

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

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



RETURN SERVICE REQUESTED



# *The Silent Sentinel*

## *NOVEMBER 2012*



### *Our Creed and Purpose*

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

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

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

***VOTE***

***VOTE***

***VOTE***

***VOTE***

***VOTE***

***VOTE***

***VOTE***

***VOTE***

***VOTE***

***VOTE***

***VOTE***

*or do not complain for the next four years!*

## U.S. Submarine Veterans San Diego Base

**Base Commander**

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

**Membership -- Change of Address**

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

**Treasurer**

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

**Senior Vice Commander**

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

**Newsletter Editor**

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

**Assistant Editor / Photographer**

Jack Kane  
619-602-1801  
jkane32@cox.net

**Junior Vice Commander**

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

**Base Storekeeper**

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

**Chief of the Boat/Middle East Liason**

Fred Fomby  
858-735-0026

**Secretary**

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

**Chaplain**

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

**Assistant Chaplain**

Russ Mohedano  
8709 Dallas St.  
La Mesa, Ca. 91942  
619-697-5029  
moecowboy@cox.net

### 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 Bissonette  
1525 Walbollen St.  
Spring Valley, CA 91977-3748

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

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

### **NOVEMBER Meeting**

Our monthly meeting is held on the second Tuesday of the month at VFW Post 3787, 4370 Twain Ave., San Diego. Our next meeting will be on 13 November, 2012. The post is located one-half block West of Mission Gorge Road, just north of I-8. The meeting begins at 7 p.m. The E-Board meets one hour earlier at 6 p.m.

*Check us out on the World Wide Web  
[www.ussvisandiego.org](http://www.ussvisandiego.org)*

### **BINNACLE LIST**

**Al Strunk**

## ***Submarine Losses in October***

Originally Compiled by C J Glassford



- S-37 (SS 142) - 43 Men on Board:  
Battery Explosion, on 10 Oct 1923, in the San Pedro Harbor, California : "3 MEN LOST"
- O-5 (SS 66) - 33 Men on Board:  
Rammed and Sunk, on 20 Oct 1923, by the United Fruit Steamer, "ABANGAREZ", in Limon Bay, Canal Zone:  
"3 MEN LOST"
- S-44 (SS 155) - 56 Men on Board:  
Sunk, on 7 Oct 1943, by a Japanese Destroyer, Northeast of Araitō Island, off Amchitka :  
"FIFTY FOUR MEN LOST - TWO SURVIVORS"
- WAHOO (SS 238) - 80 Men on Board:**  
Sunk, on 11 Oct 1943, by Japanese Naval Aircraft, Submarine Chasers, and Minesweeper, In La Perouse Straits, off Japan :  
"ALL HANDS LOST"

- DORADO (SS 248) - 76 Men on Board:  
Sunk, on 13 October 1943, Cause Unknown, Either Accidentally Bombed and Sunk by Friendly Fire of Guantanamo Based Flying Boat, or Sunk by German Submarine Mine, in the West Indies :  
“ ALL HANDS LOST “
- SEAWOLF (SS 197) - 99 Men on Board, Plus 17 Army Personnel: Accidentally Sunk, on 3 Oct 1944, by US Naval Aircraft from the USS MIDWAY (CV 63), and USS ROWELL (DE 403), off Morotai Island: “ ALL HANDS LOST “
- ESCOLAR [ Bell] (SS 294) - 82 Men on Board:  
Possibly Sunk, on 17 Oct 1944, by a Japanese Mine in the Yellow Sea:  
“ ALL HANDS LOST “
- SHARK # 2 [Bell] (SS 314) - 87 Men on Board:  
Sunk, on 24 Oct 1944, by Japanese Depth Charges, in South China Sea, West of Luzon :  
“ ALL HANDS LOST “
- DARTER (SS 227) - 71 Men on Board;  
Ran Aground, on 24 Oct 1944, on Bombay Shoal, in Palawan Passage. Crew Rescued by USS DACE (SS 247), Later Scuttled by USS NAUTILUS (SS 168), and USS DACE (SS 247) :  
“ NO LOSS OF LIFE “
- TANG (SS 306) - 78 Men on Board:  
Accidentally Sunk, on 24 Oct 1944, by Circular Run of It's own Torpedo, in Formosa Strait :  
“ 9 POW'S, SURVIVED “



## CHANGES TO SENTINEL DELIVERY: YOU MUST READ THIS!

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

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

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

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

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

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

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

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

My address follows:

Mike HYMAN  
3639 Midway Drive, B-320  
San Diego, CA 92110-5254\

Thanks,  
Mike Hyman, Editor

***Undersea Warrior*, by Don Keith**

Published by New American Library, A Division of Penguin Group (USA)

ISBN 978-0-451-23810-8

Copyright 2011

**Book Review by Michael Hyman**

Years ago, when the Gamma Stamp Company graced the corner of Linden Boulevard and Utica Avenue in Brooklyn, NY, I discovered a stack of envelopes in the penny box. I had seen them before but never had the interest to look closely—the penny box was considered junk; and a rubber-banded stack of envelopes in it would be even lower in status. Still, for some reason, I was curious. So for lack of anything better to do one Sunday morning—and as a nine-year-old Cub Scout with fifteen cents in my pocket—I made up my mind to do some investigation. There were a large number of envelopes in the group. They had been mailed and postmarked from New York to France in June of 1940; in addition, they contained a cancellation from September of the same year with the words: “Service Discontinued.” In the same stack was also a small envelope addressed to Lieutenant Commander Dudley Morton, USN, USS Wahoo (SS-238), FPO San Francisco, dated from September, 1943, with a back cancel from December. It had in dark, red ink, the words, “Unable to Deliver. Return to Sender.” An outline of a hand with a pointing finger was directed towards the originator’s address.

I bought the lot (about 25 envelopes) for ten-cents; and on arriving home, had to explain to my father why I had just spent sixty-six percent of my allowance on what he defined as *dreck* (the Yiddish word for ‘garbage’—and I should add that I am being very politically correct in my translation of the term).

Who was Dudley Morton? And why did a letter to him never arrive? I did not think much about it until I brought the envelope to my Cub Scout troop meeting. Our “Den Mother” knew exactly what I had—her brother had served in the Submarine Service during the war. The following month, Cub Scout Troop 341 received a very nice tour of a submarine at the Brooklyn Navy Yard. It was apparent that our Den Mother’s brother still had some connections!

Over the years, the story of Wahoo and “Mush” Morton fascinated me. The subject was instrumental in helping to develop my interest in joining the Submarine Service. But there was not that much written concerning Morton—at least from the perspective of material that was easily obtainable. Who really was Morton? What drove the man? How did he think? And why?

*Undersea Warrior*, by Don Keith, answers these and other questions concerning Dudley “Mush” Morton. Keith reveals Morton the *mensch*. And in no uncertain terms, Mush Morton was without a doubt the incarnation of the word—specifically an exceptionally fine human being. One can see it clearly when reading about his life, from his years at the Naval Academy through the beginning of his career in the fleet to his command of Wahoo. He was a man who loved his country, his wife, his shipmates, his boat, and his mission. Moreover, he became an expert at what he did—creative, inspirational, brave, and a true leader in every respect.

As Keith indicates, Morton took the war as a personal challenge. When he flew the banner “Shoot the sun za-bitches” on Wahoo as she entered Pearl Harbor after the Third War Patrol, he meant it. Morton read as well as heard about the atrocities committed by the Japanese in Malaysia, Singapore, Philippines, and especially China—atrocities so horrendous that during the 1937 rape of Nanking, German diplomats (Nazis) in China pleaded (to no avail) with the Japanese government with the hope of ending the slaughter. Over two-hundred and fifty-thousand Chinese civilians died in Nanking alone. A year prior to this, Morton was stationed in Tsingtao and married there. Clearly, in the mind of Morton—as well as in the thoughts of others—one less Japanese soldier meant fewer Allied deaths, military as well as civilian. Keith addresses this point in the book; but he also makes it quite clear—at least in my opinion—that the scuttlebutt concerning Morton’s ill treatment of Japanese survivors is really for the most part vacuous. This is not to say that some were not shot. Rather, Keith brings out the point, for example, that on one occasion, Japanese in the water appeared to be trying to toss grenades onto Wahoo’s deck—and considering the then recent history of Japanese behavior, why would any submariner take a chance and give this ruthless enemy the benefit of the doubt by thinking otherwise?

I whole-heartedly recommend *Undersea Warrior*. Don Keith has done a fine job describing the man, Dudley “Mush” Morton. Mush has always been a hero of mine—and Keith’s book reinforces the idea that I have chosen wisely. Buy the book. It’s a great read, one you’ll want to keep!

## U.S. Sen. Joe Lieberman Recognized Honorary Submariner

Oct. 24, 2012



### My Line On Defense—No More Cuts

**When Congress meets after the election, it should reduce the debt without taking a dollar more from the military**

#### Senator Joseph Lieberman

*Wall Street Journal, Oct. 26*

There is broad consensus that when Congress reconvenes in November, it must act to prevent sequestration. That is the \$500 billion cut in defense spending scheduled to go into effect on Jan. 2, which all parties agree would be catastrophic for our national security.

But as we contemplate proposals to ward off sequestration, we must not lose sight of a larger truth: Our armed forces are already under unprecedented strain because of the \$487 billion in defense cuts imposed by the Budget Control Act last year. This budget reduction is delaying critical modernization programs and forcing our military to slash manpower and force structure.

That is why, in the post-election session of Congress, I won't support any debt-reduction package that requires our military to accept further cuts.

The reductions in military spending that we have already accepted weren't driven by improvements in the strategic climate facing our country. Contrary to claims that the "tide of war is receding," our national-security threats are becoming more complex and no less demanding or urgent.

We have made significant progress in recent years against al Qaeda's leadership in Pakistan. But the group's Islamist extremist affiliates and allies have made inroads elsewhere—including Yemen, Syria and Mali, where al Qaeda's North African branch has established a haven in a vast swath of territory. In the Persian Gulf, Iran's pursuit of asymmetric capabilities (including missiles, mines and submarines) is compelling us to expand our naval and air presences there, not draw them down. Then there is the Asia-Pacific region, where China's double-digit growth in military spending and assertive behavior against neighbors (including U.S. treaty allies) is unsettling the regional balance of power.

To address these challenges, the Obama administration's "Defense Strategic Guidance" rightly pledges more rotational deployments across the globe to reassure our friends, deter our adversaries, and protect our national interests. But the truth is that our military is simply too small to do everything that is being asked of it. While our forces' high operational tempo is less visible than it was at the height of the Iraq War, it is no less stressful on our servicemembers and their families.

Consider that the Navy's 285-ship fleet is already slated to decline by nine ships by 2015. That means longer cruises with less time between deployments for ships to receive needed maintenance and for Sailors to recuperate. Thus the USS John C. Stennis Carrier Strike Group completed a seven-month deployment to the Persian Gulf in March, spent five months at home, then began an



eight-month deployment in August. The USS Enterprise and USS Carl Vinson strike groups have faced similar schedules in the past two years—a pace that senior Navy officials have said is wearing out ships and straining crews.

The cuts already enacted are similarly causing the Air Force to buy fewer planes despite persistent demands on its declining force, which increasingly relies on aging aircraft produced during the Cold War. Under its budget for the coming fiscal year, the Air Force will procure the fewest aircraft since becoming an independent service 65 years ago.

For the Army and Marine Corps, last year's cuts mean 92,000 troops forced out over the next five years, including tens of thousands of involuntary separations—layoffs, effectively.

Some people attempt to justify these cuts by arguing that our military won't face the same demands that it has over the past decade. But it is unwise to assume away dangers. One of the clearest lessons I draw from my 24 years in the Senate is that, despite our best efforts, events will inevitably take us by surprise—as did the Iraqi invasion of Kuwait in 1990, the 9/11 attacks, the collapse of the Soviet Union and the Arab Spring. The only thing we can know about the decade ahead is that further strategic surprises lie in store.

That is why it is so critical for our military to be modernized and manned for the full range of missions that it may be called upon to carry out in defense of our security, liberty and values. I fear that is not where America's armed forces are headed if we cut more from the defense budget.

We must put our country's fiscal house in order—but not at the expense of our security. Sequestration of both defense and nondefense accounts can and must be avoided by a bipartisan debt-reduction package

that deals with the real drivers of our fiscal problem: entitlement spending and insufficient revenue.

Protecting the American people is the most important responsibility that the Constitution gives the federal government, and our defense budget's trajectory signals to the American people—and to our friends and enemies around the world—how strongly committed we are to that responsibility.

That is why, when Congress reconvenes after the election, I will do everything I can to stop the additional \$500 billion in defense cuts. Because so much has already been taken from the U.S. military, I will oppose any deal that cuts one dollar more from our national defense. America's security cannot afford it.

*Mr. Lieberman is an Independent senator from Connecticut.*

### **Indian and US navies hold submarine rescue operations**

*The Times of India, Oct. 26*

**NEW DELHI:** If an Indian submarine gets “disabled” deep underwater, the sailors are sunk since the country has only rudimentary submarine rescue facilities. Now, in a unique and complex endeavour, Indian and US Navies have come together to practise the rescue of “trapped” submariners from deep under the sea.

The Indo-US submarine rescue exercise ‘INDIAEX-2012’ kicked off this week with the US Navy’s Undersea Rescue Command flying down a submarine rescue system - a deep-submergence rescue vessel (DSRV) or a submarine rescue chamber (SRC) — to Mumbai, say officials.

The DSRV or SRC is being shipped to the exercise area off Mumbai, where it will dive deep underwater to “mate” with “disabled” submarines to rescue sailors in intricate manoeuvres rarely practised by Indian sailors.

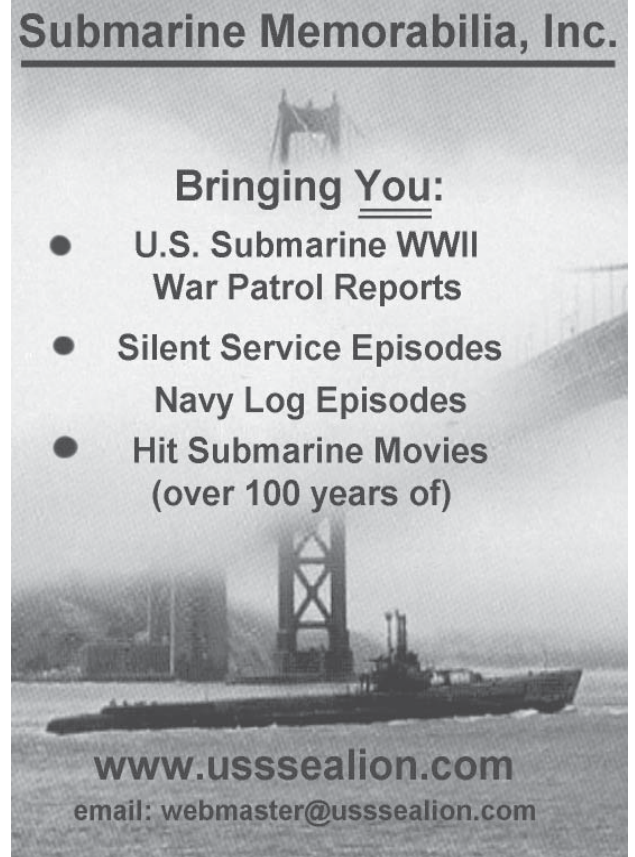
A DSRV or “mini submarine”, equipped with pressurised chambers, sonars and cameras, can rescue 24 sailors at a time from a depth up to 610 metre after “mating” with a stricken vessel’s hatch.

At present, Indian sailors only bank upon “submarine escape pressurized suits”, or the help of diving support ships like INS Nireekshak, but they can be used only for relatively shallow depths.

Navy’s endeavour to procure two DSRVs of its own, for just about Rs 1,000 crore, has been stuck in the doldrums for well over a decade now. As “an interim measure” in 1997, India had inked the contract with US Navy for its “global submarine rescue fly-away kit” service, paying an initial \$734,443 for it.

But the agreement also got derailed due to the post-Pokhran-II sanctions in 1998. It was later revived in 2004, but there has been a huge delay in setting up the requisite infrastructure needed for it.

This also included fitting of “Padeyes” — holding devices welded into submarine escape hatches to secure the DSRV — on Indian submarines. The US rescue system will be transported to India within 72 hours of an emergency.



**Submarine Memorabilia, Inc.**

**Bringing You:**

- U.S. Submarine WWII War Patrol Reports
- Silent Service Episodes
- Navy Log Episodes
- Hit Submarine Movies (over 100 years of)

[www.ussealion.com](http://www.ussealion.com)  
email: [webmaster@ussealion.com](mailto:webmaster@ussealion.com)

Proper submarine rescue facilities are critical for India since it has an ageing fleet of 14 diesel-electric submarines — 10 Russian ‘Kilo’ class and four German HDW ones — apart from the nuclear-powered INS Chakra leased from Russia earlier this year. There are also six French Scorpene submarines, being constructed at Mazagon Docks under the Rs 23,562 crore ‘Project-75’, slated for delivery in 2015-2020, three years behind schedule.

### Iran Weighs Tougher Line In Stalled Nuclear Talks

*Associated Press, Oct. 24*

**TEHRAN, Iran** — Iran is weighing a more confrontational strategy at possible renewed nuclear talks with world powers, threatening to boost levels of uranium enrichment unless the West makes clear concessions to ease sanctions.

Such a gambit - outlined by senior Iranian officials in interviews this week - could push Iran’s nuclear program far closer to the “red line” set by Israeli Prime Minister Benjamin Netanyahu for possible military options.

But it also suggests that economic pressures and diplomacy have pushed Iran to the point of considering an ultimatum-style end game in efforts to seek relief from the U.S. and European sanctions, which have targeted Iran’s vital oil exports and its ability to use international banking networks.

Mansour Haghghatpour, deputy head of Iran’s influential National Security Committee in parliament, told The Associated Press that the hardline negotiating formula under consideration would put Western negotiators on notice that failure to ease sanctions could open the way for uranium enrichment above 20 percent - currently the highest level acknowledged by the Islamic Republic.

That would mark a dramatic move toward the threshold for warhead-grade material at about 90 percent and certainly bring a sharp escalation in calls for military action from Israel and others in the West. Iran denies it seeks nuclear weapons, but there have been suggestions it could ramp up uranium enrichment for future projects such as nuclear-powered submarines.

“The West now has a chance to strike a deal with Iran,” Haghghatpour told the AP in an interview. “Perhaps we may need to produce nuclear fuel for large commercial vessels that need 60 percent purity.”

There are no immediate plans to resume nuclear talks between Iran and a six-nation group including both Tehran’s foes and allies: the permanent U.N. Security Council members plus Germany. Full-scale negotiations have been on hold since the last round ended in stalemate in June.

At the time, the West stuck to its major demands: Iran must stop enriching uranium to 20 percent purity, shut down its underground Fordo enrichment site and ship its 20 percent stockpile out of the country. In return, Iran was offered civilian plane spare parts and 20 percent-enriched nuclear fuel for its medical research reactor in Tehran.

But there was no move to ease sanctions - which have grown even tighter since the last negotiating session.

To Iran, the proposed package was a nonstarter. Many compared it to swapping diamonds in return for peanuts.

So far, Iran has publicly repeated its positions that it was willing to bargain over 20 percent enrichment as part of step-by-step moves to lift sanctions. Iran also wants an international pledge that it has the “right” to make its own nuclear fuel - at least at lower levels for its energy-producing reactor.

The tougher line outlined by officials has not been made public, and it’s still unclear whether it will be adopted as a negotiating position. But the fact it’s under review suggests Iran is eager for a sweeping deal to lift sanctions and could try to jolt the West with a now-or-never choice: Roll back the sanctions or face a stepped up Iranian nuclear program.

“The West feels sanctions are biting and this is forcing Iran to return to the negotiating table. That’s wrong. We never left the table.

Sanctions have been harmful but will never make us give up our nuclear activities,” said lawmaker Hossein Naqavi, spokesman for the parliament’s Security Committee. “Pressures, sanctions and military threats won’t make us retreat.”

The White House has indicated it would be receptive to landmark one-on-one talks with Iran in parallel with the wider diplomatic process. Iranian officials this week said the country had no plans to meet directly with Washington envoys. On Sunday, Iranian

Foreign Minister Ali Akbar Salehi predicted the stalled talks with world powers could resume as late November, after the U.S. presidential election.

Haghghatpour, the security committee official, said Iran would have never increased the level of its uranium enrichment from 3.5 percent to 20 percent if the West had provided fuel for the research reactor, which produces isotopes to treat cancer patients.

“Some 850,000 Iranian patients need nuclear medicine every year. We wanted fuel for our research reactor but the West refused.

We had no option but to increase enrichment to 20 percent and make it ourselves,” he said. “It’s the same today. They can reach a deal with us now or face a new situation.”

Many Iranian lawmakers and conservative clerics have said in recent months that Iran should enrich uranium to higher levels

**Juanita J. Mangels**  
 CA DRE# 00350008  
 (619) 670-0121  
 rltrbigred@cox.net

**Shari Davis**  
 CA DRE# 01334834  
 (619) 981-1555  
 fax (619) 956-7008  
 SD4Realty@gmail.com

**KELLER WILLIAMS**  
 REALTY  
 BROKER ASSOCIATES  
 www.HomeDreams4Sale.com



for proposed vessels such as nuclear-powered oil tankers. Iran currently has no such ships.

Nuclear-powered vessels other than warships are rare, and the International Atomic Energy Agency has said in the past that nuclear-powered merchant ships would be uneconomical.

But Iran's deputy navy chief in charge of technical affairs, Adm. Abbas Zamini, said in June that Iran has begun "initial stages" of designing a nuclear submarine. The West has raised concerns that Iran might cite submarine and other nuclear-powered vessel construction as a justification for producing weapons-grade 90 percent enriched uranium.

Nuclear submarines are powered by fuel ranging from 20 percent purity to more than 90 percent. Many U.S. submarines use nuclear fuel enriched to more than 90 percent, the same level used to build atomic bombs.

### **UUVs Charting Success With U.S. Navy**

*Aviation Week, Oct. 24*

Unmanned undersea vehicles (UUVs) are making a big splash with the U.S. Navy, and the brass expects to incorporate even more of the vehicles into its fleet for years to come.

"We are seeing an explosion of undersea vehicles," says Vice Adm. William Burke, deputy chief of naval operations for warfare systems. "We are looking at UUVs from RHIBs [rigid-hull inflatable boats], LCS [Littoral Combat Ships], aircraft, helicopters — all sorts of different platforms."

The UUVs are not only changing the way the Navy performs those specific missions, but enabling the service to consolidate different types and classes of ships and free up vessels for other missions, Burke said Oct. 22 at the Office of Naval Research (ONR) Naval Science and Technology Partnership Conference in Arlington, Va.

Lawrence Schuette, director of the ONR Directorate of Innovation, says the Navy now is looking for the "Holy Grail" — enabling UUVs and other unmanned or autonomous platforms to "recognize" unfamiliar environments and perform different missions within them.

"What I'm proud of is the work we've done with minewarfare with UUVs," Schuette says.

Another UUV specifically cited by Schuette is the ONR-led effort to develop a robotic vehicle that can clean hulls and check them for problems.

Schuette and Burke agree it is more than just UUV and related unmanned systems technology that the Navy is seeking. The service also is looking to invest in autonomous ship operating equipment and systems that can prolong vessel life and cut down on life cycle costs. For example, the Navy is hunting for ways to save money over the long haul for its ballistic missile submarine (SSBN) fleet.

"We are potentially willing to pay more up front to save in the future," Burke says.

Developing more unmanned or autonomous systems is presenting challenges beyond new technology. "It's a different logistics train," Burke says. "We have to figure out what are the weak links, so we can get the right amount of spare parts."

Testing is another hurdle, he says. Researchers and testers have to imagine how the equipment will react in certain situations.

### **Defence urged to lease US subs**

*The Australian, Oct. 24*

AUSTRALIA should lease nuclear submarines from the US instead of building a fleet of new conventional submarines, says a report from a conservative think tank.

The Centre for Independent Studies report released today says Virginia-class nuclear attack submarines would be bigger than any conventional submarine Australia could buy or build, so they could carry more weapons and equipment, travel much faster, and cover immense distances without needing to be refuelled.

Report author Simon Cowan, a research fellow at the centre, says in the report that the government's promised Future Submarine Project is a risky proposition. "The government is ignoring submarines that offer better value for money," he says.

"Australia needs world-class submarines and the US Virginia-class looks like the best option.

"Nuclear-powered submarines are superior in almost every way to diesel-powered submarines — they can travel further, faster and stay deployed for longer, and they have more powerful weapons, systems and sensors."

Mr Cowan notes that the safety record of the US Virginia-class subs is flawless. "These subs don't carry nuclear weapons and never need refuelling and if Australia leases them from the US, the US could dispose of spent nuclear material," he says.

"While establishing an Australian nuclear program would have its challenges, leasing eight Virginia-class submarines is a capable, reliable and safe option for our naval servicemen and women.

"Australia could also save more than \$10 billion by leasing eight Virginia-class submarines and up to \$750 million a year on operational and maintenance costs as well."

Professor Paul Dibb, a former senior Defence official, is one of many who have warned against Australia buying a nuclear submarine. He said yesterday that Australia's lack of a civil or military nuclear industry would make it completely dependent on a foreign power to maintain a nuclear submarine fleet.

He warned that relying on even as close an ally as the US to that extent would remove much of Australia's sovereignty over such a powerful weapon.

**Britain Eyes More 'Smart Defense' Deals With U.S.-Official***Reuters, Oct. 23*

**WASHINGTON** — Britain, already the largest foreign supplier of defense equipment to the United States, sees opportunities for the two allies to expand cooperation on weapons programs in coming years as mounting budget pressures strain military coffers, said an official at Britain's trade and investment office.

British trade and security officials are leading a delegation of more than 20 UK firms participating in a major U.S. Army trade show in Washington this week.

They are also scheduled to meet with Pentagon officials for talks on expanding defense trade between the two countries after a bilateral defense trade treaty that was signed in 2007 but only entered into force in April.

Geoff Gladding, regional director for defense and security sales in Europe and the Americas at Britain's trade and investment office, said it made sense to join forces on development of new weapons, given tighter budgets.

Britain and other European countries have already cut their military budgets sharply while the Pentagon's proposed budget is slated to be cut by \$487 billion over the next decade - with another \$500 billion in cuts looming unless lawmakers find other ways to reduce the federal deficit.

Gladding said bilateral cooperation on arms programs were underscored by NATO's new "smart defense" policy, which encourages greater cooperation among alliance members to give members access to weapons they could not afford on their own.

"Everybody's challenges are very similar," Gladding told Reuters on the sidelines of the annual conference of the Association of the U.S. Army. "It just absolutely screams out to us that there are things we can do jointly to ... deliver the kind of capability that our armed forces need."

Gladding said his office was in active discussions with U.S. Army officials and others about Britain's Brimstone missile air-to-ground missile program, built by MBDA, which is owned by Franco-German aerospace group EADS, Britain's BAE Systems and Finmeccanica of Italy.

Given close ties between the two nations, and the success of the Brimstone missile system in the joint Libyan operation last year, Washington could find it advantageous to buy the British missiles rather than develop its own separate system, he said.

"We're having a dialogue about whether this could be the kind of program that the U.S. might be able to take advantage of," he said.

The Pentagon's own efforts to develop a new air-to-ground missile has run into some problems. The Joint Common Missile program was cancelled in 2005, but was later revived as the Joint Air-Ground Missile, but that program's future is in doubt amid escalating budget pressures and affordability concerns.

Lockheed Martin Corp and Raytheon Co are working on technology development contracts on the U.S. program.

Gladding said one option might be for MBDA to partner with a U.S. company to offer the Brimstone missile to the U.S. military, citing what he called "definite interest" by U.S. officials in the British missile program.

The Hawk single-engine advanced jet trainer aircraft developed by BAE Systems might also be a good fit for the U.S. Air Force, he said, noting Washington could save money by using a plane was already available rather than developing a new one.

British firms are also exhibiting innovative solutions to deal with roadside bombs at the trade show, Gladding said, citing that area as another ripe for possible cooperation.

Britain and the United States are already working together on a next-generation submarine to deliver nuclear weapons, and Britain's expertise in providing security - underscored during the recent Olympic Games - was another fertile area, he said.

Gladding said he would also meet with Pentagon officials to discuss the U.S.-UK defense trade treaty, noting that Britain needed to do more to encourage UK firms to get involved.

The treaty, the first of its kind, is intended to ease exports of weapons between the two countries by reducing the need for export licenses and other U.S. government approvals.

The treaty creates "approved communities" of government agencies and companies that may export and transfer certain U.S. items to pre-approved buyers within the United States and United Kingdom and to locations where military operations are being conducted or supported, according to the State Department.

So far, only 10 British companies have signed up, but London is trying to increase the number by publicizing the treaty more, said Tracy Buckingham, assistant director for North America and Northern Europe at the British trade agency.

Britain accounts for 70 percent of global defense exports to the United States, and British companies have significant roles on big U.S. weapons programs like the F-35 Joint Strike Fighter built by Lockheed Martin and the M777 Howitzer.

**Navy's Top Geek Says Laser Arsenal Is Just Two Years Away***Danger Room (Wired), Oct. 22*

Never mind looming defense cuts or residual technical challenges. The Navy's chief futurist is pushing up the anticipated date for when Sailors can expect to use laser weapons on the decks of their ships, and raising expectations for robotic submarines.

“On directed energy” — the term for the Navy’s laser cannons, “I’d say two years,” Rear Adm. Matthew Klunder, the chief of the Office of Naval Research, told Danger Room in a Monday interview. The previous estimate, which came from Klunder’s laser technicians earlier this year, was that it will take four years at the earliest for a laser gun to come aboard.

“We’re well past physics,” Klunder said, echoing a mantra for the Office of Naval Research’s laser specialists. Now, the questions surrounding a weapon once thought to be purely science fiction sound almost pedestrian. “We’re just going through the integration efforts,” Klunder continued. “Hopefully, that tells you we’re well mature, and we’re ready to put these on naval ships.”

Klunder isn’t worried about the ships generating sufficient energy to fill the laser gun’s magazine, which has been an engineering concern of the Navy’s for years. “I’ve got the power,” said Klunder, who spoke during the Office of Naval Research’s biennial science and technology conference. “I just need to know on this ship, this particular naval vessel, what are the power requirements, and how do I integrate that directed energy system or railgun system.”

That’s a relief for the Navy. It means that the Navy’s future ships probably won’t have to make captains choose between maneuvering their ships and firing their laser weapons out of fear they’d overload their power supplies.

But shipboard testing is underway. Klunder wouldn’t elaborate, but he said that there have been “very successful” tests placing laser weapons on board a ship. That’s not to say the first order of business for naval laser weaponry will be all that taxing: In their early stages, Pentagon officials talk about using lasers to shoot down drones or enable better sensing. Klunder alluded to recent tests in which the Navy’s lasers brought drones down, although he declined to elaborate.

Then come the unmanned submarines. Current, commercially available drone subs typically swim for several days at a time, according to Frank Herr, an Office of Naval Research department head who works on so-called unmanned underwater vehicles, or UUVs. That’s way behind the capabilities that successive Navy leaders want: crossing entire oceans without needing to refuel. So Klunder wants to raise the bar.

“The propulsion systems that I think you’re going to see within a year are going to [give] a UUV with over 30 days of endurance,” Klunder said. By 2016, a prototype drone sub for the office’s Long Duration Unmanned Underwater Vehicle program should be able to spend 60 days underwater at a time: “That’s ahead of schedule of what we told the secretary of the Navy a year ago.”

That’s a challenge for the subs’ propulsion and fuel systems. Typically, Herr explains, the commercially available batteries built into prototype drone subs take up a lot of the ship; but building bigger subs just increases the need for power. The nut that the Office of Naval Research has to crack is using more efficient fuel cells while designing subs that don’t need as much energy to run. “We’re thinking about power requirements for these systems as well as the power [sources] available for them,” Herr says.

“The breakthrough,” Klunder explains, “was really on getting past your more traditional lead-acid battery pieces to more technically robust but also mature lithium ion fuel cell technology and the hybrids of that.” None of that is to say the lasers will be actually on board by 2014 or the drone subs will disappear beneath the waves for 60 days by 2016. That depends in part on the Navy’s ability to afford it — and at the conference this morning, Adm. Mark Ferguson, the Navy’s vice chief, warned that “research and development is part of that reduction” in defense budgets currently scheduled to take effect in January. But it might not be long before Klunder is finally able to hand over a battle-ready laser cannon to Big Navy.

## **Connor: Navy Must Rebuild Torpedo Inventory And Increase Range**

### **Modular torpedo sought**

*Inside Defense, Oct. 19*

The Navy needs to rebuild its torpedo inventory and extend the range of its torpedoes because the service can detect targets at a greater range due to improved technology, according to the submarine forces commander.

Combatant commanders continue to assign more targets to the submarine force due to the fleet’s ability to reach them, and technology could further improve a torpedo’s range, Vice Adm. Michael Connor said Oct. 17 at the Naval Submarine League’s annual symposium in Falls Church, VA.

Connor said existing internal navigation technology can aid the torpedo in reaching long-range targets as long as the service is willing to compromise a little bit of top-end speed.

“First off, we must rebuild that [torpedo] inventory and we also need to extend the range in which we target critical targets and the range of our current torpedos,” he explained.

In the future, the service hopes to design a modular torpedo. However, Rear Adm. Barry Bruner, undersea warfare division director, said during the symposium it is tough to start a new program in the fiscal environment.

A modular torpedo could allow the service to add a larger or smaller engine to allow the torpedo to travel at a faster or slower rate, Bruner said.

Another possibility is setting a mode in the torpedo so that it can become a mine, Connor said.

“Our torpedoes need to function more or less in a mine mode,” he explained. “We’re doing some work looking at what precise navigation is available.”

Another possibility is developing a mine variant that could be implemented on some torpedoes, Rear Adm. Frank Caldwell, Pacific submarine force commander, said during the symposium.

The Navy could modify hardware and software on the service’s current torpedoes, but right now that is too expensive, Bruner said.

The Navy has not built a torpedo in 16 years, and the service recently released a request for information to determine what its options are for increasing its Mark 48 torpedo inventory by restarting the program.

“The Mark 48 [all-up-round] torpedo is a high-performance, self-propelled underwater vehicle that contains complex electronic and mechanical subassembly systems for providing propulsion, steering, navigation, and target detection,” the Sept. 26 RFI reads. “The system technologies include acoustic sonar, guidance and control electronics, electrical power, hydraulic systems, mechanical pumps and propulsion.”

The Mark 48 torpedo is the Navy’s primary launched anti-submarine and anti-surface warfare weapon. It is the submarine force’s only torpedo and is used aboard all classes of submarines.

“One concept is to have industry provide us individual parts and sections and then have the government put it together and deliver an all-up-round weapon,” Rear Adm. David Johnson, program executive officer for submarines, said during the symposium.

Johnson pointed out that the warhead could be replaced with another payload or a propulsion system to give the service a truly modular torpedo.

The Navy expects to award one or more contracts in the second half of fiscal year 2015 to increase its torpedo inventory, the RFI states.

### **Officials: Sub-Launched Missiles, UUVs Must Undergo Dynamic Changes ULRM at-sea testing this summer**

*Inside Defense, Oct. 19*

The most dynamic change for the submarine fleet must take place with sub-launched missiles — an area where the Navy will find the greatest return on investment — and unmanned underwater vehicles must take on a greater role, several officials said last week.

As the Navy shifts from fighting on land in two countries to operating in a dispersed area, missiles will come to the forefront, and the service’s sub-launched missiles must evolve so the Navy can influence a larger area at sea, Vice Adm. Mike Connor, submarine forces commander, said Oct. 17 during the Naval Submarine League’s annual symposium in Falls Church, VA.

“In order to be flexible across the mission set, we must have a single missile that has credible capability against both land and sea targets,” he explained.

Further, the force needs unmanned underwater vehicles to have an edge on its adversaries. The Navy will need to look at the degree that the service can use UUVs with sensing, attacking and deceiving those adversaries, Connor stated.

“Unmanned vehicles might be used to ensure and sustain our access,” Rear Adm. Frank Caldwell, Pacific submarine forces commander, said during the symposium. “They might also be used to remove enemy safe havens.”

The Navy is testing Lockheed Martin’s Marlin UUV for an universal launch and recovery module (ULRM) at-sea demonstration this summer.

“If this all works out, we will be able to more readily integrate off-board sensors with our four SSGNs and our Block III [Virginia-class attack submarines], making them even more capable than they are now,” Rear Adm. David Johnson, program executive officer for submarines, said during the symposium.

With a large-diameter tube, the service will have the ability to operate without a dry deck shelter to launch and recover UUVs, Rear Adm. Barry Bruner, undersea warfare division director, said during the symposium.

Another Navy payload that must evolve are sensors. Connor compared this to an evolution that happened about 20 years ago with carry-on acoustic gear, which led to the development of the acoustic rapid commercial off-the-shelf (COTS) insertion program.

“I contend that the current state of the world dictates that we evolve to something that we would call the electronic warfare rapid COTS insertion program,” he added.

Also, in the electronic warfare area, Caldwell said there needs to be more tools to assess the threat for the operators.





# SUBVETS ANNUAL CHRISTMAS PARTY

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

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

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

## **Ex-Worker Pleads Guilty To Setting Fire On Submarine**

*By David Sharp, The Associated Press, Nov 9, 2012*

PORTLAND, Maine - A former shipyard worker who set a fire that caused about \$450 million in damage to a nuclear-powered submarine pleaded guilty Thursday under an agreement that could send him to prison for nearly 20 years.

Casey James Fury admitted setting the fire inside the sub on May 23, as well as a second fire outside the sub on June 16. The defense and prosecutors agreed to recommend a sentence that ranges roughly between 15 years and 19 years.

The Naval Criminal Investigative Service said Fury, a painter and sandblaster, confessed to setting the fires to get out of work. Fury, 24, formerly of Portsmouth, N.H., pleaded guilty to two counts of arson in U.S. District Court.

Fury's attorney, David Beneman, said he expected sentencing would be in March. He declined to discuss the plea agreement.

It took more than 100 firefighters to save the submarine Miami after the fire quickly spread through forward compartments while the sub was in dry dock at Portsmouth Naval Shipyard in Kittery, Maine. Seven people were hurt while putting it out, the Navy has said.

The Navy intends to repair the Los Angeles-class attack sub, which is based in Groton, Conn., with a goal of returning it to sea in 2015.

Federal prosecutors said the plea agreement takes into account a number of factors, including Fury's lack of a criminal record and the fact he probably never envisioned such catastrophic damage when he set a small fire on a bunk, as well as the seriousness of the crime and the extensive damage to the submarine.

U.S. District Judge George Singal isn't bound by the plea agreement. But if he imposes a sentence greater than 235 months (about 19-1/2 years), then Fury would be allowed to withdraw his guilty pleas.

The fire caused heavy damage to forward compartments including living quarters, a command and control center, and the torpedo room. It did not reach the rear of the submarine, where the nuclear propulsion components are located. All weapons had been removed from the submarine during the overhaul.

Two crew members, three shipyard firefighters and two civilian firefighters were hurt as they fought the blaze, the Navy said.

U.S. Attorney Thomas Delahanty II said the firefighters and the submarine crew were put in a dangerous situation, with heavy smoke and extreme heat. "There were physical and emotional injuries to... first-responders who risked their lives going into what had to be the equivalent of a roaring blast furnace," he told reporters at a news conference.

Fury told the NCIS that he set the fires because he was feeling anxiety and wanted to go home, according to prosecutors. The second fire, on June 16, was set outside the submarine and was quickly doused with no damage.

The submarine was undergoing a 20-month overhaul, and about 50 sailors and shipyard workers were onboard when the first fire started.

The damage was so severe that there was speculation that the sub would have to be scrapped. But the Navy said its tests indicated the fire didn't damage the hull, which must withstand extreme pressure as the vessel travels deep underwater. An earlier estimate put the damage to the 22-year-old submarine at \$400 million. Navy Adm. Jonathan Greenert, chief of naval operations, said the Navy is confident the Miami can be returned to service for \$450 million, plus or minus \$50 million.

### **China Able To Launch N-Arms From Subs 'In Two Years'**

*Reuters, Nov 9, 2012*

WASHINGTON/BEIJING - China appears to be within two years of deploying submarine-launched nuclear weapons, adding a new leg to its nuclear arsenal, a draft report by a congressionally mandated US commission says.

China is alone among the original nuclear-weapons states to be expanding its nuclear forces, the US-China Economic and Security Review Commission says in a draft of its 2012 report to the US Congress.

The others are the United States, Russia, Britain and France.

This came as President Hu Jintao told the Communist Party congress yesterday that Beijing should "resolutely safeguard China's maritime rights and interests, and build China into a maritime power".

China has been skirmishing with Japan and other Asian neighbours over a slew of territorial disputes, and flexing its growing military muscles to the disquiet of the US.

Beijing is "on the cusp of attaining a credible nuclear triad of land-based intercontinental ballistic missiles, submarine-launched ballistic missiles, and air-dropped nuclear bombs", the report says.

China has had a largely symbolic ballistic-missile submarine capability for decades but is only now set to establish a "near-continuous at-sea strategic deterrent", the draft says.

Mr Hu has made it a priority to modernise the country's navy.

China has launched its first aircraft carrier in September.

The deployment of a hard-to-track, submarine-launched leg of China's nuclear arsenal could have significant consequences in East Asia and beyond. It also could add to tensions between the US and China.

Any Chinese effort to ensure a retaliatory capability against a US nuclear strike "would necessarily affect Indian and Russian perceptions about the potency of their own deterrent capabilities vis-a-vis China", the report says.

China is party to many major international pacts and regimes regarding nuclear weapons and materials.

But it remains outside of key arms limitation-and-control conventions, such as the New Strategic Arms Reduction Treaty signed in April 2010 and the 1987 Intermediate-Range Nuclear Forces Treaty. The US historically has approached these bilaterally with Russia.

China is estimated by the Arms Control Association, a private non-partisan group in Washington, to have 240 nuclear warheads.

The US, by contrast, has some 5,113.

### **Beijing Eyes South China Sea As Haven For Submarines**

*By Jaime Laude (philstar.com), Nov 8, 2012*

MANILA, Philippines - Beijing is trying to turn the South China Sea into a safe haven for its nuclear-powered submarines which are armed with ballistic missiles that can reach the United States (US), a former commander of the Japan's Maritime Self-Defense Force's anti-submarine air-wing said in a published report.

Former Rear Admiral Sumihiko Kawamura, was also quoted by The Japan Times that China needs to establish control of the Senkaku, Diaoyu to the Chinese, for a strategic location serving as northern gateway to the South China Sea for the Pacific operations.

"Beijing has a more critical but less-articulated goal that, if achieved, could tip strategic military superiority from the United States to China in the Pacific," Kawamura said.

Giving its current military capabilities, Beijing's viable option to maintain a strong nuclear deterrent against the US is its submarine-launched ballistic missiles (SLBMs).

This is because the US has already identified all of China's Intercontinental Ballistic Missiles (ICBMs) silos and could easily destroy them in a pre-emptive nuclear strike, the former Japanese antisubmarine air wing commander said.

If Beijing maintains a second-strike capability with SLMBs that can reach the US mainland, this risk would possibly dissuade the US from intervening in a major conflict involving China, the Japan Times quoted Kawamura, who was also the former principal of Joint Staff College of the Self-Defense Forces.

“This is just the beginning. Even if it takes 100 years, Beijing will try to seize the islands to turn the South China Sea into a safe haven for its missile subs,” he said.

But he stressed that Japan and the US have the capabilities to contain China’s submarines within or those that are coming from the South China Sea, which is partially enclosed by Taiwan, the Philippines, Malaysia and Vietnam.

“The Maritime Self Defense Force’s non-nuclear ‘ultraquiet’ submarines, working together with the US Navy, can find, track and even sink any Chinese submarines that tries to enter the Pacific Ocean by crossing anywhere along a sea line that runs from the Japanese main islands to the Philippines via Okinawa and Taiwan,” Kawamura said.

The Chinese Navy calls the line the First Island Chain, given its strategic importance.

### **US Navy Faces \$12 Billion in Possible Budget Cuts**

*Ed Friedrich, Kitsap Sun, Nov. 6, 2012*

The Navy stands to lose \$12 billion next year in across-the-board cuts if Congress can’t agree to a deficit-reduction plan by the end of the year.

Adm. Mark Ferguson, vice chief of naval operations, wrote Sept. 23 that the reductions, through a mechanism called sequestration, would mean fewer flying hours for Navy aircrews, fewer training days for ships and submarines, and less fleet maintenance.

“Potential cuts or reductions beyond those already taken in this year’s proposed budget will result over time in a smaller force with less presence, longer response times and reduced ability to provide surge forces in support of our major war plans and other emergent needs,” Ferguson, the second highest-ranking officer in the Navy, wrote in a blog post summarizing remarks he made before the House Armed Services Committee.

Ferguson said there would be “difficult choices” regarding fleet maintenance, ship purchases and base support services.

The Department of Defense will lose \$487 billion over the next 10 years as part of the Budget Control Act of 2011 that seeks to harness a \$17 trillion national debt. Sequestration would add \$500 million on top of the \$487 billion.

Sequestration was never meant to be implemented. It was intended to scare the congressional Joint Select Committee on Deficit Reduction into proposing how to reduce the deficit by \$1.2 trillion, but the Republicans and Democrats couldn’t reach a compromise.

The president was required to submit a report to Congress on potential sequestration cuts. The White House Office of Management and Budget released the report Sept. 14. It breaks down what accounts are exempt and nonexempt, and estimates required funding reductions.

Sequestration would result in a 9.4 percent reduction in defense funding, the report says. The president specifically exempted veterans and personnel accounts from cuts.

“The report leaves no question that the sequestration would be deeply destructive to national security,” it reads.

“While the Department of Defense would be able to shift funds to ensure war fighting and critical military readiness capabilities were not degraded, sequestration would result in a reduction in readiness of many nondeployed units, delays in investments in new equipment and facilities, cutbacks in equipment repairs, declines in military research and development efforts, and reductions in base services for military families,” the report states.

The Navy’s largest sequestration cuts in fiscal year 2013 would be \$4.3 billion for operations and maintenance, \$2.2 billion to buy aircraft, \$2.1 billion to build ships and \$1.8 billion for research and development.

Total military cuts next year would be \$54.7 billion, according to the 394-page report.

Many, including the military, which hasn’t begun planning for the cuts, don’t believe sequestration will happen. President Barack Obama said in a presidential debate that it won’t. The OMB instructed agencies in July to continue normal spending and operations. But Congress, which is on a seven-week break for the November elections, won’t be returning to work until the week of Nov. 10 and will have only a short time to reach a deal before the end of the year.

Ferguson, the vice chief, said Oct. 22 that the Navy will start planning for across-the-board sequestration cuts in late November or early December if Congress hasn’t acted. They would go into effect on Jan. 2. Spending will continue normally until then, at which time cuts would hit each account evenly. He said there’s little planning that can be done.

Mary Anne Mascianica, spokeswoman for Puget Sound Naval Shipyard and Intermediate Maintenance Facility, said the command hasn’t received any guidance from headquarters about dealing with sequestration. Neither has Navy Region Northwest, said spokesman Sean Hughes.

“We’re all working to the budgets we know,” he said. “They’ve been established for fiscal year ’13 and we’re looking at ’14 as we understand it now.”

U.S. Rep. Norm Dicks, D-Belfair, said he’s going to stop sequestration if it’s the last thing he does, in Washington, D.C. He’s retiring at the end of the year after 36 years in the job.

“This is kind of my last hurrah,” he said. “I’m doing everything I can to try to work with Democrats and Republicans to see how we avoid this thing.”

There's bipartisan agreement that sequestration would be a catastrophic mistake, Dicks said, but there's a problem with them agreeing how to avoid it. The Congressional Budget Office has said sequestration would send the country back into recession, Dicks said.

The Center for Security Policy, a nonprofit, nonpartisan national security organization, released a report Oct. 8 showing estimated local economic impacts from defense budget cuts under sequestration. It listed cuts by contracting office and by product or service.

Work and services contracted out of Kitsap County in fiscal year 2011 totaled \$708.7 million, according to the report. A 9 percent sequestration cut would be \$63.8 million. The largest reductions would be to Engineering Field Activity (\$28.0 million), Puget Sound Naval Shipyard and Intermediate Maintenance Facility (\$10.8 million), Fleet Industrial Supply Center Puget Sound (\$5.3 million) and Naval Undersea Warfare Center (\$3.7 million).

The major types of work would be non-nuclear ship repair (\$10.1 million), facilities operations support services (\$6.4 million), aircraft carriers (\$2.7 million) and architect-engineering services (\$2.6 million).

Guy Stitt, president of AMI International, a Bremerton-based naval market analysis and advisory firm, said the military cuts could result in the loss of half a million jobs, including PSNS & IMF workers. An inability to keep up on maintenance could affect deployment schedules.

"Right now we have an operating tempo in our submarine force that's really high," he said. "To cut back on maintenance for them right now would be very rough."

Submarine procurement could be canceled, and the replacement of Trident ballistic missile subs delayed. There's also a psychological effect.

"What does this tell our military leadership and our troops, that we as national leaders don't have the respect for what they're doing to give them a defense budget," he said. "This is a slap in the face of our military that this is the process they're going to take to save money because they can't meet in the middle, they can't find consensus."

### **U.S. Brass Reviews Prompt Global Strike, Mulling Submarine-Fired Arms**

*By Elaine M. Grossman, Global Security Newswire, Nov 6, 2012*

WASHINGTON — It may be Election Day across the United States but, at the Pentagon, some top military minds are focused elsewhere. The Defense Department's highest-level review panel for warfighting concepts on Tuesday is slated to assess how to proceed on developing conventional weapons capable of attacking targets halfway around the world on short notice, Global Security Newswire has learned.

The Joint Requirements Oversight Council — which is chaired by the vice chairman of the Joint Chiefs of Staff and includes the No. 2 officers from each of the four military services — will meet to discuss the "way forward" for conventional prompt global strike, Joint Staff spokesman Lt. Col. Larry Porter confirmed.

The high-level panel has the authority to approve or alter Pentagon plans for the types of combat and support capabilities needed in coming years.

In this instance, the Defense Department is seeking a non-nuclear ability to hit with less than one hour's notice far-flung, time-sensitive targets. Examples might include a terrorist leader spotted at a temporary hide-out or a rogue adversary preparing to launch a ballistic missile.

As the situation stands, if no U.S. ships, aircraft or drones are stationed nearby to hit an important short-notice threat, the only alternative might be using a long-range nuclear weapon, according to defense officials.

So Pentagon leaders have taken interest in conventionally armed ballistic missiles or maneuverable boost-glide delivery systems that could attack targets worldwide at hypersonic speeds, seeing these as less devastating — and thus more usable — alternatives to nuclear arms against selected targets.

Porter said he could not offer additional details about the agenda for the military deputies' Tuesday meeting.

However, defense sources anticipated that the vice chiefs would discuss whether the Navy could develop a new type of prompt-strike weapon for deployment aboard submarines. Some sources contributed to this article on condition of not being named because they lacked permission to publicly address the sensitive topic.

Among the other prompt-strike weapons under development for achieving non-nuclear strategic effects are an Air Force Conventional Strike Missile with a Hypersonic Technology Vehicle-2 front end that has encountered some setbacks in testing; and an Army Advanced Hypersonic Weapon that military leaders describe as a useful test bed for ground- or sea-launched systems.

Any decisions emerging from the Joint Requirements Oversight Council meeting could significantly affect which technologies move ahead, and it appears to be a good bet that the new missile for Virginia-class vessels will carry the day.

Under the emerging naval concept, revealed by Defense Secretary Leon Panetta early this year, the Navy would begin developing a capacity for the fast-attack submersibles to launch conventionally armed missiles.

Insiders have described the delivery concept as an intermediate-range ballistic missile, possibly featuring a front end that could maneuver into its target in the final stages of flight. As few as two, or as many as 12, such missiles might be carried on the attack submarines, according to sources.

The new idea might yet prove politically controversial amid a congressional ban on building conventional versions of nuclear-armed Trident D-5 ballistic missiles. Lawmakers have voiced concerns that firing a fast-flying missile from a stealthy submarine could



spark dangerous international “ambiguity” in a crisis — if Russia or China, for instance, misinterpreted the launch as a first salvo of a nuclear war.

Navy budget plans indicate that the effort to develop the so-called Virginia Payload Module would cost nearly \$800 million between 2013 and 2017, but no official price tag to complete the program has been released. The Senate Appropriations Committee in August cut all but \$10 million from a \$100 million line item for the Navy project in its mark-up of the fiscal 2013 defense appropriations bill.

The panel called the module effort “early to need,” suggesting it was not yet necessary for military missions.

The Senate committee also questioned whether an estimated expansion of the attack submarine’s size by one-third to install a nearly 94-foot center section to hold missiles might “result in instability to proven submarine design, disruption to a stable production line and add significant cost risk.”

The Senate’s defense appropriations report directed the Pentagon to use the remaining \$10 million “to validate the [Virginia Payload Module] requirement and cost estimate with the Joint Requirements Oversight Council, to ensure the VPM program is subject” to the “rigor” typical of a major defense procurement effort.

At the same time, the Senate panel’s bill added \$90 million to the defense-wide account for Conventional Prompt Global Strike, directing that the funds be used for continuing development of the Army’s Advanced Hypersonic Weapon.

Given that a version of the Army weapon might someday be used as a front end for a future submarine-based prompt global strike missile, the net effect of the Senate actions might prove to be less of a reduction than a rebalancing of priorities, according to some defense sources.

The House fully funded Navy appropriations to develop conventional strike from attack submarines, boosting by \$15 million a \$165.2 million line item for an array of new design features — some unrelated to the payload module — on the Virginia-class boats.

The full Senate has yet to vote on its version of the legislation and the two chambers to date have not resolved differences between their spending bills. Several federal agencies including the Defense Department have been operating since Oct. 1 on monies provided by a fiscal 2013 continuing resolution.

Lawmakers have urged the Pentagon to study whether there might be ways to mitigate the types of crisis-stability concerns raised by equipping ballistic-missile submarines with conventionally armed look-alikes of nuclear-tipped Trident D-5s. They have also encouraged consideration of using ground-based systems instead.

Yet, some nuclear-weapon experts are uncertain whether the proposed new attack capability on Virginia-class submarines might raise similar ambiguity concerns. In fact, a number of observers have begun raising the possibility that virtually any U.S. conventional prompt global strike system could hasten the pre-emptive launch of an adversary nuclear weapon, based on a use-it-or-lose-it logic.

Hans Kristensen of the Federation of American Scientists said early this year that even “a conventional intermediate-range ballistic missile launched from a converted Virginia-class attack submarine could be misinterpreted because its compressed trajectory would look much like a nuclear D-5 launched in a compressed trajectory as part of a first strike.”

Rather than strengthen deterrence, prompt-strike conventional weapons of any kind could push U.S. adversaries “even further toward more prompt-launch capabilities” of their own, he said later at an August symposium. “More trigger-happy postures, if you will, that could in fact weaken deterrence and increase the risk of mistaken, inadvertent or even deliberate escalation.”

The Pentagon “has no plans to adapt a nuclear missile to carry a conventional payload or to use ballistic-missile submarines as delivery systems,” Madelyn Creedon, assistant Defense secretary for global strategic affairs, said at the same panel discussion. “Those systems raise ambiguity that was deemed unacceptable. ... The risk of miscalculation resulting from the ballistic trajectory or [a weapon] that is launched from a ballistic-missile submarine — it’s real.”

Like other Defense officials, though, Creedon appeared increasingly comfortable with a submarine-based solution for prompt global strike, as long as certain precautions are taken.

The Pentagon is mulling two “ways to manage this risk”: One is “to change the trajectory” of a weapon so that it is no longer akin to nuclear-armed ballistic missile flight, and the other is to “change the platform,” Creedon said.

She and Kristensen spoke at a symposium in Omaha, Neb., sponsored by U.S. Strategic Command, which is responsible for any long-range conventional or nuclear combat operations.

“The technical solutions we seek include boost-glide vehicles, which ... have a distinctively nonballistic trajectory for more than 50 percent” of their flight path, Creedon said. “This will significantly reduce the risks that a state — which would have to possess the capability to detect and characterize that attacking missile — would misperceive the attack as a nuclear one, [rather than] conventional.”

She also described what she called “cross-maneuverability,” a capacity for a weapon to change direction repeatedly while in flight. In contrast to a ballistic path to target, which is locked into an inverted-U shaped trajectory, “we may be able to reduce or eliminate overflight concerns” in which Russia or others might worry they are under attack and could launch their own nuclear weapons precipitously.

Technology alternatives to developing conventionally armed ballistic missiles also “can be augmented by policy solutions that incorporate confidence-building [weapon] basing strategies and transparency measures into any deployment of such a system,” Creedon said.

## **Shaky Severodvinsk Nuclear Sub Sets To Sea For Trials – Again**

*By Charles Digges, Bellona.org, Nov 5, 2012*

Russia late last week set the Severodvinsk, the most expensive nuclear submarine it has ever produced, to another round of sea trials in hopes of testing its rickety missile launch systems and seeing if some 2000 other kinks identified in earlier trials have been worked out, Izvestia reported.

The vessel is carrying a crew of 90 and is expected back at port on November 25.

Under construction at the Sevmash shipyard near Arkangelsk for 20 years, the Severodvinsk— designated by the identification number K-329, and the first of the project 885 Yasen Class – the sub was to have been passed to the Russian Navy by in 1998, after first construction began on it in 1993.

Several missed deadlines later, the boat was to be launched in 2010. That was then delayed until 2011 and then 2012. Now, reports in Izvestia, indicate the sub likely will not be ready until summer of 2013.

In this latest round of sea trials, the Severodvinsk will be undergoing winter tests in the Barents Sea, as well as accomplishing deep diving to test the reactor system and ballast tanks, an unnamed naval official told Izvestia.

Most importantly – and perhaps most alarmingly – the submarine will attempt three missile launches to test launch systems that sea trials last autumn, whose results were disclosed over the summer, revealed were untested and outdated, an earlier report from Izvestia indicated.

It remains unclear what kind of missiles the Severodvinsk will be testing, but schematics of the submarine released by the RIA Novosti news agency show it is capable of launching two types of missiles – nuclear capable missiles with a 5,000 kilometer range, as well as anti-ship cruise missiles.

Other reports have said the Severodvinsk is capable of being outfitted with 24 supersonic Onyx anti-ship missiles that can destroy an aircraft carrier in one blow, and 10 torpedo tubes for launching self-guided torpedoes.

The sub is also expected to have an undersea speed of 30 knots and a maximum submersion depth of 600 meters. It is designed to sustain autonomous voyages of up to 100 days.

The price of the submarine, including tests and construction, weighs in at some 70 billion rubles (\$2.2 billion). This puts a heavy strain on Russia's military defense budget, said Bellona's Igor Kudrik, an expert on Russia's nuclear submarine fleet, especially when the Navy is planning on building another seven of the Yasen Class by 2020.

The next scheduled for production in the Yasen line is the Kazan, with an estimated price tag of 110 billion roubles –nearly twice as expensive as the Severdinsk, a naval official told Izvestia. The Kazan is of a different design than the Severodvinsk, thus accounting for the price difference, noted Thomas Nilsen, an expert on Russia's Northern Navel Fleet and editor of the Barents Observer news portal in Kirkenes, Norway. Prices for serial production of the remaining Yasen Class subs are then expected to stabilize at 70 billion roubles.

Why all the firepower?

Russian is jealously guarding its claim on the arctic for many reasons, and over the summer, President Vladimir Putin, in a visit to northern shipyards stumped for submarine protection of enormous untapped oil and gas reserves beneath Arctic waters.

The Northern Sea route is also another source of revenue for Russia, halving the time it takes to transport loads from the West to the Far East that it takes to do so via the Suez Canal.

But Russia clearly has a view to turning the Northern Sea Route into a sort of toll road, with Rosatom insisting that its nuclear icebreaker fleet accompany convoys for rates only slightly less expensive than the Suez route. Increased sub patrols, some in the Russian Navy have suggested, could also offer a sort of sub-sea police service.

“President Putin loves toys with price tags surpassing the size of Russia's wallet. But this is the problem of Russian taxpayers who should draw certain conclusions when they cast their votes,” said Kudrik. “Our concern is planned militarization of the Arctic which not only is not going to make it safer, but pose additional dangers with respect to the environment as well.”

Catalogue of earlier flaws

The Severodvinsk's missile system is not the only concern that has earlier been cited by the navy. Sea trials over the summer revealed the vessel's operation was noisy – which is far from ideal for the stealth conditions under which subs operate – and that the new generation reactor was simply not powerful enough for the sub's water displacement of 13.8 tons.

For comparison, that makes the Severodvinsk twice as large as its biggest US competitor the US Navy's Virginia Class attack submarines, the first of which was commissioned in 2004.

The Severodvinsk, whose blueprints were laid during Soviet times, therefore represents something of a return to large-scale Cold War displays of might – costs be damned.

Navy's deputy commander uneasy

Last week, First Deputy Commander of the Russian Navy, Admiral Igor Kasatonov, expressed concern over the sea trials to the English-language Voice of Russia radio station, saying imperfections remain within the missile launch systems of the Severodvinsk.

He also said that the launch of the strategic nuclear missile submarine, the Yury Dolgoruky, would be delayed as well. Originally scheduled for launch in 2001, the Yury Dolgoruky, the flagship of the Borei Class of project 995, is now scheduled to launch in 2013 as well.

“After years of construction and sea trials, some systems in both subs have significantly deteriorated,” Kasatonov told the radio station, referring to the Severodvinsk and the Yury Dolgoruky.

“The subs cannot be commissioned until all problems of this kind have been fixed.”

Kasatonov reported that the Severodvinsk returned from its autumn sea trials last year with some 2,000 design defects that were identified by the crew. Should all of these defects have been addressed, the submarine can put to sea by 2013, the Barents Observer reported.

When construction for the Yury Dolgoruky began at the Sevmash shipyard in 1996, its building began by taking the four-year-old hull of an Akula Class submarine and adding to it to enlarge it, said the Barents Observer.

The second submarine of the Borei Class of submarines under construction is the Alexander Nevsky – also built on the foundation of an old Akula hull – is expected to be complete by 2014, said the portal.

A total of three Borei Class subs are supposed to be launched by 2015.

High cost of delays

Both the Alexander Nevsky and the Yury Dolgoruky were initially scheduled for deployment in Russia’s Pacific Fleet. Infrastructure construction delays at their prospective Pacific port, however, have changed those plans, said the Barents Observer, noting that at minimum, the Yury Dolgoruky would be stationed temporarily at the Northern Fleet’s Gadzhievo based Northwest of Murmansk.

Kudrik did not expect the new round of sea trials would lead to expedited launch dates, especially for the Severodvinsk, which as the chief representative of a new sub class, is already past its prime.

“Soviet and Russian submarines have always being noisy due to the poor quality of building materials,” said Kudrik. “The reactor plant installed on this submarine is of newer design and it seems to be suffering from not being properly tested. Russian industry has been in shambles ever since the collapse of the Soviet Union and recovery is protracted and painful,” he said, adding, “This new submarine is an example of how bad things are.”

### **Navy, Contractors Have Much To Lose If Automatic Cuts Kick In**

*By Ed Friedrich, Kitsap Sun, Nov 4, 2012*

**BREMERTON** — The Navy stands to lose \$12 billion next year in across-the-board cuts if Congress can’t agree to a deficit-reduction plan by the end of the year.

Adm. Mark Ferguson, vice chief of naval operations, wrote Sept. 23 that the reductions, through a mechanism called sequestration, would mean fewer flying hours for Navy aircrews, fewer training days for ships and submarines, and less fleet maintenance.

“Potential cuts or reductions beyond those already taken in this year’s proposed budget will result over time in a smaller force with less presence, longer response times and reduced ability to provide surge forces in support of our major war plans and other emergent needs,” Ferguson, the second highest-ranking officer in the Navy, wrote in a blog post summarizing remarks he made before the House Armed Services Committee.

Ferguson said there would be “difficult choices” regarding fleet maintenance, ship purchases and base support services.

The Department of Defense will lose \$487 billion over the next 10 years as part of the Budget Control Act of 2011 that seeks to harness a \$17 trillion national debt. Sequestration would add \$500 million on top of the \$487 billion.

Sequestration was never meant to be implemented. It was intended to scare the congressional Joint Select Committee on Deficit Reduction into proposing how to reduce the deficit by \$1.2 trillion, but the Republicans and Democrats couldn’t reach a compromise.

The president was required to submit a report to Congress on potential sequestration cuts. The White House Office of Management and Budget released the report Sept. 14. It breaks down what accounts are exempt and nonexempt, and estimates required funding reductions.

Sequestration would result in a 9.4 percent reduction in defense funding, the report says. The president specifically exempted veterans and personnel accounts from cuts.

“The report leaves no question that the sequestration would be deeply destructive to national security,” it reads.

“While the Department of Defense would be able to shift funds to ensure war fighting and critical military readiness capabilities were not degraded, sequestration would result in a reduction in readiness of many nondeployed units, delays in investments in new equipment and facilities, cutbacks in equipment repairs, declines in military research and development efforts, and reductions in base services for military families,” the report states.

The Navy’s largest sequestration cuts in fiscal year 2013 would be \$4.3 billion for operations and maintenance, \$2.2 billion to buy aircraft, \$2.1 billion to build ships and \$1.8 billion for research and development.

Total military cuts next year would be \$54.7 billion, according to the 394-page report.

Many, including the military, which hasn’t begun planning for the cuts, don’t believe sequestration will happen. President Barack Obama said in a presidential debate that it won’t. The OMB instructed agencies in July to continue normal spending and operations. But Congress, which is on a seven-week break for the November elections, won’t be returning to work until the week of Nov. 10 and will have only a short time to reach a deal before the end of the year.

Ferguson, the vice chief, said Oct. 22 that the Navy will start planning for across-the-board sequestration cuts in late November or early December if Congress hasn't acted. They would go into effect on Jan. 2. Spending will continue normally until then, at which time cuts would hit each account evenly. He said there's little planning that can be done.

Mary Anne Mascianica, spokeswoman for Puget Sound Naval Shipyard and Intermediate Maintenance Facility, said the command hasn't received any guidance from headquarters about dealing with sequestration. Neither has Navy Region Northwest, said spokesman Sean Hughes.

"We're all working to the budgets we know," he said. "They've been established for fiscal year '13 and we're looking at '14 as we understand it now."

U.S. Rep. Norm Dicks, D-Belfair, said he's going to stop sequestration if it's the last thing he does, in Washington, D.C. He's retiring at the end of the year after 36 years in the job.

"This is kind of my last hurrah," he said. "I'm doing everything I can to try to work with Democrats and Republicans to see how we avoid this thing."

There's bipartisan agreement that sequestration would be a catastrophic mistake, Dicks said, but there's a problem with them agreeing how to avoid it. The Congressional Budget Office has said sequestration would send the country back into recession, Dicks said.

The Center for Security Policy, a nonprofit, nonpartisan national security organization, released a report Oct. 8 showing estimated local economic impacts from defense budget cuts under sequestration. It listed cuts by contracting office and by product or service.

Work and services contracted out of Kitsap County in fiscal year 2011 totaled \$708.7 million, according to the report. A 9 percent sequestration cut would be \$63.8 million. The largest reductions would be to Engineering Field Activity (\$28.0 million), Puget Sound Naval Shipyard and Intermediate Maintenance Facility (\$10.8 million), Fleet Industrial Supply Center Puget Sound (\$5.3 million) and Naval Undersea Warfare Center (\$3.7 million).

The major types of work would be non-nuclear ship repair (\$10.1 million), facilities operations support services (\$6.4 million), aircraft carriers (\$2.7 million) and architect-engineering services (\$2.6 million).

Guy Stitt, president of AMI International, a Bremerton-based naval market analysis and advisory firm, said the military cuts could result in the loss of half a million jobs, including PSNS & IMF workers. An inability to keep up on maintenance could affect deployment schedules.

"Right now we have an operating tempo in our submarine force that's really high," he said. "To cut back on maintenance for them right now would be very rough."

Submarine procurement could be canceled, and the replacement of Trident ballistic missile subs delayed. There's also a psychological effect.

"What does this tell our military leadership and our troops, that we as national leaders don't have the respect for what they're doing to give them a defense budget," he said. "This is a slap in the face of our military that this is the process they're going to take to save money because they can't meet in the middle, they can't find consensus."

### **U.K. Lawmakers Eye Basing Submarines At U.S. Port, If Expelled By Scots**

*By Elaine M. Grossman, Global Security Newswire, Oct 31, 2012*

WASHINGTON — A new report issued by a British parliamentary panel suggests that the United Kingdom might consider temporarily basing its nuclear-armed submarines at a U.S. military seaport if Scotland achieves independence and refuses to continue hosting the nation's nuclear arsenal.

Naval Submarine Base Kings Bay, located in southeast Georgia, has been identified as a potential option for absorbing one or more U.K. Vanguard-class vessels; maritime facilities in France are another possible alternative, according to the panel of British legislators.

"Any agreement whether to relocate the U.K. nuclear deterrent outside the British Isles, possibly in France or the USA, would be a decision for the U.K. in discussion with its allies," states the Oct. 25 report, authored by the House of Commons Scottish Affairs Committee.

Four days earlier, Alex Salmond — the first minister of Scotland and head of the Scottish National Party — said he thought London might do well to arrange basing for the Trident D-5 missile-carrying submarines elsewhere in the United Kingdom or even abroad.

The British government "could either relocate Trident to another facility in the rest of the U.K. or, alternatively, they could use the nuclear facilities in America, or in France for that matter," Salmond said on a BBC news show. "Trident is effectively an American weapon."

The parliamentary assessment warns, though, that it "would be very difficult, both logistically and politically," to base the U.K. nuclear force abroad. Defense Secretary Philip Hammond last week said his government is "confident that the Scottish people will choose to remain part of the United Kingdom" and "we have no plans to move the nuclear deterrent from there."



Yet, with the matter as-yet unresolved, the question of how Scottish independence might affect London's deterrence force is beginning to loom. Lawmaker Nick Harvey, a former armed forces minister, said it was "hard to think of any single item that would be larger in [British-Scottish] negotiation."

All four U.K. ballistic missile-armed submarines currently use Faslane on the River Clyde's Gareloch as their home port, while warheads are stored and mated with the missiles at Coulport, eight miles away on Loch Long. The nation maintains one Vanguard submarine on patrol at all times.

Future basing has been thrown into doubt in the run-up to a 2014 Scottish referendum on independence. Salmond has said his organization's long-sought expulsion of nuclear arms from an independent Scotland could be formalized in a new constitution. Earlier this month, the party said an SNP government would "negotiate the speediest safe transition of the nuclear fleet from Faslane."

There are no clear alternative naval facilities in the United Kingdom that offer both deep-water access for military submarines and secure areas for warhead-marrying operations, which must be located a safe distance from industry and population centers, according to some experts.

If secession proceeds, it might be possible for the U.K. government to negotiate a transition plan under which the nuclear-armed submarines could remain stationed temporarily in Scotland. However, it is far from clear if this option would prove politically viable.

"Nuclear weapons in Scotland could be disarmed within days and removed within months," and the submarines that carry them could be banished within two years, according to the parliamentary report.

Salmond last week indicated some interest in imposing on an estranged United Kingdom "curtains for Trident," using the separation as a means of effectively denuclearizing London, possibly for decades.

"We recognize that such speedy action would inevitably create the prospect of unilateral nuclear disarmament being imposed upon the Royal Navy and U.K., since the construction of facilities elsewhere could take upwards of 20 years," stated the committee, comprising seven Scottish and four English members of Parliament. "It is not clear how quickly the U.K. could restore continuous at-sea deterrence."

Committee Chairman Ian Davidson is a Labor Party lawmaker representing southwest Glasgow; his multipartisan panel includes just one member of the Scottish National Party.

The top British defense official last week said his government would never allow such a forced denuclearization to occur.

"Our continuous submarine-based nuclear deterrent is the ultimate safeguard of our national security," Hammond said in response to the parliamentary report. "We have made a clear commitment to maintain that deterrent and there is absolutely no question that the U.K. will unilaterally disarm."

"The U.K.'s preferred option is for nothing to change," according to the committee's 30-page document. "Failing that, the next best option would be securing an agreement that enabled the submarines to operate out of Faslane until an alternative base was found elsewhere."

If Scotland were to drive out the Trident-carrying submarines, one domestic British option might be to store warheads and mate them to missiles at upgraded nuclear facilities in Berkshire, about 50 miles west of London, the document states. Under this scenario, the submarines could be based at Devonport on England's southwest coast, where they now go for routine maintenance, the analysis states.

Francis Tusa, editor of the U.K. monthly *Defense Analysis*, told legislators that although it would not be an ideal setup, "it does not mean you cannot do it," the report states.

Norman Polmar, a naval expert who has advised several top U.S. Navy civilians and brass, agreed, saying of the Devonport option: "Why not? Just expand the port."

Interviewed on Tuesday, he played down the safety risks of attempting to duplicate Coulport functions proximate to a population center, saying similar activities typically take place near large U.S. cities.

The Scottish Affairs Committee said it could not estimate relocation costs, but experts said the price tag would probably reach billions of dollars. The question of who would foot the costs to develop new Vanguard basing likely would be a major focus of any Scotland secession negotiations.

The lawmakers called the storage and loading of warheads outside the British Isles a possible "temporary measure," noting that two deep-water ports with submarine-servicing capacity being mulled are "French facilities in Brittany or the U.S. facilities in Georgia."

Kings Bay is currently home to six of the U.S. Navy's 14 U.S. Ohio-class nuclear-armed "SSBN" vessels, as well as two conventionally armed "SSGN" submarines, according to base spokesman Scott Bassett.

The facility likely could accommodate additional submarines from the United Kingdom in the near term, some experts said. More space will be freed up as the U.S. Navy reduces its Trident ballistic missile-carrying fleet to 12 vessels by 2028, and to just 10 vessels between 2032 and 2040, according to these sources.

The British government intends to replace its Vanguard-class boats with Successor submarines beginning in 2028, though there remains heated debate within the leadership coalition over whether results of an analysis of alternatives expected early next year might alter those plans.

With most federal offices in the Washington area closed on Monday and Tuesday because of Hurricane Sandy, a U.S. Defense Department spokeswoman did not respond by press time to a reporter's query regarding basing prospects or any bilateral discussions on the issue.

Washington and London have long had a close relationship in nuclear-weapons matters, to include significant cooperation in submarine and ballistic missile operations.

Among the joint activities today is a leasing arrangement under which the Royal Navy operates with Trident D-5 missiles from the U.S. arsenal, which are assembled, stored and maintained at Kings Bay, Bassett said. Missile loading onto British Vanguard-class submarines — each of which can carry 16 D-5s — also takes place at Kings Bay, Bassett said.

Since 2010, U.K. policy has been to carry no more than 40 warheads on each vessel, though the Trident missile has a capacity of up to 12 warheads.

Polmar said the logistics of basing British submarines at Kings Bay would be so challenging as to rule out the option entirely.

“Absolutely not,” in part “because of the support facilities involved,” he said, noting that the Vanguard submarines and nuclear reactors “are all different from ours.”

However, another nuclear-arms expert did not find the notion to be altogether far-fetched.

“There is infrastructure there” for Trident-armed submarines at Kings Bay, said Hans Kristensen, who directs the Nuclear Information Project at the Federation of American Scientists. “The only question is whether they can squeeze in more.”

Polmar also cited two additional factors why such an arrangement would be “totally impossible”: cost and transit time to U.K. patrol areas.

Kristensen agreed the long steaming distances could be an obstacle, saying, “That burns up a lot of core fuel.”

“Setting up a base two to three thousand miles away is ludicrous,” Polmar said. “It would be easier and cheaper to buy the city of Faslane.”

Even if logistics were determined to be feasible, U.S. basing might prove politically unworkable, according to experts.

Home-porting the submarines overseas could “raise questions about how independent the U.K.’s deterrent was,” the parliamentary panel said.

When Trident was first procured, the idea of mating warheads to missiles in the United States was explored but “was seen as just a step too far to being perceived as not having an independent deterrent,” Malcolm Chalmers, a defense policy expert at the Royal United Services Institute, told the panel. That view prevailed, leading to the use of Coulport for this sensitive task.

Nor would sending the submarines to French naval facilities be an easy fix, in the view of some.

“The idea of dumping off the boats there for a few years while we sort out a long-term solution would be a little tricky to manage,” British legislator Peter Luff, a defense equipment minister at the time who has since lost his post, told the committee in June.

The notion of a “sovereign base” located in a newly independent Scotland — or perhaps sovereign or jointly run facilities in the United States or France — might be explored as a means of preserving independent nuclear control, the parliamentary report suggests.

As things stand, some Kings Bay military commands, including the Strategic Weapons Facility-Atlantic, fly both the U.S. flag and the Union Jack to reflect the ongoing Trident partnership, Bassett said.

Given the “special relationship” between the United States and the United Kingdom, basing the Vanguard vessels at a U.S. port would not be such a stretch, one former U.S. nuclear officer said last week.

“We probably won’t go to nuclear war without them,” said the former officer, who asked not to be named in discussing sensitive military and diplomatic matters. “So what difference does it make where you’re stationed?”

“We rely on Diego Garcia,” a British territory in the Indian Ocean, for staging bomber operations, said the ex-officer. “We station our nuclear bombs in Europe on foreign soil. I don’t see it as that big of an issue.”

In London, though, indications are mounting that the U.K. government and Royal Navy actually would see basing abroad as a huge issue, given that the entirety of the nation’s nuclear arsenal is in question, rather than logistics for a select few assets.

Still, there remain many bridges yet to be crossed, not the least of which is the 2014 referendum vote that might, in the end, dispense with the notion of Scottish independence — an outcome that many in the British capital are hoping for.

For the time being, “we were told that the Ministry of Defense was not making contingency plans for the event of Scotland becoming a separate country,” according to the parliamentary report.

The ministry, legislators learned, “had not been approached or had discussions with the Scottish government about defense matters” should independence be formally embraced, the report states.

### **Vietnam’s Undersea Anti-Access Fleet**

*The Diplomat, Nov.1*

If nothing else, this series on access denial shows that anti-access strategy comes in many varieties. Vietnam too is pursuing such a strategy, founded on a squadron of six Kilo-class submarines Russia is building for the Vietnam People’s Navy under a contract inked in 2009.

In August the Vietnamese press reported that the first boat has been launched, and that all six will be delivered by 2016. The elusive Kilos should make a lethal access-denial force. While China’s People’s Liberation Army Navy operates Kilos itself, it has conspicuously neglected antisubmarine warfare hardware and techniques. It seems South China Sea waters will remain opaque to

Chinese commanders for the foreseeable future despite the PLA Navy's overwhelming superiority over the Vietnam People's Navy.

First consider the politics of access denial, as we did with Iran and North Korea. Vietnam and China, like North and South Korea, are contiguous powers with vital interests at stake in the same waters. Vital interests like territory beget strong passions. Whereas Iran prizes its ability to manage offshore waters and skies more than the United States cares about operating there—and thus commands a political edge—both Hanoi and Beijing are impassioned about their maritime claims in the South China Sea. Both are prepared to wage efforts of serious magnitude and duration, commensurate with their material capacity to carry on the competition. Neither is likely to relent after dispassionately tallying up the costs and hazards of operating in waters its opponent wants to place off-limits. The result: a combustible situation.

Several tactical and operational characteristics of Vietnamese access denial are worth pondering. Its anti-access force, like all such forces, is asymmetric to the adversary it is designed to oppose. But unlike relatively balanced Iranian and North Korean forces, the Vietnamese access-denial contingent is almost purely one-dimensional. Hanoi doubtless chose well if it could select only one platform to execute its strategy. Submarines offer enormous bang for the buck, and they are survivable. Still, this also means that advances in Chinese antisubmarine warfare could nullify Vietnam's effort to fend off the PLA Navy. Next, Vietnamese access denial could take on an offensive as well as a defensive character. Vietnamese Kilos could, say, loiter unseen off the Chinese naval station at Sanya, on Hainan Island, holding PLA Navy submarines at risk at the delicate moment when they are entering or leaving port—exposing them to enemy action.

Access denial—a strategically defensive posture—could thereby take on an escalatory hue. The inception of a Vietnamese undersea fleet will further crowd the already crowded waterspace of Southeast Asia, complicating efforts to discriminate among friend, foe, and bystander. China operates Kilos; so will Vietnam; even India could conceivably dispatch Kilos to the region. And this leaves aside the different submarine types deployed by Singapore, Malaysia, and other regional seafaring states. The chances for miscalculations and mishaps will only grow as access-denial strategies take shape.

Not long ago, pundit Robert Kaplan pronounced the South China Sea “the future of conflict.” Kaplan may have spoken truer than he knew.

James R. Holmes is an associate professor of strategy at the U.S. Naval War College where he specializes in U.S., Chinese and Indian maritime strategy and U.S. diplomatic and military history.

### **Report Urges Cutting Military To Fund Alternative Energy**

*By Jen DiMascio, Aviation Week, Nov 1, 2012*

In its annual report on Pentagon spending, the Center for American Progress recommends that the Obama administration submit a “unified” national security budget that would cut military spending, trim the deficit and boost spending on alternative energy.

The left-leaning think tank agrees that sequestration's across-the-board approach is untenable. But that does not mean the budget can't be cut.

Military accounts could be cut by \$71.8 billion in fiscal 2013, the report says, through a variety of reductions including cutting \$20 billion from U.S. nuclear forces, ending production of Boeing's V-22 Osprey and stretching out the Virginia-class attack submarine program.

The report recommends reinvesting \$29.2 billion in nonmilitary security accounts, including a \$20 billion investment in alternative energy and the rest shoring up diplomatic efforts.

The budget should tie military and other security accounts together to spare other security accounts – not the other way around, as Congress has done recently.

“More often than not in the past year, the security/nonsecurity frame of budgeting — unified security budgeting — has been proposed not as a way to rebalance security accounts but as a way to protect the military account at the expense of other parts of the security budget,” the report says. “These proposals would exact disproportionate cuts to the nonmilitary parts of the security budget, making the imbalance between military and nonmilitary resources even more extreme.”

The reduction to U.S. nuclear forces draws on a 2010 Air War College report that recommended a 90% reduction to the nuclear arsenal, bringing the total force to 311 weapons.

CAP has perennially recommended canceling the V-22 and scaling back Virginia-class submarines. Year after year, Congress and the administration have fended off challenges to their funding.

Larry Korb, senior fellow at the center, maintains that the Osprey should never have been built. “Why do we keep throwing money at this thing?” Korb asks.

Korb, who served in the Pentagon under President Reagan, acknowledges that stretching the buy of Virginia-class submarines might cost more money in the long run, but says the funding could be better put toward embassy security or diplomacy.

“If you give up something like aid to Mali, then you'll have a bigger problem down the road,” he says.

**#WARFIGHTING – Submarines: A Community Like No Other***navylive.dodlive.mil, Oct. 28*

October is #Warfighting month focusing on Navy Warfighters, a fast and flexible force deployed worldwide to preserve peace, protect commerce, and deter aggression on, above, and below the sea. We asked Commander Dave Adams, Commanding Officer of USS Santa Fe, to talk about his perspective of serving onboard a U.S. Navy submarine.

Somewhere in the Pacific a periscope breaks the calm glassy water. The Officer of the Deck, Lt. Phil Foster, carefully scans the surface for safety through the optics of the number two periscope. At the same time, his ears are tuned to the electronics intercept receiver to instantly know the different patterns for a commercial ray marine radar or a threat destroyer. His ears are also tuned to the calm, stern voice of his diving officer, MMC Demetrius Hamilton, as he steadily calls off depths, “six one,” “six zero.” The stern planesman, TM2 Rick Stafford, drives the submarine precisely on depth with just enough periscope out of the water to get a visual picture while limiting the chance of counter-detection. Lt. Foster, a twenty-five year old graduate of the United States Naval Academy (USNA) class of 2008, can instantly sense a change in the diving officer’s voice, or any other member of his team to know that together they must act to maintain USS Santa Fe’s stealth and safety. The entire crew is ready to act, to combat a casualty, and to push the engineering plant to its limit should their ship need to evade an enemy. They wear submarine dolphins with pride. They earned them for demonstrating a thorough knowledge of their boat and by demonstrating extraordinary reliability under stress.

What I describe here is just an average day on a United States Navy Submarine. USS Santa Fe’s mission on this average day may be highly classified, it may be intelligence, surveillance, and reconnaissance or support of special forces, or exercising the magnificent capabilities of a nuclear fast attack submarine in concert with our allies. Our hope is to deter our enemies but we are prepared to fight hard should deterrence fail. If ordered, we are prepared to deliver a deadly payload of tomahawk missiles or unleash a volley of advanced capability torpedoes to put enemy ships on the bottom and send bad international actors to their graves.

Today’s Submarine Force truly embodies what warfighting means. We train to fight. On USS Santa Fe we seek to capture and honor our warfighting heritage, always conscious of the 55% of enemy shipping our forefathers sank in World War II and the high price of the 52 submarines lost paid in doing so. Our torpedoes run hot, straight and normal, just like they did in that war, and we have fired 87 exercise torpedoes over the past two and a half years to hone our warfighting skills. We routinely conduct strike exercises with our Surface brethren to ensure our ability to employ tomahawk missiles.

We operate forward and walk the battlespace, so that we know our potential adversaries well. USS Santa Fe completed a highly successful Western Pacific deployment last year doing just that. Our Sailors, our warriors, like Lt. Phil Foster, MMC Demetrius Hamilton, and T2 Rick Stafford wear their Navy Unit Commendation and Battle “E” with pride. But they wear their submarine dolphins with even more pride, knowing they are part of something bigger; a tradition of Submariners past, present, and future who operate forward, always ready, willing and able to be on point, to fight and win against anyone who threatens or acts violently to deny our nation’s people liberty that so many before us have fought to secure.

**Navy: Sub to be towed due to collision damage***Navy Times, Oct 26*

The attack submarine Montpelier will be towed to its homeport for drydock repairs this year to repair substantial damages to its stern, Navy officials confirmed Friday. The sub was struck by the cruiser San Jacinto during an Oct. 13 training exercise off the coast of Florida.

The plan is to move Montpelier to Norfolk, Va., for drydock repairs, said Submarine Forces spokeswoman Cmdr. Monica Rousselow, who added no date has been set for the move. Both ships are homeported in Norfolk. As of Friday, San Jacinto remained pierside in Mayport, Fla., for repairs.

Montpelier drove into Kings Bay, Ga., under its own power after the collision, which occurred on the Navy’s 237th birthday. The impact shattered the cruiser’s sonar dome on its bow and sheared off the top of the sub’s rudder.

A spokesman for Fleet Forces Command said the damages included the upper rudder and structural damage to the stern, including to the furthest aft main ballast tank.

The sub will likely need a tow to Norfolk because of the rudder damage, said FFC spokesman Lt. Cmdr. Brian Badura, who added damages do not appear to extend to the pressure hull, which protects sailors from the sea’s crushing force.

Badura said it was too early to say how much the repairs will cost or how long they will take.

Separate safety and command probes are underway into the mishap, each led by a one-star admiral. The command inquiry, helmed by a one-star surface warfare officer, is investigating the causes of the collision.

Facts so far suggest the submarine is more likely to be at fault, former Navy leaders said. It was at periscope depth at 3:30 p.m. Oct. 13 during an exercise with the Truman Carrier Strike Group when the ships collided.

As part of early work-ups, individual subs and ships exercise together. This gives a ship’s sonar techs practice detecting super-quiet attack subs. It is likely in the course of one of these exercises that the ships collided, said retired Vice Adm. Peter Daly, the former deputy commander of Fleet Forces Command.



“It looks like they were doing an [anti-submarine warfare] exercise,” said Daly, now the chief executive of the U.S. Naval Institute, who added that he has no direct knowledge of the collision. “During ASW exercises, especially early in the training serial, the surface ships put noise in the water intentionally so that if you’re operating in close proximity, you improve the chance dramatically that the submarine can detect you, just so you can avoid a collision.”

The Montpelier could have risen to periscope depth as part of an exercise, to visually track the cruiser or intercept its signals, or to do something as mundane as a communications check. But in all cases, the sub crew must follow rigorous safeguards to make sure the surface is clear. First, the sub’s sonar techs assess the traffic above. Then the sub turns at least 120 degrees to port or starboard. This allows the sonar techs to clear the area astern, a region known as “the baffles” where the noise from the steering and propulsion systems and the orientation of the sonar array complicate detection efforts.

After the sub rises to periscope depth, an officer does a 360-degree sweep of the surface with the scope. This is a double-check. If the sub spots a nearby ship, it can order an “emergency deep” maneuver and dive back down. But this maneuver can be fraught with danger. The sub’s bow will pitch down into the dive, but that correspondingly makes the stern rise, potentially exposing the rudder and screw to impact. This could be one explanation for the sub’s damages astern, said a former sub captain.

Failing to follow these procedures is a common cause for collisions, such as the 1981 incident when ballistic missile sub George Washington surfaced under a Japanese fishing boat, sinking it and drowning two fishermen, said the retired submarine CO, who asked to remain anonymous to discuss an incident still under investigation.

“Often inadequate baffle clear or subsequently getting up to periscope depth and an inadequate search have been past causes for collisions,” he said.

Still, the sensors on a Los Angeles-class submarine are exceptional and should have detected the cruiser, he added. “It’s still hard to imagine that, with the sensors on that ship, you wouldn’t know that the guy was up there,” he said. “I mean, we can hear the auxiliary [motor] on a little sailboat.”

### **Run Silent, Go Deep: Drone-Launching Subs To Be Navy’s ‘Wide Receivers’**

*Defense.aol.com, Oct. 26*

**WASHINGTON:** This Saturday the Navy will christen its newest nuclear-powered submarine, the \$2.6 billion USS Minnesota at the Newport News shipyard in Virginia. Countless movies have cemented the popular image of subs as stealthy underwater killers, stalking hapless surface vessels with periscope and torpedo. But today’s Navy is experimenting with launching robotic mini subs and even unmanned aerial vehicles (UAVs) from Virginia-class attack subs like the Minnesota.

In Navy tests of a mini-UAV called Switchblade, “you can launch it, you can control it, you can get video feed back to the submarine,” said Rear Adm. Barry Bruner, chief of the undersea warfare section (N97) on the Navy staff, at the recent Naval Submarine League symposium in suburban Washington. Future subs could also launch unmanned underwater vehicles (UUVs) to scout ahead stealthily beneath the surface. “It sure beats the heck out of looking out of a periscope at a range of maybe 10,000 to 15,000 yards on a good day,” Bruner said. “Now you’re talking 20 to 40 miles.”

Pair that sensor range with new long-range torpedoes — yet to be developed — or submarine-launched missiles, and you dramatically increase the kill range of the current submarine fleet, Bruner enthused. “It’s phenomenal, it’s asymmetric, and it’s cheap, [and] we’re not that far away.”

Some informed observers are more skeptical. The sub-launched UAVs and UUVs are still experimental. A “universal launch and recovery system” to get the small robots off the sub and then, critically, back on again is still in development — and current attack submarines like the Minnesota lack the large-diameter launch tubes to accommodate the system anyway, although the next-generation “Block III” Virginia-class subs entering service in 2014 will be able to. The Navy is also designing a “Virginia Payload Module” that would increase future submarines’ launch capacity, but it’s uncertain whether actual development will get funded.

“They seem to be in a period of experimentation that doesn’t have any obvious or clear end point,” one congressional staffer told AOL Defense. “I can’t tell you exactly where they’re headed.”

What’s more, while sub-launched drones are a new idea to American admirals, “the Israelis experimented with it more than than 20 years ago,” said naval historian Norman Polmar. “The US Navy’s just been horribly slow.”

In some respects, said Polmar, the Navy’s even gone backwards. Submarines have long been able to launch missiles from underwater. (And a missile is just a crude drone that doesn’t come back). But the Navy phased out the sub-launched version of its Harpoon anti-ship missile years ago, and the Tomahawk cruise missiles that submarines currently carry can only attack targets on the land. So today’s sub fleet can strike ground targets deep in enemy territory, but it’s arguably less capable against enemy surface ships that it was 20 years ago.

At stake is not just the combat power of individual submarines, but the Navy’s future vision for the entire fleet. The objective: to integrate the traditionally lone-wolf underwater hunters into a digital battle network that links submarines to surface ships to aircraft to satellites. The opponent: the multi-layered, high-tech, “anti-access/area denial” defenses — long-range anti-air and anti-ship missiles, cyber-attacks, sea mines — being developed by emerging powers, most of all by China.

This emerging interservice doctrine, known as “AirSea Battle,” is “very much a team sport,” said Vice Adm. Michael Connor, the Navy’s Commander of Submarine Forces (COMSUBFOR), at the Naval Submarine League conference. “We know what part we play in that team,” he went on. “We’re sort of the wide receivers, more or less, getting down field.”

The Navy has struggled to build stealthy surface ships, like the immensely expensive DDG-1000 class, and it has yet to field its first stealth fighters. But submarines have been a stealth weapon for over a hundred years. Even today, in the face of advanced sonars and spy satellites that can peer hundreds of feet below the surface of the water, submarines are harder to detect than any stealth aircraft.

In peacetime, that invisibility puts them in high demand for covert reconnaissance. In wartime, it would make them the leading edge of US naval power, slipping unseen into waters where other forces dare not go, then launching long-range weapons like Tomahawk cruise missiles to crack open enemy defenses and to let less-stealthy forces in. The new role of operating as part of a networked fleet requires not just new equipment but a new mindset. “Submariners like to sink ships; they don’t like to do other things,” said Polmar. “They’re being forced to change and broaden that... The submarine community now realizes they have to be part of the bigger picture.”

### **SOCOM: Foreign Shipyards OK To Build Dry Combat Sub Prototypes**

*InsideDefense.com, Oct. 26*

The Pentagon has authorized foreign shipyards to construct up to two prototype vessels or major components for its Dry Combat Submersible development program, the commander of U.S. Special Operations Command has informed Congress.

In a Sept. 4 letter, SOCOM chief Adm. William McRaven tells lawmakers he determined that the selection of U.S. prime contractors teamed with foreign companies using foreign shipyards “is the most prudent methodology to rapidly deliver submersible prototypes at an affordable price.”

McRaven notes that this assessment is based on responses to a broad agency announcement on the Dry Combat Submersible Light and an assessment of nationally and internationally fielded systems in the last 20 years. This program aims to develop submersible vehicles for use by elite Navy SEALs.

“Construction of vessels in experienced foreign submersible shipyards is in the interest of U.S. national security, as it will significantly reduce cost and schedule for this project and will permit access to the expertise resident in foreign submersible shipyards,” McRaven writes. “There is limited development experience in the U.S industrial base for the design and construction of small submersibles with a diver lock-out capability.”

Under federal law, no vessel to be constructed for any of the armed forces or major component of the hull or superstructure can be built in a foreign shipyard, unless it is determined to be in the national security interest of the United States, and Congress is notified.

McRaven has authorized this exception to have the vessel constructed in foreign shipyards in Canada, the United Kingdom, Italy and/or Germany for a User Operational Evaluation System for a future Dry Combat Submersible capability.

The letter notes that the “authority for this exception was delegated” by the defense secretary to the SOCOM commander for “the construction of special operations-peculiar vessels when determined in the interest of national security.”

The User Operational Evaluation System project was started with fiscal year 2011 dollars and resulted in four Dry Combat Submersible phase I concept-design contracts being awarded to Lockheed Martin, General Dynamics’ Electric Boat shipyard, L-3 Communications and Oceaneering International Inc.

The letter states that each U.S. prime contractor has at least one foreign company as a subcontractor.

“Up to two follow-on Phase II — Rapid Prototype Design, Construction and Test contracts are anticipated and funded in the current president’s budget,” the letter notes.

Lockheed Martin, General Dynamics and L-3 deferred comment to SOCOM.

SOCOM and Oceaneering International did not respond to request for comment by press time (Oct. 26).

Retired Rear Adm. Joseph Carnevale, the senior defense adviser to Shipbuilders Council of America, said that the council “does not support any effort to go overseas for the production of ships, craft and vessels for our military.” Yet, the council recognizes that sometimes due to military necessity the services have to go to foreign shipyards, he said.

The United States does not really have anyone producing small submersibles, Carnevale said, noting he understands SOCOM’s position and hopes for significant U.S. participation in the effort. Major shipbuilding firms General Dynamics and Huntington Ingalls Industries — the two builders of U.S. Navy submarines — are both involved. Huntington Ingalls Industries is on Lockheed’s team, according to a Lockheed statement.

Carnevale noted he did not know what the contractors proposed, but “if those two companies proposed a foreign company as a subcontractor to do some of the build, then you’ve got to believe it was just not worth their while to try to do it here.”

The Pentagon’s FY-13 budget request noted schedule delays in the Dry Combat Submersible programs “due to manpower limitations and competing priorities.” — Jordana Mishory

**CNO's Position Report: 2012***CNO Blog, Oct. 29*

As stated in "Navigation Plan 2013-2017," this is our "Position Report" for 2012, which describes our progress toward the vision identified in "Sailing Directions."

CNO Sailing Directions are sound and remain the foundation for our planning and decision making. Similar to what we do at sea (for example, the Eight O' Clock Report), this Position Report "takes a fix" on where we are today and identifies "course and speed" changes to keep us on track and counter the effects of "set and drift" – emerging challenges that will tend to take us off our track.

**Our Position**

Due to the amazing performance of our Sailors, Civilians and their Families Navy is, for the most part, on track. However we'll have to remain focused to stay there in the face of evolving technology, global security concerns and fiscal challenges.

Our three tenets – Warfighting First, Operate Forward, and Be Ready – remain the framework through which we view our progress. Here are some highlights of our progress this past year:

**Warfighting First – our fundamental responsibility**

- We deployed (and will keep) in the Arabian Gulf new mine hunting and neutralizing equipment, improved torpedoes; advance electromagnetic sensors, "up-gunned" patrol craft, and USS PONCE as an afloat forward staging base.
- We honed our coalition mine hunting and mine clearing skills with an international mine warfare exercise in the Arabian Gulf that included 34 international partners.
- We continued implementing the Air-Sea Battle Concept with new training, doctrine and investments designed to assure Joint operational access.
- We demonstrated our combined anti-submarine, missile defense, surface warfare and humanitarian assistance capabilities and tested new systems with Asia-Pacific partners and allies at the 2012 Rim of the Pacific and Valiant Shield exercises.
- We improved our undersea dominance, particularly in the Asia-Pacific, introducing P-8A patrol and anti-submarine warfare aircraft, upgraded torpedoes, and new unmanned underwater vehicles and sonars; additionally, we commissioned two new subs.
- We methodically continued investment in the capabilities needed to complete "kill chains" of sensors, shooters and weapons that enable our forces to project power and assure access, particularly in the Asia-Pacific and Middle East.
- We continued reinvigorating Navy-Marine Corps amphibious warfare skills with exercise BOLD ALLIGATOR, including 25 ships and 14,000 Marines and Sailors.

**Operate Forward – an essential characteristic of naval forces.**

- We deployed increasing numbers of ships, aircraft and Sailors to address growing security challenges, including USS STENNIS deploying twice to the Middle East, USS BATAAN Amphibious Ready Group deploying for almost 11 months in the Indian Ocean and USS KEARSARGE extending their deployment to play a pivotal role in OPERATION ODYSSEY DAWN.
- We formulated and implemented a plan that will rebalance our ships' homeports to 60% in the Pacific and 40% in the Atlantic by 2020, and increase presence in the Western Pacific by 20% in 2020.
- We improved our Arabian Gulf posture by building partnerships and facilities ashore to station additional ships and aircraft in Bahrain.
- We invested in the infrastructure and readiness necessary to homeport four DDGs in Rota, Spain by 2015. These ships will enable more rotationally-deployed ships from the United States to deploy to the Asia-Pacific and Middle East.
- We built new ships that will spend more time forward by rotating civilian or military crews – Littoral Combat Ship (LCS), Joint High Speed Vessel and Mobile Landing Platform.

**Be Ready – proficiency, confidence and support at home and abroad**

- We added billets at sea and revised billets ashore to better man our ships and provide professionally relevant and rewarding shore duty.
- We improved advancement and reenlistment opportunities across the board by reducing overmanned ratings and revising reenlistment processes to ensure fairness.
- We improved our proficiency with increased simulation training and more "live-fire" exercises in surface warfare, anti-submarine warfare and air defense.
- We increased surface ship maintenance and completed class maintenance plans for all surface ships except frigates.

**Our Course**

Staying on track will require deliberate, sustained effort. I will direct and personally follow the following projects to reduce the effects of "set and drift" and keep us on track toward the vision described in Sailing Directions. These are the most important efforts we are planning but are far from a comprehensive list of what we will pursue over the next year:

**Warfighting First:** We will develop strategies and capabilities to command the sea and project power. As described in our Air-Sea Battle Concept we will enhance enduring U.S. advantages and create new ones to overcome threats to our freedom of action and exploit our adversaries' vulnerabilities.

- We will continue developing fielding and integrating unmanned air vehicles into air wings including X-47B UCAS-D and UCLASS.

- We will sustain our undersea dominance by implementing a networked approach including aircraft, subs, off-board sensors, communications and unmanned vehicles.
- We will accelerate fielding of procedures and systems to make the electromagnetic spectrum and cyberspace a primary warfighting domain.
- With the other sea services we will revise our maritime strategy, “A Cooperative Strategy for 21st Century Seapower”, to address the challenges and threats facing us in the near future.
- We will develop concepts to guide the future of amphibious operations, building on the ongoing “Single Naval Battle” effort with the Marine Corps.
- We will describe “How We Fight” in detail with a book-length project to educate the force and guide future doctrine and operational concepts.

Operate Forward: We will ensure the ability of our forces to sustainably operate forward at the maritime crossroads with relevant warfighting capability.

- We will reconcile our global responsibilities for presence with the need for reasonable individual tempo and sustainable training and maintenance plans.
- We will deploy USS FREEDOM to Singapore in early 2013 and complete work to homeport the first two destroyers in Rota, Spain in 2014.
- We will station three additional patrol craft in Bahrain with rotating crews and permanently homeport in Bahrain the crews of four minesweepers, complemented by new minesweeping systems that expand their capability.

Be Ready: We will continue to focus on the proficiency and confidence of today’s fleet with today’s systems and weapons, while addressing factors that detract from safety and readiness.

- We will monitor and sustain the “Health of the Force;” in particular we will restore tracking of individual operational tempo (ITEMPO) alongside other measurements.
- We will develop and implement strategies to attack sexual assault and suicide.
- We will raise the number of Sailors at sea and address fleet manning “fit” deficiencies in an enduring way.
- We will implement a comprehensive plan of action to integrate LCS class ships into the fleet, led by an “LCS Council.”

Our superb Sailors, Civilians and families will put these projects into motion to move us “down track.” Please continue to provide your feedback as we plot our course.

### **Russia fights US missile shield from sea**

*Presstv.com, Oct. 30*

The Pentagon is working to encircle Eurasia and to surround the Eurasian Triple Entente composed of China, Russia, and Iran. For every reaction, however, there is a counter-reaction.

Neither one of these three Eurasian powers will sit ideally as passive US targets. Beijing, Moscow, and Tehran are all taking their own distinct counter-measures to oppose the Pentagon’s strategy of military encirclement.

In the Indian Ocean the Chinese are developing their military infrastructure under what the Pentagon calls the Chinese “string of pearls.” Iran is going through a process of naval expansion, which is seeing it deploy its maritime forces further and further from its home waters in the Persian Gulf and Gulf of Oman. All three Eurasian powers, along with several of their allies, also have naval vessels stationed off the shorelines of Yemen, Djibouti, and Somalia in the geo-strategically important maritime corridor of the Gulf of Aden.

The US global missile shield is a component of the Pentagon’s strategy to encircle Eurasia and these three powers. In the first instance, this military system is aimed at establishing the nuclear primacy of the US by neutralizing any Russian or Chinese nuclear response to a US or NATO attack. The global missile shield is aimed at preventing any reaction or nuclear “second strike” by the Russians and Chinese to a nuclear “first strike” by the Pentagon.

#### **US Global Missile Shield versus Russian Naval Expansion**

All the new reports about branches of the US missile shield being established in other parts of the world are sensationalized in terms of the how they are portraying its geographic expansion as a new development. These reports ignore the fact that the missile shield was designed to be a global system with components strategically positioned across the world from the onset. The Pentagon had planned this in the 1990s and maybe much earlier. Japan and the Pentagon’s NATO allies have more or less been partners in the military project from the start.

Years ago both the Chinese and Russians were aware of the Pentagon’s global ambitions for the missile shield and made joint statements condemning it as a destabilizing project that would disturb the global strategic balance of power. China and Russia even jointly issued multilateral statements in July 2000 with Kazakhstan, Kyrgyzstan, and Tajikistan warning that the creation of the Pentagon’s global missile shield would work again international peace contravened the Anti-Ballistic Missile (ABM) Treaty. The US government was repeatedly warned that the steps it was taking would polarize the globe with hostilities that would be reminiscent of the Cold War. The warning fell on deaf and arrogant ears.



The Russians are now rebutting the Pentagon's global missile shield through very practical steps of their own. These steps involve an expansion of their country's presence in the high seas and an upgrade of their naval capabilities. Moscow plans on opening new naval bases outside of its home waters and outside of both the shorelines of the Black Sea and Mediterranean Sea.

The Russian Federation already has two naval bases outside of Russian territory; one is in the Ukrainian port of Sevastopol in the Black Sea and the other is in the Syrian port of Tartus in the Mediterranean Sea. The Kremlin is now looking at the Caribbean Sea, South China Sea, and eastern coast of Africa (in close proximity to the Gulf of Aden) as suitable locations for new Russian bases. Cuba, Vietnam, and the Seychelles are the prime candidates to host new Russian naval bases in these waters.

The Russians already had a presence in Vietnam's Cam Ranh Bay until 2002. The Vietnamese port was home to the Soviets since 1979 and then hosted Russian forces after the breakup of the Soviet Union in 1991. Russia also continued to have a post-Soviet military presence in Cuba until 2001 through the Lourdes intelligence signal base that monitored the US.

The Kremlin is additionally developing its military infrastructure on its Arctic coast. New Arctic naval bases in the north are going to be opened. This is part of an overlap with the careful Russian strategy that includes the Arctic Circle. It is drawn with two dual functions in mind. One function is to protect Russian territorial and energy interests against NATO states in the Lomonosov Ridge. The other purpose is to serve the Russian global maritime strategy.

Moscow realizes that the US and NATO want to restrictively hem in its maritime forces in the Black Sea and Mediterranean Sea. US and EU moves to control and restrict Russian maritime access to Syria is an indicator of this strategic inclination and objective. The moves to strategically hem in Russian marine forces are one of the reasons that the Kremlin wants naval bases in the Caribbean, South China Sea, and eastern coast of Africa.

The development of Russia's Arctic naval infrastructure and the opening of Russian naval bases in places like Cuba, Vietnam, and the Seychelles would virtually guarantee the global presence of Russian naval forces. Russian vessels would have multiple points of entry into international waters and secure docking bases abroad. These bases will give the Russians permanent docking facilities in both the Atlantic Ocean and Indian Ocean too.

The future overseas naval bases, like the one in Syria, are not being referred to as "naval bases" by Russian officials, but by other terms. Moscow is calling them "supply points" or bases for naval logistics to make them sound far less threatening. The nomenclature does not really matter. The functions of these naval facilities, however, are for the strategic military purposes that are being outlined.

The Russians at present only have permanent docking bases on their own national coastlines in the Arctic Ocean and Pacific Ocean. Moreover, Russia's naval infrastructure in the Russian Far East, on the shores of the Pacific Ocean, has the greatest access to open international waters. Moscow's naval infrastructure in the Baltic is geographically in a constrained environment and could be immobilized, like Russia's naval infrastructure in the Black Sea, in the event of a confrontation with the US and NATO. The addition of the naval infrastructure in places like Cuba would effectively guarantee that Russia's naval forces will have a free hand and not be hemmed in by the US and its allies.

#### Russia's New Nuclear Posture at Sea

Historically, the mandate of the naval forces of the Russian Armed Forces has been to protect the Russian coast. Both Russia and the Soviet Union based their defensive strategies on countering a major land invasion. For this reason both the characteristics of the Russian and Soviet naval forces were always based on functions aimed at helping fight a land-based invasion. Thus, the Russian naval fleet has not been structured as an offensive attack force. This, however, is changing as part of Moscow's reaction to the Pentagon's strategy of encirclement.

Russia, like both China and Iran, is now focusing on sea power.

Russia is upgrading and expanding its nuclear naval fleet. The Russian media has referred to this as a new bid for their country's "naval dominance." Moscow's aims are to establish the nuclear superiority of its naval fleet with sea-based nuclear attack capabilities. This is a direct reaction to the Pentagon's global missile shield and the encirclement of Russia and its allies.

Over fifty new warships and more than twenty new submarines will be added to the Russian fleet by 2020. About 40% of the new Russian submarines will have lethal nuclear strike capabilities. This process started after the Bush Jr. White House began taking steps to establish the US missile shield in Europe.

In the last few years, Russia's counter-measures to the US missile shield have begun to manifest themselves. Trials of Russia's Borey class submarine in the White Sea, where the port of Archangel (Arkhangelsk) is situated, began in 2011. In the same year the development of the submarine-launched Lirer ballistic nuclear missile was announced, which was said to be able to pierce through the US missile shield. A Russian submarine would secretly test the Lirer from the Barents Sea in 2011.

#### Future Cuba Missile Crisis in the Making?

If an agreement is reached with Havana, there is always the possibility that Russia may deploy missiles to Cuba like the Soviets did. Speaking in the realm of the hypothetical, these Russian missiles would most probably have nuclear warheads. Simplistically, this can be portrayed as a replay of the scenario that led to the Cuban Missile Crisis between the US, Soviet Union, and Cuba in 1962. There is much more, however, to the background of this Cold War story and its causes and effects.

The chief perpetrator of the Cuban Missile Crisis was the US government. The deployment of Soviet nuclear missiles to Cuba was a strategically asymmetric move to counter-balance the secret deployment of US nuclear missiles to Turkey, which targeted Soviet cities and citizens. The US government did not let its citizens know about its own nuclear missiles in Turkey that were targeting the Soviet population, because it would have led to many questions by the US public about whom the real aggressors



were and what side was really at fault for the sparking of the crisis in 1962. The future deployment of Russian nukes to Cuba would likewise be a reaction to the nuclear weapons that the Pentagon is surrounding Russia and her allies with. Like in 1962, the US government would be at fault once again if nuclear missiles are deployed to Cuba and a crisis emerges.

Hereto, there are only talks underway about a renewed Russian presence in Cuba. Nothing has been agreed upon in concrete terms between the governments in Havana and Moscow, and there has been no mention of deploying Russian missiles to Cuba. Any comments about Russian moves in Cuba are speculation.

The nuclear upgrades that Russia is making to its navy are much more significant than any future Russian base in Cuba or elsewhere. Russia's new nuclear naval posture actually allows it to cleverly station multiple mobile nukes around the US. In other words, Russia has "multiple Cubas" in the form of its floating mobile nuclear naval vessels that can deploy anywhere in the world. This is also why Russia is developing its naval infrastructure abroad. Russia will have the option of surrounding or flanking the United States with its own sea-based nuclear strike forces.

Russia's naval strategy cleverly is meant to counter the Pentagon's global missile shield. Included in this process is the adoption of a pre-emptive nuclear strike policy by the Kremlin as a reaction to the aggressive pre-emptive post-Cold War nuclear strike doctrine of the Pentagon and NATO. In the same year as the test of the Liner by the Russians, the commander of the Strategic Rocket Forces of the Russian Federation, Colonel-General Karakayev, said that Russia's inter-continental ballistic missiles would become "invisible" in the near future.

The world is increasingly becoming militarized. US moves and actions are now forcing other international actors to redefine and reassess their military doctrines and strategies. Russia is merely just one of them.

### **Cuban Missile Crisis Secret Revealed – Four Soviet Submarines Came Within Moments Of Firing Nuclear-Armed Torpedoes At U.S. Fleet**

*Ottawa Citizen, Oct. 31*

Those of us who were alive fifty years ago recall President John F. Kennedy's shocking address to the nation with chilling clarity. In somber tones, he told us that there were nuclear missiles in Cuba. Few experts disagree that the Cuban Missile Crisis brought us closer to global annihilation than any other event in history. But virtually every book, documentary, or discussion about the Crisis focuses on the infamous "thirteen days in October" and the threat of attack from land-based missiles. What no one knew until recently is that we were actually closer to WWII during the first week of November 1962, when four Soviet submarines came within moments of firing nuclear torpedoes at the U.S. Fleet.

This story begins in August 1962 when Commander Leonid Rybalko met with Soviet Fleet Admiral Sergei Gorshkov to discuss plans for Operations Anydr and Kama. Already underway, Operation Anydr was Nikita Khrushchev's grand plan to place short and medium-range nuclear missiles in Cuba. Unknown to many historians is Operation Kama—an even more frightening plan to place seven ballistic missile submarines in Mariel, Cuba. Under this plan, each sub could hide in the ocean off the U.S. coast and launch nuclear warheads at almost any city in North America. Khrushchev knew this would be a far greater threat to the U.S. than land-based missiles. To ensure his plan would succeed, he authorized Gorshkov to send four Foxtrot submarines in advance of the missile subs to secure the base at Mariel. He also authorized the use of nuclear torpedoes, if and when required.

Foxtrot-class submarines have no nuclear reactors, and so need to recharge batteries and refresh their air every day or so via noisy "snorkeling" diesel engines. To detect snorkeling subs, the U.S. had years earlier created the Sound Surveillance System (SOSUS)—an array of hydrophones in the Caribbean Ocean and nearby areas. They detected the Foxtrots on their way across the Atlantic, but kept losing contact when those subs stopped snorkeling and "went silent" on their batteries. Fortunately, the navy had another top secret technology that could find these subs when they transmitted via radio.

Gorshkov insisted that each Foxtrot transmit a status report once or twice daily. When they did, special listening stations could triangulate a location using a new system codenamed Boresight. My father, William J. Reed, a navy Ensign working for the NSA, was in charge of deploying these systems. But the technology was nascent and only three stations were operational. Location accuracy was low, but when they did get a "hit," U.S. anti-submarine warfare (ASW) ships and aircraft had at least a rough idea of where to look for the Soviet subs. Secretary of Defense, Robert McNamara, caught wind of Boresight and asked for details from Admiral Anderson, who was in charge of U.S. Atlantic Fleet operations.

When President John F. Kennedy ordered the blockade, Anderson stationed sixty warships in a "walnut line" arcing from Cuba to south of Florida. During several meetings between Kennedy, McNamara, Anderson and the advisory ExComm Group, the highest concern discussed involved locating the Soviet Foxtrot submarines, now converging on Cuba. They did not know that each sub carried a nuclear-tipped torpedo capable of vaporizing everything within a ten mile radius, which might include up to a dozen U.S. warships.

On the evening of October 22, 1962, Kennedy announced to the world the discovery of Soviet nuclear missiles in Cuba. Less than 1,000 miles off the coast of that country, radio operators aboard the four Foxtrot's intercepted the transmission. For my book, *Red November*, I interviewed two captains and several crewmen who were aboard those subs. They described horrendous conditions where temperatures inside the boats swelled to nearly 100 degrees in tropical waters. Unable to surface due to constant harassment from U.S. forces (directed to their locations by Boresight listening stations), crews lost nearly 30% of their body mass

and developed terrible skin rashes. Every boat had a nuclear torpedo loaded and ready in tube #2, but their orders from Moscow for using them were sketchy at best. Each captain knew that if they did fire those weapons, they would most likely not survive the explosion.

On October 23, Kennedy had the navy bring in the quarantine line from 800 to 500 miles from Cuba. He did so out of concern over Khrushchev's aggressive posture and refusal to turn back the supply ships carrying nuclear missile parts. Khrushchev was bolstered by the knowledge that his four Foxtrot submarines could easily punch large holes in Kennedy's blockade. SecDef McNamara ordered Admiral Anderson to make finding those Soviet subs the navy's top priority. He also informed Kennedy about Project Boresight, the new technology that might help the navy with that task. Kennedy asked McNamara to have navy experts brief him and the ExComm Group on the Boresight system.

My father's boss at Section A22 of the NSA, Commander Jack Kaye, received a call from SecDef McNamara. A few hours later, Kaye and my father were headed to the White House. There they met with Kennedy and the ExComm Group, whereupon my dad gave a technical briefing outlining the capabilities and shortcomings of the Boresight technology. At the end of the meeting, Kennedy asked my dad if there was any way possible to get a more accurate location on those four Foxtrot subs. Commander Kaye started to say "no" when my father interrupted and said "yes." Kennedy asked him to do so, and my dad spent the next few sleepless days at the three operating stations working on improvements. By October 26, the navy could finally obtain reasonably accurate locations on each Foxtrot submarine whenever they transmitted. ASW forces converged on those bearings and dropped active sonar buoys and warning depth charges in an effort to force the subs to the surface.

On October 26, during an ExComm meeting, Kennedy said he didn't believe the quarantine alone would force Khrushchev to remove the nuclear weapons from Cuba. A CIA report indicated that the Soviets were not halting missile site development. That evening, Kennedy sent a private hand-written memo to Khrushchev. To this day, no one has verified the contents, but expert contacts I interviewed speculate that the memo contained just four lines: the coordinates to each Foxtrot submarine.

The next day, Khrushchev's demeanor changed dramatically. Where once he had been strong and stubborn, he was suddenly soft spoken and cooperative. What caused this overnight transformation? Authors have proffered dozens of theories, but none explain how a lion turned into a mouse in less than twenty-four hours. That is, all except one: Khrushchev was emboldened by the knowledge that his four Foxtrot submarines, carrying nuclear torpedoes, could decimate the blockade. When Kennedy sent him that memo, accurately pinpointing the location of each sub, Khrushchev knew he'd been trumped. He then had no choice but to fold his hand. What he failed to do, however, was send a clear message to those submarines that the conflict was over.

On October 28, Khrushchev announced over Radio Moscow that the Soviets had agreed to remove the missiles from Cuba. Not announced was the agreement with Kennedy that the U.S. would not invade Cuba, or the tacit arrangement that America would remove all nuclear missiles from Turkey. At this point, most accounts on the Cuban Missile Crisis end. They state that Americans could finally breathe easy again, emerge from their bomb shelters and go about life as usual. Nothing could be further from the truth.

Over the next week, the four Foxtrot submarines did not turn around and go home as did the Soviet cargo ships. Instead, they skirted the 500 mile quarantine line around Cuba and continued to threaten U.S. warships. Aided by Boresight fixes, U.S. ASW ships and planes forced three of the four subs to the surface. What we did not know until recently, is that captains or commanders aboard all four Foxtrot subs, once backed into corners by U.S. forces, nearly fired their nuclear torpedoes at the American fleet. The stories portrayed by the captains and crew aboard these boats during those stressful days, when they were certain that WWII was eminent, is truly frightening.

Fifty years after the Cuban Missile Crisis, experts still focus on the thirteen days in October when the world shuddered at the thought of ground-based nuclear missiles headed our way from Cuba. But the truth is far more frightening. If just one of those Foxtrot submarines had sunk a dozen U.S. warships by firing a nuclear torpedo, this act would certainly have started WWII. When I interviewed Captain Ketov, commander of Foxtrot B-4, I heard something that chilled me to the core. Ketov said, "If we captains had completed our mission, there might be nuclear missile boats in Cuba today and we would have been honored as heroes. Instead, because all four of us chose not to fire our torpedoes and avoid starting a nuclear war, we were later persecuted by our government as failures and traitors."

