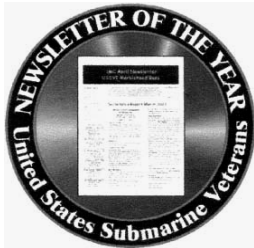


American Submariners Inc.  
4370 Twain Ave.  
San Diego, CA 92120-3404



## *The Silent Sentinel*

### *JULY 2014*

#### *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.

## Annual SubVets Family Picnic

**Where:** Smugglers Cove on Pt Loma Naval Base

**When:** Saturday, July 26 from 0900 - 1630

**Why:** Food, games, Sub Tours and door prizes and the chance to visit with your Shipmates and their families.

Submarine tours are planned for 0930 and 1300: sign up no later than Thursday July 10 by email at [sdsubvets@gmail.com](mailto:sdsubvets@gmail.com). Provide the full name of each participant and which tour (morning or afternoon) is preferred. Participants will need to carry photo ID (DL is sufficient). Space is limited so sign up early. As always, tours are dependent on submarine availability and subject to last minute schedule changes.

If you already have routine base access (retiree ID, active duty ID, CAC card), you are good to go and just need to show up.

If you do not have routine base access, contact Warren Branges at [sdsubvets@gmail.com](mailto:sdsubvets@gmail.com) or (619) 971-8292 no later than Thursday July 10. You will need to provide first and last name, drivers license number, date of birth and SSN for each person requiring access to the base.

**PLEASE NOTE CHANGE OF  
DATE TO THE 26TH OF JULY!**

# U.S. Submarine Veterans San Diego Base

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## The Silent Sentinel via Email

To all of my Shipmates and families who currently receive our Great newsletter via the mail who would like it sent via email or continue to receive it via mail, please fill out the form and mail it to the base or myself. We are trying to cut the cost of the newsletter down from \$3700 to about \$1900 a year. By receiving the Silent Sentinel via email will cut down the printing and mailing cost. The other plus to receiving it via email is you can save it on your computer and not have the paper lying around the house.

*A subscription to the Silent Sentinel newsletter will be available to surviving family members via internet email, at no charge, upon notification of the Membership Chairman. If a printed hard-copy is preferred, via US Post Office delivery, an annual donation of \$5.00 will be requested to cover costs.*

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY/STATE/ZIP: \_\_\_\_\_

EMAIL: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

Would like the SILENT SENTINEL emailed: YES \_\_\_\_\_ NO \_\_\_\_\_

Robert Bissonnette  
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USSVI Base Commander  
c/o VFW Post 3787  
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*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*

## ***JULY 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 8 July, 2014. 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**

**George Koury, Al Strunk, Frank Walker, and Tommy Cox**

## ***Submarine Losses in June*** Originally Compiled by C J Glassford



### **USS Herring (SS-233)**

Lost on June 1, 1944 with the loss of 83 men near Matsuwa Island. Herring was on her 8th war patrol and was conducting a surface attack when a shore battery spotted her and made 2 direct hits on her conning tower and causing her loss. Before being sunk, she had sank a freighter and a passenger-cargoman. Herring was the only US submarine sunk by a land battery.

### **USS R-12 (SS-89)**

Lost on June 12, 1943 with the loss of 42 men near Key West, FL during a practice torpedo approach. The cause was probably due to flooding through a torpedo tube. The CO and 2 other men on the bridge survived, as did 18 crew members on liberty at the time of the accident.

### **USS Golet (SS-361)**

Lost on June 14, 1944 with the loss of 82 men. On her 2nd war patrol, Golet was apparently lost in battle with antisubmarine forces north of Honshu.

### **USS Bonefish (SS-223)**

Lost on June 18, 1945 with the loss of 85 men when sunk near Suzu Misaki. Winner of 3 Navy Unit Citations, Bonefish was on her 8th war patrol. After sinking a passenger-cargoman, Bonefish was subjected to a savage depth charge attack.

## USS S-27 (SS-132)

Lost on June 19, 1942 when it grounded off Amchitka Island. She was on the surface in poor visibility, charging batteries and drifted into the shoals. When she could not be freed and started listing, the captain got the entire crew to shore (400 yards away) in relays using a 3-man rubber raft. The entire crew was subsequently rescued.

## USS O-9 (SS-70)

Lost on Jun 20, 1941 with the loss of 33 men when it foundered off Isle of Shoals, 15 miles from Portsmouth, NH.

## USS Runner (SS-275)

Lost between June 26 and July 4th with the loss of 78 men. Runner was on her 3rd war patrol probably due to a mine. Prior to her loss, she reported sinking a freighter and a passenger-cargoman off the Kuriles. This boat's last known ship sunk happened on June 26th, so she probably hit that mine on or after that date but before July 4th, when she was scheduled back at Midway.



## CONSTANT BEARING, DECREASING RANGE

### Flag Day

June 14

#### All Flags at 52 Boat Memorial

\*

Oceanside Independence Day Parade  
San Diego Base USS Los Angeles SSN-688 Float  
June 28 – starts at 1000

\*

San Diego Base Sunday Breakfast  
VFW Post 3787  
June 29 – 0800 to 1200

\*

### Independence Day

July 4

#### All Flags at 52 Boat Memorial

\*

Julian 4th of July Parade (**Cancelled due to Julian Fire**)  
San Diego Base USS Los Angeles SSN-688 Float  
July 4 – starts at 1200

\*

San Diego Base Sunday Breakfast  
VFW Post 3787  
August 31 – 0800 to 1200

\*

Poway Days Parade  
September 1 – No participation this year;  
Float going to San Francisco for USSVI Convention

\*

USSVI 50th Anniversary National Convention  
Burlingame, CA  
September 1-7

<http://www.ussvgoldenanniversary2014sf.org>

## Minutes for Submarine Veterans San Diego Base 10 June 2014

1900 - Meeting of the Submarine Veterans Inc., San Diego Base was called to order by Base Commander Bob Bissonnette.

### **Conducted Opening Exercises:**

Pledge of Allegiance lead by Senior Vice Commander Bill Earl.

Chaplain Jack Lester lead us in prayer.

Conducted Tolling of the Boats for June.

Observed a moment of Silent Prayer for our lost shipmates.

Recognized past and present E-Board members and Officers.

Secretary Ferguson announced 30 members and 4 guests (Juanita Williams, Ryan Mohedano, Derek Gorton, and Diane Branges) present.

The meeting of 13 May 2014 were approved.

Treasurer Report: Treasurer David Ball reported \$4698.09 in checking including the Charlie Marin Scholarship Funds of \$3294, and total assets of \$19,939.73. The Charlie Marin Memorial Scholarship monies are included in the Base Checking monies, but accounted for separately. Benny Williams asked about the WWII funds and Bob Bissonnette stated that he had not yet received a reply from his inquiry to National.

### **Call for Committee Reports:**

Chaplain Lester announced Al Strunk, George Koury, R.C. Thompson, Frank Walker, and Barbara Lester on the binacle list.

Charles Brown and Gary Stark are on Eternal Patrol.

Parade Committee: Report made by Rocky Rockers - The Oceanside parade is June 28th with a 10a.m. start. Following parades are: Julian July 4th, Borrego October 25th, and San Diego Veterans on November 11th.

Membership Committee: Ray Ferbrache reported 290 members current.

Scholarship Committee: Paul Hitchcock introduced this years scholarship awards of \$750 each to Derek Gorton and Ryan Mohedano, both of whom were present.

Storekeeper Report: Phill Richeson announced many great items are available.

Breakfast Committee: Warren Branges looking for a cook and Base Commander thinks he has a volunteer lined up. Next breakfast June 29th from 0800-1200 for \$7.

52 Boat Memorial: Warren Branges reported that he is meeting with Doug Smay and San Diego Granite to sort out ongoing saga of deteriorating monuments and necessary repairs. Only 3-4 members are showing up to install the flags and more member assistance is requested. A schedule was available at the back of the room with the dates that all flags will be posted.

Float Committee: No report. Base Commander stated that last parade images are on the website. A more efficient and safer installation of the battery lead cable was discussed and will be implemented. We were awarded the Float of the Year at the La Mesa Flag Day parade. Base Commander Bissonnette awarded Holland Club Memberships to John Fox, Don Mathiowetz, and Ray Ferbrache.

1929 Base Commander called for a break

1940 Base Commander called the meeting back to order.

**Unfinished Business:**

Memorial Day services were largely attended and a couple dozen showed up for placing of the wreath at the 52 boat memorial at Liberty Station. Base access is now very difficult and the Base Commander is going to present a list of all San Diego Base members to NavBasePtLoma security for clearance. Once cleared, those without I.D. cards should be able to gain access.

2014 National Convention September 1-7, 2014 in San Francisco, CA.

Picnic 19 July at Nav Base Pt Loma from 0900-1600 with boat tours at 0930 and 1300.

Memorabilia - The Midway Museum will not allow us to show our Memorabilia at the Museum.

Juanita Williams will provide information as to possibility of acquiring space at Balboa Park.

**New Business:**

This years Veterans Walk, sponsored by the Doug Smay Base, will be on 1 November.

Anticipate teams from all three local bases to be entered this year.

National Elections: Voting now taking place and Base Commander will bring some laptops to next months meeting and assist members in voting online. All members are encouraged to vote online or by ballots that will be available at next meeting.

Christmas Party will be Saturday 13 December from 1330-1600. Dinner at 1400 for \$20 per person.

Warrior Social to be held at NavBasePtLoma June 19th. Those attending should give their names to Secretary Ferguson as a list was requested by the Squadron.

**Good of the Order:**

Juanita Williams discussed the Lions Club offer of hearing aids and glasses that are available for those with incomes less that \$24,000 yearly.

Phill Richeson, Don Mathiowetz and Bob Bissonnette discussed events regarding submarine history at the San Diego Maritime Museum.

Ray Ferbrache provided info regarding the USS Triton entire sail on display in Kennewick, WA., His Grandson graduating from High School, receiving the Eagle Scout award, and entering West Point. His Granddaughter, who received a scholarship award from San Diego Base, is graduating from UCLA cum laude.

Bob Farrell thanked Mike Hyman for an article appearing in the Silent Sentinel.

***Base Commander Bissonnette adjourned the meeting at 2015.***

***Jack Ferguson, Secretary***

**Sailing List for 10 June 2014**

Jack Ferguson	Bob Bissonnette	Tom Polen
Bill Earl	David Ball	Jack Lester
Rocky Rockers	Bob Farrell	Ray Ferbrache
Phill Richeson	Phillip Richeson	Richard Smith
John Fox	Joel Eikam	Warren Branges
Russ Mohedano	Ron Gorence	Benny Williams
Dennis Mortensen	Jim Harer	Paul Hitchcock
Bud Rollison	Steve Lamprides	James Pope
Al Varela	Ed Farley	Mike Hyman
Bob Welch	Don Mathiowetz	W. J. (Joe) Sasser

## Current News

“Plataginet, I will; and like thee, Nero,  
Play on the lute, beholding the towns burn” (*Henry VI*, Shakespeare)

### ***Is America Building the Wrong Kind of Submarine?***

***Rich Smith, Motley Fool, June 28***

“We all want progress, but if you’re on the wrong road, progress means doing an about-turn and walking back to the right road; in that case, the man who turns back soonest is the most progressive.” —C.S. Lewis

When it comes to military technology — and military naval technology in particular — most people would probably agree that “the future is nuclear.” The most advanced aircraft carriers in the world are American, and they’re all nuclear-powered. The fastest, most powerful submarines are nuke boats built by American defense contractors General Dynamics (NYSE: GD ) and Huntington Ingalls (NYSE: HII ) as well.

Follow the leader

The U.S. Navy currently possesses 72 active submarines — all nuclear-powered. Following America’s example, navies from Russia to France to England to even China and India have opted to add nuclear-powered submarines to their fleets. And why wouldn’t they? Doesn’t nuclear offer “progress” over previous generations of diesel-electric powered submarines?

You’d think so. But as C.S. Lewis pointed out, sometimes to progress, you have to admit to having made a mistake, reverse course, and get back on the right track. More and more often these days, foreign navies are coming to the conclusion that nuclear-powered submarines were the wrong way to go — and believe it or not, that diesel is actually “the future.”

To get ahead, first go Down Under

Take Australia for instance. Earlier this month, Australia signed an agreement with Japan whereby the two nations will begin working together to develop a new class of stealth submarines — powered by diesel-electric engines.

Using the same “air-independent propulsion” (AIP) diesel-electric systems developed by Japan for use in its Soryu-class submarines, Australia aims to replace its current fleet of six aging Collins-class subs with a round dozen based on a new design. Larger than the current Collins-class boats, Australia’s new subs will be capable of carrying everything from cruise missiles to unmanned underwater vehicles to special operations troops. According to DefenseNews.com, this will permit “a major regional enhancement of Australia’s capabilities” and deployment “into South China Sea and beyond.”

Australia hopes to have the new boats in the water by 2030 and has budgeted up to \$33 billion for the project, which it calls “Project Sea 1000.”

\$33 billion? That’s a lot of money

Yes, it is. Luckily for Australia, Project Sea 1000 may end up costing only a fraction of the budgeted sum. You see, it costs American taxpayers about \$2.7 billion to have General Dynamics or Huntington Ingalls build us a Virginia-class nuclear fast-attack submarine. Building a dozen of them would yield a price tag of \$32.4 billion — about what Australia had braced itself to pay.

But Japan’s Soryu-class subs, upon which Australia may base its new boats, cost only \$540 million apiece to produce — just 20% the cost of a new nuke boat. At 3,000 tons displacement, the Soryus are about half the size of a Virginia-class sub — so pound-for-pound, Australia’s still getting a good deal.

A good deal for U.S., too?

Is this something the U.S. should try to get in on? Over at the Pentagon, this is a question that’s being asked more and more often.

As budgets come under pressure, the prospect of replacing a few of our older nuke boats with modern diesel-electrics that cost five times less has some appeal. This is especially true among Navy strategists who argue diesel-electric boats aren’t just cheaper than nukes. When equipped with an AIP engine, diesel-electrics can outperform their nuclear cousins in stealthy movement, are particularly hard to detect (and kill) in shallow coastal waters (such as you’ll find off the coasts of Korea, China, and Iran for example), and with improvements in range, can now travel silently and underwater for weeks at a time.

The upshot for investors

Arguments like these make a lot of sense to Navy tacticians. They make a lot of sense for taxpayers concerned over the burgeoning size of the U.S. defense budget — and they should make sense for investors as well.

America hasn't built a new diesel-electric submarine for its fleet in 55 years — and a lot of things can change over a half century. Over that time, America's Nuclear Navy has become wedded to the idea that “nuclear is better,” but globally, defense market analysts at AMI International say there's a market for about 300 new diesel-electric submarines waiting to be built over the next 20 years — 100 of them in the Asian and Pacific markets alone. At \$540 million a pop, that's a \$162 billion opportunity.

That's a lot of money for U.S. submakers General Dynamics and Huntington Ingalls to be leaving on the table — waiting to be scooped up by companies like ThyssenKrupp, DCNS, and Mitsubishi Heavy, which do build diesel-electrics. And that's not even counting the billions that could be earned building diesel-electrics for the U.S. Navy, should it decide to walk back its commitment to nuclear.

Once upon a time, America was pretty good at building diesel-electric boats. For the sake of the taxpayers, and for the sake of the shareholders of these companies, maybe we should think about getting good at it again.

### ***Divers died after going back under at U-Boat wreck in bid to avoid 'the bends'***

***Joe Leogue, Irish Independent, July 3***

An independent British panel led by former defense Mystery surrounds a tragic incident that resulted in the deaths of two divers at the wreck of a World War II submarine.

The two men, visiting from the UK, were diving near the wreck of the 1945 German U-Boat U-260, 4km off Castlehaven, Co Cork.

Jonathan Scott (62), who was living in Australia, but was visiting his sister in Ireland, and 66-year-old Steven Clarke were taking part in a recreational dive to the wreck of the sunken German submarine yesterday.

It is understood the pair surfaced after their dive – but then indicated they were descending again in a bid to avoid decompression illness after omitting safety stops.

Divers who have spent time at depth have to return to the surface slowly, making scheduled safety stops to allow nitrogen to leave the body in order to avoid decompression illness also known as ‘the bends’.

At around 9.40am, one of the divers floated to the surface, he was unconscious.

The alarm was raised immediately and a search operation was launched by Valentia Coast Guard with the Waterford and Shannon helicopters, the Toe Head-Glandore Coast Guard, Baltimore RNLI, local boats and later the naval vessel, LE Aisling.

The first diver, Mr Clarke, was airlifted to Cork University Hospital where he was later pronounced dead.

A six-hour search came to an end at 4pm when the second diver's body was found in 43 metres of sea water 300m south-west of the wreckage.

John Kearney, of the West Cork Underwater Search and Rescue Team, said that conditions yesterday morning were favourable for a dive, with underwater visibility of up to 10m and a moderate breeze. The deceased were experienced divers, as was the boat operator.

#### **CONDITIONS**

Conditions deteriorated over the day, however, and Mr Kearney said that divers were lucky to have had the opportunity to retrieve the second victim before it became too difficult to continue the search.

Mr Kearney said he could not explain what had happened.

“I could not speculate, the conditions were very favourable and he was with a very experienced operator so it is very, very difficult to understand, until a post mortem is done, what happened to the man,” Mr Kearney said as he came ashore following the retrieval of the second body.

“The family and friends were very relieved to make a recovery so quickly because its so important to have closure,” he added.

The pair had travelled to the site with dive operator Jerry Smith from the Aquaventures Dive Centre in Baltimore. Diving equipment was removed from the boat, ‘Wave Chieftain’, for examination.



The German submarine U-260 was scuttled in 1945 and lies in 45m of water. It can only be dived on slack tide. Local whale watch tour operator Colin Barnes discovered the wreck in 1975. It has since become popular with sports divers.

***First photos of Australia's lost ANZAC submarine AE2 reveal the moments before she sank***  
***Ian McPhedran, News Corp Australia Network, July 3***

A hatch A boot. A guage frozen in time. Out of the murk of the Black Sea has emerged the first photos of Australia's heroic submarine AE2 — lost just days after the ANZACs attacked the Dardanelles.

Almost 100 years ago, the boat and her brave crew of 34 sailors, led by skipper Lieutenant Commander Dacre Stoker, were ordered into the Dardanelles Strait near Gallipoli to 'run amok' and attack Turkish troop transports.

It was a mission timed to coincide with the allied landings on the Gallipoli Peninsula on the first ANZAC Day April 25, 1915.

In an extraordinary feat of seamanship the submarine entered the heavily mined 'narrows' at 2.30am and attacked a Turkish gunboat and other surface craft while under the guns of the enemy.

The submarine then slipped through the Dardanelles before entering the Sea of Marmara — between the Black Sea and the Mediterranean — on April 26 where she set about the task.

But her luck did not hold out for long.

Another Ottoman torpedo boat attacked the AE2 on April 30. The damage was significant.

Dacre ordered 'abandon ship' as the boat sank to the bottom. All the crew survived and were rescued by the Turkish vessel.

The crystal clear images, captured by a joint Australian-Turkish team under Project 'Silent ANZAC', show remarkably well-preserved details from within what is now a protected war memorial site.

Open access ... A robotic arm from a remote vehicle forced open the conning tower hatch to the sunken submarine AE2. The hatch reportedly is swinging freely on its original hinges. Picture: Department of Veteran's Affairs

They include original paint, shoes and flags stowed in a locker in the conning tower, instruments that can still be clearly read and barnacle encrusted valves and other machinery.

Project leader and chairman of the AE2 Commemorative Foundation (AE2CF), retired Rear Admiral Peter Briggs said the roving camera used to inspect the wreck has captured the entire length of the submarine including her forward and aft hydroplanes, rudder and tops of her propellers.

Beyond top secret ... A guage remains readable inside AE2's control centre, 100 years after the submarine was sunk by a Turkish gunboat. Picture: Department of Veteran's Affairs

"The submarine interior is in amazingly good condition including what we believe was the battle ensign used by Lieutenant Commander, Henry 'Dacre' Stoker, DSO, 99 years ago," he said.

"The Turkish Government will ensure ongoing maintenance of the buoy laid over AE2 — to protect her from further damage — acknowledging the importance of preserving this shared piece of Turkey and Australia's maritime military heritage."

Veterans Affairs Minister Michael Ronaldson said project 'Silent ANZAC' was a joint Australian and Turkish initiative, led by a team from the AE2 Commemorative Foundation and Submarine Institute of Australia made up of 16 Australians, 19 Turks and two Americans including scientists, divers, academics, maritime archaeologists, film makers, submariners and historians all working together.

Lost messages ... Signal flags and boots still sit inside the quick-access lockers at the base of AE2's conning tower. Picture: Department of Veteran's Affairs

"The AE2 is one of the last untouched Gallipoli battlefield sites and, with the dedicated work of a team of Australian submariners, scientists from the Defence Science and Technology Organisation and US remotely operated vehicle designers, SeaBotix, she will be protected and preserved where she fell for many years to come," Senator Ronaldson said.

Rear Admiral Briggs said one of the most significant discoveries was a portable wireless telegraph pole and antenna wire, the existence of which had long been the subject of discussion of military historians.

“It is most likely that it was this telegraph which transmitted the message to Army headquarters that AE2 had torpedoed an Ottoman gunboat at Çanakkale,” he said.

***Enemy Ahoy: China and Russia Strive For Naval Supremacy  
Bill Powell and Owen Matthews, Newsweek, July 1***

Few in China knew the truth two years ago, when then-president Hu Jintao travelled to a naval base in the northeastern city of Dalian to mark a signal moment in the rise of Chinese power: the unveiling of the Liaoning, the first aircraft carrier commissioned by Beijing’s navy.

More than a decade earlier, a penniless Ukraine government had sold the aging carrier at a fire-sale price to a Chinese company pledging to turn it into a floating casino. When it was towed out of the port of Nikolayevsk in 2001, everyone thought it was headed for the gambling haven of Macau. In fact, it was destined to become not only the symbol of China’s ambition to dominate the seas around it, but to project power thousands of miles from its coasts.

Sitting in Moscow, Russian president Vladimir Putin knew the truth, and it had to chafe: Here was yet another tangible symbol of the decline of what had been the second-most powerful navy on earth – that of the former Soviet Union. He was determined to reverse that trend. And so he has – most recently by seizing what was left of the Ukrainian navy in Sevastopol.

China and Russia – the United States’s two biggest strategic rivals – have made it plain they plan to challenge America’s monopoly of sea power. In Beijing, spending on the navy (known as the PLAN – the People’s Liberation Army’s Navy) has surged.

Beijing has been banging out three submarines a year – it now has 28 active nuclear submarines and 51 submarines overall. PLAN has commissioned 80 surface ships since 2000, compared with about 48 vessels commissioned in the 1990s. By 2020, Beijing plans to have three aircraft carrier – led battle groups – meaning that two aircraft carriers are under production.

China’s ambitions go far beyond this increase in naval hardware. Chinese leaders now routinely refer to “blue national soil” – the oceans that extend off its coast line – which they demarcate far beyond the 200 nautical miles that are its “exclusive economic zone” under the U.N.’s Law of the Sea Treaty. Beijing has even issued a map – known as the “nine dash line” – which purports to show China’s waters lapping against the Philippines and Vietnam. “China,” write Toshi Yoshihara and James Holmes, of the U.S. Naval War College, “is on the brink of commanding the seas with Chinese characteristics.”

To date, those “Chinese characteristics” mainly consist of an increased capacity to drive the U.S. out of Beijing’s waters. The strategy aims to create a buffer zone to prevent an enemy’s approach. The lynchpin is the submarine fleet, but the plan also includes fast-attack vessels equipped with anti-ship missiles, which distresses U.S. navy war planners.

According to Christian Le Miere, an analyst at the International Institute for Strategic Studies, London, China has deployed between 65 and 85 of these vessels so far, “suggesting that the strategy behind their use is to deploy rapidly, perhaps in small flotillas, to harry larger vessels with difficult to intercept missiles.”

China’s naval buildup reflects several geopolitical goals. As Robert Kaplan writes in *Asia’s Cauldron: The South China Sea and the End of a Stable Pacific*, it gives Beijing what defense analyst Li Mingjiang calls a “strategic hinterland” that stretches over 1,000 miles – one that would act as a “restraining factor” for the U.S. Navy’s Seventh Fleet in the Pacific and Indian oceans.

Another motivation is energy: The South China Sea is replete with oil and gas reserves, for which Beijing has a voracious appetite. It is now the world’s largest importer of hydrocarbons. The fundamental tensions that Beijing’s maritime ambitions bring are now on full display within Vietnam’s exclusive economic zone, where the Chinese National Offshore Oil Company is drilling for oil from a rig it just deployed there – over Hanoi’s furious but fruitless objections.

“What’s the difference between an oil rig and a naval base or an aircraft carrier? Very little, politically, in the eyes of China,” says Dean Cheng, defense analyst at Washington’s Heritage Foundation. Beijing is extending reach, daring Vietnam (or anyone else) to do something about it, confident in its ability to project sufficient naval force to defend what it sees as its interests.

To date, in extending its economic interest in the South and East China seas, China hasn't always relied on its navy per se, as the current clash with Hanoi illustrates. In 2012, Chinese fishing vessels travelled to the Scarborough Shoal, a disputed set of tiny outcrops 124 miles west of Subic Bay. They were caught fishing illegally for giant clams and sharks and were detained by the Philippine coast guard. Beijing reacted furiously – sending its own ships to defend the fishermen – and dispatching warships to linger menacingly on the horizon.

A tense, 10-week standoff ensued, until Manila blinked. Beijing today occupies the Scarborough Shoal and Chinese officials have boasted about using the Scarborough Model as a way of intimidating regional neighbors.

Indeed, China has dispatched fishing vessels near the disputed Senkaku Islands (known to the Chinese as the Diaoyu Islands), the flashpoint of Beijing's dangerous standoff with Japan – the only power in east Asia with a military that can stand up to China's. As Ely Ratner, deputy director of Asia Pacific Security Program at the Center for a New American Security in Washington has written, these disputes are Beijing flexing its muscles, thanks in large measure to an increasingly capable and sophisticated PLAN.

Russia's naval ambitions are linked closely to China's rise: After all, Beijing's relentless economic growth sent global prices for almost all the commodities Russia has been naturally endowed with soaring – from oil to gas to timber to iron ore. That has stuffed the coffers of Russian state-owned companies and enabled Moscow to again begin funding its military, after nearly two decades of post-Cold War decline.

Putin has pledged \$700 billion to boost Russia's military over the next two decades – much of it to go to naval hardware. The Kremlin's shopping list includes half a dozen Admiral Grigorovich – class frigates and as many aircraft carriers; eight Yasen-class attack submarines; and a new generation of ballistic missile submarines designed to carry out nuclear attacks on the U.S. These Borei-class boats carry 16 nuclear-tipped Bulava missiles, each with 10 warheads that can “thwart evolving Western ballistic-missile defense shields,” according to U.S. Navy Reserve Lieutenant Commander Tom Spahn. He calls Russia's newest boats and missiles “alarmingly sophisticated.”

Russia's navy has become an important symbol of a resurgent Russia. Putin's popularity plummeted early in his reign with the loss of the Kursk, an Oscar-2 class attack sub that went down with all 118 hands after a faulty torpedo burned up in its tube in 2000.

Russia has 68,000 miles of coastline – the third longest, after Canada and the U.S. – and over 80 percent of the supplies to Russia's Far East go by ship, mostly via the Indian Ocean. A third of Russia's nuclear arsenal – more than 600 warheads – is carried on the navy's submarines.

And, of course, it makes for great television. “Putin loves the navy.... There's nothing more impressive than a battleship or submarine with its crew paraded in dress uniforms,” says Semyon Vlasov, a former consultant to the Duma's Defense Committee.

Every great Russian ruler has made their mark on the high seas. “Peter the Great announced that Russia was a European power by creating a navy on the Baltic,” says St. Petersburg – based historian Andrei Grinev. “Catherine the Great showed Russia was a world power by defeating the Ottoman [Turkish] navy at Cesme in 1770, and colonizing Alaska.”

Putin is acutely aware of this historical resonance. He has revived the Russian naval station at Tartus in Syria, the only Russian military facility outside the former Soviet Union. Established in 1971, the “Material-Technical Support Point” is, in reality, a tiny sliver of land less than half a mile long equipped with two 100-yard-long floating piers, neither big enough to accommodate even the smallest of Russia's frigates.

In January 2013, Russia evacuated its last personnel from Tartus, leaving Syrian contractors in charge of a single Amur-class floating workshop. “Tartus exists mostly so that Russian officials can talk about it,” says one Western diplomat who visited the port in 2010. A planned visit in 2009 by Russia's only aircraft carrier, the Admiral Kuznetsov, was cancelled after seven of her eight turbines failed and a fire broke out on board. The carrier has only managed four deployments since she was commissioned in 1991. (U.S. naval captains nickname her “Tug-bait.”)

Still, Russian defense minister Sergei Shoigu has great plans for Tartus, and in February called for a network of Russian naval bases in Vietnam, Cuba, Venezuela, Nicaragua, the Seychelles and Singapore. “Naturally, Russia is interested in having resupply and maintenance bases for our navy in several states,” confirmed Russian deputy foreign minister Anatoly Antonov in March. “We are engaged in talks on the issue.”

“Russia,” Admiral Eduard Baltin, former commander of Russia's Black Sea Fleet, told Russian Reporter, “is returning to the stage in its power and international relations, which it, regrettably, lost at the end of last century. No one

loves the weak.”

Putin is also deploying his navy to push Russia’s economic interests. Technology is making the rich mineral resources under the Arctic seabed accessible for the first time – and Moscow insists that swathes of the undersea territory are geologically contiguous to Northern Russia, giving it the right of possession under international law.

The question is being adjudicated by the U.N. – but in the meantime the Northern Fleet Admiral Andrei Korablev has announced that Russia will reopen a military base in the Novosibirsk Islands abandoned 20 years ago and reinforce it with 10 warships and four nuclear-powered icebreakers. The navy will also install military infrastructure on almost all the islands and archipelagos of the Arctic Ocean to create what Korablev calls a “unified system of monitoring air, surface and subsurface conditions.”

His fleet will also be sent to patrol Franz Josef Land, Severnaya Zemlya, the Novosibirsk archipelago and Wrangel Island to back up the Kremlin’s claim to the world’s largest untapped oil reserves – control over which is now contested by Russia, the U.S., Denmark, Norway, Canada and, more recently, China.

Of the two, it is China’s naval build up that, for now, most concentrates minds in the Pentagon. Beijing’s far-reaching claims amount “to an expansionist strategy with profound implications for U.S. power and regional security,” says Ratner. At the end of the Cold War, the U.S. had 15 carrier battle groups, compared to 11 today. How much longer Washington’s spending on sea power can be limited depends in part on what both Beijing and Moscow do.

And now, the signals are going in one direction. Last December, a PLAN warship attached to the Liaoning’s battle group peeled off and sailed straight at the USS Cowpens, a guided missile cruiser shadowing the aircraft carrier, forcing it into a dangerous game of chicken.

Washington remains the dominant naval power globally. But the gap is closing – quickly.

### ***Submarine Update – Greece to Finally Get Its Subs, Algeria Orders More From Russia*** ***David Pugliese, ottawacitizen.com, June 29***

Defense News has reported that Greece will complete construction of three Type 214 diesel-electric submarines at Hellenic Shipyards, ending a decade-long dispute between Greece and Germany. In 2000, Greece signed a deal with Germany’s ThyssenKrupp for four 214 boats, but delivery of the first-in-class, Papanikolis, was delayed in 2006 when the Greek government refused to accept the boat.

The reason? Inspectors with Greece’s navy declared the submarine defective, with problems such as fuel cells overheating and excessive rolling in poor weather.

ThyssenKrupp countered that the assessment was actually a tactic to get a price reduction and away to the courts the aggrieved parties went.

Now there is an agreement – Greece will pay \$102 million U.S. and the subs will be completed. Delivery of the first is expected this year, the other two in 2016.

Meanwhile, Jane’s is reporting that Algeria has signed a contract for the purchase of a further two Russian-built Kilo-class submarines, which will be expected for delivery in 2018. The boats will be built at the Admiralty Shipyards in St. Petersburg, Russia and will join four Kilo-class boats already in service with the Algerian Navy.

### ***Outcry Over Custody Case*** ***Lance M. Bacon, Navy Times, July 7***

Deployed submariner ordered to appear or risk losing daughter

Countless service members and citizens demanded justice when a sailor unable to attend a June 16 court hearing because his sub was deployed was threatened with jail time and losing custody of his 6-year-old daughter.

After the outcry, the custody hearing was postponed June 23 until October, under a federal law that protects deployed troops from such a scenario.

A lawyer representing Information Systems Technician (Submarines) 2nd Class (SS) Matthew Hinds filed for a stay under the Servicemembers Civil Relief Act, which requires the temporary suspension of judicial and administrative

proceedings that may adversely affect a service member's civil rights during their military service. A specific provision grants service members a 90-day window to appear in court for cases related to child custody.

Hindes, 28, has primary custody of his daughter, Kaylee, with his current wife, who resides in Washington state. Attempts to reach Hindes, who's on deployment aboard the guided-missile submarine Michigan, were unsuccessful.

Hindes' first wife, Angela, filed for divorce in 2009 after three years of marriage. The sailor accused her and her boyfriend at the time of abusing and neglecting Kaylee, who was removed by Michigan Child Protective Services in 2010. The submariner was granted legal and physical custody of the child.

Angela Hindes pleaded no contest to assault and was given a 10-day jail sentence and probation ending in September 2012, according to court records. She was allowed supervised parenting time, but overnight stays were prohibited. She filed a petition for a change in the custody order in August 2013 and in April asked the court to decrease her child-support payments because she lost her job and has another baby. When the petty officer did not appear June 2 to the Lenawee County, Michigan, courtroom due to his deployment, Circuit Judge Margaret Noe ordered him to appear June 16 "or present the child."

"At this point, I don't think I have any alternative but to enter a bench warrant for his arrest," Noe said at the June 16 hearing when told neither Matthew nor Kaylee Hindes were present. "If not in the care and custody of the father, the child should be in the care and custody of the mother."

Hindes' wife, Benita, has cared for Kaylee for four years and vows to keep fighting to care for their daughter, saying that the girl's biological mother will neglect her.

"Kaylee's our number one priority, and we will do anything to make sure she's safe," Benita Hindes told Fox News in a June 27 interview.

Unfortunately, custody battles are all too frequent on deployment – or immediately afterward.

Petty Officer 2nd Class John Moreno deployed in 2007 while his wife was pregnant with his daughter, Vanessa, at their home in Virginia. Upon returning, he found his wife had moved to Arizona and refused to let him see his daughter. He petitioned a judge in Virginia to order her to return his daughter, but he said the judge claimed that he didn't have jurisdiction in the case because Moreno had been given military orders to leave Virginia. Repeated efforts for legal solutions have failed.

Or take the case of Army Lt. Col. Vanessa Benson, who took the step of temporarily transferring custody of her 14-year-old son to her ex-husband when she deployed to Afghanistan in 2009. But when she returned, her ex said it was in their son's best interest to stay with him for stability. Benson regained custody after months of court hearings and thousands of dollars in legal fees.

#### Strengthening The Law

The Hindes' legal dilemma sparked outrage that reached all the way to the halls of Congress. Protesters gathered outside the courtroom. A week later, Noe said she did not know Hindes was deployed and postponed all proceedings.

Some lawmakers cited the Hindes case as further evidence of how service member's legal rights need to be bolstered. One of the foremost champions is Rep. Michael Turner, R-Ohio.

"The law is not being followed" in Hindes' case, Turner said in a June 20 statement regarding the SCRA. "This law is directly intended to prevent cases like this. But even when the law is followed to the letter, our service members are still placed at a severe disadvantage in child custody proceedings. We need a national standard that ensures the parental rights of our service men and women are properly safeguarded."

Turner included protections in this year's National Defense Authorization Act that state current and future deployment cannot be a factor in child custody decisions. The NDAA passed the House on May 22 and is awaiting Senate approval.

But Turner's Service Members Family Protection Act has been here before. In fact, it has failed to get Senate approval four times despite being passed by the House of Representatives with no opposition.

This time, however, Turner has the support of former Defense Secretary Robert Gates, who in a Feb. 15 letter agreed that the Defense Department "should change [its] position to one where [they] are willing to consider whether appropriate legislation can be crafted that provides Service members with a federal uniform standard of protection in cases where it is established that military service is the sole factor involved in a child custody decision involving a Service member. ... [W]e should work with Congress to pursue an acceptable legislative formula."

Turner believes Gates' support may be enough to push through his provision strengthening SCRA. According to Turner's office, 13 states have few or no state laws safeguarding troops' custody rights. Twenty-one have some laws on the book, and 16 have met the Defense Department's current desired level of protection in child custody cases.

"With continued support amongst members of the House Armed Services Committee, the House as a whole, and now the [former] Secretary of Defense, there is an opportunity to extend military parents the protection they deserve," Turner said in the statement. "The least we can do is to ensure that our soldiers' rights as parents are being guarded while they defend our freedom."

The Detroit Free Press and The Associated Press contributed to this report.

### ***China Looks To Gain By Joining Big U.S.-Led Pacific Naval Drills*** ***David Brunnstrom and David Alexander, Reuters, June 27***

WASHINGTON – A giant U.S.-led naval exercise began off Hawaii on Thursday with China joining its Asia-Pacific rivals for the first time, but analysts doubted the drills would ease tensions over Chinese maritime claims and some said Beijing could use them to strengthen its navy.

Washington and its allies hope China's participation in the five-week Rim of the Pacific (RIMPAC) exercises, involving 55 vessels, more than 200 aircraft and some 25,000 personnel from 22 countries, will build trust and help avert misunderstandings on the high seas that could escalate into crisis.

But analysts say the maneuvers may only help Beijing strengthen its growing naval capability by observing the forces of the United States and its allies.

Twenty-three nations had been expected to participate in RIMPAC this year. But Thailand will not take part, the Pentagon said on Thursday. Thailand is a long-time U.S. treaty ally, but Washington has suspended some cooperation projects with the country since its May 22 military coup.

China has sent four ships for its debut at RIMPAC, which runs until Aug. 1.

The Chinese ships are the missile destroyer Haikou, the missile frigate Yueyang, the supply ship Qiandaohu and the hospital ship Peace Ark. Chinese forces include two helicopters, a commando unit and a diving unit, a total 1,100 personnel.

The Haikou has a sophisticated battle-management system similar to the Aegis system used on many U.S. warships, which uses integrated radar and computer systems to track and destroy targets.

The Chinese ships rendezvoused off the U.S. Pacific island of Guam with warships from the United States, Singapore and Brunei before sailing to Hawaii. Nine ships from the four countries conducted drills involving maneuvering, communications and live weapons fire while en route to Pearl Harbor, where they arrived on Tuesday.

U.S. Navy chief Admiral Jonathan Greenert said last year RIMPAC allowed participating forces to practice high-end ballistic missile defense, surface and anti-submarine warfare in simulations and live-fire missile and torpedo exercises.

This year's exercises will include "cross-decking," where liaison officers from one country will be aboard the ship of another during the maneuvers, a U.S. defense official said.

"It benefits both countries and helps communications. It's a win-win situation," the official said.

China's Defense Ministry, in comments carried in the official People's Liberation Army Daily, said China's participation showed the country's willingness to promote the healthy development of military ties with the United States.

"While China and the United States have a vast array of joint interests, certainly there do exist disagreements," ministry spokesman Yang Yujun was quoted as saying, pointing to people in Washington who seek to "exaggerate" the military threat of China.

U.S. officials say exercises like RIMPAC help navies involved learn how to work together in a wide range of operations, including disaster relief and countering pirates.

#### **China Gains Most**

They say deeper U.S.-China military ties help encourage transparency and clear lines of communication. But critics question whether including China in events like RIMPAC benefit China far more than they do the United States and its allies.

The exercises come at a time when tensions are high between Beijing and U.S. allies such as Japan and the Philippines over China's pressing of territorial claims in the South and East China Seas and Vietnamese vessels have clashed with China over waters claimed by both nations.

Austin Strange, a researcher at the U.S. Naval War College's China Maritime Studies Institute, said participation in the exercises was an opportunity for China's navy to demonstrate its increased capabilities and to get a closer look at other navies.

"RIMPAC and China's participation ... is unlikely to directly impact peace in the Asia-Pacific region," he said. Asia-Pacific stability rests more on the ways in which states communicate and pursue their national interests vis-à-vis other states in the region."

The Pentagon's emphasis on trust building and trying to promote common views on regional security were "misplaced," said Oriana Mastro, an assistant professor of security studies at Washington's Georgetown University.

"We are not forging personal relationships of the duration and degree necessary to keep two countries from going to war," she said. "And in my opinion, dialogue will not successfully convince the Chinese to rethink what they consider to be national interests."

However she said inviting China did help to counter Beijing's line that the United States is trying to "contain" China and fitted with Washington's assertion that it welcomes a greater Chinese global role, as long as it is constructive.

Roger Cliff, an analyst at Washington's Atlantic Council think tank, said Washington may also hope China will reciprocate by inviting the U.S. Navy to participate in a PLA Navy exercise.

But he said China was likely to gain more from RIMPAC than it gave away.

"They will ... learn from observing us and the other participants, and they will not only learn about our capabilities, they will also learn how to perform things more efficiently or effectively, whereas they probably don't have much to teach us in that regard," he said.

"So they probably will learn more than we do."

### ***Russian Navy Launches New Diesel-Electric Submarine in St. Petersburg globalpost.com, June 27***

ST. PETERSBURG, June 26 (Xinhua) — The Russian Navy on Thursday held an official ceremony in this northern city of St. Petersburg to mark the launch of a new diesel-electric submarine in the latest addition to its Black Sea Fleet.

The General Director of St. Petersburg's Admiralty Shipyards Alexander Buzakov said at Thursday's launching ceremony that the new diesel-electric submarine Rostov-na-Donu, along with other vessels in the ongoing Project 636 series, represented a 'thoroughgoing modernization' of existing Russian submarine technology.

"The outside remains the same, but inside is completely different: a new torpedo defense system, new acoustic technology and new radio-electric equipment," Buzakov said.

The Rostov-na-Donu will join its Project 636 sister sub Novorossiysk for Black Sea duties which will include "working together with surface forces and anti-submarine aircraft to solve complex problems" in its operating areas, according to Russian Navy spokesman Admiral Viktor Chirkov.

As well as covering the Black Sea, the new sub is also set to assist Russian naval activities in the neighboring Mediterranean.

Over the next few years, a total of six diesel-electric submarines are scheduled to join the Black Sea Fleet under the auspices of Project 636, with work on the third and fourth subs in the series, Stary Oskol and Krasnodar, already underway. The vessels are designed to combine a high level of stealth with the ability to detect and attack enemy craft from a long range.

Project 636 is part of a broader development strategy for Russia's Black Sea Fleet. Russian Defense Minister Sergey Shoigu has promised an investment of more than 86 billion rubles (about 2.55 billion U.S. dollars) in the Black Sea Fleet up to 2020.

***Hail to the Deep: A Strategy for Submarines***  
***James Holmes, The National Interest, June 25***

The grandmasters of naval strategy died before the sub came into its own. Can their insights be salvaged for a new era?

IT'S EASY to forget the virtues of submarines, which lurk beneath not only the waters but also the consciousness of most Americans. They aren't as iconic as fighter jets or as visceral as tanks. But they can deny a stronger enemy navy control of important waters. Afterward they can exercise command of the sea, blockading or projecting power onto enemy shores with impunity. These elusive warships, in other words, pack an outsized punch.

Just ask Eugene Fluckey. Nicknamed "Lucky Fluckey," the World War II submarine commander sent the most enemy tonnage to the ocean's bottom of any skipper in the Pacific. Sinking Japanese tankers, freighters and other merchantmen dismembered a Japanese Empire reliant on sea transport. And raiding shipping was an option of first resort for Washington. U.S. Pacific Fleet submarines were able to start attacking Japanese shipping while American battleships were still burning in Pearl Harbor—long before the U.S. Navy surface fleet penetrated western Pacific waters. That's what naval specialists call "sea denial." It's a strategy for hindering or preventing stronger adversaries from using certain nautical expanses.

Submarine operations spread progressively westward as the navy seized Pacific islands where forward bases could be built. Nearby bases let U.S. submariners establish a near-constant presence in Asian seas, sinking even more merchant shipping while pummeling the Imperial Japanese Navy from below. As the tide turned in the Pacific, undersea warfare made an indispensable contribution to American "command of the sea," meaning near-total control of important sea areas.

And late in the war, Fluckey's boat USS Barb took the fight directly to Japan, engaging in gun duels against Japanese shore sites. A landing party even went ashore to blow up a train. Such theatrics aside, Harvard professor Stephen Rosen maintains that a submarine blockade of Japan could have compelled Tokyo to surrender—even had President Harry Truman declined to order the atomic bombings of Hiroshima and Nagasaki. That's high praise for these humble-looking ships of war.

Sea denial, sea command, the exploitation of command: submarine operations span the range of naval missions. Yet despite a century's proof of submarines' efficacy, from World War I in the Atlantic to the competition with China today, the classics of sea-power theory—the closest thing seafarers have to a how-to manual of naval combat—are puzzlingly silent on how to employ them in wartime or peacetime. The classics concentrate overwhelmingly on surface warfare, scanting undersea combat. It is high time to bring submarines into the canon.

AS AMERICAN submariners like to boast, some ships are built to submerge while others are made to submerge—once! There's truth to that jest. First, these are warships that operate in three, not two, dimensions. In this sense they resemble combat aircraft, which can overfly surface fleets at altitudes of their choice. Adding that z-axis to submarines' maneuvering space lets them operate not just near but also within the defensive perimeters around enemy formations. Think about the German U-boat lurking underneath a U.S. Navy destroyer in the World War II film *The Enemy Below*.

Surface vessels navigate across what amounts to a featureless plain, whereas submarines roam within a vast, three-dimensional column of water. This flexibility opens up tactical and operational vistas for submarine skippers that are unavailable to their surface brethren, whose ships lumber around in (mostly) plain sight. On the other hand, sub crews have to contend with terrain when operating in shallow water. Undersea warfare resembles land warfare in that sense. Soldiers work around mountains, valleys and defiles. Submariners must take account of the sea floor's uneven if not shifting topography—in the near-shore environment in particular.

Second, concealment is a submarine's chief method of defense. Surface-ship designers assume adversaries can detect, target and attack men-of-war plying the ocean's surface. Such vessels must be stoutly built to absorb hits from enemy missiles or gunfire. They also boast elaborate active defenses—radar, antiaircraft and antiship missiles, electronic warfare—to ward off assault. The overriding assumption: ships exposed to enemy sensors will take hits.

By contrast, submariners go to extravagant lengths to hide. Loath to give away their presence—and thereby compromise their defenses—submariners typically operate their sonar sets in "passive" mode. They listen for telltale sounds emanating from enemy boats. Once they hear another ship's engineering plant or other noise, they can identify,



track and target it. This acoustic cat-and-mouse game works both ways. Running silent helps a boat evade detection. Slowing to a crawl quiets noise from the propulsion machinery.

Third, submarines are loners for the most part. Surface engagements are about concentrating firepower at decisive places on the map to overwhelm an opponent. Submarine warfare is about individual units hunting for action. Surface ships generally steam in concentric formations centered around “high-value units” such as aircraft carriers or amphibious transports. Outlying picket ships guard the high-value unit against surface, aerial or subsurface assault. A layered defense constitutes the carrier’s best chance of survival in a contested environment. Once in range, the formation projects offensive firepower against a hostile fleet or onto hostile shores.

### ***Time To Actively Deter North Korea***

***Patrick M. Cronin, The Diplomat, June 25***

“It’s time to make North Korea have to worry more about deterring us rather than the other way around.”

It is only a matter of time before North Korea flaunts its ability to miniaturize a nuclear warhead, deploy intercontinental ballistic missiles and road-mobile missile launchers, and expand its plutonium nuclear arsenal with highly enriched uranium warheads. The cumulative failure of diplomacy to rein in Pyongyang’s nuclear and missile programs begs the question as to whether it is time to turn the tables on North Korea. Rather than buy into a losing competitive strategy, hasn’t the time come for the United States and the Republic of Korea (ROK), with the support of others, to pursue a strategy of active defense that alters the North’s cost-benefit calculus?

The North Korean threat is inherently volatile and far more dangerous in the near-term than the sea skirmishes in the East and South China Seas. Because the North threatens to escalate, however, democracies are reluctant to accept risk. Former Secretary of Defense William Perry backed off possible strikes on Yongbyon reactor in 1994 because, as he put it, he was seeking to avert a general war rather than to cause it.

Without throwing caution to the wind, the U.S.-ROK alliance needs to introduce more risk into its approach. Our risk aversion grants North Korea wide latitude for mischief. Pyongyang uses an array of asymmetrical means – from unmanned aerial vehicles (UAVs) and cyber warfare to mini submarines and nuclear weapons – to poke holes through the superior conventional capabilities of the U.S.-ROK alliance. This is because the main purpose of the North’s asymmetric threats is not to use these weapons but to coerce benefits by threatening to use them.

The United States and the Republic of Korea have responded to the growing uncertainty surrounding the Kim Family Regime under the young Kim Jong-Un. They have doubled down on readiness, counter-provocation plans, exercises, deployments and missile defenses. These are important and welcome steps. But at some point the alliance needs to understand the math: North Korea is capable of posing more asymmetrical threats than the alliance can afford to counter with 100 percent effectiveness. Instead of trying to counter each specific threat, Seoul and Washington need to balance deterrence by denial with deterrence by punishment.

Such an active defense strategy has at least three essential defense components. The first is an upgraded intelligence, surveillance and reconnaissance (ISR) network, capable of early detection of ballistic missiles, as well as low-altitude cruise missiles and UAVs. The second is an upgraded missile defense system that includes deployment of better point defense systems (PAC-III) and wider-range defenses that include not only Standard Missiles on Aegis-equipped destroyers but also land-based Terminal High-Altitude Area Defense (THAAD) batteries. Third, there must be a stronger offensive capability, one that poses a “kill chain” threat capable of preempting missile launches before they happen. The aim is not to actually preempt but rather to pose the threat of preemption, thereby forcing North Korea to be more circumspect before threatening to turn South Korea into a sea of fire with every whim.

One way to threaten preemption even without missiles is to further develop a non-nuclear electromagnetic pulse (EMP) weapon that could neutralize missiles on the launcher. Because North Korea will soon develop road-mobile missiles capable of firing nuclear weapons, the further development of non-nuclear EMP systems capable of taking out, say, a 50-square-kilometer joint fire area, would also shift the cost-benefit calculus against North Korea.

Let’s also consider the recent North Korean deployment of three UAVs into South Korea. It boggles the mind to imagine how much leverage North Korea appeared to gain in South Korea by deploying what amounted to toy drones that pose no direct threat to the country. After all, the United States and South Korea have two huge advantages over

the North: they are both open democracies with advanced technology. North Korea, on the other hand, is a closed society fearful of information, which forces it to smuggle in whatever technology it can buy through clandestine channels and the black market.

In addition to direct defense investments, the UAV incident suggests that the alliance should be making far greater use of its information advantage. While North and South Korea agreed some years ago to forego psychological warfare against each other, the North is a flagrant purveyor of vitriol and falsehood. Surely the alliance can better saturate the North with uncomfortable facts – from pictures of Kim Jong-Un’s luxury houses side by side with North Korean gulags, to video lectures by North Korean refugees who have managed to escape the world’s most oppressive regime.

The bottom line is this: in addition to shoring up deterrence with more defense, the alliance can gain greater leverage against North Korean brinkmanship and coercion by adding an element of active defense and information warfare. It’s time to make North Korea have to worry more about deterring us rather than the other way around.

Dr. Patrick M. Cronin is senior advisor and senior director of the Asia-Pacific Security Program at the Center for a New American Security in Washington, DC.

***Changing Times: Door May Open To U.S. Military At Former Vietnam War Hub***  
***Erik Slavin, Stars and Stripes, June 18***

YOKOSUKA NAVAL BASE, Japan – The United States flag once flew over 25,000 acres of airfield and port facilities at Cam Ranh Bay, one of the military’s largest bases at the height of the Vietnam War.

Although it is doubtful that the valuable South China Sea port would be shared by U.S. forces, a hearty welcome from Vietnam to visiting U.S. warships and aircraft is growing increasingly likely.

When China moved a \$1 billion oil rig in May into waters claimed by Vietnam, the ensuing sea standoff accelerated a warming U.S.-Vietnam military relationship like few other events could have, defense analysts and diplomats told Stars and Stripes following a regional security summit this month.

China’s claim to about 90 percent of the South China Sea, largely based on what it calls historical discoveries, threatens Vietnamese claims to resource-rich waters and islands near their continental shelf. While the U.S. takes no position on territorial sovereignty, Vietnam’s interests – along with those of several other nations bordering the South China Sea – align with U.S. principles of freedom of navigation and international law.

The United States also wants to protect what is, according to a 2012 U.S. estimates, \$1.2 trillion in U.S. trade transiting along South China Sea shipping lanes.

“There have been remarkable strides already made in last few years, and it’s been very rapid since 2010 in terms of U.S.-Vietnam military relationships,” said Christian Le Mière, senior fellow at the International Institute for Strategic Studies. “Continued assertiveness by China in the South China Sea will only further convince the Vietnamese that they should be expanding their international alliances, and that includes the United States.”

The U.S. Navy has been making port visits to Da Nang in recent years, engaging in activities that started with sports and ship tours with Vietnamese sailors, and developed into a joint search-and-rescue exercise last year. Greater U.S. Navy access to Cam Ranh Bay, further south near Nha Trang, would represent a bigger step in the military-to-military relationship.

The deep water port is about seven miles from open sea and is capable of accommodating aircraft carriers, and its facilities recently underwent millions of dollars in upgrades. Its airport is used by both Vietnamese military forces and by commercial carriers.

U.S. Military Sealift Command ships have visited for repairs – the first came along with former U.S. Defense Secretary Leon Panetta in 2012 – but no active U.S. Navy ship has visited the port since the Vietnam War.

On May 31, with senior Chinese military officials in attendance at the Shangri-La Dialogue security summit in Singapore, Vietnamese Defense Minister Gen. Phùng Quang Thanh touted Cam Ranh Bay to all comers, commercial and military.

“Vietnam sees that it is a waste if [Cam Ranh Bay] is not put into use, so we are considering our own investments, management and construction of the port to provide services to ships from all countries,” Thanh said.

However, analysts agree that Vietnam will take a cautious approach to engagement with the U.S., balancing the

relationship with other large powers. Russia remains Vietnam's most important defense supplier. The Russians are building six Kilo-class submarines for the Vietnamese, and they'll have a regular presence at Cam Ranh Bay as well.

Most analysts don't see the Russian presence as a sticking point. But U.S. rotational basing at Cam Ranh Bay, similar to the agreement struck earlier this year granting U.S. access to Philippine-run bases, is out of the question for now.

Instead, the U.S. and Vietnam can send an effective message to China through regular port visits, refueling stops and other measures, said Carlyle Thayer, a professor emeritus at University of New South Wales in Australia and Southeast Asia analyst who was in Hanoi when the China confrontation began.

Vietnam paved the way for such engagement on May 20 in a little-noted, but potentially important decision to join the Proliferation Security Initiative, Thayer said.

PSI was created by the U.S. and Poland in 2003 as an international effort to interdict vessels carrying weapons of mass destruction, and it has since garnered signatories from more than 100 countries.

Vietnam joined with China in strenuously arguing that PSI violated international law, until Hanoi changed its mind last month.

"It's a bait on the hook to request the United States to assist in standing up their ability to conduct maritime reconnaissance and surveillance, and link to shore-based radars and other technical equipment," Thayer said.

The additional U.S. presence could force China to act less aggressively in the area, while at the same time allowing Vietnam to show that it took no provocative action against China.

Although China and Vietnam have each accused each other of ramming ships and stoking tensions, it is clear that Vietnam can't afford to be the aggressor against the much larger Chinese fleet.

Vietnam's functional coast guard is 40-odd vessels and most of them are relatively small, at 400 tons or less. China's coast guard includes dozens of ships more than twice that size, and that's assuming China sticks to a pledge of not using its navy – though Vietnam says China has already sent warships to the oil rig confrontation.

"[Vietnam's fleet] is like a junior varsity team playing football against NFL pros," Thayer said. "Guess who's going to be pushed down the field?"

### ***North Korea Cruise Missile Fuels Proliferation Concerns Agence France-Presse, June 17***

SEOUL, South Korea – North Korea appears to have acquired a sea-based copy of a Russian cruise missile, the latest step in an effort to enhance its maritime strike capability, a U.S. think-tank said Tuesday.

A state propaganda film disseminated on social media sites, including YouTube, provides a very brief glimpse of the missile being launched from a naval vessel.

Writing on the closely watched 38 North website of the U.S.-Korea Institute at Johns Hopkins University, arms control expert Jeffrey Lewis said the missile would mark "a new and potentially destabilizing addition" to North Korea's military arsenal.

Lewis identified the weapon as a copy of the Russian-produced KH-35 – a sea-skimming anti-ship cruise missile developed during the 1980s and 90s.

Although the range and payload of the KH-35 fall below the threshold set by the Missile Technology Control Regime, any export of cruise missiles to North Korea would be a violation of UN sanctions.

"Although direct sale from Russia seems most likely, it is possible that North Korea obtained them from a third party like Myanmar," said Lewis, who is director for East Asia at the James Martin Center for Nonproliferation Studies.

As well as Myanmar, Russia has exported sea- and land-based cruise missiles to Algeria, India, Vietnam and Venezuela.

"The possibility that North Korea might sell KH-35 technology to others ... is not a happy thought," Lewis said.

The development of the North's conventional weaponry has largely been overshadowed by concerns over its nuclear weapons programs.

Last month, 38 North published satellite photos showing two new North Korean warships – the largest it has constructed in 25 years.

The website said the two helicopter-carrying frigates represented an “important wake-up call” about the effectiveness of sanctions.

The flip-side of the North’s naval capability was shown in pictures released Monday by the official KCNA news agency, showing supreme leader Kim Jong-Un riding in the turret of a rusted Romeo-class submarine developed by the Soviets in the 1950s.

“The submarines that our Navy holds are far superior,” commented South Korean Defense Ministry spokesperson Kim Min-Seok.

### ***Fading Solid Fuel Engine Biz Threatens Navy’s Trident Missile Sydney J. Freedberg Jr., Breaking Defense, June 16***

CAPITOL HILL—“Failure to launch” isn’t a metaphorical concern when you work on nuclear weapons. That’s why the director of the Navy’s euphemistically named Strategic Systems Program (SSP) is a worried man. What has Vice Adm. Terry Benedict worried is something neither he, nor the Navy nor the entire Defense Department directly control. It’s the viability of what Benedict called “an already fragile industry” that produces the solid-fuel rocket boosters for the Navy’s Trident submarine-launched ballistic missile (SLBM). The worst part is that the solid fuel rocket engine business is an industry that will live or die not on the military’s own decisions, but on NASA’s.

“NASA is the large procurer in this whole equation, so what NASA does affects everyone,” from the Navy to the custodian of the nation’s spy satellites, the National Reconnaissance Organization, Benedict told me after the Peter Huessy Congressional Breakfast here. The retirement of the Space Shuttle already hit US rocket-motor manufacturers hard and raised prices for the industry’s remaining customers, including the Trident program. Yes, in theory you could import rocket boosters from abroad, but in practice the big seller is Russia, which is a problematic partner on rocket programs (and other things) right now. “I don’t think we’d ever procure Trident motors outside the United States,” Benedict said bluntly when I raised the prospect.

Next, in 2016, NASA will decide whether its new boosters will use liquid fuel, solid propellant, or a mix. If they go all or mostly liquid, that’s a potential death blow for domestic solid fuel manufacturing, and the Trident’s a solid-fuel missile. Even if the Navy could afford to design a replacement, it would still have to use solid propellant, because liquid rocket fuel is simply unsafe in the tight confines of a submarine.

That’s a unique Navy dilemma. In the Air Force ICBM program, for instance, “they do use liquids today in their upper stage,” Benedict told me. “Liquid [fuels] are a prohibited item on submarines.”

This isn’t a problem Benedict or his bosses at the Pentagon can fix by themselves. “I don’t think this is an SSP issue, an Navy issue, a Department of Defense issue. This is a national issue,” Benedict said. “If you want to have that capability, it should not be on SSP’s back” to keep the industry alive until someone else decides to start buying again.

That sounds awfully similar to the argument that Benedict’s shipbuilding colleagues make about the submarine that will carry the Tridents when the current Ohio-class SSBN becomes too old to operate in the 2030s: The Ohio Replacement Program (formerly SSBN(X)) is too expensive and too important for the Navy budget to have to carry alone, they argue. Congressional supporters are moving to set up a special account for ORP outside the Navy budget, but actually finding the funding will be much harder.

The service has already decided to save money by pouring old wine into new bottles. It will equip the future sub with the existing Trident D-5 missile — already 25 years old this December — rather than design a new one. That plan will keep the D-5 in service “more than twice as long as any previous missile program,” Benedict told the breakfast audience. “We will be entering uncharted territory.”

It’s up to Benedict and SSP to keep the Trident functional for decades to come. They’re working hard on overhauling and replacing aging components, from the flight controls to the navigation system to the rocket motor. SSP is buying least 12 new boosters a year to replace ones getting too old to safely use. (Trident fuel contains nitroglycerine and, unlike wine and cheese, definitely does not improve with age). But SSP is a relatively small player in the rocket motor market.

So what’s Plan B? If the Navy can’t convince NASA to keep buying solid propellant, maybe it can convince the Air Force to do so when it eventually builds the new Ground-Based Strategic Deterrent. Currently the Air Force has

fully modernized its inventory of rocket motors and stopped procurement, Benedict said, but it is conducting an official Analysis Of Alternatives (AOA) for the future GBSB missile, and Benedict's staff are participating.

"In the past, it's been, 'the Navy designs SLBMs, the Air Force designs ICBMs, and never shall they talk,'" Benedict said at breakfast. "I'm trying to break down those walls. . . . We should be required to talk at the design and development phase."

There are even commercial users of solid propellant — but they use lower-powered varieties than the Navy requires, so a single formula won't work for civilians, sailors, and Air Force missileers. "You'd love it to be common across everybody; I'm not sure that's realistic," Benedict said. "But can we create a propellant mix that uses common constituents, so that we can get the cost advantage of bulk buys, and then mix them potentially in slightly different formulations [for each user]? That's exactly the R&D that we're running with the Air Force and with industry right now, and quite frankly it's giving us some pretty positive returns."

### ***Heavily Armed Nuclear Sub Ready For Deep Sea Tests Outside Norway*** ***Thomas Nilsen, barentsobserver.com, June 17***

After 23 years of construction, the multi-purpose submarine "Severodvinsk" hoisted the navy's flag today. Next mission is likely deep sea tests west of the Bear Island.

Never before in the Russian navy's history has a submarine been under construction for such long period. Starting back in 1993, based on drawings and blueprints that still had the USSR-stamps, the K-329 "Severodvinsk" became the navy's first 4th generation nuclear powered submarine armed with cruise-missiles that can carry nuclear warheads.

The submarine is the first of eight in the Yasen-class, the most heavily armed since the Oscar-II class. While the Oscar-II class, like the ill-fated "Kursk" submarine, can carry cruise-missiles with a limited range, "Severodvinsk" and her coming sister vessels carries an assortment of long-range cruise missiles, able to hit targets from 5,000 to 1,500 kilometers away. Such distance nearly erases the traditional classifications of what is a strategic submarine and an attack submarine.

"Severodvinsk" was first supposed to be launched in 1995 and commissioned for the Northern fleet in 1998. Economical and huge technical upgrade challenges for both the reactor, electronic warfare systems and weaponry, however, delayed those plans. Four years ago, in June 2010, "Severodvinsk" was finally put on water from the Sevmash yard in the city of which the submarine got her name. The maiden voyage took place in the White Sea in September the year after. The submarine spent some 100 days at sea during the period until autumn 2012, testing weapons, propulsion and other gear.

Before the submarine set sail for another series of tests in November 2012, BarentsObserver quoted a statement from Russia's former Deputy Commander Admiral Igor Kasatonov claiming some systems in the sub have significantly deteriorated due to the long construction period. Izvestia reported the same autumn that around 2,000 technical flaws were discovered during the tests.

In a longer interview with Rossiskaya Gazeta on Tuesday, CEO of Malakhit Design Bureau, Vladimir Dorofeev, explains why the submarine today is officially transferred from the construction yard to the navy.

"The purpose [of transferring to the navy] is to organize and conduct tests that could not be carried out for objective reasons," says Vladimir Dorofeev. He explains that the White Sea is not deep enough for needed deep-dive tests. New submarines from Sevmash are normally tested in the waters from outside the Kandalaksha bay towards the outlet of the Varzuga River on the southern shores of the Kola Peninsula. At the deepest, these waters are 330 meters.

"Severodvinsk" can dive to 600 meters depth.

"I can most definitely say that electronic weapon systems can truly only be experienced on the high seas at great depths . . . including deep dive," says Dorofeev," to Rossiskaya Gazeta.

With depth from 150 to 400 meters, the Barents Sea, where the Russian Northern fleet's nuclear powered submarines normally operate, is no deep enough for testing "Severodvinsk."

The shelf first goes deep where the Barents Sea meets the Norwegian Sea, northwest of Troms and Finnmark and west of the Bear Island. Here the depth down to more than 2,000 meters. Also, the sailing distance from the naval bases on the Kola Peninsula is short. It was in these waters the Soviet navy's most deep diving submarine ever; the

“Komsomolets” was exercising her diving capabilities when the disastrous fire started on April 7, 1989. “Komsomolets” sank, killing 42 of the crew members.

According to Wikipedia, “Komsomolets” was a one-of-a-kind submarine developed to test technologies for Soviet 4th generation submarines.

It is not clear for how long the “Severodvinsk” will conduct deep diving tests, or from which naval base, Zapadanaya Litsa, Vidyaevo or Gadzhievo, she will operate out from.

Steinar Høibråten is expert on nuclear safety with the Norwegian Defence Research Establishment. He says to BarentsObserver that a nuclear submarine, like the “Severodvinsk” will most likely not be carrying weapons while undergoing tests.

“In case of an accident, I am much more worried about releases from the nuclear reactor than contamination from the weapons. Metallic uranium or plutonium will not contribute much to the radioactivity in the oceans,” Steinar Høibråten says.

Nuclear physicist and expert on safety on Russian reactors, Nils Bøhmer with the Bellona Foundation in Oslo, says to BarentsObserver that accidents do happen, also on new submarines.

“Even though the Navy now gets more modern equipment, we know from experiences, like with the “Komsomolets” submarine that new submarines are no guarantee against accidents,” explains a worried Nils Bøhmer. He would better see the money spent on clean-up security after the Cold War that left huge amounts of nuclear waste at run-down storages along Russia’s northern coast.

“We think that when the Russian Navy can afford spending huge amounts on new equipment, they should also raise the spending on the cleanup of nuclear waste from the Cold War period, when up to 150 nuclear submarines were operating out from the Kola Peninsula,” argues Nils Bøhmer.

“Severodvinsk” is powered by one nuclear reactor. When fully armed, the 119 meters long submarine can carry 24 cruise missiles and eight torpedo launchers. She has a crew of 90. The two next submarines in the Yasen-class, named “Kazan” and “Novosibirsk” are already under construction, while the forth “Krasnoyarsk” will be laid down on Thursday this week.

***The Navy’s Top Secret Submarine Base In Land-Locked IDAHO Where Its New Stealth Technology***  
*dailymail.co.uk, June 15*

The Navy’s Acoustic Research Detachment at Bayview, Idaho, is located some 375 miles from the ocean on the banks of Lake Pend Oreille. It provides the perfect conditions for testing new submarine advancements as conditions closely mimic the ocean. ARD Bayview has supported every major submarine design development of the last 65 years and saved the Navy millions of dollars as a result.

The U.S. Navy’s submarine bases are some of the most high-security installations in the world, but one of the most important is located at a lake in landlocked Idaho.

The Navy’s Acoustic Research Detachment (ARD) at Bayview, Idaho, has supported every major submarine design development of the last 65 years.

Although located some 375 miles from the ocean, it has been called ‘the U.S. Submarine force’s most important body of water’ by Admiral Edmund Giambastiani, who once headed the Navy’s submarine warfare group.

ARD is located on the banks of Lake Pend Oreille, which provides the perfect conditions for testing new submarine advancements as conditions closely mimic the ocean, reports FoxtrotAlpha.

At about 1150 feet, the lake is deeper than Loch Ness, while its large size, clear water and quiet conditions - provided by steep tree-lined shores and a flat muddy bottom - mean it has been a key testing location for the Navy since WWII.

How Isis have rampaged towards the capital: A blow by blow account of how Islamist militants outnumbered 20-to-1 by the army cut through huge swathes of Iraq.

U.S. Army appoints General to lead investigation into Bowe Bergdahl’s desertion and capture by the Taliban Smiling assassin of Iraq dubbed the Desert Lion who has reputation for roadside executions enjoys his role as the poster

boy for jihad.

The lake also stays remarkably calm for its size and maintains a constant chilly temperature under 100 feet.

Much of the testing is done using a large network of extremely sensitive hydrophones placed in key locations on, or tethered to, the bottom of the lake.

The main testing area is called the Intermediate Scale Measuring System which is a 1,000 foot diameter circle of hydrophones mounted on the bottom of the lake or suspended via buoys.

It is a controlled environment created to evaluate a vehicle's signature and sensors.

The Buoyant Vehicle Test Range is used to measure the sound that the forward sections of a submarine design, mainly its bow, makes while moving through the water.

It allows for better bow sonar acuity and quieter subs.

The Large Scale Vehicle Range is where 1/4 scale submarines, which usually closely resemble operational subs of both past and present, go out and run through their paces under their own power.

This allows for a wide variety of items to be tested, such as a boat's wake signature, new sail designs, propeller noise, new sub-scale propulsion concepts and propulsor configurations and a design's active handling capabilities.

There are two known Large Scale Vehicles currently in service at ARD Bayview.

The LSV-1 Kokanee is a 1/4 scale model of the Seawolf Class of American subs. It is 90 feet long by ten feet wide and can travel at 3,000hp.

The second, known as LSV-2 Cutthroat, is the largest unmanned submarine in the world at 110 feet long. She was designed to be modular in nature and can travel at up to 6,000hp.

Over the years, ARD Bayview has helped save the Navy billions of dollars as they seek to develop more advanced submarines.

### ***Cold War-Style Spy Games Return To Melting Arctic Karl Ritter, Associated Press, June 11***

OSLO, NORWAY – In early March, a mysterious ship the size of a large passenger ferry left a Romanian wharf, glided through the narrow strait that separates Europe from Asia and plotted a course toward Scandinavia. After a two-year refitting, the \$250 million ship will begin its mission: to snoop on Russia's activities in the Arctic.

"There is a demand from our political leadership to describe what is going on in this region," said Norway's military intelligence chief, Lt. Gen. Kjell Grandhagen.

As climate change eats away at the sea ice covering the North Pole, Arctic nations – the U.S., Canada, the Nordic countries and Russia- are fishing for secrets in East-West spy games echoing Cold War rivalries. The military dimension remains important but this time there's an economic aspect, too: getting a leg up in the competition for potential oil and gas resources, along with new shipping lanes and fishing waters.

Summer sea ice reached a record low in 2012 and scientific projections suggest it could disappear completely this century. New areas of open water already have allowed more shipping through the Northern Sea Route north of Russia. The melt is also opening a new energy frontier – the Arctic is believed to hold 13 percent of the world's undiscovered oil and 30 percent of its untapped gas.

The most accessible resources lie within national boundaries and are undisputed. Security analysts say the risk of conflict lies further ahead, if and when the ice melts enough to uncover resources in areas where ownership is unclear. The U.S., Canada, Denmark, Norway and Russia are expected to have overlapping claims.

Critics say the U.S. lags in the race. A panel of retired generals recently found that despite a slew of planning documents, the Coast Guard has only one fully ready icebreaker and the U.S. Navy has few ice-hardened vessels that can operate in the Arctic, other than nuclear submarines.

"The geopolitical situation is ever more nuanced and complex. The risk of maritime events, or even unpredictable flashpoints, endemic to national security is growing," retired Admiral Frank Bowman warned in the report.

Russian President Vladimir Putin stressed at a national security meeting his desire "to maintain Russia's influence in the region and maybe, in some areas, to be ahead of our partners."

In 2007 Russia resumed long-range strategic bomber flights over the Arctic and planted a Russian flag on the

seabed beneath the North Pole. More recently, it asserted control over the Northern Sea Route with naval deployments and by reopening a military base on the New Siberian Islands. The first oil supplies were unloaded from an ice-resistant platform in Russia's Pechora Sea, which Putin described as "our first step in developing the Arctic sea shelf."

Even before the Ukraine crisis chilled cooperation between Russia and the West in the Arctic, the region's Western nations were trading accusations of cyber-attacks and espionage with Russia and China:

-In Norway, security officials say the country's Arctic plans and know-how, including cutting-edge technology for offshore drilling in harsh weather conditions, is attracting unwanted attention from foreign spies.

- In Canada, a naval officer received a 20-year prison sentence for spying for Russia.
- Police arrested a Toronto man in December for allegedly trying to supply China with sensitive information about Canada's plans to build Arctic patrol ships, allegations China denies.
- In Denmark, a political science professor, Timo Kivimaki, served 2 1/2 months under house arrest after a court found his contacts with Russia violated Danish espionage laws. In a rare interview, he told The Associated Press he was carrying a briefcase with public documents about Danish experts studying Arctic policy when he was arrested on his way to a meeting with a Russian diplomat.
- An NSA document dated April 17, 2013, and cited by a Norwegian newspaper in December, said the Norwegian Intelligence Service had helped the NSA with access to "Russian targets in the Kola Peninsula" – home to Russia's Northern Fleet – as well as reports on Russian energy policy.

Grandhagen, the Norwegian intelligence chief, declined to comment on that report but said it's no secret that Norway cooperates on intelligence matters with the U.S.

"You give something and you get something back in other areas. And we give information in areas where we have a good competence and good access," Grandhagen said. Asked what that might be, he said: "I think our understanding of our neighborhood is an area where we are strong."

Grandhagen said Russia is also modernizing its capabilities to collect intelligence, including in cyberspace.

"What I can say is we're aware that Russia has a significant intelligence apparatus including various means to monitor activity on our side," Grandhagen said.

Russia's Foreign Ministry and the SVR foreign intelligence service didn't answer AP requests for comment.

Associated Press reporters Matti Huuhtanen in Helsinki, Jim Heintz in Moscow and Rob Gillies in Toronto contributed to this report.

### ***Chinese Weapons That Worry The Pentagon***

***Sam LaGrone and Dave Majumdar, U.S. Naval Institute News, June 9***

The Pentagon released its 2014 report to Congress, Military and Security Developments Involving the People's Republic of China on Thursday. An annual requirement since 2010, the report outlines military technology advancements and the techniques and training the branches of the People's Liberation Army (PLA) have undertaken in the last year.

While the report seldom contains any earthshattering revelations on China's military advancement, it does – in very broad strokes – give insight to the developments in China that give the Department of Defense the most concern.

The following is a selection of Chinese weapons that were highlighted in the report.

#### **China's Carriers**

No piece of Chinese hardware in the last decade has prompted more U.S. concern than the China's first modern aircraft carrier – Liaoning.

The 55,000-ton ship is a former Ukrainian-built, Soviet-era ship the Chinese are using to learn the ropes of carrier operations – some of the toughest and most dangerous work at sea.

"The carrier most likely will conduct extensive local operations focusing on shipboard training, carrier aircraft integration, and carrier formation training for the next three to four years. The carrier conducted operations in the East China Sea and South China Sea in November may be used for other missions as needed," read the report.

A People's Liberation Army Navy (PLAN) strike group formation operating in late 2013 almost collided with the Ticonderoga-class cruiser USS Cowpens (CG-63).

The carrier is widely seen as a training ground for a domestic carrier program China first hinted at in 2010 and parts



of the Chinese regional government dropped more hints in 2013.

“The first Chinese-built carrier will likely be operational sometime at the beginning of the next decade. The formation of carrier battle groups will enable the [PLAN] to conduct comprehensive sea control and power projection operations and enhance its long-range operational capabilities,” read the report.

Though the carrier grabs headlines, the actual military utility of the ship is still very much up for debate.

“Liaoning currently is more of a political statement than a naval threat, posing little operational danger to the United States, its allies in East Asia, or even to smaller regional nations,” wrote Bernard D. Cole, a retired U.S. Navy officer and instructor at National Defense University, in USNI News in May.

#### China’s Stealth Fighters

China continues development of the twin-engine Chengdu J-20 fifth-generation stealth fighter as part of an effort to “develop aircraft with low observable features, advanced avionics, super-cruise engines.” The Pentagon report insists that the aircraft will not enter service before 2018. The aircraft is described as a multi-role aircraft in the report rather than an air superiority fighter like the Lockheed Martin F-22 Raptor. The report notes “China faces numerous challenges to achieving full operational capability, including developing high-performance jet engines.”

China is also developing the smaller twin-engine Shenyang J-31 fifth-generation fighter, which bears a resemblance to the Lockheed F-35 Joint Strike Fighter. The report notes that it is unclear which branch of the People’s Liberation Army will operate the new aircraft or if it will be offered for export. “It is unclear if the J-31 is being developed for the PLAAF or the PLA Navy Air Force, or as an export platform to compete with the U.S. F-35,” the report notes.

#### China’s Flying Shark

The Chinese navy also conducted carrier-based operations with its new Shenyang J-15 Flying Shark unlicensed derivative of the Sukhoi Su-33 Flanker in 2013. By September of last year, the report notes that PLAN pilots flying the J-15 were conducting full-stops and takeoffs with weapon loads at full maximum gross weights onboard the carrier Liaoning. “Although the J-15 has a land-based combat radius of 1,200 km, the aircraft will be limited in range and armament when operating from the carrier, because the ski-jump design does not provide as much airspeed and, therefore, lift at takeoff as a catapult design,” the report notes.

#### Bigger Planes

The PLA is also continuing development of the Xian Y-20 heavy strategic airlifter, which first flew at the beginning of last year. “The Y-20 could also acquire additional missions such as an airborne warning and control system (AWACS) and as an aerial refueling tanker,” the report notes.

China is modernizing its geriatric Tupolev Tu-16 Badger-derived Xian H-6 bombers with two upgraded variants that could pose a threat to the U.S. carrier fleet and land bases in the Pacific. The upgraded H-6G has hardpoints capable of carrying four anti-ship cruise missiles. Meanwhile, the newer H-6K has new turbofan engines and room to carry six anti-ship or land attack cruise missiles. “Modernizing the H-6 into a cruise missile carrier has given the PLA Air Force a long-range stand-off offensive capability with precision-guided munitions,” the report notes.

#### Nuclear Submarines

The Chinese have three operational nuclear ballistic missile submarines (SSBNs) which will likely start strategic deterrent patrols this year, according to the report.

The new 11,000-ton Jin-class Type 94 boomers have been under development by the People’s Liberation Army Navy for the last decade and are China’s first real entrée into the sea-based deterrent world.

“Three JIN-class SSBNs (Type-094) are currently operational, and up to five may enter service before China proceeds to its next generation SSBN (Type-096) over the next decade,” according to the report.

With five or six boats in the PLAN’s inventory, China could have a consistent strategic deterrent patrol parallel to France or the U.K. in the next few years, Eric Wertheim, author of Naval Institute’s Guide to Combat Fleets of the World told USNI News in February.

The new boomers replace the older Type 92 Xia-class submarines armed with the much less capable JL-1 submarine launched ballistic missile (SLBM).

Paired with the Jin-class is the new Chinese JL-2 SLBM, which is far more capable than the JL-1 missile that was paired to the Xia-class boomer.

The missile has an “estimated range of 7,400 km. The JIN-class and the JL-2 will give the PLA Navy its first credible sea-based nuclear deterrent,” according to the report.

The missiles could reach Alaska or the U.S. West Coast according to the estimate from a report from the Office of Naval Intelligence (ONI) released earlier this year.

According to unconfirmed press reports, the JL-2 is a three-stage missile capable of carrying three to six warheads with a yield of 90 kilotons a piece or a single warhead with a yield of 250 to 1000 kilotons.

#### Air Defense

China continues to develop its already formidable integrated air defense system. “Defense against stealth aircraft and unmanned aerial vehicles is also a growing priority,” the report notes. The force includes Russian-built SA-20 (S-300 PMU1/PMU2) and the indigenous HQ-9. China interested in the SA-X-21b (S-400). “Russian officials have stated China would not receive the S-400 until at least 2017,” according to the report. “Simultaneously [China is] developing its indigenous HQ-19 which appears to be very similar to the S-400.”

China is also bolstering its early warning systems with the addition of the Kongjing-2000 airborne early warning aircraft – similar in concept to the Boeing E-3 Sentry or Northrop Grumman E-2D. The aircraft would provide coverage at long ranges and low altitudes for faster response and command targeting to weapon systems, according to the report. China is also improving reconnaissance technologies to include infrared, multiple-spectrum, pulsed Doppler, phased array, and passive detection, the report says. The Chinese early warning systems are networked with their integrated air defenses.

#### Guided Missile Destroyers

China is expanding its surface fleet with ships that look similar to the U.S. and Western allies, according to the report.

The Type-052D Luyang III guided missile destroyer is an expression of several advances in surface weapons technology.

“The first Luyang III, which will likely enter service in 2014, incorporates the PLA Navy’s first multipurpose vertical launch system, likely capable of launching ASCMs, land-attack cruise missiles (LACMs), surface-to-air missiles (SAMs) and anti-submarine missiles. China is projected to build more than a dozen of these ships to replace the aging Luda- class destroyers (DD),” according to the report.

However, absent from the report is a discussion of ship’s radars.

The new ships field Type 346 AESA radar and a Type 518 L-band radar paired with the CPMIEC HQ-9B surface-to-air missile defense system, which maybe able to detect U.S. fifth generation stealth aircraft.

#### Intermediate Range Ballistic Missiles

In the last several years, Chinese missile technology has been dominated by DF-21D so-called carrier killer missile.

“China is fielding a limited but growing number of conventionally armed medium- range ballistic missiles, including the CSS-5 Mod 5 (DF-21D) anti-ship ballistic missile (ASBM),” read the report.

“The CSS-5 Mod 5 gives the PLA the capability to attack large ships, including aircraft carriers, in the western Pacific Ocean. The CSS-5 Mod 5 has a range exceeding 1,500 km and is armed with a maneuverable warhead.”

The missile – which U.S. officials claim is operational – has never been seen in use and there’s little evidence the PLA has developed the information, surveillance and reconnaissance (ISR) to guide the missile effectively to a moving carrier target.

The Chinese are also developing medium range missiles that are able to strike regional targets – including Taiwan.

### ***Inside The Absolutely Wild Ride Of The USS Chopper***

***I am not aware of the author of this piece--if you know, please inform me so I can credit the fellow properly. Special thanks to SANITARY EDITOR (Blueback Base), Bob Sumner, for including this amazing account in the July 2014 issue of the Sanitary!***

Sometimes when a submarine goes wildly out of control, it sinks to the bottom. Sometimes when a sub goes wildly out of control, it go straight to the surface. When the USS Chopper lost control, it did both. At tremendous speed. Terrifyingly.

You'd be forgiven if you hadn't heard of the Chopper. It was one of 122 Balao-class diesel-electric submarines,

which were a significant fighting component of United States naval power during World War II. Unfortunately for the Chopper, however, it was completed too late to actually see any action, and was quickly outclassed in the post-war era by nuclear-powered subs with new, innovative tear-drop-shaped hulls.

For much of its life, the boat served as a simulated target for other ships before finally being struck from the Naval Register in 1971.

A notable, popular, and public submarine is also a submarine that isn't very good at its job, so information about much of the Chopper's Cold War operations is scarce. It engaged in a few patrols in the Mediterranean, the Philippines, off the coast of China, and in the Caribbean, but mostly thanks to the fact that the Cold War never really turned hot, there are no unusual stories of unusual happenings

Except for one incident, off the coast of Cuba, in 1969, which led to its eventual decommissioning. Mostly because no one would ever want to get in it again, I imagine.

At 1:40 in the afternoon on February 11th of 1969, Chopper was participating in a training exercise with the destroyer USS Hopkins off the coast of Cuba. Everything seemed relatively normal, for a submarine it was traveling at about eight knots, almost horizontal in the water with a one-degree down angle, and was cruising below the surface at 150 feet.

Like I said, fairly standard stuff for a submarine.

Two minutes later, everything went haywire. For reasons that were immediately unknown to the crew, the sub lost electrical power. Completely.

And for some reason, the dive planes at the rear of the sub immediately reverted a full-dive configuration. The sub was headed towards the bottom, and the crew was deaf, blind, and powerless to stop it.

The crew attempted to regain control within the first five seconds, according to the US Navy report into the incident. Unfortunately for them, their wild ride was just beginning.

Within 15 seconds of the loss of power, the Chopper was pointed downwards at a 15-degree angle. The helmsman in the conning tower desperately tried to call for help from the maneuvering room in the forward section of the submarine, but couldn't get through on the sound-powered phone.

The commanding officer immediately leapt to his feet in the Officer's Mess, and tried his best to make it to the control room. That simple task was becoming increasingly difficult, as the boat continued to pitch downwards like a drunken college student falling over a slight curb.

And if you think I'm joking about how difficult it was just to walk, a modern submarine, operating under normal conditions, at just 29 degrees:

Those submariners aren't standing like they're in Michael Jackson's Moonwalker just for fun.

By 15 seconds after the loss of power in the USS Chopper, the submarine was stuck at a 45-degree down angle, making it easier to walk on the walls than it is to walk on the floors.

The officer on deck ordered a full emergency blow of the submarine's ballast tanks, desperate to get to the surface. And still, nothing happened. The Chopper was operating as if it had a mind of its own, and all it wanted to do was head straight for the bottom like a rocket.

30 seconds after that, the submarine sat, suspended in the water, nearly vertical. Anyone trying to move from

