

American Submariners Inc.
Silent Sentinel
c/o VFW Post 3787
4370 Twain Ave.
San Diego, CA 92120-3404

Non-Profit Org.
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The Silent Sentinel

January 2009



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.



U.S. Submarine Veterans 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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USSVI Base Commander
c/o VFW Post 3787
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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*

January Meeting

Our monthly meetings are held on the second Tuesday of the month at VFW Post 3787, 4370 Twain Ave., San Diego. Our January meeting will be on 13 January, 2009. The post is located one-half block West of Mission Gorge Road, just north of I-8. The meeting begins at 7 p.m. The E-Board meets one hour earlier at 6 p.m.

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

BINNACLE LIST

Richard Fullen (recuperating in Santee)
 Mike Hyman (Crohn's Disease)
 C J Glassford (had pacemaker 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 December

Submitted by C J Glassford

SEALION (SS 195) - 4 Men on Board:
 Severely Damaged, on 10 December 1941, by Two Bombs, During Japanese Air Attacks, on Cavite Navy Yard, Philippine Islands. Later Scuttled on 25 December 1941 :
 " 4 MEN LOST "

SEADRAGON (SS 194) -
 Slightly Damaged, on 10 December 1941, by a Bomb, During Japanese Air Attacks, on Cavite Navy Shipyard, Philippine Islands : " 1 MAN LOST "

GRAMPUS * Later (A-3) -
 Main Engine Fuel Explosion, on 10 December 1910 :
 " 1 MAN LOST "

F-1 (SS 20) -
 Sunk, on 16 December 1917, after Collision with USS F-3 (SS 22), Off the Coast of San Diego, California :
 " 19 MEN LOST "

S-4 (SS 109) - 39 Men Lost:
 Rammed and Sunk, on 17 December 1927, by Coast Guard Cutter Spaulding, Off Provincetown, Massachusetts,
 * Later Salvaged: " 39 MEN LOST "

MINNEAPOLIS-SAINT PAUL ((SSN708) – “ 110 Men on Board “

Heavy Seas, on 29 Decemer 2006, Washed 4 Crewmen Overboard in Plymouth, Sound England, while exiting
Devonshire, England, on the Surface, After a Port of Call :

“ 2 MEN LOST “ – “ 2 MEN RESCUED “



Wheelchairs for Veterans

Tom Warner, one of our members and also a member of *Knights of Columbus* wants us to know that as a Knight, he has access to some wheelchairs for veterans. The caveat is that the chairs have to go to veterans who need them for non military reasons (the VA will take care of them if it is military related injury).

If you or any other veteran has a need such as this, please do not hesitate to let Tom know. He may be reached at 619-884-8471.

Commander's Corner January 2009

Hello everyone; and it Tis the Season...

This year we held our Christmas Party at the VFW on our meeting night. We had a No-Host Bar from 5-6pm and started the meeting at 6pm. After the opening we suspended the meeting until January like we did last year. Then we served Dinner. The meal was served by our friends from the VFW AUX. The cost was \$20 per person for Dinner and a ticket for door prizes. Dinner was Chicken Breast or Pork Loin with fixings and dessert. A good time was had by all. Our WWII Shipmates from the San Diego Chapter and our Scamp Base Shipmates were invited to Christmas Dinner. We all had a 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 Bissonette

SubVets Christmas Party 2008, San Diego







Chanukah Greetings

I've had many of my non Jewish shipmates and friends over the years wish me a Happy Chanukah even though most of them do not really know what the holiday is all about. And since it's the thought that counts, I always graciously accepted their best wishes and offered them a Merry Christmas in return (both holidays are close to one another on the calendar). However, this year I promised myself that I would put out a little something for those who would be interested in knowing what Chanukah really means. So here's a little blurb, some of which was taken from the web, which describes it.

Chanukah this year begins at sundown, tomorrow night, Sunday. It is the Jewish festival of rededication, also known as the *Festival of Lights*, an eight day event beginning on the 25th day of the Jewish month of Kislev.

Chanukah is probably one of the best known Jewish holidays, not because of any great religious significance, but because of its proximity to Christmas. Many non-Jews (and even many assimilated Jews!) think of this holiday as the Jewish Christmas, adopting many of the Christmas customs, such as elaborate gift-giving and decoration. It is bitterly ironic that this holiday, which has its roots in a revolution against assimilation and the suppression of Jewish observance has become the most assimilated, secular holiday on the Jewish calendar.

The story of Chanukah begins in the reign of Alexander the Great. Alexander conquered Syria, Egypt and Palestine but allowed the lands under his control to continue observing their own religions and to retain a certain degree of autonomy. Under this relatively benevolent rule, many Jews assimilated much of Hellenistic culture, adopting the language, the customs, and the dress of the Greeks, in much the same way that Jews in America today blend into the secular American society.

More than a century later, a successor of Alexander, Antiochus IV, was in control of the region. He began to oppress the Jews severely, placing a Hellenistic priest in the Jewish Temple, massacring Jews, prohibiting the practice of the Jewish religion, and desecrating the Jewish Temple by requiring the sacrifice of pigs on the altar in the Holy of Holies. Two groups opposed Antiochus: a basically nationalistic group led by Mattathias the Hasmonean and his son Judah Maccabee, and a religious traditionalist group known as the Chasidim, the forerunners of the Pharisees. They joined forces in a revolt against both the assimilation of the Hellenistic Jews and the oppression by the Seleucid Greek government. The revolution succeeded and the Temple was rededicated. [For my Catholic friends, the story of Judah Maccabee is in the Apocrypha].

As recorded in the Talmud (a collection of books comprising Jewish laws and traditions), at the time of the Jewish Temple's rededication, there was very little oil left that had not been defiled by the Greeks. Special oil was needed for the temple's menorah (candelabrum) which was required to burn throughout the night, every night. There was only enough of the oil at hand to burn for one day, yet miraculously, it burned for eight days, the time needed to prepare a fresh supply. An eight day festival was declared afterwards to commemorate this. Note that the holiday commemorates the miracle of the oil and not the military victory.

The Chanukah Candelabrum (some people call it a Menorah but its proper name is a Chanukeeah) has space for nine candles. There's one candle—usually sitting higher than the other eight—which is lit first every evening on the holiday. At the same time, candles signifying the number of days into the holiday are also lit. So on the first evening, one candle (in addition to the one sitting higher than the rest) is lit, on the second evening two, the third evening three, and so on. On the eighth and final evening, all the candles will be lit.

So know you know.

Hahg Sahmayach (Hebrew for Happy Holiday)

Mike Hyman

Christmas Greetings and Happy New Year

I remember Christmas in Brooklyn, NY, many years ago. The trolley was still running at that time; and along its route, the streets were decorated with green and red ornaments which stretched from one corner to another. At night, the lights came on and everything seemed to come to life. The larger stores had decorations and every major intersection had its own, unique Christmas display—and this was in a primarily observant Jewish neighborhood. Even the gate to the Brooklyn Navy Yard as well as the Myrtle Avenue Elevated Subway had decorations laced across it, saying Merry Christmas.

So who put up the trimmings and why were there no complaints? The first part of the question is easy. The local Christian churches put up the decorations—mostly Italian Catholics—and they had done so since first immigrating to New York City in the early part of the 20th Century. The second half of the question will take a little more explanation but it's still not hard to understand.

The reason why this 85% Jewish neighborhood never made a fuss about Christmas is that it was never an issue. Everyone knew who they were and what they believed—there was a live and let live attitude—and no one felt threatened by the other person's belief. Moreover, no one had to put down the other fellow's thinking in order to convince himself that his own world view was correct. Unfortunately, this is not the case today.

I've been thinking more and more about those years—especially now, at this time of year—since there is a minuscule but vocal segment of society which becomes louder every year in their opposition to anything relating to Christmas in a publicly funded place. I've heard the various reasons why they are opposed to it (as well as to other forms of publicly displayed traditional religious symbols)—and to date, not one of the reasons offered has been adequate to explain the phenomenon to my satisfaction, other than that perhaps the old adage, "misery loves company" is in play here (but even this begs the question).

So let me offer this explanation. We are living in an age where traditional beliefs are attacked but at the same time nonstandard ideas are defended in the name of "spirituality and pluralism." At the same time, most proponents of the nontraditional fail to realize that were it not for the birth of a special little Jewish baby 2000 years ago, they and their relatives would probably still be swinging from trees, picking fleas from one another on December 25th.

The fact is that Christianity civilized the pagan world. It brought light when there was only darkness, It gave hope when only despair was the norm—and it still does for those who truly believe. And though it has had more than its share of pseudo adherents giving it lip service while at the same time committing horrific acts in its name in order to further their own agendas, one must be willing to discern the real believer from the false one: "By your fruits they shall know thee!"

So to everyone reading this, I wish you all a very merry Christmas. Let there be peace on earth. Let the spirit that fills Christ enter you also: "Love God with all your heart and do not do to someone else what you would not want them to do to you."

My best to each and every one of you! And by the way, may the coming year bring you nothing but good health and happiness!

Mike Hyman

San Diego Submarine Veterans meeting for November 11, 2008

Submitted by Manny Burciaga, Secretary

1900

Meeting of the Submarine Veterans was called to order by the Base Commander Bob Bissonnette.

The Base Commander conducted opening exercises:

Pledge of Allegiance

Tolling of the Boats

USS ALBACORE (SS218) LOST November 7, 1944

USS GROWLER (SS215) LOST November 8, 1944

USS SCAMP (SS277) LOST November 9, 1944

USS CORVINA (SS226) LOST November 16, 1943

USS SCULPIN (SS191) LOST November 19, 1943

All hands please observe a moment of silent Prayer.

E-Board members Present.

Secretary reports: 27 members and 2 guests.

Treasurer report: Report will be published in the next addition of the Sentential.

Base commander reports two special guest speakers tonight, Congressman elect Duncan Hunter Jr. and Sheriffs' officer Morgan Fomby.

Base Commander introduced Congressman elect Duncan Hunter Jr.

At the conclusion of Congressman Hunter remarks the Base Commander introduced Deputy Morgan Fomby who has been recipient of Dolphin Scholarship funds. Deputy Fomby expressed appreciation for helping complete her education allowing her to become a deputy sheriff.

1940

Break

A 50/50 drawing was conducted during the break.

1958

Base Commander called the meeting back to order.

(Note: Don Anderson has donated CPO picture to be used at the bases discretion.)

Base Commander called for committee reports:

Chaplain's report

Base Commander reported that member Larry Friskey has been placed in Hospice care. We will publish his address as soon as we get it for those who want to send a card.

Parade committee:

It was reported that there was a large turn out from both Sub Base, and Squadron Eleven they came out in force. They did the color guard and had banners. The float looked good and thanks to Fred for all the work done on the float. The next parade is some time in April.

CJ reported that there were many more people on sidelines then he had every seen and plus we had the addition of the LA chapter of the Submarine WWII Veterans I that came down and also we member of the Navy Submarine league to march all in all we had over 200 Submarine Veterans in attendance.

Membership Committee:

Ron reports that we now have 334 members. We have gained two new members Dues are coming up and are due December 31, if not received by January 31 you will be drop from the rolls. You can pay tonight if you would like.

Convention Committee:

Mike Hacking – There have been some changes on web site, which is best source of information on the convention. All the information is on the web site, what ever information you need you can find it on the website. At the present time we have 29 boats signed up. I would like to thank the Scamp base for their donation of a thousand dollars. The committee met with Submarine Base commander and was promised their support and we hope they will be to provide Boat tours and possibly tour of the training facilities. North Island maybe also be able to provide tours of

Convention Committee (cont):

ships that are in port at the time. Anyone who would like to help please let us know. We are also looking for someone who can set up tours in the Veterans Hospital or Balboa Hospital to visit the Vets and help cheer them up.

Breakfast Committee:

Our next breakfast will be November 30, we need volunteers to help. We have obtained wavers to work in kitchen area. So let us know if you want to help. It is our breakfast pleased come out and supports our base breakfast. The time is 8-12 noon. If you want to help be there between 7 and 730 am.

Unfinished business:

The Christmas Party:

The party will be during the next meeting and at the moment it looks like it will cost twenty dollars per person, and the menu will be roast pork or chicken the only thing we ask is you come please bring a desert. There will be door prizes and a good time.

The party will be on the next meeting night. There will be opening exercises and then adjourn the meeting and commence the dinner. The E board will meet from 5- 6. Please sign up the clip board is being passed around we need you to sign up so the ladies can plan ahead. We are planning for about 40-50 people bring your wife and guests, please no children.

Base commander reminded everyone about up coming dues. They are due in December and you will be drop from the roles is you do not pay by Feburary.

New business:

Base commander pointed out that all officers were be voted to serve a two year term of office. The Secretary will look back through the meetings to see if this issue had already been voted on, if not, we will ask for waivers to allow the officer to continue to serve. We want to allow all officer to be voted on during the some period of time.

At the e-board meeting we discussed the need to start up an Audit committee, we need 3 non board members to set up an audit committee to go over base books with Dave Ball. If you would like to help please let me know.

The San Diego Children Center, has no more room for bike, they have plenty of bikes. They have thanked us for our help in providing used bikes.

Dave ball – They have a organization that will give matching funds to build a play ground, we will need about 75 people to put up equipment, we don't know when or if this will happen at all, but they would appreciate our help to assist in building this play ground.

Phil Richardson, I have a embroidery machine, I can get program that will match any picture for the embroidery machine. This program will help me save the cost on embroidery in making vests. The program will cost 200 dollars and I would appreciate the base pay for the program.

A motion was made for the base to contribute 100 dollars for the program.

Discussion: Charlie Marin, moved that the motion be made , to pay for half of the embroidery machine program.

Good of the order:

Bob Miller, Scamp Base Christmas party will be on December 7, at a Bistro on Fifth Ave in Escondido.

Base would like to by base Claxton for the base. The Claxton we are using now belongs to Jay Cromby and we would like to return it the Jay before it gets damaged. One of the e-board members will be looking in to the cost of a new unit which may cost about 400 dollars.

1925 meeting adjourned.

SAILING LIST:

JIM BILKA	PHIL RICHESON	BILL EARL
MANNY BURCIAGA	RON GORENCE	DENNIS MORTENSEN
CHARLIE MARIN	JOE ACAY	BOB MILLER
BOB MEDINA	PAUL HITCHCOCK	MERT WELTZEIN
BOB OBERTING	TOM POLEN	HARRY MCGILL
BOB WEBER	JACK ADDINGTON	BOB WELCH
BOB FARRELL	DAVID BALL	MIKE HACKING
BOB BASSONNETTE	RICK BITTNER	TOM WARNER
FRED FOMBY	CJ GLASSFORD	JOHN GRIENENBERGER

Treasurer's Report

Checking Account Balance @ 10/31/2008

\$ 2,774.10

INCOME for NOVEMBER 2008

Booster Club	\$ 0 -	
Donation to Rename Float to USS Bang	\$ 500.00	
Ship's Store	\$ 88.00	
Mid Rats	\$ 37.00	
40/30/30	\$ 29.00	
Subtotal		\$ 654.00
Membership		\$ 170.00
Scholarship Income from 40/30/30		\$ 29.00
Other Scholarship Income - Breakfast 11/30		\$ 0 -
Scholarship Income for November		\$ 29.00

Total Income for November (per Bank Stmt)

\$ 853.00

EXPENSES for NOVEMBER 2008

Purchase USS Catfish Float from Scamp Base	\$1,000.00	
Imaging Technologies Printer Toner	\$ 6.95	
Printer Monthly Maintenance	\$ 51.55	
		\$1,058.50

Total Expenses for November (per Bank Stmt)

\$ 1,058.50

Checking Account Balance @ 11/26/2008

\$ 2,568.60

ASSETS

Base Checking (11/26/08)		\$ 2,568.60
Scholarship Fund Included in Base Checking	\$ 577.00	
Base Savings (11/26/08)		\$ 9,324.46
Convention Account (11/28/08)		\$ 8,575.00

TOTAL ASSETS

\$20,468.06

**Commanding Officer, Naval Base Point Loma
&
Commander, Submarine Squadron Eleven**

cordially invite you to attend the

2009 San Diego Submarine Force Winter Reception

Saturday, January 24, 2009

6:30 p.m. to 10 p.m.

at

Oceanview

Naval Base Point Loma

\$15 per person

No-Host Bar & Heavy Hors D'Oeuvres
Casual Attire

Please detach and mail with a check payable to CSS-11 Wardroom to:

Commander, Submarine Squadron Eleven
Attn: LCDR Alli Myrick Ellison, Public Affairs Officer
140 Sylvester Road
San Diego, CA 92106-5200

Please respond no later than **Tuesday, January 13, 2009**

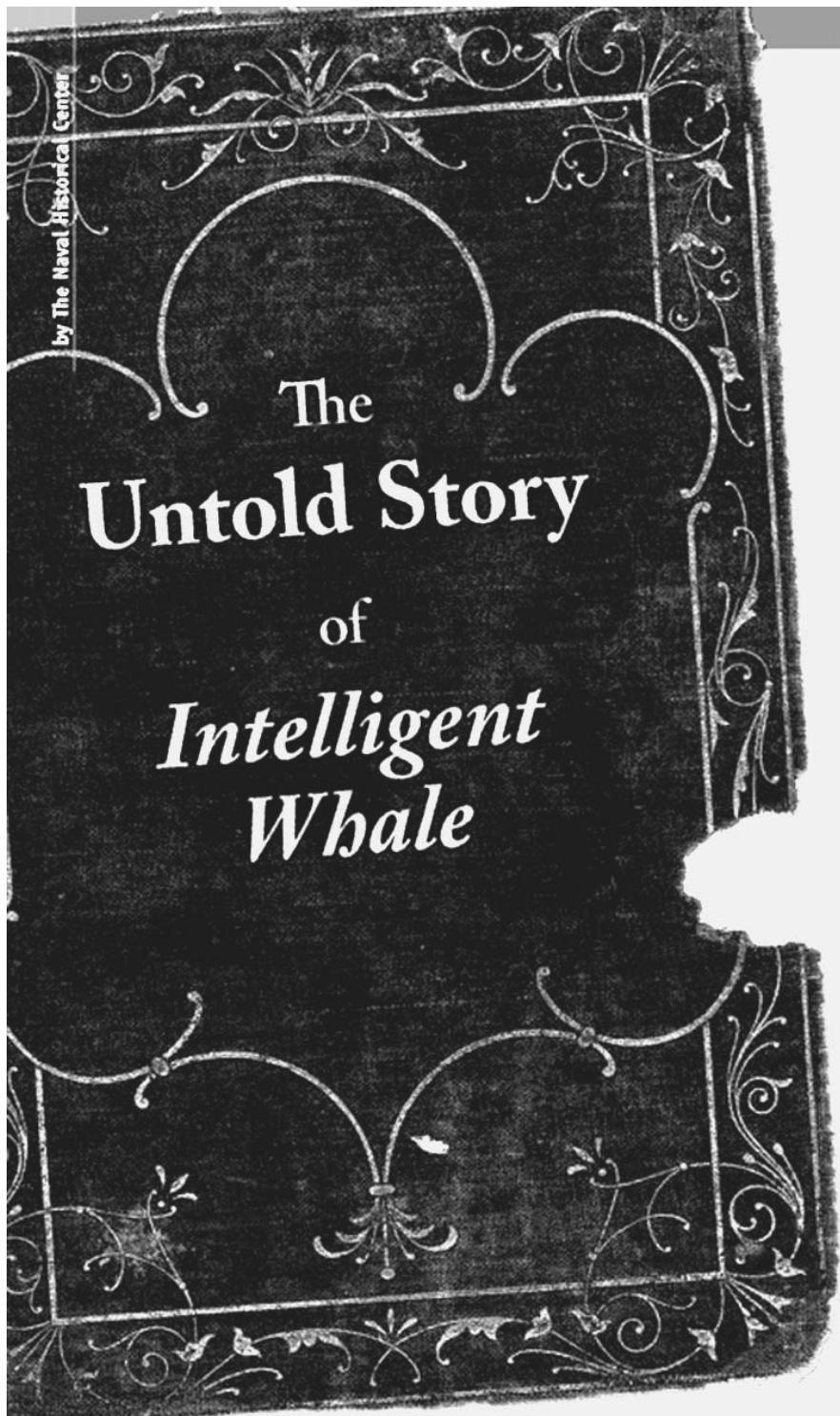
Total number of guests: _____

Full name(s): _____

E-mail: _____

Phone: _____

Please contact LCDR Alli Myrick Ellison at (619) 553-8732 or allison.myrick@navy.mil if you have any questions.



THE submarine, *Intelligent Whale*, which has a tangled and complex history, was displayed at the Washington Navy Yard, D.C., from 1968 until its recent move to the New Jersey National Guard Militia Museum in Sea Girt, N.J. The wrought iron, hand-cranked craft originated amid the turmoil of the Civil War, but legal disputes prevented it from reaching the U.S. Navy until 1870. Having failed to impress naval inspectors, the vessel became an historical curiosity first at the Brooklyn Navy Yard, then at the Washington Navy Yard. *Intelligent Whale* was not the first submarine purchased by the Navy, but it exemplified the service's continuing interest in submarine warfare in the post-1865 period.

The submarine's history began in the midst of the Civil War as new inventions pushed to the fore in an effort to provide combatants a winning edge. On Nov. 2, 1863, the designer Scovel S. Merriman contracted with Augustus Price and Cornelius Bushnell to build *Intelligent Whale* for \$15,000.

In April 1864, the American Submarine Company replaced Price and Bushnell as the builder. The craft measured 28 feet eight inches long, nine feet high and seven feet wide and was made of half-inch thick boiler iron. The building cost overran the initial estimate by 400 percent. The additional \$45,000 cost led to a series of lawsuits that prevented completion before April 1865.

By Sept. 23, 1865, the trustees of General Nathaniel Norris Halstead and Col. Edward W. Serrell in Newark, N.J., had received a decision granting them control of the "Submarine or Torpedo boat... Merriam's Submarine Boat." In 1865, a lawsuit between the lawyer and lobbyist Oliver S. "Pet" Halstead, Jr., and Thomas M. King of New York City ended on Dec. 22, 1865, when King sold \$1,000 of equipment from *Intelligent Whale* as part of the settlement of the ship construction debt owed to King. Problems characterized Halstead's ownership of the boat. For instance, a bill from the Hewes & Phillips Engineers and Machinists of Ogdon Street, Newark, N.J. remained unpaid for four years.

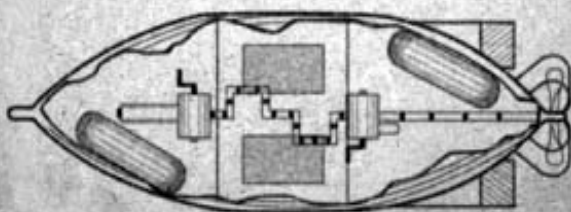
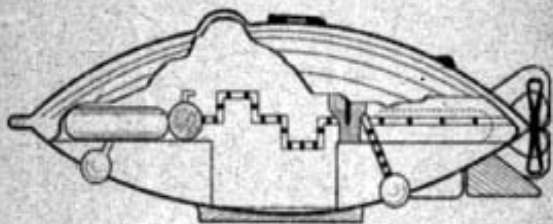
Nevertheless, Halstead managed to bring the project to completion by April 18, 1866. To propel the submarine, four men turned cranks attached to a four-bladed propeller, achieving a speed of four knots. The submarine carried enough compressed air in two tanks located fore and aft for ten hours of submerged operations. Two large ballast tanks fore and aft were connected to the air tanks and to the water surrounding the craft. A rudder and aft trim planes allowed the pilot to control the boat's course, diving, and surfacing. A short conning tower with bull's eye glass provided the skipper with limited visibility while partially submerged. Other navigational aids included a compass, a depth gauge, and air pressure indicator. The crew embarked via a central hatch topside, but the craft's divers deployed through two wooden "gates" in the floor. To submerge *Intelligent Whale* the crew filled the water tanks by opening a valve. To anchor the submerged craft the crew deployed two 15 inch shot (weighing 350 pounds each) by working windlasses attached to wire cable in two watertight boxes. To maintain air quality while submerged, the craft had a device for spraying water through the air, and thumb valves at the top of the boat, which could be opened to release foul air. To surface, the crew pumped the water from the tanks by hand or forced it out with compressed air.

Intelligent Whale undertook several tests using the following method. The crew flooded the ballast tanks, which allowed the boat to sink slowly. The crankshaft crew propelled the boat while the pilot maintained course and trim. Upon reaching the target area, the crew released two anchors. They then released enough compressed air until the pressure gauge showed a higher pressure than the water pressure gauge. The disequilibrium in pressure allowed the crew to open the floor gates without permitting water to enter. A man in a hard-helmet diving suit would then leave *Intelligent Whale* with a (torpedo) mine wired to the craft through holes in her sides. Once he planted the mine beneath the target vessel and returned to the craft, the gates would be closed. The crew then detonated the mine with a battery, sinking or damaging the target. Afterwards, the craft would return to base.

Between 1866 and 1870, *Intelligent Whale* underwent a series of unofficial and quasi-official trials. The former consisted of Halstead family outings in the Passaic River in New Jersey. During them, Halstead would leave his wife and two daughters in the boat while he explored the bottom in a diving suit. The one-armed General Thomas W. Sweeney supposedly tested *Intelligent Whale* on April 18, 1866, but the date was surely later as records show that he was then involved with the Fenian Raid on Canada. Furthermore, Sweeney was not serving in the U.S. Army between December 1865 and Nov. 8, 1866, and his trial has some degree of official status since Cols. John Michal and T.R. Tresilian, and Major R.C. Brocking witnessed it. Therefore, one must conclude that it occurred between November 1866 and October 1869. At any rate, Sweeney, with two other men on board the vessel, dove down 16 feet before anchoring it. Then he left the craft in a diving suit and planted a mine beneath a scow. After he returned to *Intelligent Whale*, the crew detonated the mine by a lanyard and friction primer as the boat pulled away, sinking the target. Sweeney and the other officers filed a report on the trial with the Secretary of the Navy.

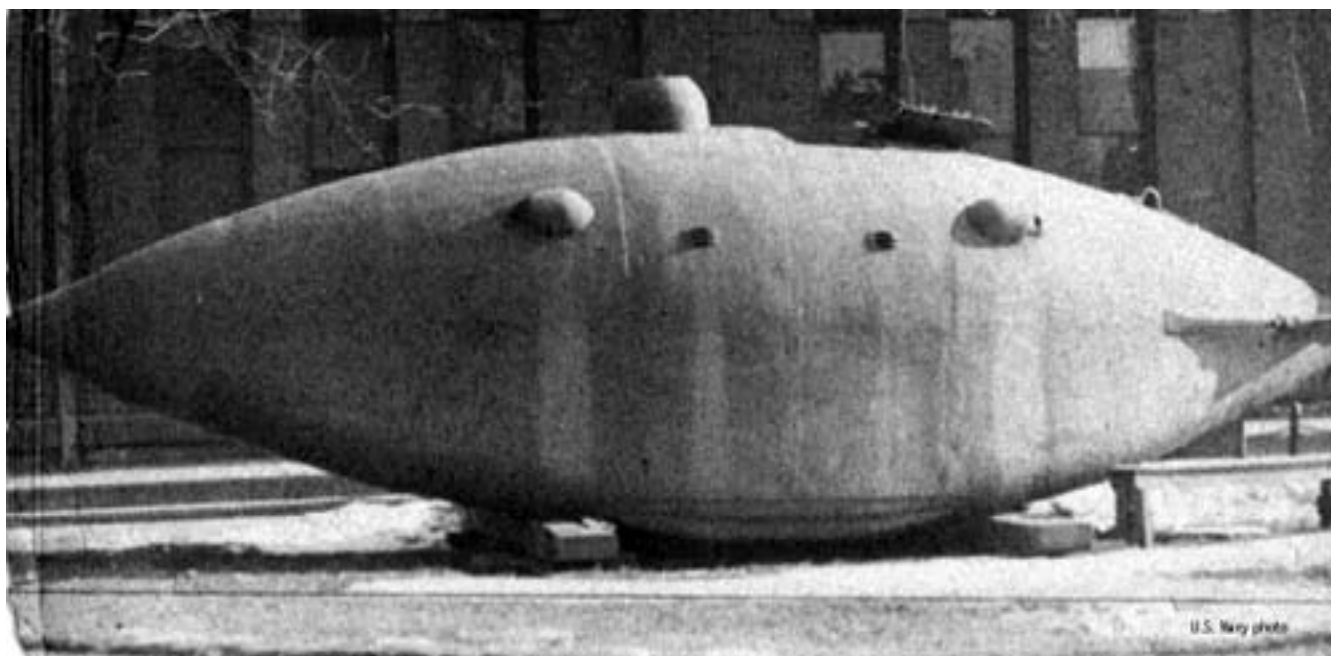
The vessel became an historical curiosity. It moved from the Brooklyn Navy Yard to the Washington, D.C., Navy Yard in 1968. Despite remaining outside for years, the condition of *Intelligent Whale* is extremely good for a 130-plus year-old vessel.

Intelligent Whale stands as a symbol of private enterprise in advanced armaments and the Navy's interest in improving weapons systems. On April 15, 1999, *Intelligent Whale* was relocated to the National Guard Militia Museum in Sea Girt, N.J.



Given the uncertainty of the date of Sweeney's test, the length of time that passed before the Navy took action in 1869 is unknown. Some time in 1869, Cmdrs. C. Melancthon Smith, Augustus L. Case, and Edmund O. Matthews (head of the Navy's Torpedo Factory) examined *Intelligent Whale* and rendered a favorable report. In response, Secretary of the Navy George M. Robeson appointed another committee "...to examine, inspect, and report on the merit of said boat." Again, the boat received a favorable review and the Navy decided to buy it. Five years after the initial construction contract, the Navy agreed to purchase *Intelligent Whale* from Halstead. On Oct. 29, 1869, Robeson and Halstead signed a contract that called for the Navy to pay \$50,000 for the boat. Halstead was to receive \$12,500 on endorsing the agreement, a further \$12,500 on the completion of trials, and \$25,000 for secrets and inventions relating to air purification and pressure, diving and surfacing, with further compensation dependent upon Congressional approval. On Oct. 30, 1869, the Bureau of Ordnance paid Halstead the first sum of \$12,500 "...on account of one Submarine Boat." Between that date and March 3, 1871, he received a further \$50 for towing the vessel from Hewes and Phillips dock in Newark, N.J., to the Brooklyn Navy Yard, N.Y. Unfortunately, the Navy showed little interest in testing *Intelligent Whale*.

Given Halstead's personal knowledge of the submarine and its operation, his presence at her trials was essential. However, on July 2, 1871, Halstead was killed and his death provides some fascinating insights into Victorian America. George Botts, an English charcoal peddler and nearly a twenty-year resident of Newark, shot Halstead in the first Newark murder in nearly four years. Halstead had set up the rather plain looking, 37 year-old, Mary E. Wilson as his mistress in an apartment above a saloon at 95 South Street near his home at Parkhurst and Broad Street. Halstead had carried on publicly with his mistress for over three years and while his family endured Halstead's actions, Botts, a former lover of Mrs. Wilson, could not. In a desperate attempt to



regain her affections, Botts, became determined to kill Halstead. The murder created an uproar in Newark and hurt *Intelligent Whale's* chances of successful trials.

Months passed with no steps taken to try the submarine's capabilities, perhaps due to legal disputes between Halstead's heirs and debtors. Although the U.S. Navy's attention flagged, the Royal Navy became rather intrigued by the craft. On March 4, 1872, Rear Adm. Edward Augustus Inglefield, the British naval attaché in Washington, D.C., visited the New York Navy Yard to

inspect *Intelligent Whale*. Admiral Inglefield, having failed to receive permission to inspect the craft, waited until lunchtime emptied the working area of the yard. Then he sneaked down to the remote part of the ordnance wharf where the boat was tied down. In his letter to the admiralty, Inglefield wrote, "I made ample notes and a sketch on my return to the hotel, but these would hardly convey the whole of the information I acquired. I therefore retain them for future service should it be desired." Fortunately, the lax security of the Navy Yard did not cause the Navy any problems as far as "Halstead's Folly" was concerned.

Although lacking Halstead's expertise in handling the craft, the Secretary of the Navy finally ordered tests in the late summer of 1872. However, the delay of the test, originally scheduled for September 11 owing to the boat being unready, led to a week's delay. On September 18, the following officers oversaw *Intelligent Whale's* trials: Vice Adm. Stephen C. Rowan (commandant of the New York Navy Yard), Commodore Edward T. Nichols, Cpts. William D. Whiting (inspector of ordnance at the yard), and Somerville Nicholson, Cmdrs. Weld N. Allen (on ordnance duty at the yard) and David B. Harmony, and Lt. Cmdr. C.M. Schoemaker (captain of the side wheel steamer and station ship USS Frolic). Abraham Halstead, nephew of the previous owner and a Navy Yard worker, manned the submarine during the test.



Unfortunately for them, the packing around the hatch was defective and *Intelligent Whale* began taking on water. A further difficulty arose when the tide pushed the boat under the derrick, which prevented her from surfacing. Andrew Moorehouse quickly organized a group of workers who freed the craft. The boat, then half-filled with water, surfaced, allowing Halstead and his helper to escape. Without ever travelling or accomplishing anything, *Intelligent Whale* was then classified a failure.

Intelligent Whale exemplified the undersea ordnance experimentation undertaken by the Navy in the 1870s. In July 1869, the Navy established a torpedo station at Goat's Island, Newport, R.I. The uniformed and civilian personnel studied spar and self-propelled torpedoes in an attempt to provide the nation with inexpensive and effective naval weapons. While Halstead's boat failed in its trial, the test of John L. Lay's self-propelled, remote-controlled torpedo in the summer of 1872 impressed the Bureau of Ordnance. The Bureau reported to the Secretary of the Navy, "...at Schenectady, New York, a successful trial of the torpedo-boat invented by Lay." These small beginnings trace the foundation of American undersea warfare.

The vessel became an historical curiosity. It moved from the Brooklyn Navy Yard to the Washington, D.C., Navy Yard in 1968. Despite remaining outside for years, the condition of *Intelligent Whale* is extremely good for a 130-plus year-old vessel. Her interior fittings remain much as they were when drawn by Barber. Only a piece of the crankshaft is missing. *Intelligent Whale* stands as a symbol of private enterprise in advanced armaments and the Navy's interest in improving weapons systems. On April 15, 1999, *Intelligent Whale* was relocated to the National Guard Militia Museum in Sea Girt, N.J.

One can only speculate whether French Author, Jules Verne (1828-1905) read about *Intelligent Whale* or other American submarines when doing the research for his book, *Twenty Thousand Leagues Under the Sea*, which was first published in 1870. For more information on historical ships, go to <http://www.maritime.org> or <http://www.history.navy.mil>.

The Naval Historical Center is the official history program of the United States Navy. It is located at the Washington Navy Yard in Washington, D.C.

This article first appeared in the Fall 2008 edition of Undersea Warfare Magazine

Allen Carl Bryson, Last Surviving Crewmember of USS Squalus (SS 192), Departing...

Submitted by: Office on 12/4/2008

New London - Allen Carl Bryson, 91, formerly of Pequot Ave., New London, the last survivor of the USS Squalus, died Monday at Fairview in Groton.

He was born Oct. 30, 1917, near Greenville, S.C. He was the son of Stella Johnson and Marion Bryson. He was predeceased by his wife of 55 years, Dorothy Johns Bryson who died in 1997.

Carl joined the CCC (Civilian Conservation Corps) and then enlisted in the Navy on Jan. 5, 1936. After completing basic training and trade school in Norfolk, Va., he served on the ships; USS Henderson, USS Medusa and the USS Mississippi. He was transferred from the Mississippi to Submarine and Diesel School in New London.

He served on the USS R-4 (SS-81) and in 1939, was assigned to the USS Squalus (SS 192) to put her into commission at the Portsmouth Naval Shipyard in Kittery, Maine. Carl was aboard the USS Squalus when it sank on May 23, 1939. He was rescued from the sunken sub, and then worked in the salvage crew until the boat was towed into the shipyard. He was then transferred to the USS R-14 (SS 91) in November of 1939, and in 1941, was assigned to the Escape Training Tank, where he trained Tyrone Power for the film "Crash Dive".

Other vessels he served on were USS O-4 (SS 65), USS Sea Robin (SS-407), USS Tench (SS 417) USS Valcour (AVP 55), USS Macon (CA 132), USS Fulton (AS 11) USS Leyte (CVS 32) and USS Sunbird (ASR 15). He retired with the rank of Chief Warrant Officer Four after 30 years of service.

Self taught, he furthered his education while in the Navy by attending the University of Illinois and the College of William and Mary. From 1966 to 1979, worked at Electric Boat Division of General Dynamics as a planner and project head. He also taught English to Russian emigrants from 1979 to 1996.

Carl was a member of the Navy Lodge in Kittery, Maine, the Brainard Lodge of Masons, the Sojourners, was a life member of the SubVets of World War II, The US Submarine Veterans, Inc and the Holland Club.

Hawaii's Pearl Harbor to become hub for new nuclear subs **Virginia-class vessels likely to mean hiring hundreds more workers**

By William Cole, *The Honolulu Advertiser*, Jan. 9, 2009

Two-thirds of the Navy's new Virginia-class submarines initially will be based at Pearl Harbor, making Hawai'i the main hub for the advanced attack submarines, Navy officials said yesterday.

The Navy plans to build 30 of the nuclear submarines, which cost up to \$2.5 billion apiece, carry torpedoes and missiles, and can drop off commandos close to shore.

The Navy isn't releasing the exact number or arrival schedule for subs coming to Pearl Harbor beyond the USS Hawaii, expected in late June, and the USS Texas, scheduled to arrive in late October or early November.

U.S. Sen. Daniel K. Inouye, D-Hawai'i, previously has said the USS North Carolina also will be homeported here.

The Navy revealed the Virginia-class submarine distribution information yesterday at an annual military update for the Hawai'i business community.

Capt. W. Scott Gureck, a spokesman for the U.S. Pacific Fleet, said Virginia-class submarines initially will be homeported in Groton, Conn., and at Pearl Harbor. At least four that are in active service have operated temporarily out of the East Coast.

The 2006 Quadrennial Defense Review, a 20-year planning roadmap for the military, called for 60 percent of attack submarines to be based in the Pacific and 40 percent in the Atlantic.

"The initial (Virginia-class) homeporting will indeed be at Groton and Pearl Harbor, but eventually they will be everywhere we currently have Los Angeles-class (subs)," Gureck said. "It's just from a parts standpoint and maintenance standpoint, you don't want to put a couple Virginias in all the locations. You want to put them where you have critical mass."

The overall number of attack submarines at Pearl Harbor – about 15 – will not change, Gureck said. The new Virginia class will replace existing Los Angeles-class submarines as the older class reaches the end of its lifespan, he said.

The Virginia-class arrival is good news for Pearl Harbor Naval Shipyard, the state's largest industrial employer, with 4,200 civilian workers.

About 90 percent of the yard's work has been on the aging Los Angeles-class attack submarines, including maintenance as well as nuclear reactor refueling and defuelings.

More Shipyard jobs

Capt. Gregory Thomas, who commands the shipyard, yesterday said the switch to Virginia-class work "keeps us focused on what's been our principal product here for the past 10 years – which is submarines."

"It's a very smooth transition," Thomas said, adding that the workload should mean an increase to about 4,400 shipyard workers by 2013. The bulk of the work was non-reactor servicing, and that will continue with the Virginia subs, he said.

Northrop Grumman is producing the Virginia-class submarines in a teaming arrangement with General Dynamics Electric Boat. The Virginia class is ultimately expected to total 30 vessels.

Ten of the vessels have been delivered or were already under contract before a December award of a \$14 billion contract for eight more of the submarines, according to Bloomberg News.

The contract calls for construction of one submarine in each of the years 2009 and 2010, and two per year from 2011 to 2013.

The submarines are 377 feet long and have a beam of 34 feet. They can operate at underwater speeds of more than 25 knots, dive more than 800 feet and stay submerged for up to three months at a time.

The submarines also are equipped with a lock-out chamber large enough for nine commandos, more than triple the capacity of older submarines.

Military and economy

About 270 business people attended yesterday's military update at the Hilton Hawaiian Village by all five of the U.S. armed forces, a larger turnout than usual for the annual meeting.

The event is hosted by the Chamber of Commerce of Hawai'i. Charlie Ota, the chamber's vice president for military affairs, said the big turnout may be tied to business looking even more to the military for contracts in tough economic times.

The military "is a relatively stable source of revenue to the economy," Ota said.

The military, the No. 2 contributor to the state's economy behind tourism, has been in expansion mode in Hawai'i in recent years.

Lt. Gen. Benjamin R. Mixon, commander of U.S. Army Pacific at Fort Shafter, said 10,500 soldiers and civilian workers have been added in Hawai'i.

Col. Wayne Shanks, a spokesman at the command, said that change has taken place since the late 1990s. Shanks said Schofield Barracks has about 20,000 soldiers and Fort Shafter has about 3,000.

Adm. Robert Willard, the four-star commander of the U.S. Pacific Fleet and the keynote speaker at the chamber's luncheon following the military update, said Asia and the Pacific will remain central to U.S. interests.

He said he doesn't expect the commitment of operating forces to diminish, even with the current economy.

U.S. Pacific Command, headquartered at Camp Smith, covers half the globe and monitors five of the biggest militaries in the world: those of the People's Republic of China, India, Russia, North Korea and South Korea.

“There are certainly concerns that the budgets in the military will be affected by the current economic environment that we find ourselves in,” Willard said. But he added that he believes “the readiness monies that are invested in maintaining the fleet – and the forces that exist out here – will remain.”

Panel finds erosion of nuclear deterrence mission widespread at Defense

By Katherine McIntire Peters, Government Executive News, Jan. 8, 2009

A special task force reviewing nuclear weapons management across the Defense Department found a “distressing degree of inattention” to the nuclear deterrence mission among senior military and civilian officials, said James Schlesinger, a former Defense secretary and chairman of the panel.

In a briefing at the Pentagon on Thursday, Schlesinger and other panel members released the Phase II Review of the DoD Nuclear Mission, the final report of the Task Force on DoD Nuclear Weapons Management. An earlier report released in September 2008 focused on shortcomings in Air Force nuclear stewardship.

Defense Secretary Robert Gates created the panel in June 2008 to uncover systemic problems in the handling of nuclear weapons and materiel after highly publicized failures in which Air Force pilots unwittingly flew nuclear bombs across the country and the Defense Logistics Agency erroneously shipped nuclear-related components to Taiwan.

U.S. allies have been especially concerned about the erosion of nuclear capability, Schlesinger said. Without confidence in U.S. capability, some of those allies could develop their own nuclear weapons, which raises the risk of nuclear proliferation, he added.

Leadership on nuclear deterrence must come from the White House and senior officials at Defense and the Energy Department, Schlesinger said. The task force recommended that the Obama administration “develop a strategic framework defining the unique role of nuclear weapons in deterring threats to the United States, our key interests and our allies.” Such a framework could provide a foundation for the upcoming Nuclear Posture Review and Quadrennial Defense Review.

According to the report, “The decline in management attention to nuclear matters is evidenced by a dramatically reduced workforce, fragmentation of nuclear policy and guidance responsibility across the office, dilution of organizational focus because of proliferating missions, and relegation of nuclear-focused organizations to positions of lower authority.”

“The remaining workforce lacks both depth and breadth of nuclear experience,” the panel reported.

Among other things, the task force recommended that Gates establish an assistant secretary of Defense for deterrence in the policy office to consolidate nuclear oversight, which is now spread among dozens of Defense offices.

While Gates has not yet made any decisions regarding the recommendations, Schlesinger said, “I think that is very likely to happen and that there will be a concentration of authority in that office.”

The task force also recommended that Gates review the mission portfolio of U.S. Strategic Command, the joint military organization that has responsibility for the nuclear mission. The command has nine major program areas, which limits the organization’s ability to maintain a focus on nuclear deterrence.

The panel didn’t prescribe how the command’s mission portfolio should be restructured, but it did recommend that the command retain the nuclear deterrence, global strike and space missions, suggesting that other responsibilities could be moved elsewhere.

In its report on the Air Force, the task force pointed out that after the Cold War, the service reorganized in such a way that degraded the deterrence mission by shifting nuclear assets away from a single command organization. Within the new components the nuclear mission was diluted and lacked high-level advocates. The erosion of capabilities and expertise followed. A similar degradation of nuclear capability occurred Defensewide during the last decade, the panel noted. Only in the Navy, where the nuclear mission remained focused within a single organization, has the commitment held relatively steady, Schlesinger said.

Even so, there has been “some fraying around the edges” of Navy capability, he said. “With all remaining nuclear weapons concentrated in the fleet ballistic-missile submarine force, a significant future challenge for the Navy will be an inevitable decline in nuclear weapons and policy expertise at the flag officer level among officers from other branches,” the task force found. It made a number of recommendations aimed at compensating for the service’s shrinking experience base.

Schlesinger and retired Air Force Gen. Michael P.C. Carns, a panel member, both made a point of praising Air Force leaders for taking significant steps to improve the service’s nuclear capability.

“The value of our deterrent is not primarily a function of the number of our warheads, but rather of the credibility of our nuclear capabilities in the minds of those we seek to deter, dissuade or assure,” the report said.

Inside The Ring

By Bill Gertz, Washington Times, Jan. 8, 2009

China exchanges

The Pentagon’s most senior China policy official went to Beijing last month to discuss resuming military exchanges that were halted by China over the announced \$6.5 billion arms package to Taiwan.

Defense officials said David Sedney, deputy assistant secretary of defense, was in China from Dec. 17-19 and sought to convince Chinese military officials that resuming the exchange program will be in the interest of U.S.-China relations.

However, according to the officials who declined to be named because of the sensitivities of the exchanges, China is continuing its halt of the military exchange program, which is a centerpiece of Defense Secretary Robert M. Gates' policy of seeking to develop confidence-building ties to the Chinese military.

Asked about the meetings, Pentagon spokesman Bryan Whitman did not address the Chinese halt in an e-mail response. He said discussions between Mr. Sedney and Chinese Lt. Gen. Chen Xiaogong, assistant chief of the general staff, and Maj. Gen. Qian Lihua, director of the Defense Ministry Foreign Affairs Office, included "regional and global defense issues and U.S.-China defense relations."

"The discussions were candid, productive and constructive and will serve as a foundation upon which our two militaries can build toward a stronger relationship," Mr. Whitman stated.

China halted the exchanges, which have been under way since the late 1990s, after the Pentagon notified Congress in October that it planned to sell Taiwan \$6.5 billion in arms, including advanced Patriot missile defenses, Apache attack helicopters and submarine-launched anti-ship missiles.

Mr. Whitman said the meeting was an important time to "reflect upon the course of development of U.S.-China military-to-military relations over the past 30 years, highlighting more recent developments that have contributed to improved communications and enhanced understanding."

The two sides also tried to "look forward" and "explore areas where we can improve cooperation," he said.

Without addressing the Chinese halt in exchanges, Mr. Whitman said Mr.

Sedney told the Chinese that the U.S. side "welcomes the progress in military-to-military relations during 2008." He noted the launch of a Pentagon-to-Defense Ministry telephone hot line and the first round of talks on nuclear weapons policy and strategy.

Additionally, the two sides talked about "setting a framework" for developing and planning the 2009 military-to-military contacts, he said.

"They encouraged greater substance and the PLA movement toward transparency, both in our defense exchanges as well as globally," Mr. Whitman said. "They encouraged more substantive interactions at a strategic and policy level, as well as among mid-grade and junior officers and between military educational institutions."

Topics of mutual concern during the talks included regional security and transnational security, including terrorism, arms proliferation, and piracy in South and Central Asia, Iran and the Horn of Africa.

"Overall, we agreed with the Chinese that it is important to move forward in our defense relations," Mr. Whitman said.

Asked if the Pentagon will cancel its arms sale to Taiwan as a condition for resuming military exchanges, Mr. Whitman said: "With respect to Taiwan arms sales, the U.S. policy is longstanding, well-understood, and will continue. The policy has contributed to peace and stability - both foundations for shared prosperity - for almost 30 years."

The Chinese military's official newspaper Liberation Army Daily reported Dec. 19 that "China-U.S. military relations are currently going through a difficult period, and the onus is not on the Chinese side."

Bill Gertz covers national security affairs.

Bush Moves to Update U.S. Policy in Arctic Region

By Stephen Power, The Wall Street Journal, Jan. 8, 2009

WASHINGTON – The Bush administration in its final days is preparing to issue a directive to federal agencies that would lay the groundwork for allowing the U.S. to assert greater sovereignty over the oil-rich Arctic region, people familiar with the matter said.

The directive is expected to call on federal agencies to better define the area of the Arctic and its seabed over which the U.S. could lay claim. Interest in the has grown Arctic among many countries since global warming has shrunk the polar icecap, opening up valuable shipping routes, oil fields and mineral deposits.

The Arctic is increasingly seen as the potential final frontier for energy exploration. It is estimated to contain just over a fifth of the world's undiscovered, recoverable oil and natural-gas resources, according to a report last summer by the U.S. Geological Survey. The report found that the area north of the Arctic Circle has an estimated 1,670 trillion cubic feet of natural gas – nearly two-thirds the proved gas reserves of the entire Middle East – and 90 billion barrels of oil.

White House spokesman Gordon Johndroe said the directive, which has been in the works for more than a year, is an attempt to update U.S. policy regarding the Arctic in light of climate changes, growing geopolitical interest in the region, and homeland-security concerns. Mr. Johndroe declined to describe the directive in detail, but said it would be signed by President George W. Bush "very soon" and would encompass "a range of issues related to national security, international security, maritime issues, economic energy and conservation issues, and the scientific research that goes on there."

"The purpose of the Arctic policy is to recognize that the U.S. has important and strategic interests in the Arctic region," Mr. Johndroe said. "Many countries have been aggressively pursuing their interests in the Arctic... The U.S., as an Arctic nation, has competitive interests in the region, and we need to be a player there along with all the other arctic nations."

The Arctic, especially offshore Alaska and northern Canada, is one of the few parts of the world where major oil companies can easily acquire exploration acreage. Elsewhere, soaring crude prices have prompted oil-rich states to renegotiate contracts and sometimes kick out Western oil companies. Last year, spent more than \$2 billion acquiring drilling leases in Alaska's Chukchi Sea.

But drilling in the Arctic is also controversial, partly because of concerns about its environmental impacts. Oil exploration might also be hampered by rising nationalism. In 2007, a Russian submarine planted the country's flag on the seabed some 14,000 feet under the North Pole. Shortly afterward, Canadian Prime Minister Stephen Harper announced that his country's military presence in the Arctic would be beefed up.

A U.S. official familiar with the directive said that in addition to discussing the region's energy potential, the directive would call for increasing environmental protection and maritime transportation and infrastructure in the region, through the establishment of new navigational systems and increased funding for research on the impact of climate change on the region.

Officers face probe into sub fatalities

The Portsmouth Daily News, Jan. 9, 2009

Royal Navy officers are to face a public inquiry over an explosion on a nuclear submarine which killed two British sailors.

Anthony Huntrod and Paul McCann died on board HMS Tireless at the North Pole in March 2007.

Officers ranked as high as admiral and senior civil servants have been asked to attend an inquest into their deaths. It is set to be held next month.

A board of inquiry held shortly after the explosion found an oxygen device had been contaminated with oil.

Soon after the accident former First Sea Lord, Admiral Sir Alan West, told Radio 4's Today programme there had been no previous problems with the equipment.

In July Sharon McCann, the sister of Leading Operator Mechanic McCann, was comforted by Prince William during his visit to Gosport's Royal Navy Submarine Museum.

She had travelled from her native Sunderland to see the future king unveil a memorial containing the names of every Royal Navy submariner to have died.

Brazil buys \$12 billion of Helicopters, Submarines from France

Your Defense News, Jan. 9, 2009

Brazil signed contracts worth \$12 billion to purchase five submarines and 50 EC-725 military transport helicopters from France, the current issue of Defense News magazine reported.

The submarine deal involves the purchase of four conventionally-powered Scorpene attack submarines and the construction of a nuclear-powered submarine to be built with French cooperation, the magazine said.

A French official traveling with President Nicolas Sarkozy in Brazil last month said the contracts were \$9.4 billion for the submarines and \$2.6 billion for the helicopters, the article said.

According to the magazine, the contracts involve significant transfers of technology—a priority for Brazil, which wants to develop an advanced defense industry—and make firm a strategic partnership deal signed by Sarkozy and Brazilian President Luiz Inacio Lula da Silva.

Brazil has said it would use the Scorpene submarines to patrol its territorial waters, which have recently yielded discoveries of massive oil fields.

Under terms of the deal, the helicopters are to be assembled in Brazil in the southeastern Minas Gerais state at a facility owned by the Brazilian company Helibras, in which Eurocopter owns a 45 percent stake.

KSS-II: South Korea Orders 6 More U-214 AIP Submarines

Defense Industry Daily, Jan. 8, 2009

HDW's parent firm ThyssenKrupp announces that South Korea's DAPA procurement agency has signed a contract for contract for 6 "material packages" used to build Class 214 submarines. These packages consist of unassembled submarine parts and partial assemblies, which are integrated in the purchasing country to "manufacture" the item in question. ThyssenKrupp refuses all comment regarding costs.

South Korea ordered its first 3 KSS-II/ Type 214 boats in 2000, which were assembled by Hyundai Heavy Industries. DAPA has selected Daewoo Shipbuilding & Marine Engineering to build the first boat from batch 2, and will send out another set of tenders for the 5th U-214 boat in 2009.

The German Type 214 was selected by Korea over the French/Spanish Scorpene Class that has been ordered by Chile, India, and Malaysia. Some would argue that they're the most advanced diesel-electric submarine on the market, with an increased diving depth of over 400 meters, an optimized hull and propeller design, more advanced internal systems, and an Air Independent Propulsion (AIP) system that lets the diesel submarine stay submerged for long periods without needing to surface and snorkel air. HDW's existing AIP uses Siemens PEM fuel cells which produce 120 kW per module, and give the submarine an underwater endurance of 2 weeks. This second batch of the Sohn Won-Yil Class will reportedly improve on that system.

These submarines will join the 3 existing U-209 Chang Bo-gp Class boats from the ROKN's KSS-I program, which were transferred from the German Navy between 1992-1994. The first 2 KSS-II boats of the 1,980 ton U-214 Sohn Won-Yil Class, SS 072 and SS 073, were delivered to the ROK Navy in December 2007 and 2008. A KSS-III program is also planned, in which South Korea would design and manufacture an indigenous 3,000 ton submarine by 2020.

M'sia to get its first submarine in July

By Muguntan Vanar, The Star Online, Jan. 9, 2009

KOTA KINABALU: Malaysia's first submarine KD Tunku Abdul Rahman is expected to arrive at the Sepanggar navals base in July this year.

Royal Malaysian Navys Region II Commander Laksamana Pertama Syed Zahiruddin Putra Syed Osman said the delivery of the second submarine KD Tun Abdul Razak was scheduled to arrive by year end.

"We are now undertaking specific preparation to accommodate the submarine at our base here, he said when marking the navy's quality day celebrations.

He said among other preparations was for the building of quarters for the submarines crew and their families.

U.S. Navy Yokosuka's Two Different Policies

Public Announcement For Nuclear Powered Marine Vessels' Arrival Date In Yokosuka

Kanagawa Shimbun, Dec. 30, 2008

In regards to making a public announcement of nuclear powered marine vessels' arrival date to Yokosuka (including USS George Washington), two criteria have been continuing to be mixed. GW's arrival date was announced to the public in advance; however, a nuclear powered submarines' arrival date is not. A community group which opposes the U.S. Navy base insists that "they should make a public announcement for submarines' arrival dates."

In the past, Ministry of Foreign Affairs contacted local governments and informed the public U.S. nuclear powered marine vessels' arrival date in advance. However, after the September 11 terrorists attack hit the United States in 2001, the Ministry of Foreign Affairs follows the U.S. government's plan, asking local governments not to release nuclear powered submarines' arrival. It has been seven years since the local government stopped disclosing the information to the public.

However, since the Ministry of Foreign Affairs' requisition did not apply to nuclear powered aircraft carriers, Yokosuka City announced the GW's arrival date upon her deployment to Yokosuka base in September.

Previous Military Port City Promotion Association, which consists of cities such as Yokosuka and Sasebo, asked to cancel nonpublic policy of the nuclear powered submarines' arrival information. The association made demands to the Ministry of Foreign Affairs in November.

Community group members who are opposed to GW's deployment said, "They should also make an announcement before submarines arrive in Yokosuka."

Japan-U.S. Status-of-Forces Agreement department of Ministry of Foreign Affairs explains that "The American side asks us not to disclose the information. However, they haven't asked us not to disclose nuclear aircraft carrier's arrival date information." Masahiko Goto, lawyer who has been waging on opposition campaign against GW's deployment, said the following. "Making public announcement of nuclear powered military ships and submarines' arrival date in advance prevents nuclear powered submarines from coming to Yokosuka in disorderly situations," Goto insisted. "They need to inform residents who reside near Yokosuka base."

Russia: The Gradual Revival Of The Russian Fleet

STRATFOR, Jan. 6, 2009

At the beginning of January, Russia's only aircraft carrier and four other Russian surface combatants were deployed in various corners of the globe. The present disposition of the fleet is a noteworthy signal that Russia's navy, while not back up to Soviet standards, has been in the process of slowly reviving itself.

As of Jan. 5, these five ships were in four different locations for separate purposes:

The Admiral Levchenko (605), an Udaloy-class guided-missile destroyer, docked at the Aksaz naval base on Turkey's southern coast across from Crete. Levchenko is escorting the aircraft carrier Admiral Kuznetsov (063), which has anchored offshore. Both will train with the Turkish navy.

The Pyotr Velikiy (099), the last operational Kirov-class nuclear-powered battle cruiser – which displaces nearly 25,000 tons – is under way in the South Atlantic, en route from Venezuela to South Africa to conduct training exercises.

The Admiral Chabanenko (650) Udaloy II guided-missile destroyer is under way in the North Atlantic, en route to its home port of Severomorsk from a deployment in the Caribbean with the Pyotr Velikiy. Chabanenko is one of the most active warships in the Russian fleet.

The Neustrashimy (712), the flagship of the Baltic Sea Fleet, continues to conduct counter-piracy and maritime security operations off the Horn of Africa. Neustrashimy reportedly will be replaced with another Russian warship later this month.

In fact, far more than five ships are involved in these deployments, as each ship is accompanied by auxiliary support vessels. (The only potential exception would be the nuclear-powered Pyotr Velikiy, which can make long oceanic crossings if sufficient food, spare parts, lubricants and other supplies are aboard.)

While this level of global operation is not necessarily unprecedented in the post-Cold War world for the Russian navy, it is a dramatic turn of events after the low deployment rates of the era that followed the accidental loss of the submarine Kursk in 2000. Indeed, the Admiral Kuznetsov's deployment to Turkey is its second Mediterranean mission in less than a year. This vessel, Russia's only aircraft carrier, spent years beside the pier – to see it making two sustained deployments in less than a year is certainly noteworthy and indicative of a gradual recovery.

This is not to say that the Russian navy is back to Soviet levels of proficiency. But its few remaining frontline warships are deploying far afield and appear to be holding together. In addition to training with foreign navies, Russia – along with China – is making itself a sustained presence in the U.N.-authorized multinational counter-piracy presence off the coast of Somalia. This is not to say that these ships are necessarily capable of defending themselves against concerted conventional attacks (the Mediterranean, for example, is NATO's backyard, not Moscow's). But these deployments demonstrate that, along with its resurgence in its own near abroad, Russia is also reasserting a more global presence at sea.

Brazil and France sign multi-billion arms deal

Brazil buys French helicopters and subs in a \$12 billion defence pact

DefPro.com, Jan. 7, 2009

In the very last days of 2008, France and Brazil announced that their respective governments have finalised an agreement on a huge defense deal worth a cumulative • 8.8 billion (\$11.9 billion). The deal, which is reported having been clinched at President's level between Nicolas Sarkozy and Ignacio Lula da Silva, includes two separated elements. In the first element, announced December 23, the Brazilian government signed a contract with a consortium formed by Eurocopter and Helibras on the local production of 50 EC-725 military transport helicopters. The second contract was signed with DCNS and Odebrecht for four conventional diesel-electric submarines and a nuclear-powered boat, to be built in a new yard to be created at Rio. Both contracts involve significant transfers of technology to foster the further growth of the national defence industry.

Helicopters

The helicopter contract was signed by the Commander of the Brazilian Air Force, Lieutenant-General Juniti Saito, representing the three Armed Forces and the chief executives of Helibras Brazil Helicopter Company and Eurocopter, respectively Jean-Noël Hardy and Mr. Lutz Bertling.

The 50 EC-725 helicopters will be built in a variety of versions and configurations for the Army Aviation (16), the Naval Aviation (16) and the Air Force (18), with deliveries expected to start in 2010. Brazil thus stands to become the largest operator of the EC-725 model, which is also in service with the French Air Force and several other countries.

The assembly work will be carried out by Helibras, which is owned 45% by Eurocopter (a daughter company of EADS) at its Itajuba factory, in Minas Gerais state, while their turboshafts will be built at Turbomeca's facility in Rio de Janeiro. A substantial part of the avionics will also be built in Brazil.

This historic contract is part of the joint declaration on defense cooperation signed by the French and Brazilian defense secretaries on June 30, 2008 – a date which also marked the 30th anniversary of Helibras. Eurocopter said that at \$2.6 billion, this is the biggest helicopter contract ever signed in South America.

“This is an important achievement for Eurocopter, Helibras and the Brazilian government,” announced Eurocopter President Lutz Bertling. “This contract is the result of the close industrial partnership and the long-standing relationship that we have with Brazil, and we are particularly proud that the EC725s will be produced in this country. This contract heralds a new era for Helibras, which will become an outstanding center of aeronautical excellence in South America.”

Louis Gallois, CEO of EADS, Eurocopter's mother company, added: “EADS considers Brazil as a priority country in its long term partnership strategy. Our group has been developing its different activities there for many years: Airbus, ATR, military transport aircraft, space and security equipments. This major contract is fully in line with our strategy.”

The EC725 is the latest addition to the Cougar family. Prior to the signing of this contract, 96 EC725 and EC225 helicopters (its civil version) had been ordered by 17 different countries. The EC725 is a twin-engine helicopter with a five-bladed main rotor in the medium-lift category (11 metric tons). The aircraft has an exceptional fuel capacity and boasts a flight endurance of five-and-a-half hours. The EC725 has been designed to perform various missions, including combat search and rescue, long distance tactical

transport, emergency medical services, logistics support, and naval assignments. It was this multi-role capability that made the EC725 the logical choice for the Brazilian armed forces.

Submarines

The \$9.3 billion submarine contract covers the establishment with French assistance of a new shipyard in Rio. DCNS will manage the yard until completion of the programme, after which control will revert to the Brazilian authorities. The yard will be responsible for two distinct programmes:

- Four diesel-electric submarines, to be designed by DCNS based on the Scorpene type and incorporating the specific requirements of the Brazilian Navy. The first submarine is scheduled to enter active service in 2015;
- A nuclear-powered attack submarine (SSN).

DCNS will act as prime contractor for the four conventional-propulsion submarines to be built by the Joint Venture that will be set up by DCNS and Brazilian partner Odebrecht. The submarines will be designed in cooperation with Brazilian teams under DCNS design authority to meet the Brazilian Navy's specific needs: They will be ideally suited to the protection and defence of the country's 8,500-kilometre coast. DCNS will produce key advanced-technology equipment in its own plants.

DCNS will also provide design assistance under the Brazilian Navy's design authority - for the non-nuclear part of the Navy's first nuclear submarine, which will be built by the Joint Venture to be set up by DCNS and Odebrecht. The entire nuclear power plant will be designed and built in Brazil, based on a \$880 million investment programme approved last year.

Finally, DCNS will provide prime contractor assistance to Odebrecht for the construction of the naval shipyard that will build the five submarines covered by today's contract, as well as a naval base for the Brazilian Navy.

DCNS Chairman & CEO Jean-Marie Poimboeuf commented: „We welcome the decision by Brazil's highest authorities in favour of DCNS and our Brazilian partner, the Odebrecht Group. This success confirms our capabilities as an overall prime contractor, as well as our technological and competitive standing on the international market. It also confirms our ability to establish partnerships to handle in-country project work, just as we have done in other countries around the world.”

Fighters too?

The strong strategic partnership between France and Brazil that is being created through this twin agreements could also influence the outcome of the ongoing FX-2 competition for the procurement of 36 (+40 options) new-generation multi-role fighter. The Dassault Rafale was shortlisted in October 2008 together with the Boeing F-18 E/F Super Hornet and the Saab Gripen NG, and a decision is expected later this year.

Given the top-level agreement clearly in place between the two Presidents, many commentators expect the Rafale to be the most likely choice. However, Defence Minister Nelson Jobim said that the tender is totally open. Each of the three finalists offers “engineering of the highest sophistication,” he said to Agencia Estado.

Subs Ease Way Into Electronic Navigation

By Andrew Scutro, *NavyTimes.com*, Dec. 28, 2008

NORFOLK, Va. – Chief Electronics Technician (SS) William Hoyt reaches under the chart table aboard the fast-attack submarine *Scranton* and pulls out a black nylon compact disc case the size of a phone book.

“That’s the whole world,” says the ship’s assistant navigator, holding it up. Rather than containing the latest in heavy metal or rap, it holds 29 discs of the globe’s nautical charts as part of the ship’s electronic Voyage Management System, or VMS.

Moving quietly through the dark depths, submariners have long relied on maintaining an accurate location and course provided by a navigation team stooped over large paper charts.

And until recently, *Scranton* might have had 5,000 such charts stashed in lockers around the ship. Instead, the crew will rely on the discs and VMS on its upcoming deployment, as the Navy’s undersea fleet sheds its paper charts.

“We have started to electronically navigate and get rid of our paper,” said Cmdr. Steven Benke, submarine force navigator. “It’s a paradigm shift for us.”

And while submariners may groan at the thought of giving up their reliable, tangible paper charts, the undersea fleet is on a steady course to switch completely to electronic navigation.

Scranton’s navigation team was certified in August and on its upcoming deployment will only use paper charts for large-scale planning purposes.

Benke, who took his current job in July, said there were about 10 crews certified at the time. Today, all eight blue and gold crews for guided missile subs are certified, as are 25 crews in the attack submarine fleet. Oklahoma City was the first to certify, in October 2006.

“By this time next year, it will be ones and twos,” Benke said. “You eventually have to make that transition, and it’s going to happen.”

Likewise, the Navy’s 14 Ohio-class ballistic missile submarines will begin certifying in 2009, with the process taking about four years to complete.

And as current crews make the shift and get certified, the Navy's newest submarines will be going to sea essentially paperless.

Benke said the New Hampshire, a Virginia-class submarine commissioned Oct. 25, went through its builder's trials equipped solely with digital navigation.

"That's a big transition," he said.

Some recent mishaps have highlighted the need for extremely precise navigation. Inaccurate charts were blamed after the attack submarine San Francisco plowed into an underground mountain 350 miles south of Guam on Jan. 8, 2005, partially crushing the bow and killing one sailor and injuring 31 others.

Likewise, an investigation into the grounding of the attack submarine Hartford on Oct. 25, 2003, on a reef off La Maddalena, Italy, during a surface cruise found faulty navigation as a cause.

For Scranton's navigation team, working electronically means being able to navigate the sub to where it's going instead of plotting where they think they've been.

"With VMS, you know where you are at that moment. It's an instant information source," said ETC (SS) Robert Mueller, assistant navigator for Submarine Squadron 6. "From that standpoint, it's wonderful."

The VMS contains multiple layers of charts – rather than a single paper chart – that can be updated continuously. When the sub is submerged, its course is constantly tracked on VMS from the Ring Laser Gyro Navigation system.

"It makes the process of trying to figure out where you need to be much faster," Hoyt said. "Instead of looking behind you, this is all real-time data."

To track surface contacts, information identifying commercial ships can be fed into VMS through the fire control system, further clarifying potential hazards. Likewise, fresh charts can be downloaded when the ship is in port or when new discs arrive.

Hoyt said the system is also an incredible time saver because a recently returned crew can hand over the discs from its deployment to an outgoing crew.

While the Scranton navigation team said it looks forward to electronically navigating in its upcoming deployment, they're also looking toward the next development, such as the current touch-screen version improved with a tabbed format.

"There's always room to improve technology," Hoyt said.

Dolphin Scholarship Application now Available Online!

Submitted by Randi Klein, Executive Director, Dolphin Scholarship Foundation, Jan. 5, 2009

Students can now determine their eligibility and begin the 2009 application for the Dolphin Scholarship online through the Dolphin Scholarship Foundation (DSF) website, www.dolphinscholarship.org. Students may also download a paper application to mail to DSF.

A new requirement this year for all applicants is submission of the FAFSA (Free Application for Federal Student Aid) Student Aid Report (SAR) showing the Expected Family Contribution (EFC) to DSF. Another new requirement for discharged and retired sponsors is submission of the DD214.

The 1000th Dolphin Scholar will be selected in April 2009.

Complete eligibility requirements and applications are available at www.dolphinscholarship.org.

Application deadline is March 15, 2009. For more information, please contact Mary Bingham, DSF Scholarship Administrator, at scholars@dolphinscholarship.org or (757) 671-3200 ext. 111.

If Israel Had Full Missile Defense System, It Wouldn't Have To Enter Gaza Strip

Defense Daily, Jan. 5, 2009

The value of missile defense systems has been proven by the unending torrent of missiles that Hamas has launched into Israel from the Gaza Strip, a U.S. missile defense expert stated, urging Israel to rush further development and fielding of the Iron Dome and David's Sling missile defense shields.

Israeli ground forces were compelled to enter the Gaza Strip after Israeli air strikes failed to stop Palestinian terrorists in Gaza from continuing to pound Israeli targets with missiles and mortars.

The barrage has been especially intense in recent days, since Hamas terrorists in the Gaza area abandoned a cease-fire and resumed their onslaught with missile attacks on Israeli targets.

But if Israel had a missile defense system able to defeat the Hamas weapons, then the ground operation into the Gaza Strip wouldn't have been necessary, according to Riki Ellison, chairman of the Missile Defense Advocacy Alliance (MDAA).

"A war between Israel and Hamas in the Gaza Strip continues to escalate as it now enters its fourth day, and more than 350 people have died," Ellison noted.

Now that Hamas missile salvos have provoked Israel to launch the ground operation, "more carnage, destruction and loss of lives will happen, as [it] seems the only end to the conflict is military occupation of the Gaza Strip by Israel to rid and clear Hamas and its ability to launch rockets and missiles into Israel," he added.

Israel has a duty to protect its citizens from the unrelenting barrage of missiles, Ellison observed.

“Israel’s lack of protection of its citizens and nearby cities from a continued year round and [recently] escalated rocket and missile [bombardment] from Hamas in Gaza [caused] the Israeli decision to go to war,” Ellison stated, predicting that the military operation “has and will continue to kill and destroy people and property in the Gaza Strip.”

Ellison said when he recently toured Israel, it was clear that Israel lacks an adequate missile defense system capable to defeating the non-stop rain of Hamas missiles on Israel and its citizens.

“From Ashkelon, Ashdod to Sderot ... the Israeli government does not have a deployed rocket missile defense capability to defend those cities and citizens from a rocket or missile attack,” Ellison noted. “The only defense for these cities is an early warning system of electronic alarms of 15 seconds in Sderot’s case and bomb shelters [at] bus stops, playgrounds and rooms in schools.”

But this is thoroughly inadequate to prevent loss of property and lives, he observed. “This type of civil defense against 1,400 rockets a year fired by Hamas has been tolerated by the Israeli public and government as an ‘acceptable level of conflict’ that kept escalation in check and somewhat stabilized the situation inside the region around the Gaza Strip.”

But Hamas has increased its fusillade of missiles slamming into Israel, until finally what had been acceptable could no longer be endured by Israelis, Ellison continued.

This is so even though many of the Hamas missiles are unsophisticated weapons, he stated.

“Hamas has continued on a consistent basis to use its rockets/missiles for leverage on Israel,” weapons “which are hand made from fertilizers and other materials that have been given on a humanitarian basis or smuggled through its borders or through underground tunnels from Egypt.”

Therefore, he said, Israel now must accelerate its development of a missile defense shield against Hamas attacks.

“It is in this current real world situation that the development and deployment of missile and rocket defense systems is critically essential to stabilize and prevent escalation of war and loss of life caused by the launching of missiles and rockets,” Ellison stated. “Missile defense provides another option to allow governments and their citizens to be able to tolerate other means of de-escalation rather than to go to war. A deployed and integrated missile defense also provides a much stronger and viable deterrent to Hamas.”

Ellison provided a detailed prescription to cure Israeli ills caused by Hamas.

“Currently, Israel is developing the Iron Dome Rocket Defense System and the David’s Sling Missile Defense System to defend their cities and people from missile and rocket attacks,” Ellison noted. “It is of urgency that these systems be funded, developed and deployed.”

Missile defense will be key not only for Israel, but also for other nations beset by terrorist or rogue state missiles throughout the region, he argued, adding that in “this region and throughout the Middle East and Asia Minor [areas of] religious conflict and high tension, there continues a movement by various countries and terrorist organizations to replace air power with a more efficient, cheaper rocket and missile force to project military power beyond borders.”

This rising threat must be answered, he urged. “It is imperative that [the United States] as a world leader develop and deploy missile and rocket defense systems and share those technologies to prevent war and the loss of life.”

Currently, the United States is proposing to install a European Missile Defense system in the Czech Republic (radar) and Poland (interceptors in ground silos) to counter increasingly long-range missiles wielded by Iran.

Despite world condemnation and sanctions, Iran continues producing nuclear materials, and has announced plans for a space program, which would involve much the same technologies as an intercontinental ballistic missile.

Iran has fired missiles in salvos, and launched a missile from a submerged submarine.

More worrisome to Israelis, Iranian President Mahmoud Ahmadinejad has said Israel should be wiped from the map, and that Israel soon shall cease to exist.

Iran also has supplied many of the missiles and rockets that terrorists have launched into Israel, including those employed by Hezbollah in Lebanon.

Serious Soviet Secret Surfaces

By James Dunnigan, Strategy Page, Jan. 5, 2009

Despite several successful tests in the last two years, and the decision to put its new Bulava SLBMs (Sea Launched Ballistic Missiles) into production, Russia just announced that several more tests would be performed before the missile was actually put into service.

Despite the many test failures, the Russians were confident in the basic technology in the Bulava. They knew there would be test failures, and believed they were facing no more problems than the two most recent U.S. SLBMs. These had had a 13 percent (23 tests of the Trident I) and two percent (49 tests of Trident II) failure rate. What did make many Russians nervous was the fact that the Bulava is replacement for an earlier SLBM that had to be cancelled during development because of too many test failures, and too many design and equipment problems that could not be fixed. Thus the Bulava is basically a navalized version of the successful Topol land based ICBM. The reliability of the Topol is the primary reason the Russians moved forward with Bulava.

The Bulava will equip the new Borei class SSBN (nuclear powered ballistic missile submarine). The first one is about ready to enter service. The Borei class boats would replace the aging Cold War era SSBNs, which are being retired because of safety and reliability issues and the high expense of running them. Nuclear submarines are one area of military spending that did not get cut back sharply after the Soviet Union collapsed in 1991.

The 45 ton Bulava SLBM is a little shorter than the Topol M, so that it could fit into the missile tube on the sub. Thus Bulava has a shorter range of some 8,000 kilometers. Bulava has three stages and uses solid fuel. Currently, each Bulava is being configured to carry ten 150 kiloton warheads. The warhead is also shielded to provide protection from the electronic pulse of nearby nuclear explosions. The Bulava could also carry one 500 kiloton nuclear warhead, plus decoys. Many Russians are obsessed with trying to defeat American anti-missile systems.

Russian doubts about Bulava are consistent with long time problems with their submarine launched ballistic missiles. These problems were largely kept secret during the Cold War, but since then, more information has emerged. Apparently the Russians want to increase the reliability of the Bulava before they make lots of them for arming the new Borei boats. This may delay deployment of the first Borei boat by a year or more.

China At Sea

A Carrier Project Would Shift The Balance Of Power

By Hugo Restall, Wall Street Journal, Jan. 5, 2009

Comments by China's national defense spokesman last month make it about as official as it's going to get: China's navy is in the market for an aircraft carrier. This is a sign that Beijing sees its ultimate prize within grasp: emergence as East Asia's preeminent great power. So should the region, and the protector of its stability for the last half century, the United States, be worried?

First things first: China is not about to knock America off its perch as the world's sole superpower. Developing the capacity to deploy aircraft carriers is a feat of incredible complexity. China's carrier project will take at least a decade to realize, and it will require billions of dollars and a great deal of the country's military design capacity. Even the Soviet Union found it difficult to master carrier operation, as China knows full well — since 1998 it has bought the hulks of three Soviet carriers to study them. Just forming the flotilla to protect one carrier would require most of the modern ships currently in China's fleet.

Yet there's every reason to believe China will achieve its goal eventually and deploy multiple carriers. It will likely start by using aircraft bought from Russia but go on to develop its own weapons systems. China will end up with a much smaller ship than the American super-carriers, with weapons about a generation behind. But this will still put it far ahead of its neighbors — no East Asian country currently has carrier capacity.

So the balance of power in Asia is going to shift dramatically in the decade ahead, and nowhere will the effects be more evident than in the South China Sea. Beijing is already constructing a major naval base on its southern island of Hainan. The naval buildup would give Beijing a freer hand to enforce its claims to South China Sea islands — claims that are disputed by five other countries. The waters through which much of the world's trade now flows, from the Malacca Strait to Taiwan, would effectively become a Chinese lake.

The timing of the move, too, is significant. China hesitated for years before declaring its intent to develop carrier capability because of the potential reaction of its neighbors. A Chinese aircraft carrier prowling the neighborhood could be the final straw that causes Southeast Asian nations to band together to protect their claims, or strengthen ties with the U.S. In particular, Vietnam has periodically hinted that it might put aside the past and form an alliance with Washington. By building up its military capability, China runs the risk of finding itself worse-off strategically.

But Beijing may feel it's now strong enough to fend off such moves. The underpinning of military power is economic strength. With the U.S. facing a major economic downturn, some in Beijing are looking forward to the decline of America's presence in the region, and they know that the leaders in other Asian capitals are making the same calculations. Now is an opportune time to push those leaders into accepting China's role as future regional hegemon, and test a new U.S. administration. If the U.S. were to relinquish its role, Southeast Asia might not be able to balance against China's might.

Already the doubts about the U.S. are inflicting a cost. Naval spending in Asia is surging, a development that could increase tensions along many other fault lines. The biggest question mark is how Japan, the only nation in the region that has the means and the motive to stand up to China, will react. Tokyo has long been preoccupied with securing the sea lanes through which its supply of oil passes. Should Japan feel the need to embark on a major rearmament program, it could touch off a regional arms race.

These are worst case scenarios. There is another possibility, however: that China's ambitious plan might be a positive development. In the past, the People's Liberation Army has emphasized asymmetrical warfare, apparently believing it could find inexpensive and innovative ways to counteract American might. If it is now moving toward a more conventional road of military modernization, pitting like against like, that is less likely to cause the miscalculations that lead to war, because China is less likely to be seduced by ideas that it can neutralize U.S. superiority with asymmetry.

The carrier plan also signals a shift away from devoting the bulk of the PLA's modernization drive to the goal of capturing of Taiwan. Beijing primarily needs more submarines and missiles to keep the U.S. out of the area and intimidate Taiwan into submission. A carrier would be little help in most such scenarios, since the island is already within easy range of land-based aircraft, and a carrier would be a tempting target for Taiwanese and U.S. forces.

A Chinese carrier could also participate in the kinds of goodwill missions that the U.S. has used to such positive effect. Since no other East Asian power possesses a carrier, China's new ship would be a status symbol, useful for showing the flag and enhancing

national prestige. A carrier would also enable China to better contribute to peacekeeping and disaster-relief missions, as the U.S. showed after the tsunami four years ago.

The U.S. is watching these trends, and has reacted by redeploying state-of-the-art ships and aircraft to the western Pacific from elsewhere in the world, and building up facilities on Guam. But it needs to do more to persuade Asians that it intends to remain engaged in the region. Beijing has to get the message that trying to intimidate its neighbors will be self-defeating.

Mr. Restall is the editor of the Far Eastern Economic Review.

Thinking About Future Sonar Systems (Opinion)

By Galrahn, Information Dissemination (Blog), 5 January 2009

As I have stated many times, I believe the best way to hedge against future peer competitors at sea is not to focus so much on large surface combatants or aircraft carriers, rather maintain and field the most effective, most advanced, most capable submarine fleet possible. I continue to be incredibly impressed by the work done by Electric Boat and Newport News with the Virginia Block III program. This is, without any doubt, the best shipbuilding program the Navy has had since the cold war.

Chris Cavas had an article out back in December on the contract for new Virginia class submarines, previously discussed on the blog here. I'm just now catching up on a lot of reading after a long holiday marked primarily by alcohol and more alcohol, and while reading through this article I noted some details of interest.

The Block III submarines will be the first of the class to be fitted with the Virginia Payload Tubes (VPT), a development of the modified former ballistic missile launch tubes in the Ohio-class converted cruise missile subs. Two VPTs in the bow of each of the new submarines will replace 12 vertical launch tubes used for Tomahawk cruise missiles in previous submarines. The 92-inch-wide VPTs each can hold six cruise missiles.

The new subs also will feature the Large Aperture Bow (LAB) Array of sound-detection gear, replacing the traditional sonar sphere of earlier ships. Hilarides said the LAB Array provides improved passive listening capability over traditional spheres using transducers.

Both technologies are excellent examples of evolutionary designs that not only improve capability, but save money. While I think the Virginia Payload Tubes (VPT) probably gets the most attention, I for one am curious how much the Large Aperture Bow (LAB) Array really improves passive listening capability, and whether this is a technology that could be adapted to be effective on surface ships somehow. Note, I'm speaking directly in regards to the improved passive listening capability, not specifically about adding a LAB to a surface ship.

The Navy is currently mandated by law to develop the CG(X) with nuclear power, even though I think we all agree they will try to get around this law. Lets assume for a moment, the cruisers are nuclear powered. While a lot of systems on a naval vessel require a lot of power, sonars in particular really require a lot of power, indeed the lack of power that could be used to deploy the most advanced sonar systems is something you never hear buyers of some conventional submarines talk about, although it is a problem. Will we see any new technologies for underwater detection enabled by the increase in power nuclear power will give cruisers? Has anyone even considered the potential there? I don't know, I hope so.

My concern is thus. The Navy canceled the Advanced Deployable System (ADS) without replacement, and if you remember the hype, the ADS was supposed to be a huge system advantage the LCS would have in detecting submarines. Well, the ADS is gone, and I'm unaware of any program that has come along to really tackle the issue we need to greatly improve the ASW capability of surface combatants.

There is no question that when the technology is fielded, the unmanned systems deploying listening systems will be very useful in adding to ASW detection networks for fleet forces. However, unmanned systems aren't static arrays, they are deployable systems which have to return to their mothership, which means they can't be deployed too far from the mothership. There is also a problem, the LCS ASW module is, by all accounts I have read, not really intended to support major repairs to broken unmanned systems. There is no tender for the LCS, so this means a return to port. The lack of size for our nations mothership will be an issue, which is why I hope Congress sides with the Navy and does wait until 2010 to see what the Navy learns from both LCS hulls. There is more than a choice between two hulls at stake here, insuring the capability to deploy unmanned systems for operations is sustainable, is at least as important as the other processes involved in the LCS evaluation periods over the course of this year.

Now that Virginia Block III has evolved passive submarine detection technology for our underwater forces, where is a similar evolution in our surface ship forces. Lets be blunt, the ADS was a major part of LCS, and it is gone. Unmanned systems are going to help, but they are going to be tied to the motherships due to the fact all deployable systems have limited endurance capabilities, which combined with the slower speed aspect of ASW detection, is just another aspect of the concept development still to be worked out. Because the LCS isn't a surface combatant, it of course does not have a sonar. Unless something changes, looking into the future the DDG-51 can expect to be the major ASW platform for the Navy at sea until after 2030. If we ever build ships smaller than the LCS, does anyone really think we should put much investment in ASW on those platforms? I for one do not think we should, low cost smaller ships means no ASW.

While it is probably not popular to say out loud (shhh), other than ADS, the other real evolution in surface combatant ASW technologies was built into the DDG-1000, but that platform is on the chopping block. When the Navy truncated the DDG-1000 to three (or two, depending upon your level of faith in Navy shipbuilding), ASW capability went out with the bathwater there too.

Retire the S-3s. Yep. The P-3s are old? Very. The P-8s are slow coming online. Affirmative, and likely to slow down more. FFG-7s can do ASW, barely, but thankfully they go away very soon. You know, while they are making modifications to the USCGC Bertholf (WMSL 750) hull to improve fatigue life, maybe we should add a better sonar... you know, so at least one of the 21st century ships our nation is building advances surface sonar capability.

Boomer CO Fired Over Personnel Problems

By Andrew Tilghman, Navy Times, January 4, 2009

Alleged problems with command climate and “retention issues” with senior personnel aboard the ballistic-missile submarine West Virginia led to the firing of its commanding officer, according to a Navy spokeswoman.

Cmdr. Charles “Tony” Hill, 45, commander of the boat’s Gold Crew, was relieved Monday “due to a loss of confidence” in his ability to command, said Lt. Rebecca Rebarich, a spokeswoman for Submarine Group 10.

The Ohio-class submarine is based at Naval Submarine Base Kings Bay, Ga. Hill and the Gold Crew returned to Kings Bay in November from deployment.

“Although there was no specific incident, a number of indications related to command climate emerged over time. These indications included observations by squadron staff personnel, observations by personnel from external organizations, and significant retention issues including senior personnel,” Rebarich said.

“These all came to the squadron commander’s attention following Cmdr. Hill’s first patrol. These indications revealed a command climate issue and led to the loss of confidence.”

Hill is not facing any charges under the Uniform Code of Military Justice and his alleged misconduct did not involve the submarine’s nuclear reactor, Rebarich said.

“At no point was the crew or the public in danger,” she said.

Capt. Daniel Mack, commanding officer of Submarine Squadron 16/20, made the decision to remove Hill and temporarily assign him to Submarine Squadron 20 at Kings Bay.

Mack assigned Capt. Stephen Gillespie as temporary commander of the West Virginia’s Gold Crew, which is conducting training at its home port.

Gillespie has served as commander of the ballistic-missile submarine Rhode Island and most recently was the deputy for training at Squadron 16/20.

Hill, originally from Lineville, Ala., was commissioned in 1990 through the Navy ROTC program at Auburn University. He served aboard the fast-attack submarine Cheyenne from 1998 to 2001, and later on the Rhode Island from 2003 to 2005, Navy records show.

Hill was promoted to commander in June 2006 and assigned to the West Virginia in June 2008.

Removal of a ballistic-missile submarine commander is rare. Navy officials were unable to say when the last time a boomer skipper was relieved.

A search of previous Navy Times stories shows that in 1997, Cmdr. Michael J. Alfonso was relieved from his command of the ballistic-missile submarine Florida for allegations of browbeating his crew, ignoring his executive officer and chief of the boat, and acting as a tyrant.

Guam To Replace Okinawa As Key US Outpost Will Become Hub Of The Military In The Pacific

Associated Press, January 4, 2009

ANDERSEN AIR FORCE BASE, Guam – Sprawling toward the horizon in every direction, Andersen Air Force Base is surprisingly quiet, leaving the impression of a big, empty parking lot.

For now, anyway.

Over the next six years, nearly 25,000 U.S. Marines, soldiers, family members and civilian Defense Department employees will descend on the tiny Pacific island of Guam, transforming the sleepy tropical outpost into a hub of America’s military in the Pacific.

But the metamorphosis seems as fragile as it is ambitious.

Guam’s transformation will cost at least \$15 billion – with Japan footing more than \$6 billion of the bill – and put some of the U.S. military’s highest-profile assets within the fences of a vastly improved network of bases.

The newcomers will find an island already peppered with strip malls, fast-food franchises and high-rise hotels serving Japanese tourists who want a closer-to-home version of Hawaii. The plans for the base are fueling a fresh construction and real estate boom that Guam hopes will accelerate its prosperity.

But Guam is smaller than some Hawaiian islands, with a population of just 155,000, and many of its officials are worried that the military influx could leave the island's infrastructure – water, highways and seaport – overwhelmed and underfunded.

Felix Camacho, the elected Republican governor of the U.S. territory, says he believes in the long run the troop influx will be “tremendous” for Guam's economy, but it will be “a difficult and complex process.”

“I remain hopeful,” he said in an interview with The Associated Press. “Our challenge is that we know that the Department of Defense and Japan will build a first-rate base.” But Guam has “limited capacity” to develop its own infrastructure to absorb the influx, he said.

Joe Murphy, in a recent editorial in the Pacific Daily News, Guam's main newspaper, focused on the upside.

“The shift of Marines may cause problems,” he wrote, but “transportation should get better. Our nightclubs should get better. So should our restaurants and movie theaters. It all should trigger an advancement in the social scene on Guam. This is a new era, and we've got to move forward.”

However, the whole plan could collapse if Japan fails to build a replacement for a busy Marine Corps air base on its southern island of Okinawa – a festering issue that one senior U.S. military official acknowledged is fraught with difficulties.

The buildup plan, to be carried out by 2014, represents a major realignment of U.S. forces in the Pacific:

*About 8,000 Marines are to be shifted 1,200 miles southeast, from Okinawa to Guam, making it the Corps' second largest permanent overseas staging and training area.

*The Navy has already deployed three nuclear-powered submarines to Guam and is seeking improvements to accommodate the nuclear-powered aircraft carrier USS George Washington, which carries about 5,000 sailors and airmen.

*The Army wants to deploy a ballistic missile defense task force, which would bring roughly 630 soldiers and 1,000 dependents to Guam.

*Long-range B-2 bombers have begun regularly deploying to Guam, along with squadrons of F-16 fighters. Military planners are considering bringing in the new F-22 fighters as well – though details remain sketchy – along with Global Hawk unmanned surveillance aircraft and a dozen tankers.

The buildup is designed in large part to ease the long-standing over-concentration of forces on Okinawa, the U.S. military's key Pacific outpost since the 1950s, without pulling them back too far from such potential flash points as Taiwan and North Korea.

Although China and Russia, the U.S.'s main rivals in the Pacific, have been quiet, North Korea is characteristically wary. In an editorial, the state-run Minju Joson newspaper said it was meant to enable the Pentagon “to carry out its strategy for a surprise pre-emptive attack.”

But keeping the Marines at their present levels on Okinawa has become unrealistic.

By treaty with Tokyo, more than 50,000 U.S. troops are stationed throughout Japan, which pays billions of dollars each year to support them, more than any other country with a U.S. base on its territory.

Okinawans have long complained that their crowded island has to absorb too much of the presence, and of the crimes and other misbehavior of U.S. personnel stationed there. More than half of the U.S. troops in Japan are on Okinawa, as is Kadena, the biggest U.S. air base in the region.

In U.S.-Japanese negotiations, Guam has emerged as the most practical alternative.

Okinawans have generally welcomed the move, and Tokyo has pledged to invest nearly \$3 billion in building barracks, offices and other facilities for the troops on Guam, and to lend another \$3.3 billion for developing supporting infrastructure.

Roughly 10,000 Marines are to stay on Okinawa, however, and Tokyo has run into serious opposition in trying to move the Futenma Marine Corps Air Station to a less congested part of Okinawa. Many Okinawans want it off the island altogether.

Lt. Gen. Edward Rice, commander of U.S. forces in Japan, says the whole move to Guam depends on Futenma's getting new premises on Okinawa.

“There are serious and significant challenges that remain for us to facilitate the transfer,” he said at a news conference in Tokyo.

Soviet Cold War Relic Destined For The Scrap Heap

Associated Press, January 4, 2009

PROVIDENCE, R.I. – A former Soviet cruise missile submarine that was once featured in a Hollywood film and sank in the Providence River during a storm nearly two years ago will be converted to scrap metal if no one agrees to buy it, the president of the foundation that owns it has said. The 282-foot submarine, known as Juliett 484, began serving as a floating educational museum in 2002, until it went down during a powerful nor'easter in April 2007. Army and Navy dive crews raised the sub in a training exercise in July, and inspections showed that the vessel had deteriorated and corroded during its 15 months underwater.

Restoring it to an operational museum would have cost more than \$1 million, said Frank Lennon, director of the Russian Sub Museum and president of the USS Saratoga Museum Foundation, a private, nonprofit group.

A local company, Rhode Island Metals Recycling LLC, has agreed to move the sub downriver and eventually dismantle it for scrap metal if no one offers to buy it intact by the end of this month.

“We remain hopeful that someone will step forward who might be interested in taking over the stewardship of this very interesting Cold War relic,” Lennon said.

The sub, alternatively designated as K-77, was launched in 1965 as part of the Soviet Northern Fleet. The Juliett class was initially planned as a nuclear missile platform for strikes against the United States and later tracked U.S. aircraft carriers.

The sub was used in the 1990s as a restaurant and vodka bar in Helsinki, Finland, and as a set for the 2002 Harrison Ford movie K-19: The Widowmaker before being acquired by the USS Saratoga Museum Foundation.

It opened as a museum in Providence in 2002 and drew tens of thousands of tourists over the years.

Lennon said the museum would remove artifacts such as periscopes, torpedo tube doors, missile firing stations and other items before the sub is dismantled.

He said he had received inquiries about the sub, including one from an Australian group that wanted to sink it and use it as a reef, but no serious offers.

CSI Hunley: Fate Of Historic Sub A Cold Case File

The Associated Press, January 4, 2009

NORTH CHARLESTON, S.C. – It could be one of the nation’s oldest cold case files: What happened to eight Confederate sailors aboard the H.L. Hunley after it became the first submarine in history to sink an enemy warship?

Their hand-cranked sub rammed a spar with black powder into the Union blockade ship Housatonic off Charleston on a chilly winter night in 1864 but never returned.

Its fate has been the subject of almost 150 years of conjecture and almost a decade of scientific research since the Hunley was raised back in 2000. But the submarine has been agonizingly slow surrendering her secrets.

“She was a mystery when she was built. She was a mystery as to how she looked and how she was constructed for many years and she is still a mystery as to why she didn’t come home,” said state Sen. Glenn McConnell, R-Charleston and chairman of the South Carolina Hunley Commission, which raised the sub and is charged with conserving and displaying it.

Scientists hope the next phase of the conservation, removing the hardened sediment coating the outside of the hull, will provide clues to the mystery.

McConnell, who watched the sub being raised more than eight years ago, thought at the time the mystery would be easily solved.

“We thought it would be very simple ... something must have happened at the time of the attack,” he said. “We would just put those pieces together and know everything about it.”

But what seemed so clear then seems as murky now as the sandy bottom where the Hunley rested for 136 years. When the Hunley was raised, the design was different from what scientists expected and there were only eight, not nine, crewmen, as originally thought.

The first phase of work on the Hunley consisted of photographing and studying the outside of the hull. Then several iron hull plates were removed allowing scientists to enter the crew compartment to remove sediment, human remains and a cache of artifacts.

Thousands of people, many re-enactors in period dress, turned out in April 2004 when the crew was buried in what has been called the last Confederate funeral.

With the inside excavated, the outside of the hull will now be cleaned before the sub is put in a chemical bath to remove salts left by years on the ocean floor. The Hunley will eventually be displayed in a new museum in North Charleston.

Archaeologist Maria Jacobsen said the Hunley is like a crime scene except that, unlike on television shows, there is no smoking gun.

“If we compare this crime site investigation with, say, a tragic plane crash in the mountains, that investigation would be a lot easier,” she said. “You can go to the crash you can see the metal pieces and they have the fingerprints of the crash site.”

In the case of the Hunley, some of those fingerprints may be covered with the encrusted sediment on the hull that scientists refer to as concretion.

When the sub was found there was no window in the front conning tower, suggesting it had been shot out, perhaps by Union sharpshooters.

But no glass was found inside the sub and the remains of the captain, Lt. George Dixon, showed no injuries to his skull or body consistent with being shot while looking through the window, McConnell said.

The crew’s bodies were found at their duty stations, suggesting there was no emergency resulting in a scramble to get out of the sub. And the controls on the bilge pump were not set to pump water from the crew compartment, suggesting there was no water flooding in.

After the attack both Confederates on shore and Union ships reported seeing a blue light, believed to be the Hunley signaling it had completed its mission.

A lantern with a thick lens that would have shifted the light spectrum and appeared blue from a distance was found in the wreck.

But after the attack, the USS Canandaigua rushed to the aide of the Housatonic and there is speculation that the light could have come from that ship instead.

Could the Canandaigua have grazed the Hunley, disabling her so the sub couldn’t surface? A good look at the hull in the coming months may provide the answer.

Historians also know the Hunley needed to wait for the incoming tide to return to shore.

“Were they waiting down there and miscalculated their oxygen and blacked out?” said McConnell.

He said a grappling hook, believed to serve as an anchor of the Hunley, was found near the wreck. Cleaning the hull may produce evidence of a rope showing the sub was anchored, perhaps waiting for the tide to change.

Then there is the mystery of Dixon’s watch, which stopped at 8:23 p.m. Although times were far from uniform in the Civil War era, the Housatonic was attacked about 20 minutes later, according to federal time, McConnell said.

One theory is the concussion of the attack stopped the watch and knocked out the sailors on the sub. Or the watch simply might have run down and was not noticed in the excitement of the attack. That could have led to a miscalculation of the time they were under water.

Union troops reported seeing the Hunley approaching and the light through the tower window “like dinosaur eyes or a giant porpoise in the water,” McConnell said.

If the Hunley crew miscalculated and surfaced too close to the Housatonic on their final approach they would not have had enough time to replenish their oxygen before the attack, he said.

The clues now seem to indicate the crew died of anoxia, a lack of oxygen, and didn’t drown. “Whatever happened, happened unexpectedly, with no warning,” McConnell said.

Running out of oxygen can quickly cause unconsciousness.

“One you reach that critical stage, it’s like you flick a switch,” he said. “It’s that fast, like on an airplane.”

Sons Find Dad’s Submarine, Sunk In 1942

After more than 65 years, brothers find his sunken World War II submarine MSNBC.com

By Bob Dotson, January 1, 2009

Longing can chart a better course than MapQuest. After more than 60 years, the Abele brothers have finally found their father.

Lt. Cmdr. Jim Abele commanded the USS Grunion, a submarine that disappeared off the coast of Alaska during World War II. Seven years ago his sons made a deal with their hearts, not their heads, and went looking for him.

It cost them a bundle. “If this were an official Navy project, I would guess that the taxpayers would be paying about 10 times what we’re paying,” John Abele chuckled.

“How much are you paying?” I asked.

“That’s a secret,” he laughed.

Searching by sonar

A secret like the mystery of what happened to their father’s sub. Military search planes never found where the Grunion sank, but the brothers from suburban Boston kept looking. In 2006 they began crisscrossing the Bering Sea, probing its depths with sonar.

In 2007, they found the sub a mile down, on the slope of an underwater volcano 12 miles north of Kiska, at the western tip of Alaska’s Aleutian Islands. Last fall the Navy confirmed that the Abele brothers had done what it could not – solve one of World War II’s biggest mysteries.

The brothers’ big break came when a Japanese historian found an account of the Grunion’s last battle. It said there was a confrontation between a cargo ship and a sub.

The Japanese freighter’s crew spotted two torpedoes bubbling toward them. The first one missed. The second one hit.

The torpedo exploded and stopped the freighter’s engine. Terrified, the Japanese seamen turned a deck gun on the sub and fired it 84 times. As the Grunion began to surface, “There was a dull ‘thud’ noise and a little spout – presumably oil, we don’t know,” said John Abele.

Their dad’s sub slid into history’s shadows. Seventy men were never heard from again.

No goodbyes

The last time the brothers saw their father was at a Sunday dinner at his sub base in Groton, Conn. Wartime secrecy prevented him from telling them he was leaving. He slipped away without a kiss or a wave.

With a tear in his eye, Bruce Abele told me: “We knew that he was gone when a neighbor called and said she had seen the sub leave. We didn’t have a chance to say goodbye.”

Four months later, their mom got a telegram saying that Lieutenant Commander Abele was missing. Then came a letter with a Navy Cross, citing him for valor. It came with a check.

“She sent it back to the government,” said John.

And put her sons to work while she taught violin.

The brothers showed me stacks of letters their mother had received. She wrote to every family that had lost someone on the Grunion.

Their mom never remarried. The boys never forgot. Jim never left their minds.

“How did you finally grieve for your father?” I asked Bruce.

“I used to shoot baskets in the backyard,” he said. “This is hard to say, but if I could make five at a time, I’d say, ‘Jim’s coming back!’” He choked up. “But he never did.”
So his sons went to Jim Abele instead. Some love cannot be measured. It is the sum of a lifetime of searching.

Russian Boomers Done Got The Breakdown Blues Again

Strategy Page, January 5, 2009

And there’s yet another delay for the new Russian Borei Class ballistic missile nuclear subs (SSBN, or “boomers”). This boat, which was launched a year ago, was to have begun sea trials this month. But that will be delayed for at least three months, as more inspections are made of how the nuclear reactors and safety systems were installed. The latter is the result of an accident on a new Akula SSN last November. There, a sailor hit the wrong switch and accidentally triggered a fire suppressant system in a compartment where several dozen people were sleeping, killing twenty of them. The safety system was poorly designed, making it too easy for someone to do what the sailor did. Such design problems are common in Russian ships, and the additional months of inspections and modifications for the Borei is another attempt to eliminate such problems.

The first of three new Borei Class boats will be based in the Pacific when finally commissioned, probably, maybe, next year. During the Cold War, most of Russia’s SSBNs were based in the north, at several bases east of the Norwegian border, and facing the Arctic ocean. But now Russia is spending over \$350 million to expand and improve its submarine base on Kamchatka island. This will enable its new SSBNs to threaten China, as well as the United States.

The first of its new Borei class subs was moved to a dry dock two years ago, for additional work. This ship, the Yuri Dolgoruky, was supposed to have been launched three years ago. But there were technical problems that delayed it until now. Construction of the Yuri Dolgoruky began thirteen years ago, but money shortages, and technical issues, slowed progress.

This is the first new Russian boomer to enter service in 18 years, and the first new Russian sub design since the end of the Cold War. The second ship in the class, the Alexander Nevsky, is also nearing completion. Construction on the third, the Vladimir Monomakh, began two years ago. Russia wants to have about a dozen of these boats, to replace the current Delta IV class SSBNs. The Delta IVs are getting old, and have only about a decade of useful service left. Currently, it appears that the navy will get at least eight Boreis.

The Boreis are closer in design to the Delta IVs, than to the more recent, and much larger, Typhoon boats. The Boreis are 558 feet long and 44 feet wide. Surface displacement is 15,000 tons, and twelve Bulava SLBMs (Sea Launched Ballistic Missile) are carried. Work on the Yuri Dolgoruky was delayed for several years because the first missile being designed for it did not work out. A successful land based missile, the Topol-M, was quickly modified for submarine use. The Bulava was a larger missile, cutting the Boreis capacity from twenty to twelve missiles. The boat also has four torpedo tubes, and twelve torpedoes or torpedo tube launched missiles. The Borei also sports a huge sonar dome in the bow.

The Boreis have a crew of 107, with half of them being officers (a common Russian practice when it comes to high tech ships like nuclear subs). Each of these boats will cost at least two billion dollars. This high cost, by Russian standards, is partly because many factories that supplied parts for Russian subs were in parts of the Soviet Union that are not now within the borders of present day Russia. So new factories had to be built. All components of the Boreis, and their missiles, will be built in Russia. A dozen of these boats probably won’t be completed for at least a decade.

Another problem is the reliability of the new Bulava missile, which, so far, has failed five of its ten test launches. The Bulava is believed to be fundamentally sound, but it could be another year, or more, before all the kinks are worked out. The Yuri Dolgoruky might be ready before its ballistic missiles are, which is not unusual for a new class of SSBN, carrying a new missile.

British Scientists To Venture Into Unknown Beneath Antarctic Glaciers

A team of British scientists are to venture into the unknown by becoming the first to explore beneath an Antarctic glacier.

By Richard Gray, Science Correspondent, The Daily Telegraph, December 31, 2008

The polar scientists are to get their first glimpse of this hidden world with a robot submarine that will travel beneath one of the frozen continent’s most puzzling glaciers.

They hope to find out why Pine Island glacier is slipping into the sea at an ever accelerating rate – a development which could cause sea levels to rise by as much as ten centimetres in the next century as the ice melts.

Scientists believe that unusual melting at the glacier’s base, where it enters the ocean, may be to blame.

Using the seven metre long, bright yellow unmanned submarine, nicknamed Autosub, the scientists from the British Antarctic Survey hope to explore this inaccessible part of the glacier to help understand for the first time what is happening.

With the aid of sophisticated sonar scanners, they intend to map out the underside of the ice while also measuring the changes in water temperature, pressure and salt content as they delve beneath millions of tonnes of ice.

Dr Adrian Jenkins, who is leading the British Antarctic Survey research, said: “The glacier is thinning and accelerating, which means more ice is melting into the oceans and contributing to sea level rise.

“We believe that something about the ocean around where the glacier ice moves from being grounded to floating has changed and this is driving the thinning and accelerating ice flow.

“We really have very little idea of what is actually going on beneath the ice as we have not been able to see through the ice to find out. We are talking about ice that is over a kilometre thick in places. The only way is to send our instruments beneath the ice to get measurements.”

The research project is the second time that the scientists have tried to examine the ice and water beneath the glacier. A trip in 2003 had to be abandoned due to poor weather conditions.

The robotic submarine, which has a maximum range of 248 miles and is powered by 5,000 ordinary D-cell batteries, will automatically navigate its way for 40 miles while underneath the glacier ice until it reaches the point where the ice meets the land – a journey that will take 20 hours.

Using on-board sonar the Autosub will pick its way through the water beneath the ice while also creating a three dimensional map for the scientists to determine the areas beneath the glacier that are most prone to melting.

The submarine will follow a pre-programmed course, but also carries an intelligent navigation system that allows it to find its way around obstacles that may get in its way.

The mission, however, is also risky – a previous Autosub was lost as it was exploring the Fimbul Ice Sheet in another part of Antarctica. The data and the submarine were never retrieved.

Autosub has now been entirely rebuilt for the new mission and is being extensively tested before it will be deployed beneath the Pine Island Glacier, an area that is moving far faster than the Fimbul ice sheet, in January.

Recent research with the aid of GPS trackers on the ice placed by experts at the British Antarctic Survey has revealed just how fast the glacier is moving and they fear that could lead to sea levels rising by up to 10cm in the next 100 years if it continues at its current rate.

The scientists believe that the speeding up of the glacier may be due to changes in the levels of warm water that have been spilling into the area beneath the floating part of the glacier.

Warm water from the North Atlantic is driven deep beneath the surface in the southern ocean by strong currents where it sits as a dense layer beneath the much colder surface water.

The warmer water occasionally spills onto the high sea bed shelf that stretches out from the Antarctic landmass and the scientists believe deep grooves in the sea bed has been channelling warm water beneath the glacier where it melts the ice.

Sea Trials Of “Yury Dolgoruky” Have Been Postponed

Barents Observer, January 2, 2009

Sea trials of Russia’s first Borey-class strategic nuclear submarine “Yury Dolgoruky” have been postponed until spring 2009. The reasons are said to be the accident on the submarine “Nerpa” and the recent failed launch of the new “Bulava” sea-based intercontinental ballistic missile.

A high-ranking Navy source told news agency RIA Novosti that there still are issues with the placement of a nuclear reactor on board the “Yury Dolgoruky”. Sea trials have been postponed until 2009 so that Sevmas specialists could deal with the remaining problems.

Sevmas and Northern Fleet specialists conducted successful testing of the submarine’s nuclear reactor on December 16, but Russia’s state nuclear power corporation Rosatom has introduced heightened safety measures due to a recent accident on board the nuclear-powered submarine “Nerpa” and the failure of the test launch of a Bulava missile.

The accident on board the Akula-class submarine “Nerpa” occurred during sea trials in the Sea of Japan on November 8, and caused the deaths of some twenty sailors and injury to twenty-one others. A fire suppression system discharged gas in the bow of the sub, suffocating civilian specialists and navy crew members.

The failed submerged launch of the Bulava ICBM took place on December 23 from the strategic nuclear-powered submarine “Dmitry Donskoy” in the White Sea. Russia earlier planned for the Bulava to enter service with the Navy in 2009. Now more test launches from the “Dmitry Donskoy” have to be conducted before any launches from the “Yury Dolgoruky” can be made.

DSRV Ceremony to Honor 40 Years of Service

“The US Navy Deep Submergence Unit will host a ceremony to honor the 40 years of service of the DSRV Program and to name its successor, the Pressurized Rescue Module, on Friday, 6 March 2009.

The ceremony will be held at DSU, Naval Base Coronado in the early afternoon, followed by a dinner reception at a location to be confirmed in San Diego.

All interested parties are encouraged to visit the DSU website at www.dsu.navy.mil or to provide mailing address to LT Tim Householder at timothy.householder@navy.mil for a formal invitation.”

Courtney Starts Selling Subs to Obama

By Jesse Hamilton, *Hartford Courant*, Dec. 30, 2008

Why procrastinate? Rep. Joe Courtney isn't waiting for Barack Obama to take over the White House next month. He's decided there's no time like the present to start convincing the president-elect that Virginia-class submarines are worth their attention-catching price tag.

"As you evaluate current acquisition programs and make the tough decisions ahead, we encourage your strong support for the Virginia-class submarine program - a platform of critical importance to our nation's current and long-term defense," said a letter sent today by Courtney and 27 other members of Congress, including fellow Connecticut Reps. Rosa DeLauro, John Larson and Chris Murphy.

[Courtney's relative success at making sure Electric Boat's production schedule stays brisk was one factor that made it difficult for a Republican former sub commander to make much progress against him in last month's election. So, even before his second session begins, Courtney is apparently working to continue his status as submarine champion of the House.]

The letter, organized by Courtney, made the uncertain-future argument that is popular among those defending the idea of the submarine in a current era of landlocked, desert warfare. "The naval fleet we build today is the one we will have tomorrow - and we simply do not know what security challenges we will face in the decades ahead. As we make difficult choices about military spending priorities, we cannot lose sight of the need to ensure that our submarine force is able to fulfill our security needs both now and in the future."

Yes, Virginia, There Is A Santa Claus

Strategy Page, Dec. 30, 2008

The U.S. Navy has ordered another eight Virginia class SSNs (nuclear attack submarines). Each boat will cost \$1.75 billion each. Actually, the price will go down, as production increases, from one a year in 2009, to two a year after that. This means the U.S. has 19 Virginias in service (6), under construction (4) or on order.

The United States has three classes of SSN. The mainstay of the American submarine force is still the 6,100 ton Los Angeles-class SSN. Sixty-two of these submarines were built, 45 of which remain in front-line service, making it probably the largest class of nuclear submarines that will ever be built. With four 21-inch (533-millimeter) torpedo tubes, it carries twenty-six weapons (either the Mk 48 ADCAP, the UGM-84 Harpoon anti-ship missile, or the BGM-109 Tomahawk). The last 31 Los Angeles-class SSNs add the Mk 45 vertical-launch system (VLS), which carries another twelve Tomahawks, making them closer to guided-missile submarines (SSGN).

The Seawolf-class of nuclear attack submarines stopped at three from a planned class of twenty-nine. The 8,600 ton Seawolf was designed as a super-submarine, designed to fight the Soviet Navy at its height. Carrying fifty weapons, and with eight 26-inch (660-millimeter) torpedo tubes, the Seawolf was designed for maximum performance. It delivered, posting a top speed of over 60 kilometers an hour, and remaining much quieter than the Los Angeles-class submarines. Reportedly, it is quieter at twenty-five knots than the Los Angeles-class submarines are at pier side.

With the cutback of the Seawolf to three ships, the Navy has gone with the Virginia-class submarine. Less-capable than the Seawolf (it is much like the Los Angeles-class attack subs, but with a lot of the more-advanced systems from the Seawolf-class subs, particularly the quieting and sonar systems), it was less expensive. The 7,700 ton Virginia-class submarines initially had a unit cost of \$2.1 billion, but found a way to get the first six built for a total cost of \$8.7 billion (\$1.45 billion each). Like the Los Angeles-class, the Virginia-class submarines will be improved as the class is built. The most recent eight ordered are "Block III" boats, with over a hundred design changes, most of the major, some (in the vertical launch system and the bow sonar) are major. Britain, France, Russia and China are all building new classes of SSNs that compete with the Virginias. The 7,800 ton British Astute class boats comes closest. The U.S. and Britain have long cooperated in the development of SSN technology. The moment, the U.S. has more of these "third generation" SSNs in service and on the way.

Rescue system for submarines a failure

The Australian, Dec. 31, 2008

THE navy is investigating new options to rescue stricken submariners from the ocean floor after its submarine rescue system failed to regain its safety certification.

This means there is no deep-sea rescue available for submariners in Australia, 13 years after the federal government promised it would develop an effective local rescue system.

Any stricken Collins class submarine would have to wait until a rescue vehicle was brought out from Britain, raising serious doubts about whether it could be deployed in time.

The revelation comes as the navy orders sweeping new emergency procedures to avoid a Kursk-style disaster, following the near-loss of the HMAS Dechaineux and its 55 crew.

The move, which was revealed in The Australian yesterday, is aimed at stemming an on-board flood within seconds, before it overwhelms the crew.

The failure to establish a deep-sea rescue capability for submarines in Australia comes after a series of disasters that have befallen the navy's submarine rescue vehicle, the Remora.

In December 2006, two men were trapped in Remora for 12 hours at a depth of 140m off the coast of Perth when a steel cable connecting it to the mother ship snapped.

It took a further four months for the navy to recover the Remora, which was sent back to the manufacturer in Canada for an overhaul, which the navy said would take six to eight months. However, 20 months later, the navy admits that it has still not obtained the full certification for the system to be used again.

It is now exploring options for a new submarine rescue system.

The 16.5 tonne Remora, named after sucker fish that attach themselves to sharks, attaches to the sunken submarine and allows six survivors at a time to be brought back to the surface.

The vehicle, which can operate in depths of more than 500m, has to be loaded on to a mother ship and transported to the scene of the accident. It is in storage in Henderson, Western Australia, awaiting sea trials before it can achieve full certification.

A key component of the Remora – its launch and recovery system – has been unable to gain a safety certificate because of new requirements imposed on the global safety assessor, Det Norske Veritas.

DNV has told the navy it needs to strengthen the structure and include automatic controls on its existing LARS before it will grant a safety certification. However, such alterations will cost many millions of dollars, forcing the navy to consider alternative options for a rescue system.

“The commonwealth will use the UK-based LR5 submarine rescue system as a contingency whilst addressing cost effective and robust systems as future options,” a defence spokesperson said. “The commonwealth is committed to an indigenous submarine rescue capability and is considering all future options.”

Defence claims the air-transportable British rescue capsule is capable of reaching Australia “in an appropriate time frame” but refuses to specify what this is.

“The time to mobilise LR5 to the disabled submarine from the UK will be dependent on the availability of all forms of transport at the time of the incident and the location of the disabled submarine,” a spokesperson said. “This system was in-service with the Royal Navy until last month and is a well proven system.”

The navy's Collins class submarines carry five days of emergency reserves on top of their regular stores. However, seabed rescues have to be conducted quickly because of the rapid loss of clean air and bitterly cold conditions.

Area player key in nuclear game

Bill Ostendorff commanded nuclear submarines in the Navy.

By John Andrew Prime, Shreveport Times, Dec. 30, 2008

As the nation's defense establishment works to make nuclear weapons, their storage and their transportation safer, a player with area roots has a major role.

Bill Ostendorff, a 1972 graduate of Jesuit High School and later a graduate of the U.S. Naval Academy at Annapolis, is nearing his second anniversary as principal deputy administrator of the National Nuclear Security Administration. It's the office set up within the Energy Department to safeguard the manufacturing, transportation and storage of nuclear material, including weapons.

“We work with our partners in the Department of Defense to maintain the nation's nuclear weapons stockpile,” Ostendorff said in a recent phone call to The Times. His agency maintains, observes and safeguards nuclear weapons the Air Force and Navy have, conducts research and advanced studies to determine how these weapons age and is studying ways to test them without actual detonations underground. And, he said, the agency determines “what is done to annually certify to the president of the United States that these weapons are deemed to be acceptable for use in the nuclear stockpile. It's a significant science and technology effort.”

Ostendorff, a son of the late T.J. Ostendorff Jr. and Emilie Anne Ostendorff, of Shreveport, runs the National Nuclear Security Administration's daily operations, serves as its top technical adviser and provides leadership and direction to the administration's senior staff. He also is involved in the National Nuclear Security Administration's interaction with Congress and helps implement policies to shape the administration's future.

A Rickover-trained submariner who retired in 2002 as a captain, Ostendorff served on six submarines, including command of the USS Norfolk from 1992-95. From 1996-98, he was director of the Submarine Force Atlantic Prospective Commanding Officer School. From 1998-99, he commanded Submarine Squadron Six in Norfolk, Va. After that, Ostendorff served as director of the Division of Mathematics and Science at the United States Naval Academy.

After retiring from the Navy, he joined the Institute for Defense Analyses. Between that and his current work, Ostendorff served as counsel and staff director for the Strategic Forces Subcommittee of the House Armed Services Committee.

Married and the father of three, he still tries to return to Shreveport several times a year to visit his mother and his brother, Tom Ostendorff, who owns Southern Research, a local security firm.

"I have always thought Shreveport was a great place to grow up," Bill Ostendorff said, a view reinforced by years of dealing with Air Force personnel who have served at Barksdale Air Force Base.

"I have yet to find someone who spent time in Barksdale who did not enjoy being in the Shreveport-Bossier City area. The people I have met speak very fondly of their time there at Barksdale."

In the wake of a munitions transfer incident in late August 2007 that involved Barksdale, and as the Air Force pursues a plan to beef up its nuclear mission and the nuclear culture surrounding that, Ostendorff's agency may work more closely with the service.

Recently, new Air Force Chief of Staff Gen. Norton Schwartz dropped by to meet with Ostendorff's bosses, something that hadn't been done before and that signals greater cooperation.

"We are on the supply side, and they are our customers for nuclear weapons," Ostendorff said. "We wanted to make sure we were having clear communications at a high level. We are partners in the nuclear mission."

In response to studies that spotlighted areas where the Air Force had nuclear issues, he said, "we started our own group within NNSA to look at nuclear weapons and parts and component accountability. It reported to us in the last few weeks, to make sure we take a serious, objective look at our own practices and procedures for parts accountability."

Ostendorff's agency also is prepared to help the Obama administration's transition team understand nuclear issues.

"We're ready for them. We have prepared a series of briefing books and papers to provide our perspective on key issues they may be dealing with."

The National Nuclear Security Administration operates several laboratories throughout the nation, including operations at Los Alamos and Sandia in New Mexico, Lawrence-Livermore in California and the Y-12 plant in Oak Ridge, Tenn. It also is pioneering efforts to transform, or downblend, weapons-grade nuclear fuel to a form suitable for commercial uses.

"Historically, those are weapons labs. But they perform not just work associated with our nuclear weapons mission, but also our nonproliferation mission," Ostendorff said. "We are involved in significant activities in helping safeguard nuclear material around the world.

"For example, we have a pretty robust program in the Russian Federation. And we have significant nuclear weapons incident response efforts in about 130 different countries. We help train other countries' first responders in the event there's a nuclear weapons incident."

Since May 2007, Ostendorff has worked on a plan to "chart out a new vision for the national security laboratories, invigorate our work force and attract the Ph.D. scientists, the post-doctorates, to come to these facilities. We deal with some extraordinarily sensitive national security issues."

As a Result of Melting Ice, Navy Studying Need For Base in Far North

'Arctic policy' not necessary

By Zachary M. Peterson, Inside the Navy, Dec. 29, 2008

Melting polar ice caps in the far north could open previously unnavigable passages to commercial and military ships alike in the decades to come, prompting the Navy to study the feasibility of establishing a forward operating base in the far north.

Cmdr. Andrew Garlington, director of maritime security policy in the chief of naval operations' plans office, told Inside the Navy in a Dec. 16 interview at the Pentagon that the service is studying the possibility of creating a base in the Arctic to enable the Navy and Coast Guard to better support future operations in the region.

"For me, the biggest thing the Navy and the Coast Guard need to look at is a base," Garlington said. "Right now, everything is in southern Alaska."

Last summer, the Coast Guard conducted a proof-of-concept study of a strategic forward-operating location in Barrow, AK, the northernmost settlement on the North American mainland. The Coast Guard deployed H-65 helicopters and 25-foot small boats to the northern village.

"There's activity out here and we need to think about having a sustained presence in the Arctic," Coast Guard Commandant Adm. Thad Allen's spokesman, Lt. Cmdr. Tony Russell, told Inside the Navy via telephone Aug. 7 from Barrow.

The Navy is also looking at the impact of climate change on its operations in the northern reaches of the globe.

"We have a couple studies going on now on what the future capabilities [in the Arctic] might be," Garlington said. "The Navy has been operating in the Arctic for decades, both under the water [submarine operations] and the surface ships have been conducting sub-Arctic operations and exercises for a very long time. But do you want to put a frigate in the middle of pack ice? It kind of reduces its effectiveness at that point."

The commander said the studies were being sponsored by the service's Quadrennial Defense Review cell.

"The studies will be one of the factors in determining where we want to put resources for future use," he said.

Right now, current Coast Guard and Navy assets are adequate to address any maritime security issues in the far north, Garlington argued.

“The maritime security issues we’re likely to face are on the edges in pretty clear water and so we can operate in that right now, we can meet that requirement,” the commander noted.

“I believe the needs in the next three to five years can be met by current assets by both the Navy and the Coast Guard,” he added.

“But [the Arctic] is a dynamic environment, and where you might be in a very open environment today with just some ice floating around, tomorrow you could wake up and be beset,” Garlington said. “They’ve had icebreakers that have become beset.”

Changes to requirements could be needed in the future, but the commander said it is too early to tell exactly what changes could be necessary.

“It’s too early to decide [if any requirements changes] are needed,” Garlington said.

No matter how significant the impact of climate change becomes on naval operations in the far north, the service will not have a separate “Arctic policy,” he said.

“The Navy doesn’t have a separate Arctic Ocean policy just like the Navy doesn’t have a separate Indian Ocean policy or a Pacific Ocean policy – we have our maritime strategy, which applies across the maritime domain,” Garlington noted. “The Arctic is a maritime domain, it just happens to be frozen. The imperatives that we have in the maritime strategy apply there as equally as anywhere else, though if you had to focus on one imperative, maritime security is more likely the [greatest imperative] in the Arctic.”

Cooperation with the Coast Guard in the far north is essential, he added.

“Maritime security is really more of a Coast Guard mission the Navy can help with, so we are working with the Coast Guard to plan what we’re going to do,” Garlington said.

The sea-going Chinese Navy and its rapidly-expanding submarine fleet

By Sol Sanders, The World Tribune, Dec. 29, 2008

The Chinese decision to send a contingent to engage, under the umbrella of a United Nations resolution, in the multinational operations against pirates off the Horn of Africa is of enormous significance. It comes at a moment of severe crisis in the Chinese economy, a reflection of the worldwide credit squeeze and the onset of what looks to be a severe worldwide recession.

In mid-December a Chinese commercial ship fought off a pirate attack in the Gulf of Aden. And seven Chinese vessels have come under attack by Somalia pirates since the first of this year.

For those who believe that Chinese aspirations are legitimate and nonthreatening – and there are advocates of that assessment even in the upper echelons of the U.S. Navy – Beijing is only exercising its responsibility as a growing “stakeholder” in the world order. With even Russian navy elements as well as Indian, French, British and Germans backing up American naval units in the vast area, Chinese protection of its own shipping could be helpful and has been officially welcomed by the U.S. It may be shortly joined by Japanese naval units if and when Tokyo can unsnarl its legal difficulties under its constitution on how its “self-defense forces” can be deployed outside Japanese waters.

China’s modernizing drive which has included the rapid expansion and efforts to reach new levels of sophistication for its armed forces has moved ahead quickly toward making itself into a candidate as a major sea power. The protection of its commerce – until largely tacitly under U.S. cover – is, of course, a legitimate concern for any Chinese government. And most of China’s increasing commerce, of course, has moved by sea. Probably 10 percent of the Chinese gross national product is directly connected sea traffic. Seven of the world’s 20 largest ports are Chinese. It is now the world’s third largest shipbuilder after Korea and Japan and, of course, its yards do not distinguish between civilian and military craft. China now has some hundred ships on the ways, many of them incorporating the latest technologies which have been bought, borrowed or stolen from foreign suppliers. They include everything from Australian wave-piercing catamarans to Russian Sovremenny destroyers and Kilo submarines, Italian and French combat systems and Dutch naval guns. Foreign observers have been impressed with the Chinese ability to leapfrog some of these designs, improving them or adapting them to their own purposes.

Scholarly papers – and a very popular TV film of a few years ago – made the point that Beijing has read its history and sees the expansion of naval power as the stuff of former empires, particularly in the Indian Ocean. There it is already challenging India with what has become known popularly as “the string of pearls” strategy – a series of strongpoints across the belly of the Asian not unlike those of the Portuguese, the Dutch, the French, and the British empires of other centuries. China, too, with its depleting oil and gas reserves has to look to the Middle East as a major source of imported energy traveling a long way over what could be hostile waters in wartime. Beijing has established or is establishing combination naval commercial footholds in Marao in the Maldiv Islands off south India, Coco Island in Burmese waters, Chittagong in Bangladesh, Hambantota in Sri Lanka, and Gwadar in Pakistan. [Hong Kong’s Hutchison Whampoa Docks under the billionaire Li Ka Shing, one of Beijing’s favorites, has established commercial docking operations at both ends of the Panama Canal and in the Bahamas.]

China has developed close relations – not only as an oil customer but as a vendor of cheap manufactured goods and a lender for developmental projects – with a number of African countries. And new “pearls” could develop shortly in the south Atlantic in Angola or on the Red Sea coast of the Sudan.

Meanwhile, China is rapidly expanding its submarine fleet, both diesel and nuclear propelled. And Beijing strategists would appear to see them as part of any asymmetrical warfare – and traditional Chinese stealthcraft – against the continuing large American and even Japanese supremacy in the Pacific. [The U.S. has 53 nuclear powered submarines, twice the number of any other nation, as well as 12 of the world's 15 aircraft carriers, and a powerful anti-submarine air fleet. To some extent, this is augmented with the Japanese fleet including the American Aegis missile carriers, under the terms of the U.S.-Japan Mutual Defense Treaty.]

But some Pearl Harbor strategists are concerned and claim that the Chinese submarine fleet at its present rate of expansion would exceed the number of U.S. ships in the Pacific by 2020. Recent confirmation that the Chinese are seeking to build carriers is adding to the growing calculation of an overextended American military force and the longer term aspects of Chinese sea power.

This concern has been heightened by the steadfast refusal of the Chinese to reveal their real budgets for military expansion or to speak openly of their strategic concepts. There have been sudden appearances of Chinese submarines near the now retired last American diesel aircraft carrier, the Kitty Hawk, without international signals and the not infrequent beeping of Japanese radar in its own territorial waters. Last year saw the official debutante ball for the Chinese navy when it made a succession of visits around the world to French, Australian, Japanese, Singaporean, Spanish and U.S. ports and took part in joint maneuvers against the threat of piracy.

The Chinese deployment of two destroyers and auxiliary aircraft to the Arabian Sea will certainly improve its image with its new African friends and perhaps strengthen its claims for what it used to term “a peaceful rising” of Chinese power. But it would also be an excellent opportunity for the Chinese learning maneuvers of other navies, afford opportunities for some interesting spying on their operations and communications [a growing Chinese specialty], and a chance to get its sealegs in a new part of the world.