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The Silent Sentinel

February 2012



Our Creed and Purpose

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

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

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

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

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

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February Meeting

Our monthly meeting will be held (THIS MONTH ONLY) on the second WEDNESDAY of the month at VFW Post 3787, 4370 Twain Ave., San Diego. Our next meeting will be on 15 January, 2012. The post is located one-half block West of Mission Gorge Road, just north of I-8. The meeting begins at 7 p.m. The E-Board meets one hour earlier at 6 p.m.

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Submarine Losses in January

Submitted by C J Glassford



STURGEON (SS25) - Duty Section on Board
Battery Explosion, on 15 Jan 1916, In New York Navy Yard:
“ 4 MEN LOST “

S – 34 (SS139) - 43 Men on Board
Accidental Signal Cartridge Explosion, on 11 Jan 1934:
“ 1 MAN LOST “

S – 26 { BELL } (SS131) - 46 Men on Board
Sunk, on 24 Jan 1942, After Collision with USS (PC460),
In the Gulf of Panama:
“ 43 MEN LOST, 3 SURVIVORS “

ARGONAUT { BELL } (SS166) - 105 Men on Board
Sunk, on 10 Jan 1943, By Japanese Aircraft and Destroyers, Southeast of New Britain, in Solomon Sea:
“ALL HANDS LOST“

S - 36 { BELL } (SS141) - 45 Men on Board
Scuttled, on 20 Jan 1943, After running aground, In Makassar Straits: “NO LOSS OF LIFE“

SCORPION (SS278) - 76 Men on Board:
Probably Sunk, on 15 January 1944, by Japanese Mine, in the Yellow or East China Sea: “ALL HANDS LOST“

SWORDFISH (SS 193) - 89 Men on Board:
Possibly Sunk, on 9 Jan 1945, by Japanese Coastal Defense Vessel or Mine, Off Okinawa:
“ALL HANDS LOST“

SAN FRANCISCO (SSN 711) - 127 Men on Board:
Struck a Sea Mount, on 8 Jan 2005, while Traveling Submerged at High Speed, South of Guam:
“1 MAN LOST“ - “23 MEN INJURED



Report Calls For US To Send More Nuclear Vessels

By Greg Ansley, Nzherald.co.nz, Feb 1, 2012

Defence planners want the United States to operate more nuclear submarines and aircraft carriers out of Australian navy bases as power shifts to the Asia-Pacific region.

The advice by former defence secretaries Allan Hawke and Ric Smith is in a preliminary report on the nation's defence future, the final report due to flow into a 2014 defence white paper.

It will join the findings of an Australia-US group working on linking reviews in both countries that will increase cooperation in the region.

The Hawke-Smith report says it's too soon to judge the full implications of future US moves, but the working group is looking at a greater combined naval presence and more US ships and equipment in Australian ports and facilities.

President Barack Obama and Prime Minister Julia Gillard have already announced major increases in US operations in Australia, including six-month deployments of a 2500-strong marine taskforce in the Northern Territory and more training and visits by American warships and strike aircraft.

The Hawke-Smith report says that faced with Pacific power shifts, Australia must boost cooperation and engagement with the US and other regional partners.

Australia regards the US as its most important defence partner and the alliance as a guarantor of both regional stability and the nation's own security.

Some analysts believe the Government also sees greater US presence in Australia as a potential tripwire for American intervention in the event of attack, at present limited by self-interest and the Guam doctrine requiring countries to tend to their own defence.

The only time Australia sought US help under the Anzus treaty, in the 1960s face off with Indonesia, it was refused.

The Hawke-Smith report said Australia should expand its Stirling naval base near Perth, both for its own growing fleet of warships and submarines and for American nuclear vessels.

In the longer term, a new base could be built in the east, probably Queensland, for the navy's new amphibious ships and planned new submarines, and to allow further US operations.

The report noted that Brisbane was rated for nuclear-powered warships.

Although Washington is secretive about its submarine operations and refuses to confirm or deny the presence of nuclear weapons, US submarines visit the Stirling base and a Los Angeles class fast attack vessel, nuclear-powered and able to fire Tomahawk cruise missiles, took part in last year's big Talisman Sabre exercise off Queensland and the Northern Territory.

Faced with the rise of China and India, the US is swinging its focus from Europe, insulating the Pacific from military budget cuts of US\$487 billion (\$603 billion) over the next decade.

While it will prune the army and marines, and trim its navy by retiring warships earlier than planned, the US will keep its 11 aircraft carriers, six of which are in the Pacific Fleet. The fleet also includes more than 30 ballistic missile and attack nuclear submarines.

The Hawke-Smith report said a key Australian focus was increased defence visibility in the north to counter perceptions of weakness, and to overcome potential problems defending a region that holds vast mineral and energy reserves, including huge natural gas projects in Western Australia.

The report also recommends boosting capacity at other bases in Darwin and Cairns, and increased navy use of commercial ports such as Exmouth, Dampier, Port Hedland and Broome.

And some northern air force bases should also be beefed up to handle large transports and the planned new joint strike fighters, it said.

Increased cooperation with New Zealand was also important, Australia's global commitments such as Afghanistan needing to be balanced with its prime responsibility of defending the continent and dealing with crises in the region.

"If there's a difficulty in the South Pacific, whether stability, security, humanitarian assistance or disaster relief, the world looks to Australia to lead the response together with New Zealand," Defence Minister Stephen Smith said.

The report also said Australia might have to up its Antarctic presence as competition for resources grew, maybe with ice-hardened warships similar to New Zealand's offshore patrol vessels.

Daewoo Enters Submarine Export Market

By Keith Henderson, Maritime Propulsion, Jan 31, 2012

South Korean conglomerate and shipyard Daewoo Shipbuilding & Marine Engineering (DSME) last month announced their first export order for submarines. The order is for three modified Type 209 diesel electric submarines for the Indonesian Navy: two boats will be built in South Korea and the third one at the Indonesian shipyard of PT PAL in Surabaya. The total value of the contract is approximately US \$1.1 billion and construction is due to commence this month with planned commissioning dates of 2018.

The conventional diesel electric Type 209 submarine is a development of Howaldswerke-Deutsche Werft (HDW), now ThyssenKrupp Marine Systems (TMS), Germany for export and is designed to be produced in local yards. The original Type 209/1100 was developed in the 1960s and has been successively improved through type 209/1200, 209/1300, 209/1400 and 209/1500. Under a technology transfer agreement from 1988, DSME acquired rights allowing it to produce the submarines independently from HDW. Although never ordered by the German Navy, the Type 209 is one of the most popular diesel electric submarine classes with 61 boats in service with the navies of 13 countries.

The Indonesian DSME209 Class submarine is a conventional attack class submarine and is larger than the Korean Navy's original Chang Bogo Type 209/1200 Class. It has an LOA of 200 ft (61 m) with a 20.7 ft (6.3 m) hull diameter and a surface displacement of 1,400 tons. There is accommodation for a crew of up to 40 man. Eight tubes are provided for delivery of torpedos and other weapon systems including missiles.

The propulsion system comprises four MTU 12V396 SE84 gensets each rated at 700 kW at 1800 rpm. An electric motor driving a single screw propels the boat on the surface at 11 kn, submerged up to 22 kn. Submerged range is 400 nautical miles (740 km) at 4 kn, 8,000 nautical miles snorkeling at 10 kn and 11,000 nautical miles surfaced at 10 kn.

100 Years Under The Sea

abc.net.au, Feb 1, 2012

In 2014, the Australian submarine will officially turn 100. The year marks two very important events in Australian maritime history - it was the year our first submarines - the AE1 and AE2 - arrived in Sydney. And it was also the year the Australian Submarine Service was established.

As Steve Davies from the Submarine Institute of Australia explains, it was a "far reaching" decision by the Australian government at the time, led by Alfred Deakin, because he acted against the advice of the British government and Australia's Navy.

But it was a timely decision. World War I started just a few months later and the AE2 was the first Allied submarine to penetrate the narrow passage through the Dardanelles to disrupt enemy shipping in the Sea of Marmora.

And even though the AE2 "served us with distinction during World War I", submarines were strangely lacking in the defence of Australia during the Second World War, possibly our time of greatest need, Steve Davies says.

The American, British and Dutch submarines in our region had all withdrawn to Fremantle and Brisbane, as their bases fell to the Japanese.

"Fremantle was the second biggest submarine base in the world in World War Two, after Pearl Harbour, with 165 submarines operating from there... They were vital to our defence but they weren't ours," Mr Davies explains.

Over the next three years, the Australian National Maritime Museum in Darling Harbour will host the Centenary of Australian Submarines, designed to teach us more about our on/off maritime history.

The World First Two-Man Planing Submarine Q-Sub 2400 almost completed

Charterworld.com, January 31

The world first, two-man, planing submarine called the Q-Sub 2400, designed by Hugh Fulton, from the New Zealand's Q-Sub Ltd, is nearing completion. The story of the Q-Sub and its development is one of typical Kiwi determination, doggedness and a willingness to find new solutions to apparently insurmountable problems.

The Q-Sub 2400 is capable of travelling at 20 knots on the surface, and diving to a depth of 400 ft. It is made to ABS (American Bureau of Shipping) and GL requirements, and eliminates the logistical problems of conventional submarines which require surface ships for tenders to lift them from the water.

The Q-Sub has been engineered to make submarining as easy and enjoyable as possible. It has the feel of driving an exclusive two-person sports car, comparable to that of a Ferrari, yet has large acrylic side windows for easy viewing of passing sea life and underwater scenery. The unique and lightweight design of the Q-Sub allows it to travel quickly along the surface of the water like a regular speed boat, giving

potential for multiple dives at different locations and eliminating the restrictions of other personal submersibles.

Q-Subs Ltd has associations with many other international manufacturers of submarines and is a member of P Subs – an USA based organisation which 'promotes and encourages discussion of safety, design, construction and operation of personal submersibles'

Underwater oil rig 'factories' planned to beat catastrophic Arctic ice storms

Dailymail.co.uk, January 29

Oil companies are planning to create huge factories on the sea bed of the Arctic ocean in a bid to prevent extreme weather conditions from hampering their work.

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The giant underwater oil and gas plants will contain all the machinery needed to extract fossil fuels from beneath the waves. It is hoped the rigs would be serviced by a fleet of manned submarines.

According to The Sunday Times, although oil companies already have some of their machinery underwater, the aim now is to move all of it to the seabed.

The plans, however, are likely to prove controversial with environmental campaigners who would be concerned of an underwater disaster, such as an oil spill.

The idea behind the seabed rigs is to protect them from ice and storms which batter the Arctic.

This includes seas which freeze in winter and icebergs which can completely destroy a ship or a rig.

One of the drawbacks would be that servicing of the factories would still need to be carried out by ships - which would also be hampered by the poor weather conditions.

Now plans have emerged to use submarines instead which would be 130ft long and able to descend to depths of 1,500ft.

They would be able to operate beneath the ice and during storms for weeks on end and would carry between 10 and 14 people.

The plans for the special submarine were unveiled at the Arctic Frontiers conference in Tromso, Norway, last week.

Tor Berg, who is a principal research engineer at the Norwegian Marine Technology Research Institute in Trondheim, is designing the vessel.

He told The Sunday Times: 'The Arctic has enormous fossil fuel reserves but there are huge problems in getting the oil and gas out safely.'

'A submarine can work under the ice and storms for weeks at a time making sure that these installations are installed properly and work safely.'

It is thought the submarine could help exploit the Barents Sea, which is home to huge untapped gas and oil reserves.

This has resulted in the Norwegian state oil firm Statoil showing an interest in the new vessels.

The firm already has about 500 wells which are fixed to the seabed.

The equipment is connected to land by electrical cables and pipes, which take the oil and gas to the shoreline.

Problems arise, however, when there are difficulties with the machinery.

Remote-controlled unmanned submarines are normally sent out but when the weather conditions are poor, they are unable to operate.

This can result in enormous extra costs for oil companies.

Bjornar Svenning, a research engineer working on the project, said: 'Such severe conditions can make it impossible to operate conventional oil-drilling equipment, what's more, when they do operate, the risk of a disaster, perhaps resulting in a oil spillage, are sharply increased.'

But the team behind the plans say a submarine could operate for weeks underwater without suffering similar problems.

The US Geological Survey says the Arctic contains oil equivalent to at least 13 per cent of the world's known reserves. For gas, this is believed to be about 30 per cent.

Pentagon Unveils New Plan for Conventional Submarine-Based Ballistic Missiles

FreePublic.com, January 30

The U.S. Defense Department plans to develop a new conventional ballistic missile for fielding on attack submarines, according to major budget decisions announced on Thursday at the Pentagon (see GSN, Dec. 23, 2011).

"The Navy will invest in a design that will allow new Virginia-class submarines to be modified to carry more cruise missiles and develop an undersea conventional prompt strike option," Defense Secretary Leon Panetta said at a press conference.

Obama administration national security leaders — like their Bush administration predecessors — have touted the idea of developing conventional military technologies that could attack urgent targets without having to resort to nuclear-armed ballistic missiles. The capability could be used against terrorist leaders spotted at a safe house or a North Korean ballistic missile being readied for launch, officials have said by way of example.

If the new submarine-based missile plan goes forward, it would be the third such proposed system to receive prompt-strike developmental emphasis. Earlier Pentagon plans for long-range submarine- and ground-based missiles have faced some serious political and technical challenges over the past months and years.

Three main options are now under consideration for pursuing the attack submarine-based capability, Global Security Newswire has learned. Under one possibility, a newly designed intermediate-range ballistic missile could be fielded in two new launch tubes designed initially for carrying Tomahawk missiles aboard the Virginia-class vessels.

A second, more ambitious option would be to install in the attack submarines a so-called “four-pack” missile launcher designed for the Trident D-5 nuclear-armed ballistic missiles on future Ohio-class replacement submarines, also known as SSBN(X). Potentially three of the 32- to 36-inch diameter midrange missiles could fit in each of the four Trident-sized tubes, giving the Virginia-class boats a capability to launch as many as 12 of the conventional ballistic missiles.

This alternative would require a major modification to the attack submarines, namely the addition of a “humpback” midsection behind the sail to accommodate the four-pack launch tubes of significantly greater length than the new Tomahawk canisters, according to defense sources.

A third option — seen as yet more costly and ambitious — would be to adopt a design for an even wider Trident-capable launch tube for humpback installation on the attack submarines. This would potentially allow for the medium-range missiles to be larger and have longer range, sources said.

Budget pressures could force the Pentagon to stick with the first option — assuming that lawmakers are even willing to entertain that possibility, according to Hans Kristensen, who directs the Nuclear Information Project at the Federation of American Scientists.

The relatively small size of these attack submarines, relative to the large Ohio-class “boomer” vessels, could accommodate only a limited-range ballistic missile if the boat’s basic design contours are to remain unchanged, he said.

However, any of these options for fielding a prompt-strike capability aboard submarines is almost certain to spark objections in Congress, which has consistently rejected earlier submarine-based concepts that the Defense Department proposed for conventional ballistic missiles.

Lawmakers have generally supported the idea of non-nuclear “prompt global strike,” Pentagon nomenclature for the ability to attack an enemy anywhere around the world on just one hour’s notice, without resorting to atomic war.

Retired Gen. James Cartwright, who served until last year as vice chairman of the Joint Chiefs of Staff, argued in 2005 that advanced conventional-weapon technologies could allow the nation to “drastically” reduce its nuclear arsenal. One military expert subsequently estimated that conventional munitions were capable of destroying up to 30 percent of targets in the nuclear combat plan (see GSN, May 28, 2008).

However, the U.S. Congress, Russian leaders, and many nuclear strategy experts warned that fielding conventional ballistic missiles on nuclear-capable submarines could be a potentially destabilizing way to carry out the strike mission. According to this view, Moscow or Beijing might mistake a ballistic missile launch from a submarine for a nuclear salvo, and set loose a devastating response.

Citing these concerns, Capitol Hill repeatedly denied funding for an earlier plan to swap out the nuclear payloads for conventional warheads on a limited number of Trident D-5 ballistic missiles aboard Ohio-class submarines (see GSN, Sept. 22, 2010).

In response, the Defense Department in 2008 shifted its main emphasis in the conventional prompt global strike effort to developing an Air Force ground-based weapon called the Conventional Strike Missile (see GSN, Sept. 3, 2008). The maneuverable weapon system was imagined as a hypersonic dart that would initially boost aboard rockets but transition to flight just inside the atmosphere and glide into its target at Mach 20 speeds (see GSN, June 24, 2011).

Lukewarm Air Force support for development of the strike missile, though, and flight test failures by a developmental front-end system — the Defense Advanced Research Project Agency’s Hypersonic Technology Vehicle 2 — have thrown into question whether the Pentagon would continue to invest in the ground-based approach, according to defense insiders (see GSN, Aug. 18, 2011).

“Throughout this 10-year process, the Air Force has never gotten enough money to flesh out their designs,” said one retired service officer, ruing the failure to fully explore simpler weapon technologies that might have resulted in a fielded system by now.

“The Air Force money [for this] is actually DARPA money,” and the research agency’s strong role in the effort resulted in highly ambitious technology objectives that proved challenging to attain, according to the former official, who requested anonymity in discussing a politically charged issue.

Before his military retirement, Cartwright last July indicated that if a prompt global strike system is needed urgently to address an emerging threat, ICBM rockets could launch simple conventional payloads at high speed against virtually any target.

“I mean, we use cement to test with today,” Cartwright said. “It makes a very big hole.”

Other fairly straightforward options eyed under the Air Force missile effort have involved off-the-shelf munitions installed on the front end of the hypersonic boost-glide missile, according to officials.

Panetta’s effort to reduce the defense budget by \$487 billion over the next decade — mandated by a deficit-reduction law passed last year by Congress — has affected more than just the Air Force missile, according to defense insiders. The entire conventional prompt global strike initiative will be getting significantly less funding than anticipated, sources said.

In internal Defense Department deliberations, the multiservice prompt global strike effort lost roughly two-thirds of its projected budget for fiscal 2013 through 2017, GSN has learned.

Congress funded the multiservice Pentagon account for prompt global strike at \$180 million in fiscal 2012. Of that amount, the Pentagon directed \$10 million to the Navy to study the medium-range missile concept, according to defense sources.

An intriguing twist to Thursday’s announcement is that the Pentagon leaders and documents referred to the new submarine-based missile effort as “a conventional prompt strike option,” dropping the word “global.” That more-limited description dovetails with reports that the missile would be designed with intermediate range, generally understood to be about 1,800 to 3,500 miles of flight.

That contrasts with a long-range missile, such as today’s nuclear-armed ICBMs, capable of hitting targets on the other side of the world from bases in the continental United States.

It appears that the midrange missile would continue to use prompt global strike funding, though the fate of the Army-, Air Force- and DARPA-led efforts in the president’s upcoming fiscal 2013 budget remains unclear.

Cheryl Irwin, a Pentagon spokeswoman, would not address directly any implications that funding the submarine missile design effort might have for the seemingly ailing Air Force-DARPA Conventional Strike Missile.

“This budget will focus this development on a submarine-launched option,” she said in written response to a reporter’s questions. “There are other efforts that are ongoing.”

Asked whether fielding the missile aboard submarines might raise the same hackles on Capitol Hill and elsewhere that the earlier Trident-modification effort did, Joint Chiefs of Staff Chairman Martin Dempsey said differences in the technology should afford the new approach broader acceptance.

Compared to the prior Trident missile-based concept, “the technology and therefore the trajectory that would be required to deliver it” would be different for the medium-range missile being sought today, the Army general told reporters at the Thursday event. “There’s [also] the speed at which these delivery systems can move.”

He added, “You can lower the trajectory and therefore avoid the confusion you’re talking about in terms of it being mistaken for an ICBM with a nuclear warhead.” Dempsey also alluded to additional factors that could differentiate this new missile from existing nuclear-armed weapons, but did not identify them.

Kristensen was skeptical that the new missile, if placed aboard a stealthy attack submarine, would ease concerns about potentially destabilizing ambiguity during a crisis.

“Even a conventional intermediate-range ballistic missile launched from a converted Virginia-class attack submarine could be misinterpreted because its compressed trajectory would look much like a nuclear D-5 launched in a compressed trajectory as part of a first strike,” he told GSN. “And it’s still unclear to me why it is so important to have a conventional ballistic missile against terrorists and rogue states, given the overwhelming firepower that we deploy today.”

In a document released on Thursday, titled “Defense Budget Priorities and Choices,” the Pentagon characterized its decision to invest in the submarine-based capability as part of its effort to “rebalance toward the Asia-Pacific and Middle East regions.”

Defense leaders debuted this regional shift in U.S. focus earlier this month as part of new military strategic guidance, based on force drawdowns in Iraq and Afghanistan and mandates to reduce Pentagon spending over the next decade (see GSN, Jan. 6).

Offsetting some of the budget reductions proposed over the next five years totaling \$259 billion — compared to previous spending plans for the same time period — defense leaders said in the newly released document that they “increased or protected investment in capabilities that preserve the U.S. military’s ability to project power in contested areas and strike quickly from over the horizon.”

Among these focused investments would be to develop a new stealth bomber to replace today’s fleet of nuclear- and conventional-capable long-range aircraft.

The new Asia-Pacific emphasis — which many defense experts interpret as largely a response to China’s rising role in the region — “requires an Air Force that is able to penetrate sophisticated enemy defenses and strike over long distances,” Panetta said at the Thursday news briefing. “So we will be funding the next-generation bomber, and we will be sustaining the current bomber fleet.”

No previously unanticipated U.S. nuclear reductions would be included in Obama’s fiscal 2013 budget request, said Ashton Carter, the deputy Defense secretary, in a follow-on press conference.

The White House is “considering the size and shape of the nuclear arsenal in the future,” he said in response to a question about whether further atomic cuts must await new negotiations with Russia following last year’s New START agreement. “When those decisions come, we’ll factor them into our budget,” Carter said.

The spending plan does foresee a two-year delay in a Navy effort to replace its Ohio-class ballistic missile submarines, which Carter said would reduce schedule risk in what had previously been an “aggressive” developmental plan, “maybe even verging on optimistic” (see related GSN story, today). Prior expectations had the new submarine first being deployed in the 2029.

Along with these nuclear-capable strike systems, the Pentagon will also “design changes to increase cruise missile capacity of future Virginia-class submarines” and design “a conventional prompt strike option from submarines,” the document states.

If the simplest of the three options for giving the attack submarines a ballistic missile capability is embraced, launch tubes being built for Tomahawk cruise missiles on the stealthy underwater vessels could do double duty as launchers for the new medium-range ballistic missile.

A redesigned bow for new Virginia-class subs would allow for the emplacement of two launch tubes, each of which is expected to accommodate six Tomahawks, according to Defense Department documents. A 2010 Navy briefing on its submarine development and fielding plans depicts the location of the two tubes, each capped by a lid, in front of the submarine sail.

Each launch tube could be fitted with at least one — maybe more — of the new medium-range ballistic missiles, permitting a total of two or possibly additional ballistic missiles in each modified submarine, defense sources told GSN.

The Navy is currently buying Virginia-class attack vessels at a rate of two per year. Procurement is in a series of “blocks,” with incremental upgrades expected in each block of submarines, according to a fiscal 2011 Pentagon report on test and evaluation.

Eight Block 3 submarines, beginning with the 11th Virginia-class hull built, will for the first time feature the new, wide-diameter launch tubes. The two wide tubes replace 12 narrow vertical launch tubes for launching the same number of Tomahawks.

The design for next set of boats in the series, Block 4, has not yet been finalized.

Irwin, the Defense Department spokeswoman, would not say on Thursday how much the new-design ballistic missile might cost, how many of the weapons could be procured or how soon they might be fielded.

A “sea-based prompt-strike missile is in the early stages of development” so these details “are not yet available,” she said in the written responses.

With the new design and procurement of U.S. ballistic missiles typically running into hundreds of millions of dollars or more, Kristensen was skeptical that Congress would embrace the Pentagon initiative at a time of budget restraint.

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The Pentagon could face yet another roughly \$500 billion in reductions if lawmakers are unable to negotiate an alternative to the budget “sequester” process by the end of this year.

“Congress is very unlikely to pay for an entirely new ballistic missile,” the longtime defense analyst said.

In fact, the new submarine missile initiative appears to be based on an initial design concept first discussed under the Pentagon’s conventional prompt global strike effort several years ago, he noted (see GSN, March 20, 2008).

For her part, Irwin hinted in response to questions that basing the missile aboard the Virginia-class submarines is not the only option under consideration.

“The development is not service specific,” she said. “The current focus is a submarine variant, but we are very early in the R&D process.”

Dempsey: Sub-Launched Conventional Strike Weapons Won’t Be Confused For Nukes

Defense.com, January 26

The Pentagon wants to design a long-range conventional strike weapon that could be launched from submarines, claiming the necessary technology has developed enough to assuage concerns about prior concepts — including the fear that such a missile might be mistaken for a nuclear weapon.

In a white paper on defense budget changes released today, the Pentagon calls for the design of a new submarine-launched conventional prompt strike option as part of its effort to increase or protect investments “in capabilities that preserve the U.S. military’s ability to project power in contested areas and strike quickly from over the horizon.” But Congress and analysts have raised concerns in the past that these types of prompt global strike weapons could resemble nuclear systems and inadvertently trigger nuclear war.

During a briefing at the Pentagon today, Chairman of the Joint Chiefs of Staff Gen. Martin Dempsey said technology changes would alleviate concerns that the weapons could be mistaken for nukes. “The technology and therefore the trajectory that would be required to deliver it, the speed at which these delivery systems can move [has improved],” Dempsey said, “and therefore you can lower the trajectory and therefore avoid the confusion you’re talking about in terms of it being mistaken for an ICBM with a nuclear warhead.”

This development comes after the Navy spent nearly a year exploring alternative capabilities to launch from its Virginia-class attack submarines, a senior Navy official told InsideDefense.com last year.

Conventional Prompt Global Strike systems are intended to provide a long-range, rapid, precise, conventional capability to take out high-risk targets that appear briefly or are heavily guarded. Designed to strike anywhere in the world in under an hour, the Pentagon says, they would be able to evade enemy air defenses.

In the FY-12 defense budget, Congress provided \$179.8 million for the Conventional Prompt Global Strike program, a \$25 million cut from what was requested. DOD called for most of the money in this portfolio to go to hypersonic programs.

DOD’s No. 2 research and engineering official, Al Shaffer, earlier this month said hypersonic weapons that can travel at five times the speed of sound are a major game-changer that could help DOD project power despite anti-access, area-denial challenges. Those buzzwords are often used in reference to possible threats posed by China or Iran.

In November, the Army’s Advanced Hypersonic Weapon, a hypersonic glide vehicle, underwent a successful test flight. This followed two unsuccessful test flights of the Hypersonic Technology Vehicle, an unmanned, rocket-launched glider.

The Navy previously sought to deploy conventional warheads on a small number of Trident II submarine-launched ballistic missiles. But Congress rejected funding for the effort in FY-08, according to a June 2011 Congressional Research Service report. DOD terminated the Arclight program last year, which would have been launched from submarine and surface ships.

Indonesia’s New Submarines: Impact On Regional Naval Balance – Analysis

By Koh Swee Lean Collin, Eurasiareview.com, Jan 30, 2012

Indonesia’s new submarines are intended to plug capability shortfalls of the Indonesian Navy. While they will not upset regional stability, the latest acquisitions do reflect an expansion of submarine inventory in the region. This requires an enhanced capacity for submarine emergency response in Southeast Asia.

THE INDONESIA NAVY’S latest US\$1.1 billion contract for three Type-209/1400 diesel-electric submarines looks set to breathe new life into its overall capacity. It represents the third major purchase by TNI-AL (Tentara Nasional Indonesia – Angkatan Laut) after the acquisition of new corvettes and landing ships since 2000. This purchase has also been described as a move to ‘maintain power balance in the region’, with various analysts attributing the purchase to Jakarta’s attempt to play regional submarine ‘catch-up’.

Persistent shortfalls for TNI-AL submarine force

For over three decades, TNI-AL operated two German-built Type-209 submarines. However, they are deemed insufficient for Indonesia’s wide-ranging maritime security needs over its vast archipelagic expanse. This capacity shortfall has been afflicting the TNI-AL in general, not just the submarine fleet. Economic straits often put paid to major purchases and the TNI-AL only managed to see the light after 2000, when Indonesia’s economy gradually recovered from the Asian financial crisis.

The TNI-AL’s minimum required capabilities are prescribed by Defence Strategic Plan 2024 which called for at least 10 submarines. However with its mandated routine maintenance and training cycle, only one Type-209 boat is available at all times. This submarine force will most likely be stretched to its limits in times of crises. It is reasonable to assume that the two Type-209s have already completed a major portion of their useful operational lifespan notwithstanding recent refurbishments.

Nonetheless, the pair of submarines does offer a modicum of deterrent against potential foes considering decades of experience gleaned by TNI-AL's submarine crews and their familiarity with the Indonesian archipelagic environment. The new submarines may eventually replace the existing pair, thus leaving the TNI-AL with only three operational boats by end of 2025.

Such a force is still small and barely sufficient for Indonesia's needs. In contrast, Vietnam, also with a long coast line, will be able to muster six submarines once its Russian-built Kilo Project-636 boats become operational by 2020. Singapore, with considerably much smaller coast line to cover, will probably muster four submarines assuming that the ageing ex-Swedish Sjoormen-class is retired and replaced by the newly-inducted Vastergotlands.

No 'breakthrough capability' expected

From the technical perspective, it is moot whether the newly-acquired Type-209/1400s were what an earlier TNI-AL chief once promised back in 2009 – 'more superior' than those possessed by neighbouring navies. Even though they sold the Type-209 to Indonesia, the South Koreans no longer rely on this class; it has been gradually supplanted by the more advanced Sohn Won-II class (Project KSS-2) which is a modified German Type-214 variant. Therefore, the Type-209/1400 represents little incremental capability over existing Type-209 models.

Moreover, the new boats are not known to be equipped with 'breakthrough' capabilities that may tip the balance of naval power in Southeast Asia. For instance, there is no provision known for air-independent propulsion that can prolong submerged endurance as in the case of Singapore's Vastergotlands. Even if TNI-AL's new boats can submerged-launch anti-ship cruise missiles, this capability is not new too, given that Malaysia's Scorpene-class submarines are already outfitted with the SM-39 Exocet. The Vietnamese Kilos are reported to be armed with Russian-designed Klub-S missiles.

Naval balance unaffected

In sum, quantitatively and qualitatively, TNI-AL's newest submarine purchase may not adversely affect the regional balance of naval power. However, this acquisition reflects an expansion of the regional submarine inventory, which from the maritime security and safety point of view, still warrants concern.

On the one hand, the confined Southeast Asian maritime geography – characterised by semi-enclosed and narrow water-bodies – makes for excellent submarine operations (though a bane for anti-submarine hunters). On the other hand, this provides an ideal recipe for potential incidents, inadvertent or otherwise. Virtually all submarines operated by regional navies are equipped with signal intelligence capabilities and this amplifies the risk of naval incidents at sea with potential security ramifications. This is so given sensitivities over longstanding maritime-related interstate disputes.

Need for regional capacity-building

Moreover, the increased population of submarines roaming in regional waters gives rise to dangers of collisions, whether with naval or civilian vessels. Regional submarine rescue capacity is far from adequate considering the numbers of submarines in or about to enter service. To date, only Singapore musters a full-fledged submarine rescue capability in the form of the Swift Rescue submarine rescue vessel and its DSAR-6 submersible. Currently, the Malaysian and Indonesian navies do not yet possess equivalent capabilities and their ongoing modernisation programmes do not appear to include their acquisition.

By comparison, most Northeast Asian submarine operators possess relatively significant submarine emergency response capabilities. Japan for instance possesses dedicated, specialised capabilities for complex submarine rescue operations. Even the antiquated North Korean Navy possesses a Kowan-class catamaran-hulled rescue ship equipped with rudimentary diving bell for its force of over 20 operational combat submarines.

Southeast Asian countries can leverage on an earlier agreement in late 2011 to bolster regional naval cooperation by considering collective submarine emergency response capacity-building. Given the operational sensitivities of national submarine activities, confidence-building measures such as zonal restrictions on submarine operations are not likely to materialise. However, collaboration in submarine emergency response offers an alternative avenue. In this regard, Singapore can play a lead role.

One way to do so is to pool submarine emergency response capacity and devise regional protocols to deal with contingencies related to submarine incidents. However, no regional cooperation can wholly substitute capacity-building at the national level. Existing submarine operators and aspirants should ensure that such capacity is prudently developed in parallel with the introduction of submarine capabilities.

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Spy Drone and Missile Sub Are on Military's Budget-Cutting List

As the Pentagon Thursday announced changes in its programs, military contractors were bracing for cancellations or cutbacks of several programs.

In its latest round of budget tightening, the agency has said that it would stretch out purchases, cancel a high-flying spy drone and delay work on a new missile submarine.

The defense secretary, Leon E. Panetta, disclosed the cuts as part of a broader reorganization of the military meant to save \$487 billion over a decade.

One of the biggest decisions will stretch out the purchase of 179 of the F-35 fighters that the Pentagon had planned to buy from Lockheed Martin over the next five years.

Mr. Panetta said the Pentagon remained committed to the plane, a stealth fighter that can attack ground targets. Different versions are being built for the Air Force, the Navy and the Marines. The services plan to spend up to \$380 billion for 2,440 of the planes, making it by far the Pentagon's largest program.

The other cuts were spread out among the major military contractors, though some reductions would be offset by spending increases on computer security, other unmanned planes and equipment for the special forces.

The plan to cut the size of the ground forces by 92,000 and eliminate older ships and planes came in response to political pressure to lower the federal budget deficit. It will eliminate most of spending increases that were above inflation, thereby limiting the Pentagon's budget increases to approximately the rate of inflation after a big surge during the Iraq and Afghanistan wars.

Pentagon officials said that they had tried to limit the reductions to weapons programs and would focus on continuing efforts to modernize the armed forces. Many of the most costly and contentious programs — like the radar-evading F-22 fighter and a high-tech destroyer — had already been canceled or trimmed over the last three years, leaving few big-ticket items.

Mr. Panetta said he had decided to slow the purchases of the F-35 fighters “to complete more testing and allow for developmental changes before buying significant quantities.”

“We wanted to make sure before we go into full production that we are ready,” he said.

The plane was originally described as an affordable and dependable design. But changes in the requirements, faulty parts and software difficulties caused several years of delay and turned the program into the Pentagon’s biggest budget-buster.

Last year, Mr. Panetta’s predecessor, Robert M. Gates, threatened to cancel the Marine version of the plane, which can take off and land almost vertically, if Lockheed could not solve some of the problems. Mr. Panetta recently lifted that probation, saying the company had made substantial progress.

Pentagon officials also announced that the Air Force was canceling one version of Northrop Grumman’s Global Hawk surveillance drone. It flies at 60,000 feet and was intended to replace the piloted U-2 spy plane, which gained fame for flying over the Soviet Union during the cold war.

After an extensive review, the Air Force had decided last July to go ahead with the switch even though the Global Hawk’s costs had soared and Pentagon testing officials had questioned whether it was reliable.

The Air Force had said then that the unmanned plane, which took photographs and was also supposed to intercept communications, would be cheaper to operate than the U-2. But Pentagon officials said Thursday that it now looked as if the costs would be higher over the next five years for the Global Hawk than the U-2.

They said they still planned to build other versions of the drone that could survey large areas, though those costs could rise if fewer total planes are built.

Mr. Panetta said the Navy would delay its long-range plans to build a new nuclear-powered missile submarine by two years to ease the current budget pressures and help start the program on a more solid footing.

Pentagon officials have said that the new missile submarines would eventually replace the aging Ohio-class subs, which carry nuclear missiles and could cost \$5 billion each. Pentagon officials said they also would delay construction of one Virginia-class attack submarine, two coastal combat ships and a large amphibious ship to reduce short-term costs.

Most of the ship construction is done by General Dynamics and Huntington Ingalls Industries, which was spun off by Northrop Grumman last year. Lockheed and a unit of an Australian company build the coastal ships.

Still, the Pentagon said it also planned to redesign the Virginia-class subs, which are smaller than the Ohio-class subs and protect other warships, to carry more cruise missiles and upgrade radars on both airplanes and ships. It will also design a new long-range bomber to replace the B-2.

Military contractors have laid off workers and consolidated plants in recognition that the boom times were ending. But Mr. Panetta said some of the cuts would be offset by increased spending on special forces, other surveillance planes and protections against attacks by computer hackers.

DOD considering base closures, cuts in subs, fighters

The CT Mirror, January 26

Washington — Defense Secretary Leon Panetta’s vision for a “smaller, leaner” military could put the Naval Submarine Base New London on the chopping block and trim billions of dollars from Connecticut’s defense industry.

Panetta on Thursday said the Pentagon will absorb \$487 billion in defense cuts over the next 10 years by shrinking ground forces and cutting back and delaying major weapons systems, including submarines and a jet fighter with engines made in Connecticut.

Key members of Connecticut’s congressional delegation said Panetta’s call for a new round of base closures would be dead on arrival in Congress, but the Defense Secretary’s proposals for a leaner Pentagon budget in the coming fiscal year were far broader than a politically uncertain pitch to shed military bases.

Panetta said the Army would shrink by 80,000 soldiers, from 570,000 today to 490,000 by 2017, and the Marine Corps would drop from today’s 202,000 to 182,000.

In Connecticut, it was his forecast for a slowdown in the production of submarines and jet fighters that will raise alarms in an election year.

He said there will be a two-year delay in a ballistic missile submarine that would be built by Electric Boat in Groton, but EB’s spokesman, Robert Hamilton, said, “We don’t want to comment on the budget at this stage.”

Congress must approve the administration’s defense budget and is likely to change it.

Panetta also said one of the two new Virginia-class submarines that would also be built by Electric Boat would be delayed from 2014 to 2018.

But the biggest impact to Connecticut’s defense industry would be the proposed cuts to the F-35 Joint Strike Fighter, whose engine is built by Pratt & Whitney in Connecticut.

Panetta also said the President Obama will ask Congress for another round of base closings.

“We cannot afford to sustain infrastructure that is excess to our needs in this budget environment,” Panetta said.

The Naval Submarine Base New London, which actually is across the Thames River in Groton, was recommended for closure by the last Base Closure and Realignment Commission in 2005. But lobbying by members of the Connecticut congressional delegation helped save the base.

Sens. Joe Lieberman, I-Conn. and Richard Blumenthal, D-Conn., and Rep. Joe Courtney, D-2nd District, quickly released a joint statement in strong opposition to another BRAC. They serve on the Senate and House armed services committees.

“There is sweeping bipartisan opposition to another round of BRAC at this time. Given that the process requires congressional approval just to get off the ground, the proposal is dead on arrival,” the joint statement said.

The lawmakers may be right, said Loren Thompson, a defense analyst with the Lexington Institute.

“It’s really unlikely that Congress would vote on a base closing process in this election year,” Thompson said.

But the Pentagon is required by law to cut its budget and there may be more pressure to vote for a BRAC next year, Thompson said.

Thompson also said the Pentagon’s cuts to weapons systems, if enacted “would have a dramatic impact on Pratt & Whitney that could result in layoffs.

Pratt & Whitney did not immediately return calls for comment.

Blumenthal said he is “troubled” by the Pentagon’s proposal to delay construction of the submarines but he hoped purchases from other countries of the F-35 fighter will prevent layoffs at Pratt & Whitney.

“I think this plane will be ordered by our allies,” he said.

Blumenthal was also that the F-35, plagued by delays, technical problems and cost overruns, has been recently given a clean bill of health by the Pentagon.

Former Connecticut Rep. Rob Simmons, who fought against the closure of the submarine base in Groton, is a sharp critic of the Pentagon’s new budget proposal, “I am very concerned that this administration will do damage to our national security” he said.

Panetta visited the submarine base and nearby Electric Boat shipyard in November, touring the USS Mississippi, a Virginia-class attack sub under construction. At the time, according to the Armed Forces Press Service, he talked about the importance of Groton and showed no appetite for base closures.

“It’s the home of our submarine force, it’s the original home of the Nautilus and it is, from my point of view, one of the very important elements of our national defense that you guys are doing,” Panetta said told the workers. “The work that you’re doing is absolutely essential to our ability to keep our country safe.”

Panetta, who was a California congressman when Fort Ord, Calif., closed, also talked about his desire to avoid another round of base closings, though he complimented the Connecticut delegation for its defense of the base in 2005.

“The reality is that your delegation has put up a good fight,” he said. “You’re talking to somebody that went through the BRAC process.”

Panetta told his audience in Groton he was aware that base closures hurt local economies.

“I went through the hell of having to figure out what do I do to try to protect the economy of my local community,” Panetta said. “Fortunately, we were able to do it. We located a campus there and it’s doing fine. But I wouldn’t wish going through BRAC on anybody.”

Pentagon’s Asia Shift Favors Subs, Tankers

Bloomberg, January 26

The Pentagon’s shift to forces focused on Asia and the Middle East in a budget outlined today may protect from deep cuts U.S. makers of aircraft carriers, submarines, surface-combat vessels, electronic-warfare sensors, drones, long-range bombers and tankers.

While the plan would slow the pace of shipbuilding, its emphasis on naval forces in an era of budget-cutting may help vessel-makers Huntington Ingalls Industries Inc., General Dynamics Corp. (GD), Lockheed Martin Corp. (LMT) and Austal Ltd. It also may provide opportunities for aircraft companies Northrop Grumman Corp. (NOC) and Boeing Co. (BA) and missile maker Raytheon Co. (RTN)

“This budget protects, and in some cases increases, investments that are critical to our ability to project power in Asia and the Middle East,” Defense Secretary Leon Panetta said at a news conference at the Pentagon today disclosing elements of a \$613 billion defense proposal for fiscal 2013. That includes \$88.4 billion for continuing combat, led by the war in Afghanistan.

Panetta and Joint Chiefs of Staff Chairman General Martin Dempsey presented the budget proposal as part of an effort to cut \$487 billion, or 8.5 percent, from \$5.62 trillion in spending that had been planned for 2012 to 2021. Of that, \$259 billion in reductions would occur by 2017.

The fiscal 2013 budget proposes to save about \$45 billion, increasing to \$53 billion in fiscal 2014 and \$54 billion by 2017, according to Pentagon figures.

‘Far More Lethal’

The biggest initiative other than military hardware is a reduction of the Army — “gradually,” according to Panetta — to 490,000 personnel from about 565,000 today. The Army numbered about 480,000 in February 2002, one year before the Iraq invasion. The budget also calls for reducing the Marines to 182,000 from about 202,000 today.

“They will be fundamentally shaped by a decade of war, far more lethal, battle-hardened and ready,” Panetta said of U.S. forces. The Army was increased by as much as 95,000 and the Marines by 30,000, largely because of the Iraq war.

Representative Howard “Buck” McKeon, a California Republican who is chairman of the House Armed Services Committee, said President Barack Obama “has abandoned the defense spending structure that has protected America for two generations, turning 100,000 soldiers and Marines out of the force.

“Unmanned assets” and special forces that Panetta is relying on “are a vital component in defending America, but they are insufficient to meet the challenges America faces,” McKeon said.

Base Closings

Panetta said the troop reduction will be accompanied by a request to Congress for a new round of domestic base closings “with a goal of identifying additional savings and implementing them as soon as possible.” He provided no specifics about what bases might be at risk.

The Pentagon's Asia and Middle East emphasis reinforces the need for a long-range, stealthy bomber, and sustaining the Navy's 11-carrier force with 10 air wings and big-deck amphibious vessels, Panetta said.

Huntington Ingalls of Newport News, Virginia, is building the three-ship, \$40 billion Gerald R. Ford class of carriers to be equipped with a new electromagnetic catapult system built by closely held General Atomics Aeronautical Systems Inc.

"Modernizing our submarine fleet will be critical to our efforts to maintain maritime access in these vital regions," Panetta said.

'Strike Option'

The plan calls for increasing the size of the Navy's current Virginia-class attack submarines to carry more Tomahawk cruise missiles and to develop an undersea, non-nuclear "strike option" similar to an intercontinental ballistic missile. Raytheon of Waltham, Massachusetts makes the Tomahawk. Huntington Ingalls and General Dynamics make the submarine.

The "strike option" concept was first proposed by the Bush administration and resurrected in fiscal 2011 under Obama.

The Littoral Combat vessels, made for operating close to shore by Lockheed Martin of Bethesda, Maryland, and Austal of Henderson, Australia, get an expanded role in the plan. Panetta said the Navy intends to base some of them in Singapore and other patrol craft in Bahrain. Still, two vessels are being cut from plans for 2013 to 2017, which had called for buying during that period at least 15 of the 55 ships planned.

The plan calls for retiring some existing ships, including seven cruisers that aren't capable of defending against ballistic missiles. Amphibious Vessel Delay

The largest shipbuilding reduction would eliminate, through 2017 eight of nine planned Austal Joint High Speed Vessels designed to carry Army personnel. There was no indication the vessels would be purchased later.

The budget proposal delays by one year the start of construction for the LHA-8 large-deck amphibious vessel to be built by Huntington Ingalls.

The budget doesn't slow the Navy's plan to buy additional Arleigh Burke-class DDG-51 destroyers from General Dynamics and Huntington.

F-35 Plans

Panetta said the Pentagon was making "substantial reductions to programs that are experiencing schedule, cost or performance issues."

They include Lockheed Martin's Joint Strike Fighter, the F-35, and the Army Ground Combat Vehicle that's in competition between General Dynamics and a team of BAE Systems Plc (BAE) and Northrop Grumman.

The Pentagon remains committed to the F-35 "but in this budget we have slowed procurement to complete more testing and allow for developmental changes before buying significant quantities," he said.

The Defense Department will propose spending about \$9.2 billion to buy 29 F-35 jets in its fiscal 2013 budget, 13 fewer than previously planned.

Beyond the next budget year, the Pentagon's previous plan to purchase 62 F-35s in fiscal 2014 is being reduced to 29, according to budget data. The request for 2015 is dropping to 44 from 81, and the planned purchase for 2016 will decline to 66 from 108.

The Pentagon plans to postpone 179 aircraft beyond 2017, according to officials who spoke on condition of anonymity before today's announcement.

Global Hawk Curtailed

The Pentagon is canceling the final 10 of one version of Northrop Grumman's Global Hawk drones it was to buy, stopping at 21 of the Block 30 model because of rising costs. Dollars will be shifted instead into maintaining U-2 manned aircraft made by Lockheed Martin.

Experience with the Block 30 version "will help other Global Hawk programs," including the advanced Block 40 and maritime and NATO versions, according to the budget document.

The Pentagon reversed a decision to cancel the \$6.8 billion Joint Air-to-Ground Missile, pitting Lockheed against Raytheon, "significantly reducing" the program instead, and continuing to buy Hellfire missiles from several contractors including Lockheed.

The Pentagon also is delaying by as much as five years an Army helicopter modernization program and terminating a multi-billion dollar program to upgrade its fleet of Humvee all-terrain vehicles.

Northrop Grumman's Defense Weather Satellite System program also was canceled.

The fiscal 2013 budget proposal is 1 percent less, unadjusted for inflation, than this year's \$531 billion plan. The numbers include spending on military construction.

The defense number, not including combat, grows to \$534 billion in fiscal 2014, \$546 billion in fiscal 2015, \$556 billion in fiscal 2016 and \$567 billion in 2017.

Adjusted for inflation, the Pentagon projects a 1.6 percent reduction in real spending power between 2013 and 2017.

Pak for conscious efforts to avoid regional arms race

Zeenews.com, January 26

Islamabad: Days after India acquired a nuclear submarine from Russia, Pakistan on Thursday said that all countries in the region should make "conscious efforts" to avoid an arms race.

"I think it is important that all countries in the region should be mindful of the fact that arms race is in no one's interest," Foreign Office spokesman Abdul Basit told a weekly news briefing. He was responding to a question on whether the leasing of the nuclear submarine would trigger an arms race."

"This region is suffering from poverty and disease. It is important we focus on economic development. Millions of people are still living below the proverbial poverty line.

All countries should make conscious efforts to avoid an arm race," Basit said. At the same time, he noted that relations between Pakistan and Russia were "significantly improving". He said, "We are trying to expand the scope of relations."

India recently took possession of the 8,140-tonne Akula II nuclear submarine from Russia on a 10-year lease.

The craft was handed over to India in a deal that has cost nearly one billion dollars. India previously leased a Soviet-built nuclear submarine in 1988 for three years.

It has now joined China, Russia, the US, Britain and France as an operator of nuclear submarines. India is also developing its own nuclear-powered submarine that is expected to be ready by the end of the year. Russia is expected to help India train the crew that will operate the country's indigenously built nuclear submarine. India and Russia are long-time allies and Russia supplies 70 per cent of India's military hardware.

India's New War Toy

Nation.com.pk, Jan 25, 2012

India on Monday acquired a nuclear submarine from Russia and became the sixth country in the world to have such capability. The new war toy has been taken on lease for a period of 10 years which will cost India \$1 billion. What is still more alarming is that according to reports India is in talk with Russia for getting another nuclear submarine on lease.

The repercussions of this step are a foregone conclusion. It will kick off a nuclear-submarine arms race in the region, raising fears of a nuclear war. The pity is that the billions of dollars that would be diverted to the armament programme would be at the cost of better living conditions of the India's poor numbering hundreds of millions. Given the history of Indo-Pak hostility it is obvious that we cannot afford to play possum in the face of New Delhi's craving for such lethal weapons. The memory of its detonations of nuclear bombs in 1998 and subsequent overt threats of invasion still leap to mind. Under the circumstances we too would have to maintain a minimum credible deterrence but extreme caution must be exercised against falling into the arms race. And given this weapons buying spree, who will disagree that India is not a war crazed nation, infatuated with the dream of decimating its eastern neighbour. It must also be mentioned that the nuclear submarine is not armed with long range missiles which indicates that the countries in the region specifically Pakistan is most vulnerable to its attack.

These subs would give India an edge in stealth warfare since a nuclear submarine unlike ordinary ones can remain submerged for a long period of time. However, at the same time this shows the native cunning of the Indians in that they have been able to manage successful military ties with both US and Russia without compromising on the loyalty accorded to any one of these countries. From the US the Indians managed to ink a civil nuclear deal, but without antagonising the Russians. India's weapons programme however in the days to come would become a crippling disadvantage for its economy. The country must also be held responsible for vitiating the atmosphere of South Asia by resorting to such blatant armament rather than resolution of outstanding conflicts.

NATO Submarine Rescue System Is Put Through Its Paces

Defpro news, Jan 25, 2012

Costing £130 million and weighing 360 tonnes, the NATO Submarine Rescue System is one of the most sophisticated pieces of equipment in the world. For four days, 70 experts from three countries put it through its paces.

The NATO Submarine Rescue System (NSRS) is stored and maintained in a giant purpose-built hangar at HM Naval Base Clyde. It is so sophisticated that it can dive to 2,000 feet (610m) - deep enough to operate anywhere around the world's continental shelves.

Owned by Britain, France and Norway, it is always on standby - and happily, so far, it has never been used.

During the test, 25 volunteers were entombed in the NSRS's two giant decompression chambers for 18 hours to see how they would react to the confines and changes in atmosphere and pressure that they would experience during a rescue from a stricken sub.

The NSRS can be on the move within three hours - on 27 lorries. Ships all around the world are designed to take the loading platform, decompression chambers and rescue submersible - if there was an emergency the nearest ship would be alerted.

The whole loading platform is bolted onto the ship's deck and the system's submersible - straight out of a sci-fi movie with its glass-fronted nose - is ready to go, lowered into the water by the giant cranes that are part of the kit.

If a submarine's hull is breached it is automatically sealed and the rest of the hull becomes pressurised. The NSRS's decompression chambers, which can take up to 35 people at a time, are set up and the rescue submersible transfers survivors straight into them. If the hull of the stricken submarine is still intact, the rescue submersible can do the job on its own, bringing up 15 survivors at a time.

Timing is important because it can take up to four days to get someone fully decompressed. So the rescuers need to get as many people out of the submarine as they can and as quickly as possible.

The decompression chambers are staffed by professionally trained divers and nurses who can tend to the injured, clean any who are contaminated, and generally run things until it is safe to open the doors to the outside world.

Lieutenant Commander Kevin Stockton, who runs HM Naval Base Clyde's Northern Diving Group, said: "It is a quite brilliant stand-alone system designed simply to save lives.

"Speed is essential in getting to a stricken submarine and the fact that we can be on the move in three hours with 360 tonnes of equipment is impressive in its own right.

"Although it is essentially a NATO asset, the brotherhood of the submariner is such that I am sure we would respond to a request from any government which had a submarine in distress.

"The brutal reality is that if a submarine were to go down in really deep water there is nothing that anyone could do because the pressures would become too great for anything to survive."

The divers, doctors, nurses and specialist operators from Britain, France and Norway operated as a seamless team for four days. The exercise, called Massivex, ran the course of an actual rescue timeline, from initial alert response to 18 hours of simulated decompression time.

China Developing Unmanned Aircraft To Counter U.S. Forces

Asahi Shimbun, January 25

BEIJING — It was a prestigious contest involving some of the top technological minds in China, with prizes totaling 2.65 million yuan (about 32 million yen or \$400,000) up for grabs.

But the occupations of some of the judges revealed perhaps the main purpose of the contest: helping the Chinese military develop weaponry to protect its expanding maritime interests.

High-ranking officers of China's air force were among the judges for the contest for unmanned aircraft in autumn organized by the Chinese Society of Aeronautics and Astronautics and other organizations.

It was the first such contest and was held at the Chinese Aviation Museum at the foot of a mountain in the suburbs of Beijing. A total of 107 organizations, such as universities and military research institutions, competed.

The aircraft, painted in such colors as red, yellow or military camouflage, took off from a runway that was about a quarter of the size of the deck of China's first aircraft carrier, the Varyag.

Beijing, which is seeking reunification with Taiwan, is forging an "access denial" strategy to prevent the United States from approaching waters around China and intervening in potential conflicts between China and Taiwan and other areas.

Two key parts of that strategy are unmanned aircraft and anti-warship ballistic missiles called "aircraft carrier killers."

"Unmanned aircraft are one of the arms that we put top importance on," Wang Qingzong, a vice director of the general planning division of the Chinese military's General Armaments Department, told The Asahi Shimbun. "At present, our unmanned aircraft have not reached the levels of their U.S. counterparts. So, we will make more efforts for their development."

Around the same time of the contest, the International Aviation Exhibition was held in Beijing, where a video on a computer attracted visitors, including government officials and military officers from foreign countries.

The video showed a gray unmanned aircraft locating and collecting data on an aircraft carrier of an enemy country. Anti-warship missiles were then fired from the coast, splitting the aircraft carrier and sinking it to the bottom of the sea.

The simulation apparently envisioned a battle with a U.S. aircraft carrier.

The video was created by China Aerospace Science and Industry Corp., an affiliate of the Chinese military forces. The unmanned aircraft in the video was the most advanced one produced by the organization.

"Unmanned aircraft will become the main force of jets placed on aircraft carriers," a Chinese military officer said.

The most advanced unmanned aircraft can elude radar detection, fly at altitudes of about 10,000 meters and reach speeds of 600 kph. They can also be armed with missiles.

When the Japanese Maritime Self-Defense Force was keeping watch on the Chinese Navy's live-fire exercises in June last year, it found small black planes flying around the frigates. They were new, unmanned reconnaissance planes, and they appeared to be keeping watch on the moves of the MSDF.

The key sea area for China's "access denial" strategy is the western Pacific Ocean south of Japan.

Chinese military officials regard the line connecting Okinawa, Taiwan and the Philippines as the "first line of islands." They also stipulate that an outer line linking Japan's Ogasawara islands, Guam and Indonesia is the "second line of islands."

If an enemy's vessel crosses the second line, Chinese military forces are under instructions to destroy it before it reaches the first line.

Since 2010, the Chinese military has alternately dispatched warships of the North Sea Fleet, based in Qingdao, and the East Sea Fleet, headquartered in Ningbo, for exercises in the key sea area.

The area overlaps the activity zone of mobile troops of the U.S. Navy's aircraft carriers. Japan, an ally of the United States, also conducts naval activities there.

On Dec. 1, 2011, four Chinese Navy vessels, including destroyers, were sailing northwest about 100 kilometers east of Miyakojima island of Okinawa Prefecture after completing their exercises in the western Pacific Ocean.

Japan's Aegis-equipped destroyers monitored the Chinese vessels' movements while maintaining a distance of several kilometers from them.

According to officials of Japan's Defense Ministry, the U.S. government knew through its satellites around Nov. 20 that warships had departed from Qingdao in Shandong province. It immediately conveyed the information to the Japanese government.

The MSDF's P3C surveillance planes and Aegis-equipped destroyers looked for the Chinese vessels in the East China Sea, and found six Chinese warships, including destroyers and frigates, from the North Sea Fleet.

They took photos of the Chinese warships in waters about 900 km southwest of Okinotorishima island, which is under the jurisdiction of the Tokyo metropolitan government.

The Chinese vessels were engaged in refueling exercises. Helicopters also practiced take-offs and landings on the vessels.

Beijing strongly opposes Japanese observations of China's warship activities, particularly maneuvers involving Chinese submarines.

Japanese P3C surveillance planes scatter sonars to detect sound from Chinese submarines. Using this method, one P3C can cover an area as wide as Shikoku, one of the four major islands of Japan.

The Chinese Navy, which has about 70 submarines, has obtained sonars of almost the same capabilities through "friendly countries," and has been studying methods to prevent its submarines from being detected by Japan.

Using ocean research ships, China is looking into the geological formations of sea bottoms and other characteristics to find navigation routes where submarines cannot be easily detected.

A Chinese military officer expressed concerns about the MSDF's surveillance planes.

"Their capabilities to detect submarines are extremely high. They are a threat to our forces," he said.

Digitizing Our U.S. Submarine WWII War Patrol Reports

Forward:

"This effort by EMC (SS) John Clear USN (Ret) is truly remarkable. For over 40 years, although declassified, the remarkable exploits of the U. S. Submarine Force during WWII sat on microfilm in a few museums and files, essentially untouched. His initiative revealed factual accounts of each U. S. submarine war patrol during WWII. In my view, that delay in publication was a travesty which should not have occurred for our WWII submarine veterans.

The Cold War is over. It should not take four decades before the importance of U. S. Submarine efforts during that period are made public."

Very Respectfully, VADM Roger F. Bacon, USN (Ret)

Digitizing Our U.S. Submarine WWII War Patrol Reports

I first became acquainted with the WWII U.S. Submarine War Patrol Reports microfilm collection at the Naval Undersea Museum, Keyport, WA in the summer of 2006, while volunteering as a docent at the museum. This little known and very infrequently used collection is housed within the 3rd floor, non-lending library of this outstanding facility which is one of only a small hand full in our nation where these reports can be viewed.

Being a retired SubLant and SubPac Chief, whose naval career had included tours of duty on three of these WWII veteran submarines, I was interested in their war time history and achievements. With help from the museum's staff (in particular Jennifer Heinzelman, Collections Manager), I soon became well versed with the library's microfilm reader as to how to set-up and peruse the film rolls of the 255 U.S. submarine's war patrol records. These numerous microfilm rolls are housed in large collection drawers there within the library.

What immediately struck me in reading these histories from the microfilm copies of the original paper reports was the succinct manner in which these histories had been recorded at the time of and where these events occurred. Some of these reports were almost "casual" in their presentation of these awesome events. As an example: one of my previous tours of duty was on the USS Sealion SS-315 which just happened to be the only submarine in history to sink an enemy battleship in wartime. To read the pertinent pages from within this particular report of this patrol one would think that this type of occurrence was rather commonplace and not of such monumental importance as it had been. Well known submarines and individual heroes of these times seem to be "alive" in their patrol report depictions. The officers making the input and the yeomen that typed up these multi-copy reports on their old Underwood typewriters did so with an almost clinical detachment, ultimately providing an insight as no other form of written historical log or book has given us.

Again with the aid of the staff I was able to print out some of these pages but it was a very slow and cumbersome chore. It wasn't until I was able to reconnect the microfilm reader's output directly to a computer and hence save pages in a digital format that this effort began to come together and make sense. From my research I had found that nearly half of these microfilmed reports were photographed in 16mm and the rest in 35mm, in that, again, I found another problem. The 16 mm pages were an easy and direct "save to" on the p.c., but the 35mm had to be worked on with an average of three shots and then laboriously "stitched" together with the computers software. To say that this slowed down the procedure is an understatement. Fast calculations showed that I had about 5 years of 8 hour days ahead of me at the rate that I was preceding.

By the fall of the year I had been hooked on this project. One day while talking with an active duty LCDR and Jennifer, I decided that this project had to be taken on in earnest in order to more easily share these historic times with the many rather than just the few that had access to these microfilm libraries. I wanted to get these stories out while we still had some of our WWII submarine veterans with us, whose stories were told within these pages.

Further research found that recent technology had been developed that could now take on this conversion in a manner that would not require the manual, laborious efforts thus far expended. This newer technology was basically a huge machine that could read and convert these microfilm rolls faster than I ever could hope to accomplish. Two major companies were queried as to cost. The pricing, while fair (quoted at over six thousand dollars), was not something that the museum, nor its supporting foundation, would be able to fund. With the help of a long time friend, Dan Martini EMCM (SS), USN Ret., a partnership was formed and registered in Jefferson County of Washington State

with the express purpose of handling this project. The museum agreed to lend out the microfilm rolls (some 255) to the company that we had agreed upon and the partnership would pay the cost of the conversion process.

It was at about this time that Vice Admiral Roger Bacon, of the museums foundation, had heard of our project and wanted to help make the project move into reality. Admiral Bacon's father had been a highly respected WWII submarine Commanding Officer and thus Admiral Bacon's interest in these reports had been in mind for many years.

The initial run received from the conversion company came down to 28 full DVDs containing all of the 1,600+ war patrol reports of the 255 submarines involved. We were provided with two master copies, one in .jpg (picture) format and the other in .pdf (Adobe Reader) format. These reports were assembled in hull number sequence, oldest to the newest of the participating WWII subs. As per SubPacs instructions, the vast majority of the war patrol reports were written within the require guidelines as follows;

- | | |
|---|--|
| (A) Prologue | (M) Radar |
| (B) Narrative (date & time) | (N) Sound gear & conditions |
| (C) Weather | (O) Density Layers |
| (D) Tidal information | (P) Health, food & habitability |
| (E) Navigational aids | (Q) Personnel |
| (F) Ship Contacts | (R) Miles steamed, fuel used |
| (G) Aircraft | (S) Duration |
| (H) Attacks | (T) Factors of endurance remaining |
| (I) Mines | (U) Communication, radar and sonar countermeasures |
| (J) Anti-submarine measures and evasive tactics | (V) Remarks |
| (K) Major defects | |
| (L) Radio | |

It was also at this point that we registered our newly converted war patrol reports and were issued an ISBN number of 13: 978-0-615-17769-4. together with an intellectual copyright being filed (to protect the digital conversion).

By early 2007 we had the final masters on hand and began further production from these sets. Admiral Bacon (as our mentor) financed the first (costly) five sets and donated these to the Newport, RI and Monterey, CA Naval War College libraries, the St. Mary's, Georgia Museum, USS Nautilus Museum, Groton, CN and the USS Bowfin Museum, Honolulu, HI. The partnership in turn provided a master set to the Naval Undersea Museum and to some eight submarines stationed at Bangor Submarine Base, WA during our quarterly NSL NW meetings.

Later that year, during the 2007 USSVI Alaskan Cruise Convention, these patrol reports were first introduced, in their new user friendly digital format to the submarine community at large. We also posted this information on the internet at the same time. It was the partnership's agreement, to provide at no cost, any copy of any submarine reports to any WWII sub vet or his immediate family, several hundred individual boat's patrol reports were thus sent out. Many submarine authors, (Tom Clancy, et al), researchers, and historians were among the initial purchasers.

By 2009 it was decided to make these reports available for free viewing to the general public directly on the internet. Rich Pekelney of the Historic Naval Ships Association, (HNSA), was contacted and uploaded all of the reports onto their website with a bravo zulu sent back to the partnership and our mentor Admiral Bacon. While able to view the reports for free via the internet, these pages are not easily copied or printed out.

In quick order further improvements in computer software allowed the reports to be further converted to a "compressed pdf" format greatly reducing the production time and lowering the overall cost to less than 1/10 of the initial offering. The total of the reports including all of the appendices (which include some fifteen cross references, by boat, C.O. etc.) are now on just 4 DVD's in this compressed .pdf format.

We have archived the initial run in the .jpeg format to allow for further "cleaning up" (in time) of some of the reports that were either too light, dark, smudged or had any other problems in their reading quality.

The outcome of this effort has provided an easy to use reference of the thousands of pages that if printed out on single sided paper, would be a book at over 22 feet across, a massive work!

The company, (now a corporation), has continued to provide these reports at an extremely low cost to a world wide audience. Our initial desire to acknowledge our WWII Submarine Veterans still alive has been well met and we will continue in our stated efforts through Submarine Memorabilia, Inc...

John Clear EMC(SS) USN Ret.
Submarine Memorabilia, Inc.
180 Robin Lane
Port Ludlow, WA 98365-9522
webmaster@usssealion.com

Listing of all U.S. Submarines in WWII (Pacific) by Name (alpha), Hull Number (i.e. SS-218), Number of Patrols Made & Total Pages Within War Patrol Reports.

Albacore	218	10	551	Cero	225	8	485	Herring	233	7	156	Razorback	394	5	275	Seadragon	194	12	468
Amberjack	219	3	82	Charr	328	3	114	Hoe	258	8	320	Redfin	272	7	290	Seahorse	304	8	439
Angler	240	7	338	Chub	329	3	138	Icefish	367	5	177	Redfish	395	2	201	Seal	183	12	557
Apogon	308	8	253	Cobia	245	6	269	Jack	259	9	304	Robalo	273	3	143	Sealion	315	6	330
Archerfish	311	7	223	Cod	274	7	466	Jallao	368	4	127	Rock	274	6	67	Searaven	196	13	594
Argonaut	166	2	82	Crevalle	291	7	506	Kete	369	2	36	Ronquill	396	5	251	Segundo	398	5	236
Argonaut	475	1	78	Croaker	246	6	266	Kingfish	234	12	522	Runner	275	3	94	Sennet	408	4	146
Aspro	309	7	286	Cutlass	478	1	21	Kraken	370	4	144	Runner	476	1	77	Shad	235	11	362
Atule	403	4	190	Cuttiefish	171	3	92	Lagarto	371	2	43	S-11	116	6	40	Shark	174	3	201
Balao	285	10	410	Dace	247	7	691	Lamprey	372	3	85	S-13	118	4	36	Shark	314	7	777
Bang	385	6	235	Darter	227	4	290	Lapon	260	8	325	S-15	120	3	25	Silversides	236	14	467
Barb	220	12	503	Dentuda	335	1	47	Lionfish	298	2	74	S-17	122	6	63	Skate	305	7	108
Barbel	316	4	139	Devilfish	292	4	97	Lizardfish	373	2	101	S-18	123	7	72	Skipjack	184	10	391
Barbero	317	2	100	Diablo	479	2	17	Loggerhead	374	2	59	S-23	128	7	61	Snapper	185	11	371
Barracuda	163	6	36	Dolphin	169	3	61	Macabi	375	1	32	S-26	131	2	120	Snook	279	9	334
Beshaw	241	6	312	Dragonet	293	3	117	Manta	299	1	37	S-27	132	1	107	Spadefish	411	5	308
Bass	164	4	47	Drum	228	13	350	Mingo	261	7	257	S-28	133	7	451	Spearfish	190	12	495
Batfish	310	6	331	Entemedor	340	1	26	Moray	300	1	29	S-30	135	9	152	Spikefish	404	4	113
Baya	318	5	229	Finback	230	12	417	Muskellunge	262	7	250	S-31	136	8	152	Spot	413	3	189
Becuna	319	5	200	Flasher	249	6	265	Narwhal	167	16	357	S-32	137	8	120	Springer	414	3	86
Bergall	320	5	175	Flier	250	2	130	Nautilus	168	15	452	S-33	138	8	128	Steelhead	280	7	308
Besugo	321	5	268	Flounder	251	6	278	Paddle	263	8	381	S-34	139	7	92	Sterlet	392	5	237
Billfish	286	8	285	Flyingfish	229	12	555	Pampanito	383	6	240	S-35	140	8	143	Stickleback	415	1	33
Blackfin	322	5	60	Gablian	252	6	225	Parche	384	6	274	S-36	141	2	87	Stingray	186	16	470
Blackfish	221	12	432	Gar	206	15	347	Pargo	264	8	482	S-37	142	7	173	Sturgeon	187	11	315
Blenny	324	4	495	Gato	212	13	552	Perch	176	2	349	S-38	143	9	40	Sunfish	281	11	459
Blower	325	3	123	Golet	361	2	27	Pernit	178	14	598	S-39	144	5	117	Swordfish	193	13	422
Blueback	326	3	267	Grampus	207	6	243	Peto	265	10	380	S-40	145	9	146	Tambor	198	12	461
Bluefish	222	9	402	Grayback	208	10	477	Pickrel	177	7	254	S-41	146	8	160	Tang	306	5	206
Bluegill	242	6	389	Grayling	209	8	143	Picuda	382	6	291	S-43	154	3	107	Tarpon	175	12	393
Boarfish	327	4	154	Greenling	213	12	427	Pike	173	8	219	S-44	155	4	99	Tautog	199	13	653
Bonefish	223	8	508	Grenadier	210	6	199	Pilotfish	386	6	203	S-45	156	4	95	Tench	417	3	125
Bonita	165	7	43	Grouper	214	12	311	Pintado	387	6	236	S-46	157	5	133	Thornback	418	1	76
Bowfin	287	9	524	Growler	215	11	404	Pipefish	388	6	248	S-47	158	7	186	Threadfin	410	3	146
Bream	243	6	365	Grunion	216	1	30	Piper	409	3	111	Sailfish	192	12	366	Thresher	200	15	120
Brill	330	3	89	Guardfish	217	12	590	Piranha	389	5	227	Salmon	182	11	431	Tigrona	419	3	200
Bugara	331	3	62	Guavina	362	6	242	Plaice	390	6	354	Sand Lance	381	5	168	Tilefish	307	6	257
Bullhead	332	3	75	Gudgeon	211	12	566	Plunger	179	12	357	Sargo	188	12	447	Tinosa	283	11	521
Bumper	333	2	82	Guitarro	363	5	300	Pogy	266	10	334	Saury	189	11	431	Tirante	420	2	131
Burnfish	312	6	297	Gunnel	253	8	352	Pollack	180	11	372	Sawfish	276	10	364	Toro	422	2	51
Cabezon	334	1	36	Gumard	254	9	489	Pomfret	391	6	359	Scabbardfish	397	5	223	Torsk	423	2	70
Cabrilla	288	8	368	Hackleback	295	2	95	Pompano	181	7	182	Scamp	277	8	229	Trepang	412	5	326
Cachalot	170	3	52	Haddo	255	10	384	Pompon	267	9	227	Scorpion	278	4	102	Trigger	237	12	381
Calman	323	4	117	Haddock	231	13	334	Porpoise	172	6	213	Sculpin	191	9	285	Triton	201	6	205
Capelin	289	1	64	Hake	256	9	320	Puffer	268	9	483	Sea Cat	399	4	155	Trout	202	11	289
Captaine	336	1	61	Hallbut	232	10	357	Queenfish	393	5	248	Sea Devil	400	4	228	Trutta	421	2	154
Carbonero	337	2	50	Hammerhead	364	7	283	Quilback	424	1	63	Sea Dog	401	4	199	Tullibee	284	4	125
Carp	338	1	56	Harder	257	6	325	Rasher	269	8	543	Sea Fox	402	4	148	Tuna	203	13	497
Catfish	339	1	38	Hardhead	365	6	314	Raton	270	8	317	Sea Owl	405	3	184	Tunny	282	9	472
Cavalla	244	6	323	Hawkbill	366	5	250	Ray	271	8	399	Sea Poacher	406	4	193	Wahoo	238	7	165
												Sea Robin	407	3	177	Whale	239	8	427
												Sea Wolf	197	15	590				