NR-1 was still conducting "highly classified military missions."

The real loss with the passing of the NR-1, according to Ballard, will be its highly advanced sonar. Unlike the system on an attack submarine, which is directed at the entire water column, NR-1's sonar was pointed downward and could, as McGrath put it, detect an "empty soda can buried in the sand a mile away."

In addition to having wheels, NR-1 was also unique in that it had three portholes and 29 external lights to illuminate the depths, along with 13 cameras, hooks, grips and a robotic arm.

It could dive deep because it was built with a very rigid hull and narrow hips – its beam was only 12½ feet. And unlike a combat submarine, it had very few "mechanical hull penetrations," so while that made it stout, the ship could not discharge such things as wastewater while submerged.

"The limiting factor is the capacity of the toilet tank," McGrath said. "Living conditions were a little primitive."

Refueled once in its service life, the NR-1 still had some years left on the clock, but "it reached the end of its service life," McGrath said. "A lot of our suppliers and logistic sources have long since gone out of business."

It was taken out of service Nov. 21 in Groton at a ceremony attended by former NR-1 officers in charge Adm. Jon Greenert, current commander of U.S. Fleet Forces, and retired Adm. Edmund Giambastiani, who left the Navy in 2007 as the vice chairman of the Joint Chiefs of Staff.

Ballard said he rode the sub with Giambastiani in the early 1980s, when Ballard was trying to prove to the Navy that it could use subs such as the NR-1 to lurk on the ocean floor and wait for targets at certain strategic chokepoints.

Before transferring to the Navy, Ballard was commissioned as an Army officer in 1965 with a geology degree, and he appreciated the value of terrain the way an infantryman does. He took that knowledge into the cold depths.

"During the Cold War, we tried to box up the Russians, whether it was along the Greenland-Iceland gap or the entrance to the Bosporus [Straits], or the entrance to Gibraltar," he said. "The idea was chokepoints ... where you're in the terrain and [the enemy is] really silhouetted above your head."

He said the Navy didn't buy his concept.

But as for other possible NR-1 missions, such as checking the taps on Soviet undersea communication cables, Ballard keeps true to the silent service.

"I have no comment," he said.

## Chilean Submarine Completes Engagement Support, Departs Point Loma

*By Chief Mass Communication Specialist Yan M. Kennon, Naval Base Point Loma Public Affairs, November 26, 2008*

POINT LOMA, Calif. (NNS) – Chilean Submarine (CS) Simpson (SS-21) departed from Naval Base Point Loma on Nov. 18, after spending two and a half months in the Southern California area of operations supporting several U.S. Navy 3rd Fleet joint exercises.

Simpson arrived at Naval Base Point Loma on Sept. 2 to take part in the Diesel Electric Submarine Initiative partnership with the U.S. Navy. The partnership allows the U.S. and other allied navies to work together to train and test underwater warfare capabilities through engagement tactics, weapon system tests and close encounter operations. Simpson's deployment to Southern California assisted both the U.S. and Chilean navies to train their crews and test capabilities while fostering improved bilateral cooperation and enhancing joint-interoperability.

Simpson is a German-built Type 209 diesel-electric submarine with a crew of approximately 45 officers and Sailors and provided critical training opportunities for U.S. Navy platforms to develop and improve their anti-submarine warfare capability in the area of diesel-electric submarines.

Specifically, Simpson participated in Composite Unit Training Exercises and Joint Task Force Exercises, which are exercises designed to prepare and certify deployable Navy units as qualified for open ocean operations, with the John C. Stennis Carrier Strike Group and Boxer Expeditionary Strike Group.

Additionally, as a first for the Chilean submarine community, Simpson participated in underwater rescue exercises with the U.S. Navy's Deep Submergence Unit (DSU), homeported at Naval Base Coronado. During these underwater rescue exercises, Simpson successfully transferred personnel while simulating an emergency situation, demonstrating the versatility and international capability that DSU is able to provide our allies and coalitions.

While in San Diego, Chilean sailors resided at Naval Base Point Loma Visitor Quarters and ate at the base galley. Some of the Chilean crew was joined by their families for some of the brief periods while they were in port.

Additionally, the commanding officer, Cmdr. Hernan Miller, said he greatly appreciated the hospitality offered by the U.S. Navy Sailors and the "Hail and Farewell" parties hosted in honor of Simpson.

For more news from around the fleet, visit www.navy.mil.

## Investigation Into Sub Fatality Blames Victim

### Command Cited For 'Shortcomings' In Safety, Training

*By Gidget Fuentes, Navy Times, November 26, 2008*

A Navy investigation into the Sept. 20 death of a submariner found that the sailor got himself into a deadly situation while trying to clean up some oil aboard the ballistic missile submarine Nebraska during its weekly "Field Day."

Machinist's Mate 3rd Class (SS) Michael A. Gentile became crushed and pinned in the rudder ram in the submarine's "shaft alley" at its far aft section when Nebraska, operating near the Hawaiian islands that morning, changed course, according to an investigation the Navy released Wednesday. Despite efforts by crew members to stem blood loss, Gentile died aboard a Coast Guard helicopter en route to the military hospital on Oahu.

Investigators found that Gentile, 21, had ignored warning signs posted in the aft auxiliary area, and he stepped into an area to place absorbent cloths in the space, likely expecting the rudder mechanisms wouldn't move while he got the cleaning done.

Gentile "went beyond a posted warning sign and safety chain and placed himself in dangerous proximity to specifically marked moving components of the rudder ram," Rear Adm. Tim Giardina, who commands Submarine Group-Trident in Silverdale, Wash., wrote in an endorsement of the report completed by Submarine Squadron 17 under the Judge Advocate General's Manual. Gentile "disregarded these visual safety warnings."

But Giardina and investigators also found some "shortcomings" in Nebraska's chain of command, specifically lack of enforcing safety rules and the cleaning habits and practices in shaft alley, where some sailors had taken to using sticks or bilge grabbers to reach and clean its tight confines.

"There were noted shortcomings with the chain of command in ensuring that expected standards of safety were complied with and understood," Giardina wrote. "There were also shortcomings with the leadership's lack of cognizance and oversight of the crew's cleaning practices. These shortcomings will be addressed."

The chief of the boat told investigators that "there was no written policy for cleaning in shaft alley, but there was a CPO oral policy to 'stay away from pinch points,'" the investigator found. "Some mechanics related that they clean under the rudder ram by carefully reaching, without further precaution."

"Auxiliaryman aft watchstanders did not have a clear understanding of the requirements and controls required for entering into the area around the rudder ram," the investigator added.

Nebraska's crew completed a safety standdown, one of the recommendations in the investigation report. Giardina directed Submarine Squadron 17, which is commanded by Capt. David Ratte, to consider administrative actions against Nebraska's skipper, executive officer, chief of the boat, engineering officer and others.

It's not clear yet what actions, if any, have been taken already.

"No one has been relieved of their duty," Lt. Kyle Raines, spokesman for Submarine Group-Trident, said Wednesday.

"These shortcomings will certainly be addressed through appropriate administrative actions," Raines said. "The specific administrative actions are still being determined." The Navy won't release details of any administrative or nonjudicial punishment of any crewmembers, he added, citing that doing so "could constitute an unwarranted invasion of personal privacy."

Gentile, a member of Nebraska's blue crew, had enlisted in 2005 and was considered well-liked among the boat's crew. "Gentile was a hard-working and respected member of his crew and served proudly with honor, courage and commitment," Trident group officials said in the statement. "His loss is tragic and is felt throughout the submarine community," they added.

Here's what investigators say happened that morning:

Gentile that morning stood the auxiliaryman aft watch, which began at 6 a.m. and would end at noon, when Nebraska, at sea with its Blue crew, would conduct its weekly Field Day, a thorough cleaning evolution of the boat.

With absorbent materials known as Pigs in hand, he began to clean around the rudder ram for a few minutes, the lead investigator wrote in the report. It was about 8:35 a.m. local Hawaii time, and the rudder was set at "Right 15 degrees for a baffle clear," the investigator wrote. At about 8:38 a.m., "the rudder was shifted to Left 15 degrees to stop the swing of the ship to steady on course."

That action pinned Gentile against a stanchion in the forward portion of the rudder ram. Someone aboard heard screaming and reported via the 4MC emergency circuit: "Injured personnel in shaft alley. Person caught in the shaft." The officer-of-the-deck ordered the shaft stopped.

Several sailors rushed to the scene and found Gentile pinned "between the forward collar of the rudder ram and the local operator stanchion," the investigator wrote. Another message went out: "Man stuck in the rudder." They freed Gentile when the rudder position was adjusted to Right 10 degrees and took him to sick bay.

But his injuries were traumatic. The crush ruptured his pelvis and cut a femoral artery, and he bled heavily. The crew struggled to stabilize him as the submarine went to periscope depth and closed in on Hawaii and the medevac helicopter.
At 1 p.m., three hours and 40 minutes after the accident, Gentile, who fell unconscious several times, was placed on the helicopter. A half-hour later, however, he was pronounced dead, still en route to the hospital.

## Don't Give Up The Ship On Keeping Base Alive

*The Day, November 30, 2008*

The former head of the federal commission that saved the Submarine Base in 2005 delivered a loud warning last week, one the region and the governor's office should heed.

Anthony J. Principi, a former Cabinet officer now serving as a Pfizer Corp. senior vice president, made it clear his organization understood the military value of the Naval Submarine Base's synergetic relationship with Electric Boat. And thus the base was saved.

But the second, more important, part of his message to the region's Chamber of Commerce warned that the Pentagon will surely be pressuring for another round of base realignment studies as federal budget squeezes pare down military spending. So southeastern Connecticut and the state need to invest in infrastructure and services to make the region more hospitable to the Navy.

The submarine base needs at least four more new submarine piers, it needs new buildings along the waterfront and it should have improved magazines for weapons storage.

"Keep up the battle, keep up the fight, keep up the investment," Principi exhorted the chamber.

Former Congressman Rob Simmons, now Gov. M. Jodi Rell's liaison to businesses in Connecticut, intentionally threw Principi a softball: Was the $3.1 billion annually in salaries, goods and services and 34,000 military-related jobs worth the $40 million state investment?, Simmons asked.

Principi replied, naturally, that it was a very good investment.

The state already has authorized $10 million towards dry dock facilities at Electric Boat and has approved bonding $40 million for additional military spending enhancing the base.

Voters may ask why the state is investing in a federal operation, but other states competing to keep their military installations have spent more - notably Virginia to protect the Navy presence at Norfolk.

Connecticut must be ready for another battle because the locations of home ports of submarines have shifted dramatically. At the height of the Cold War, 60 percent of the Navy's submarine fleet, was on the East Coast. In recent years, the numbers shifted to a 50-50 split between East and West coast ports. Today, because of the growing threat of Chinese nuclear submarine technology, 60 percent of the United States Navy's submarines now are stationed on the West Coast.

Two other considerations: the congressional delegation, especially Congressman Joe Courtney, recently elected to a second term, must work closely and regularly with the governor's office on this issue.

Second, the local base realignment group needs to patch up whatever has caused its differences with the governor's office. The governor's staff is especially sensitive to speaking first on issues that it considers political and the local organization needs to understand this.

For its part, Gov. Rell's staff must try to work harmoniously with regional officials and vice versa.

Having Justin Bernier, a former aide to Simmons, serving in the governor's Office of Military Affairs, is helpful, but the governor's office must patch its rift with John Markowicz, who remains one of the most important elements in defending against the Navy's consistent intention to close Groton. Markowicz's analytical mind and attention to detail have done much to win the day in both of the two previous BRAC struggles. He will continue to be important to efforts to oppose closing the submarine base.

For his part, Markowicz should be politically sensitive to the idea that the governor's office doesn't like getting upstaged by the local committee. He needs to do the same kind of work, but his public posture should be toned down.

The people of eastern Connecticut and the state government have performed extremely well when Navy engagements threatened the submarine base. Going forward, there should be determined cooperation to bring about the investments needed to keep the submarine base and Electric Boat here.

## Scads Of Super Subs In The Indian Ocean

*Strategy Page, November 30, 2008*

Pakistan is switching from France to Germany for its next batch of submarines, and is buying three Type 214 diesel electric submarines. Pakistan is currently building the last of five Agosta subs, with the assistance of the French designers.

The 214s will be built in Pakistan, and the first one will be in service in about six years. The Type 214 is a 1,700 ton, 202 foot long boat, with a crew of 27. It has four torpedo tubes and a top submerged speed of 35 kilometers an hour. Maximum diving depth is over 1,200 feet. The Type 214 is similar to the earlier Type 209 and Type 212. The Type 214 also has a air-independent propulsion (AIP) system. This enables the sub to stay underwater for over a week at a time. Pakistan is paying about $350 million per sub.

The main undersea adversary for the 214s will be six French Scorpene class diesel-electric submarines being built in India. These are similar to the Agosta 90B subs that Pakistan has just finished building. The third Pakistani Agosta was recently finished, after being delayed over a year because Islamic terrorists had killed some of the French engineers working on the project. France is also helping Pakistan install AIP in the first two 90Bs. The third one was built with AIP.

The two designs are similar, with the Scorpene being more recent (and the result of cooperation between a French and a Spanish firm.) The Agosta is a 1,500 ton (surface displacement) diesel-electric sub with a 36 man crew and four 21 inch torpedo tubes (with 20 torpedoes and/or anti-ship missiles carried.) The Scorpene is a little heavier (1700 tons), has a smaller crew (32) and is a little faster. It has six 21 inch torpedo tubes, and carries 18 torpedoes and/or missiles.

Both models are usually equipped with an AIP (air independent propulsion) system. This enables the sub to stay under longer, thus making the sub harder to find. AIP allows the sub to travel under water for 4-5 days at low speed (5-10 kilometers an hour).

With both nations having these modern subs, they have very lethal weapons against surface warships. With well trained crews, 214s, Agostas and Scorpenes can get close to just about any surface ship, no matter how good the defenders anti-submarine defenses are. But it's the AIP boats that are the real killers. Without AIP, subs spend most of their time just below surface, using their diesel engines (via a snorkel device that breaks the surface to take in air, and get rid of the engine exhaust.) Snorkels can be spotted by modern maritime patrol aircraft, and both nations are getting more of these.

India is apparently getting AIP for its Scorpenes. The price of the contract is quoted as $300 million for each boat. That could include AIP, because the boats are being built in Indian yards, which have much lower costs. European built AIP boats go for about half a billion dollars each. Typically, AIP adds about $100 million to the cost of a sub.

## Pakistan To Buy Three Advanced German Submarines

*Domain-b.com (India), December 1, 2008*

For the first time ever, Pakistan may opt for German submarines with a formal agreement for the purchase of three Type 214 HDW subs now awaiting signature. According to media reports, the deal may be worth more than $1 billion (773.7 million euros) to the German ship designer and shipyard Howaldtswerke-Deutsche Werft GmbH (HDW.

Reports suggest that the two countries may sign a formal agreement for the supply of the subs anytime over the next few months.

The German shipbuilding company Howaldtswerke-Deutsche Werft GmbH (HDW) will construct the diesel-electric submarines in a shipyard in Pakistan 's southern port city of Karachi, where it has constructed its French supplied Agosta class submarines. HDW has been described as the largest conventional submarine maker in the world.

"The commercial contract has been finalized up to 95 per cent," Walter Freitag, the chief executive officer of the HDW has been quoted as saying. Freitag was interviewed by local Pakistani newspapers during a defense products exhibition called IDEAS 2008 in Karachi.

Freitag said that once the contract is signed the first submarine would be delivered to the Pakistan navy in 64 months, with the rest delivered in the following 12 months.

Pakistan has traditionally relied on French submarines for its submarine fleet and it would be the first time that it would opt for German boats.

"The Pakistan navy understands submarines and ours are the best," Freitag said. "We use higher grade steel material, which allows greater diving depth. Also, we have fuel cell AIPs and can integrate Harpoons with the Type 214."

Type 214 is a 65-meter-long boat which can dive more than 250 meters, but it lacks the advanced technology to avoid detection deployed by the Type 212.

The Indian Navy had purchased four of its Shishumar class submarines from HDW in the early 1980's.

## Russia To Lease Sub To India Despite Fatal Accident

*Defense News, November 28, 2008*

Moscow has told New Delhi that it remains committed to leasing a nuclear submarine to the Indian Navy despite the Nov. 8 accident that killed 20 crew members aboard a Russian nuclear sub, say Indian Defence Ministry sources.

The Akula-2 nuclear-powered attack submarine, the Nerpa, which is being built by Russia for the Indian Navy, was on sea trials off the Sea of Japan Nov. 8 when 20 personnel were killed in an accident reportedly involving activation of the submarine's fire-fighting system.

However, the sea trials of the submarine have been temporarily halted, said sources. The Indian Defence Ministry has already asked the Russian yard building the submarine to extend the trials.

The Indian Navy is acquiring the Nerpa in the run-up to its own secretive, classified nuclear submarine Advanced Technology Vehicle (ATV) under construction. The crew trained on the leased Nerpa would eventually take over the indigenous ATV, expected to be inducted by 2010-11.

The nuclear submarines will give India the third leg of its nuclear triad by acquiring submarine-launched nuclear capable missiles.

## Military, Civilians Work Side By Side at Trident Refit Facility

*By Mass Communications Specialist Seaman Eric Tretter, Naval Submarine Base Kings Bay Public Affairs, November 25, 2008*

KINGS BAY, Ga. (NNS) — To understand everything Naval Submarine Base Kings Bay's Trident Refit Facility (TRF) does and all that it entails to support the fleet can be overwhelming.

To tour every building, department, shop and job that TRF encompasses, including closed-door facilities and classified information, is nearly impossible.

To call TRF's operation vast is one thing. To understand it, entirely different.

As the largest tenant command here at Kings Bay, approximately 360 military personnel and 1,290 civilians make up the TRF workforce. Like many shore commands throughout the Navy, these civilians and service members work with sea-bound Sailors to accomplish common goals.

"TRF quietly and efficiently keeps a significant portion of America's submarine warfare capability at sea," is how the TRF fact sheet explains it.

"We feel what makes TRF successful is the military-civilian mix," said Daphne Cassani of TRF Public Affairs. "Active duty members learn from those skilled artisans and take that training back to the ships. In turn, the military infuse our civilian workforce with new ideas and insights on how to best support shipboard operations. This is a winning and synergetic combination that makes TRF click."

"TRF's Mission is to provide quality industrial and logistics support for the incremental overhaul, modernization and repair of Trident submarines and to provide global submarines supply support," the fact sheet adds.

In building 4028, the Refit Industrial Facility (RIF), apprentice Chris Hupman of Machine Shop 38A, is carefully milling v-blocks for round stocks. Just a stone's throw from Hupman, machinist Jeffrey Deberry inputs pages of codes into a Computer Numerically Controlled (CNC) router to turn a billet piece of metal into a precision part aboard a Trident submarine.

Towards the other end of the building, a special room outfitted with a hydraulic lift and specially calibrated machine allows electrician Mike McIrvin to balance a 2,200-pound, 70kW DC armature for a motor generator.

"We have an awesome civilian workforce that is skilled in using state-of-the-art equipment," Cassani said.

Across the way, in the Command and Control Systems Building, technicians refurbish $25,000 binoculars and 40-foot periscopes, among other things, to ready for issue (RFI) condition. Three sets of RFI binoculars, mounting hardware, and several 12-inch incandescent search lights perch near an outside door, awaiting disbursement.

Most of these re-manufactured components belong to large pool of assets overhauled by the Trident Planned Equipment Replacement (TRIPER) program to support Ohio-class submarines.

"These ready components are shipboard equipment requiring maintenance beyond the ship's capability and/or cannot be accomplished during refill periods without impacting the refill schedule," said Bonnie Taylor of TRIPER/Configuration/Alteration management.

Taylor compared and simplified these planned and emergent change outs done on submarines to that of an automobile's blown engine.

"Basically, if you have major engine trouble with your car, it is much faster and easier to swap the entire engine than to take it apart and fix it," she said. "It takes a lot longer than just taking a ready-to-go motor off the shelf and re-installing it. It reduces that time significantly."

Early during the Ohio-class submarine's conception, a decision was made as to which components would be in the pool. The concept was to reduce the amount of time to get these components installed on the boat, without having the downtime spent taking the component out, repairing/overhauling it and then re-installing it.

"We have thousands of components - overhauled or repaired," Taylor said. "We use the assets over and over again and try to keep the pool constantly replenished. That's a good way of looking at it."

As an added bonus, many of these refurbished assets save taxpayers money. How much money? According to the Optical Repair Shop's Regional Maintenance Coordinator Bud Leivasseur, a record 629 optical instruments and components refurbished in the 2008 fiscal year saved approximately $4 million more than costs had those components been completely replaced.

On a visit to TRF waterfront facilities, Machinery Repairman 2nd Class Dusty Erno of machine shop 38A, manufactures a taper pin for a pump assembly. He explains this machine shop as one that repairs and maintains small parts as opposed to 31A which deals with fabrication.

Outside, a gigantic crane on extra wide, railroad-type tracks, lowers a "racetrack" onto USS Georgia. This is used as a platform to work on the boat's mast and antennas in the upper part of the sail.

Not far from this operation, Navy Diver 2nd Class (DSW) Josh Peterson prepares 27-pound diving head gear for a weekly training exercise outside the Diving Locker.

"Pretty much anything deemed necessary to change, we'll do to get the vessels underway," said Master Chief Navy Diver Scott Brodeur. "Our main job is to support the strategic operations of the boats. We fix dry dock door leaks, inspect piers and recover topside drops of items of value underwater."

Looming near the divers' training operation, a 133-foot tall, 700-foot long dry dock holds the USS Maryland. As the largest drydock in the Western Hemisphere, submarines may undergo not only hull cleaning, measurement and inspections, but may also undergo ballast tank repairs, rudder and dive plane work, numerous sea-water tank inspections, repairs to seawater valves and piping systems and propeller replacement.

TRF Command Master Chief Todd Synder said the biggest challenge at TRF is communication.

"We have so many facets and there are a lot of people who deal with each side of the house," he said. "Understanding the language [military versus civilian] can be a little different."

Differences aside, the two factions seem to have the communication issues under control. Recently, five TRF civilian employees were honored with Meritous Civilian Service Awards for planning and executing TRF operations on the other side of the world.

TRF employees made United States Naval submarine history when the first Voyage Repair Team traveled to Diego Garcia. In the middle of the Indian Ocean, on an island much smaller than most state counties, the team successfully created a shore base to accommodate support equipment aboard SSGNs for scheduled maintenance.

"Normally you have a tender that does that, because it has all the mechanical abilities," Snyder said. "In this case, we have such a good working relationship at Trident Refit Facility, whether you are civilian or in the military, that we put a team together to plan the refit over there."

A second Voyage Repair Team visited Diego Garcia last month to be followed by others in the future. Just another testament of TRF's many capabilities.

For more news from Commander, Submarine Group 10, visit www.navy.mil/local/csg10/.

## CBI Caught In Arms Scandal Cover-Up

### Democracy Under Fire

*By Aharon Etengoff, IT Examiner (India), November 26, 2008*

India's Central Bureau of Investigation (CBI) has refused to reveal details of an arms scandal investigation.
The CBI recently told a Delhi High Court that it would not discuss the alleged payment of kickbacks related to a suspicious •2.5 billion Scorpene submarine deal.

"The report contains details of communication between the CBI with International agencies like Interpol. We have certain international arrangement under which we cannot reveal (that) information," said additional solicitor general, Gopal Subramanium. However, the CBI previously noted that it had found no evidence of kickbacks during the course of the controversial submarine deal.

The Centre for Public Interest Litigation vehemently protested the CBI's stance.

"This is not fair on the part of the government. The Court opened the seal of the report on September 12 but the Centre didn't say at that time that contents of the report cannot be disclosed," claimed advocate Prashant Bhushan.

As IT Examiner previously reported, the Indian defence industry has long been plagued by allegations of corruption. In 2001, undercover Indian journalists accused a BAE agent of making "corrupt approaches" to a party treasurer linked to the Indian defence minister, George Fernandes. The scandal caused the eventual resignation of the minister — who was also accused of manipulating the procurement of BAE's Hawk trainer.

Unsurprisingly, the defence firm denied the claim at the time and noted that "BAE does not and has not used agents in India". Nevertheless, the then head of DESO (Defence Export Services Organisation) Sir Colin Chandler, told a (1988) private meeting in London that "doing business in India has always required the use of agents".

The Independent later confirmed that agents were "clandestinely involved everytime a deal [was] struck."

Sobia Nisar of SARAS (South Asia Research and Analysis Studies) explained that Indian defence officials who "succumb to temptation find themselves under constant pressure from politicians, bureaucrats and middlemen, especially if they happen to be in the weapons procurement, weapons selection or even a decision making chain".

According to Nisar, "the involvement of middleman in defence procurement deals leading to kickbacks (illustrates) the true picture of Indian democracy with its active corruption in the defence procurement deals."

## Remotely Operated Sub To Dive On Wreck Of Fuel-Laden Barge Off Nova Scotia

*The Canadian Press, November 25, 2008*

A remotely operated submersible is being prepared to dive on the wreck of a fuel-laden dredging barge that sank in lobster grounds off southwestern Nova Scotia on the weekend.

The small, unmanned submarine will be used to record video of the sunken barge, which was carrying 70,000 litres of diesel when it sank in rough seas 80 kilometres south of Yarmouth on Saturday, Canadian Coast Guard spokesman Joe LeClair said Tuesday.

He said the submersible, known as a Remotely Operated Vehicle or ROV, will also be used to determine if the barge is leaking. It is scheduled to make its first dive later this week, but that won't happen unless the weather is calm.

Earlier Tuesday, the crew aboard a Transport Canada surveillance flight reported there was no pollution, wildlife or fishing boats in the area where the Shovel Master went down.

"At present, there's minimal environmental impact," said LeClair, noting that a wildlife expert is expected to have a look at the area during a surveillance flight Wednesday.

If there is a spill, the private company hired to clean up - Eastern Canada Response Corp. - is preparing a specially equipped buoy designed to keep seabirds away.

The Breco Bird Scaring Buoy, produced by Quebec-based Navenco, emits loud bangs and whizzes to keep birds at a distance of at least 800 metres.

Meanwhile, a spokesman for the company that owns the barge said officials had yet to decide whether to recover the vessel or the fuel onboard.

Geoff Britt, a communications officer for J.D. Irving Ltd. of Saint John, N.B., said the company was monitoring the situation and collecting information from federal experts.

He confirmed Atlantic Towing Ltd. - another subsidiary of the Irving group of companies - was getting the ROV ready.

"It will determine the integrity of the wreck," said Britt.

The Shovel Master, a dredging barge built in 1980, was swamped by large waves last Wednesday and capsized while being towed from Saint John to Halifax.

On Monday, federal officials said only one, small slick was spotted in the area that day, but the volume of the spill was estimated at only four litres.

The barge is sitting on the ocean floor in 150 metres of water.

Britt said the crew from Atlantic Towing didn't anticipate harsh weather when they started towing the barge last week.

The day before the capsizing, Environment Canada's 3:30 p.m. marine forecast for the area called for norwest winds to diminish to 45 kilometres per hour with showers in the evening.

When the 42-metre vessel rolled over Wednesday, winds were gusting at 83 kilometres per hour and wave heights reached three metres. Photos from the coast guard show the vessel partially submerged by heavy swells before it flipped.

Britt said it was "standard procedure" for the barge to be carrying 70,000 litres of fuel even though it was headed to Halifax for maintenance.

He said the rig required fuel for normal operations, including the use of generators onboard.

The federal Fisheries Department confirmed Monday that the sinking occurred at the outer edge of lobster fishing area 34.

Even though the fall season for Atlantic Canada's largest lobster fishery started Monday, lobstermen were not expected to head to the edge of the fishing zone until much later in the season.

Transport Canada has committed to a week of daily surveillance flights over the area where the barge went down.

Meanwhile, fishermen have been warned to stay at least one kilometre away from the site of the sinking.

## USS San Francisco Takes to Waters With Its Transplanted Nose Kitsap Sun

*By Ed Friedrich, Bremerton, November 25, 2008*

The USS San Francisco has returned to the water after a three-year, $134-million nose job.

The fast-attack submarine smashed full speed into an undersea mountain near Guam on Jan. 8, 2005, killing one sailor and injuring 97 of its 137 crew members.

Workers at Puget Sound Naval Shipyard and Intermediate Maintenance Facility removed the sub's 1 million-pound bow and replaced it with one from sister ship USS Honolulu.

"This was a very unique project and experience for many of the project team members and shipyard workers and is an effort which many can be proud in returning the vessel to the water as designed," PSNS spokeswoman Mary Anne Mascianica said in an e-mail response to submitted questions.

The USS San Francisco, commissioned in 1981, was the 24th Los Angeles-class submarine built. The Navy had already decided that the USS Honolulu, though four years newer, would be decommissioned and recycled at PSNS in late 2007 instead of undergoing a $170-million nuclear reactor refueling. The USS San Francisco had been refueled during an overhaul from 2000 to 2002.

Repairing the USS San Francisco instead of refueling the USS Honolulu was "the best return on investment in terms of cost, presence and service life," Mascianica said.

The USS San Francisco cost $900 million to build in the late 1970s, which would be about $2.8 billion in today's dollars. The Navy's newest sub, the Virginia-class USS New Hampshire, commissioned last month, had a $2.2 billion price tag.

The USS San Francisco, which moved out of dry dock on Oct. 10, will stick around until spring while completing final system certifications. Then it will head to its new base in San Diego. The Honolulu has been recycled and no longer exists.

The USS San Francisco arrived in Bremerton on Sept. 9, 2005, and entered dry dock on Dec. 5, 2006. The first-of-its-kind bow transplant involved cutting more than 1 million pounds off the front of the Honolulu, primarily its forward ballast tanks and the sonar sphere. A specially designed cradle and track system were used to push the massive structure inch by inch more than 300 feet in the dry dock until it was within a sixteenth of an inch of the San Francisco.

Internal systems, such as pipes and cables, were aligned and mated before the bow could be welded on.

The restoration took 285,000 man days, Mascianica said, and left the 6,000-ton submarine meeting all of its original design specifications.

The USS San Francisco was about 350 miles south of its base on Guam and cruising 525 feet below the surface when it struck the seamount. It surfaced and returned to Guam under its own power. There, it was repaired enough to make an unprecedented 5,600-mile surface trip to Bremerton.

An investigation into the accident found that the seamount didn't appear on the chart that the crew had been using. It found, however, that it did appear on other charts on the boat that should have been reviewed and the information transferred over, the Navy said.

The ship's commanding officer, Cmdr. Kevin Mooney, was relieved of his command and received a letter of reprimand. Six crew members were punished, reduced in rate or got letters of reprimand.

## Connecticut's Electric Boat Is Working On A Submarine That Could Make 100 Knots Submerged

*By John E. Mulligan, Providence Journal, November 25, 2008*

WASHINGTON — Imagine a craft that could make 100 knots underwater, with a propulsion system so compact and powerful that it would leave ample room for payloads — small combat teams bound for missions on the shore, for example.

Electric Boat, the Groton, Conn.-based submarine builder, is part of a team that won a Pentagon contract to explore the high-speed sub two years ago. The progress has been encouraging enough to make it possible that such a craft will move from the research labs to open-water testing as early as 2010. Much of the research work is being conducted at Pennsylvania State University's research testing facilities.

Major obstacles must be surmounted before the Underwater Express, as the experimental program is known, can be considered for production, according to Kevin J. Poitras, EB's vice president for engineering and design programs. But the concept shows enormous promise for both military and commercial mariners.

Some experts have described the challenge of the Underwater Express as comparable to the technological leap that took aviation from propeller-driven planes to jets — extremely difficult to perfect, but extremely rewarding.

The project is, in a sense, a fresh attack on a limitation of physics that is familiar to anyone who has walked from the beach to go wading in the shallows. The drag resistance of water — orders of magnitude greater than that of air — really slows you down.

Shipbuilders and naval engineers have gone at the problem for centuries, improving speed through, and under, the water by refining different forms of propulsion, hull shape and construction materials that cut down on a vessel's friction with the sea.

Modern advances have included space-age coatings, such as polymers, on the skin of vessels, and the creation of a sheath of tiny bubbles to reduce drag around the surface of the craft. The Underwater Express takes off from a theory developed by an American scientist in the 1960s: supercavitation.

Supercavitation (it comes from the same root as the word "cavity") is a way to cut down on the friction between an object and the surrounding water by enveloping the object in a huge bubble of gas.

During the 1980s, the Soviet Union used supercavitation to produce the Shkval torpedo — essentially an underwater rocket capable of a top speed above 170 knots, according to the Pentagon agency that commissioned the Underwater Express contracts with EB and a competitor, a unit of Northrup Grumman in Annapolis, Md.

The Defense Advanced Research Projects Agency (DARPA) gave EB, a division of General Dynamics, a contract in November 2006 to total about $43 million with options. EB's Poitras explained at an industry convention near Washington last month that the basic assignment was to develop a sub "that could go 100 knots underwater, with a propulsion system that would leave at least 50 percent of the vessel's volume for payload."

A vessel that could make 100 knots underwater would have dramatic implications for war fighting and commerce. One hundred knots is more than twice the speed of the fastest submarine on record, the Soviet Papa-class sub, according to naval analyst and author Norman Polmar. The speed of the fastest U.S. sub, Seawolf, is secret, but Polmar wrote last year that a top Navy official said during its construction that it would be able to go 35 knots.

If the Underwater Express is ever produced, it could provide an alternative to the Mark V, a 40-knot boat that Navy Sea, Air, Land teams (SEALs) use for transport. That craft has limitations that can't be controlled: it can be seen and detected by radar and waves make for a difficult ride at high speed or, in very bad weather, cancel missions.

Eventually, DARPA envisions a 60-ton craft, 8 feet in diameter.

DARPA said in its proposal that it wanted builders "to determine the feasibility for supercavitation technology to enable a new class of high-speed underwater craft for future littoral missions that could involve the transport of high-value cargo and/or small units of personnel."

The goal was a scale prototype that could give "a credible demonstration" to prove that "a supercavitating underwater craft is controllable at speeds up to 100 knots."

Control is one of the toughest tasks, according to Poitras. "You have to be able to turn," he said.

Another big problem, experts say, is noise. The quieting technologies of modern submarines add up to the invaluable battle asset of stealth. DARPA has noted, too, that there would be great difficulties with communications, and with sonar and other sensing tools essential to submarines.

But many of those problems would be tackled later — if and when the shipbuilders demonstrate that the Underwater Express is feasible.

If progress on the vessels continues as it has to date, said Poitras, a new phase of open-water testing could begin in early 2010.

## James R. Holmes: Russians Lying About Sub Disaster?

*By James R. Holmes, Providence Journal, November 23, 2008*

At the naval war college, we assess maritime affairs on "levels of analysis" ranging from the minutiae of hardware and tactics all the way up to high politics and diplomacy. Multiple levels intersected on board the Russian submarine Nerpa on Nov. 8, when a release of a firefighting agent asphyxiated some 20 people. The Nerpa disaster was not only heart-rending for anyone who goes down to the sea in ships, but intriguing for any analyst of sea power.

The United States could be a beneficiary of the accident, which rubbed some of the luster off Russia's reputation as a defense manufacturer. For example, India is choosing among fighter aircraft offered by U.S., Russian, and European firms. The Nerpa debacle could skew New Delhi's decision against Russia. The Russian Navy's misfortune, then, could represent opportunity for the United States in the arms trade.

Here are the facts. On Oct. 27, the Nerpa, an Akula II-class nuclear-attack submarine, left port for sea trials in the Sea of Japan. Some 208 people were embarked, more than double the boat's normal complement of 81 submariners. On Nov. 8, something triggered the installed fire-extinguishing system in a forward compartment, with lethal results.

Panic likely ensued, given the large number of shipyard workers and other non-navy personnel on board. Two lingering questions: Is the Nerpa outfitted with enough emergency breathing masks for a major conflagration in overcrowded conditions, and did the ship's civilian contingent undergo sufficient training for an emergency? The likely answer to both questions: No.

Many fire suppression systems can be activated either manually or automatically. Some initial reports indicated that a fire activated the system. Others pointed to a mechanical defect, indicating that a discharge of Freon was responsible for the casualties on board the

Nerpa. But Freon is a refrigerant. While it displaces air, it would make a poor firefighting agent, especially since it breaks down into toxic gases when exposed to extreme temperatures.

So it's extremely doubtful that the Russian Navy uses Freon to put out fires.

Finally, a spokesman for the prosecutor general's office announced that a sailor had "activated, without permission or any particular grounds, a fire-safety system on board the submarine." Seven years' imprisonment could await the offender, who "already confessed" to his misdeed. But this official story appears suspect. Indeed, Moscow's shifting stories and lightning-quick investigation bespoke a clumsy effort at concealment.

Dissembling would be in character. No government is eager to disclose embarrassing information. That's doubly true for an authoritarian government like Russia's, which is accustomed to managing public perceptions by controlling the flow of information.

Think back. The Soviet government was closemouthed about the 1986 nuclear disaster at Chernobyl, to the detriment of recovery efforts. In 2000, Russian officials were agonizingly slow to divulge what happened on board the cruise-missile submarine Kursk, which sank in the Barents Sea — and entombed 118 crewmen — after a fire cooked off its torpedoes. As a result, Western assistance, in the form of a British rescue vehicle, was slow to arrive.

Thucydides, who chronicled the 5th-century B.C. war between Athens and Sparta, famously proclaimed that fear, honor, and interest motivate states. Thucydides would probably chalk up quixotic actions — say, invading Georgia, or conducting naval maneuvers with Hugo Chavez's Venezuela — to an effort to restore Russian national honor following the humiliating economic and military weakness of the 1990s.

If Russia's great-power pretensions took a beating in the Nerpa affair, Russian interests were also at risk. By happenstance, the Indian Navy recently leased the Nerpa as a training platform, hoping to acquaint its submarine crews with naval nuclear reactors under realistic operating conditions. Unsurprisingly, the Indian press is atwitter over the Nerpa accident. Some commentators have voiced misgivings about Russia's reliability as a supplier of high-tech arms.

The mishap could scarcely have come at a worse time for Russia, when New Delhi and Moscow are wrangling over the price of the aircraft carrier Admiral Gorshkov. The two governments inked a $1.5 billion contract for the Gorshkov and its air wing in 2004. Moscow recently demanded an additional $2 billion for the refit after — belatedly — discovering that the ship is in decrepit material condition. The outcome remains uncertain.

The cumulative effect of such debacles: Foreign buyers now question whether Russian arms are worth the expense. The Nerpa's keel was laid in 1991, but economic woes delayed its completion for years. Chronological age — not just the number of hours machinery is run — takes its toll on marine engineering systems. Like the Gorshkov, the Nerpa is not a new ship, even though it's only now entering service. And, like much of the Russian Navy, it's a throwback to the Cold War.

In short, Moscow had compelling motives to blame the Nerpa calamity on human malfeasance rather than mechanical faults. The former can be solved through scapegoating and jail terms; the latter represents an indictment of the Russian defense sector that could disrupt the influx of foreign cash into the nation's coffers.

Let's not take official Russian pronouncements at face value.

James R. Holmes, an occasional contributor, is an associate professor of strategy at the U.S. Naval War College. The views here are his own.

## Iran To Launch Two New Ships, Submarine

*CNN, November 23, 2008*

Iran's navy is planning to launch two new ships and a submarine later this week, the commander of the navy announced Sunday.

All three vessels were made in Iran, the semi-official Fars News Agency quoted Cmdr. Habibolalh Sayyari as saying.

"On the occasion of Navy Day [November 27], two missile-carrying ships named Kalat and Derafsh, as well as a light submarine, will be launched," he said.

Sayyari repeated a long-standing Iranian threat to close the Strait of Hormuz, a critical waterway, if Iran is threatened.

"We have never said that we will close the Strait of Hormuz. What we did say was that we do have the capability to do so in the event of any aggression or attack," he said.

The United States has said it will not let Iran close the waterway, a vital link in shipping Middle Eastern oil to the world.

Sayyari told reporters that the Iranian navy is monitoring all the movements of foreign ships in the Sea of Oman, the Persian Gulf and the Strait of Hormuz.

He also said that Iran is not planning on expanding its military presence in the Caspian Sea, but: "We have identified 20 percent of the Caspian as our area and will fully protect that area."

Sayyari added that the Iranian navy planned to hold naval maneuvers called "Unity 87" in early December in the Sea of Oman and the Strait of Hormuz.

Iranian and U.S. vessels have occasionally come in close contact in the region, escalating tensions between Tehran and Washington.

## Swiss Company Plans To Build Solar Submarine

*DVICE.com, November 23, 2008*

While all kinds of ocean going vessels have been adding some sort of renewable energy source recently, who would have figured that you might soon add submarines to the list?

A Swiss company called BKW has revealed plans for what they call Project Goldfish, a submarine that recharges its batteries via an island of solar panels that floats on the surface above the sub. Generating power has always been the limiting factor for submarines, and while military forces use a nuclear reactor to solve the problem, that option's not available to civilian users. By going solar, the Project Goldfish sub can stay submerged for unlimited periods, while handling up to 30 people at a time. Passengers will be able to board and leave the sub via a solar powered shuttle.

With secretive Swiss developers and a name like Project Goldfish, it all sounds a bit too much like part of some upcoming James Bond movie. Still, BKW says they hope to have the sub operational by mid 2012.

## Russia President, Warships To Venezuela To Counter U.S.

*By Frank Jack Daniel, Reuters, November 23, 2008*

Warships, nuclear power, arms sales and perhaps cooperation on oil prices — Russia's President Dmitry Medvedev is in Venezuela this week with an alarming sounding list to wave under Washington's nose.

The U.S. government dismisses the importance of Medvedev's visit on Wednesday to meet Venezuelan President Hugo Chavez and the deployment of several Russian warships for joint military exercises with Venezuelan forces in the Caribbean. It says Russia's weak navy is no threat and downplays its rivals' blooming friendship.

But OPEC-member Venezuela is Russia's first firm ally in the Americas since the Cold War and Moscow sees ties to Chavez as a way to answer U.S. influence close to its borders in the Caucasus.

Russia's aim to grow its Latin American presence may be hurt by falling oil prices and Barack Obama's U.S. election win, which could help the United States regain influence lost in the region during the unpopular presidency of George W. Bush.

Still, Chavez has made a career of opposing the U.S. "empire" and he welcomes a heavyweight partner like Russia as an alternative to ties with his main oil client Washington.

"Compared with Russia, we are territorially a small country, but comparing our reserves of oil and gas we are two giants uniting," Chavez said on a trip to Russia this year.

Although it is Venezuela's main weapons supplier, Moscow was for years wary of Chavez's radical anti-Washington stance. But it warmed to him after the war in Georgia in August and U.S. missile-shield deals with Poland and the Czech Republic.

Since then, Caracas's glitziest hotels have filled with successive delegations of Russian businessmen and politicians, while top Venezuelan officials have tag-teamed in and out of Russia. Chavez has made three trips in 12 months.

Moscow now promises to help Chavez build a civilian nuclear reactor and has set up a $4 billion joint investment fund. In return, Venezuela gives access to gas and gold reserves.

Russian officials say the creation of a joint consortium to further develop Venezuela's Orinoco oil field will be a central issue of Medvedev's visit.

He is also likely to discuss cooperating on oil supply with OPEC, where Chavez is a leading price hawk. Both nations depend on energy exports and are worried by oil's fall to around $50 a barrel from $147 in July.

Chavez chased away many private investors with a spate of nationalizations in the last year, and likes Russian promises to help develop Venezuelan resources.

*"UP THE ANTE"*

Medvedev will also visit Cuba and Brazil this week after meeting Bush at a weekend summit meeting in Peru. His visit to Venezuela is the first ever by a Russian president and coincides with the joint naval exercises in the Caribbean.

Along with a visit by two bombers to a Venezuelan base in September, the exercises are Russia's first in the Americas since sending missiles and ships to Cuba during the Cold War.

"The Russians are communicating that if we make decisions in Georgia that they find threatening, Russia would be prepared to up the ante in America's backyard," said Dimitri Simes, who heads the Nixon Center in Washington.

The U.S. government has shrugged off Russia's renewed interest in the Americas, sneering at its notoriously accident-prone navy and inviting Moscow to work constructively in the region.

"No one should doubt where the preponderance of military power in the hemisphere lies," State Department spokesman Sean McCormack told reporters.

McCormack wondered if Russia's nuclear powered Peter the Great ship, which suffered an accident killing several sailors some years ago, would "actually make it" across the Atlantic.

In recent weeks, part of U.S. Navy's newly relaunched Fourth Fleet has conducted aid missions in the Caribbean.

Former U.S. National Security Council member Stephen Sestanovich said Moscow's Venezuelan adventure was mostly talk.

"The generals and admirals may get a brief, giddy kick out of their Caribbean cruises and bomber patrols (but) the region doesn't really fit into anybody's definition of Russian strategic priorities," he said. "The reality is that their economic position is worsening by the day."