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Carrier USS *Harry S. Truman* Operating in the Atlantic as Russian Submarine Activity is on the Rise

By: Sam LaGrone
June 29, 2018 3:32 PM • Updated: June 29, 2018 6:42 PM

USS *Harry S. Truman* (CVN-75) conducts a strait transit. Truman is currently deployed as part of an ongoing rotation of U.S. forces supporting maritime security operations in international waters around the globe on April 27, 2018. US Navy Photo

The aircraft carrier **USS *Harry S. Truman* (CVN-75)** has left the Mediterranean Sea and is now operating in the Atlantic Ocean, a defense official confirmed to USNI News. This week the carrier, the embarked Carrier Air Wing 1 and some of its escorts passed through the Strait of Gibraltar into the Atlantic after spending several days in port in Marseille, France. "*As a matter of longstanding policy, we do not discuss future operations, but I can tell you that the Harry S. Truman Carrier Strike Group will continue to conduct operations in support of our NATO allies, European and African partner nations, coalition partners, and U.S. national security interests*," Cmdr. John Perkins, a spokesman with U.S. Naval Forces Europe and Africa, told USNI News. The move to the Atlantic is arguably a continued expression of two constituent themes in the Pentagon as of late: a return to great power competition outlined in new strategic planning documents, and the direction from Secretary of Defense James Mattis that U.S. forces need to be "*strategically predictable and operationally unpredictable*." In terms of great power competition, there is growing evidence that Russia continues to push its newest attack submarines to operate the North Atlantic at a pace not seen since the Cold War, Navy leaders have continued to stress publicly. "*Russian submarines are prowling the Atlantic, testing our defenses, confronting our command of the seas, and preparing the complex underwater battlespace to give them an edge in any future conflict,*" current U.S. Naval Forces Europe-Africa commander Adm. James Foggo wrote in U.S. Naval Institute's *Proceedings* in 2016. "*Not only have Russia's actions and capabilities increased in alarming and confrontational ways, its national-security policy is aimed at challenging the United States and its NATO allies and partners*." Bryan Clark, a senior fellow at CSBA, said that carrier strike group operations in the Atlantic make sense for high-end exercises for the U.S. and partner nations. Both the U.K. Royal Navy and the French Navy field effective submarine forces that haven't trained much lately with U.S. surface ships. "*Our Atlantic coast guys need a chance to train against good submariners,"* he said. *"Either they're it doing with the French or the British for training or for hope of finding a Russian submarine*." For its part, the Truman Strike Group embarked with an extensive escort fleet that will include up to six guided-missile destroyers and the German Navy guided missile frigate **FGS *Hessen* (F 221).** Clark said the U.S. DDGs are equipped with an effective anti-submarine warfare packages that work well in the Atlantic but aren't typically deployed there. "*You have to make a special effort to put them there,*" he said.

German navy frigate **FGS *Hessen* (F 221)** trails the Nimitz-class aircraft carrier **USS Harry S. Truman (CVN-75)** while transiting the Strait of Gibraltar on June 29, 2018. US Navy Phto

Chief of Naval Operations Adm. John Richardson has also alluded to an increased Russian

submarine presence in public statements about the need for the Navy to operate differently in a new era. "*It's an aspect of the security environment that it's getting harder to do things without being observed, no matter where you are. So we're going to have to be clever about that*," he told USNI News last month. In line with the Mattis guidance, the Navy is using a so-called dynamic force employment model that in the last several months has broken from the traditional patterns of the last several years. Earlier in June, the amphibious warship **USS *Iwo Jima* (LHD-7)** entered the Persian Gulf after a two-and-a-half-month gap of a capital ship in the region, while two other ships in the Iwo Jima Amphibious Ready Group – **USS *Oak Hill* (LSD-51)** and **USS *New York* (LPD-21)** – operated in the Baltic and Mediterranean seas, respectively. "*The Navy is making deliberate prioritization decisions in accordance with the [national defense strategy] which may disrupt the 'business as usual'*," a Navy official told USNI News on Friday. "*We must prioritize lethality, deterrence capability, training and readiness of the defined fighting unit, and will ensure the mission is met with the right capability and platform*." While the Navy did not acknowledge *Truman's* mission in the Atlantic, the move harkens back to an exercise from last year. On its return to Norfolk, Va., the George H.W. Bush Carrier Strike Group operated off of the U.K. as part of **Saxon Warrior**, an exercise with the U.K., Germany, Sweden and Norway. The exercise was the first in the series since 2011 and was in part prompted by Russian operations in the region, USNI News understands. However, the Truman carrier strike group is expected to continue its deployment for several more months. **Source: https://news.usni.org**

Uganda takes South African patrol boats into service

Written by Guy Martin, Friday, 22 June 2018

The Uganda People's Defence Force (UPDF) has taken into service four 850 Military Patrol Boats (MPB) built in South Africa and supplied by Twiga Services and Logistics under a contract by Impala Services and Logistics Limited of Uganda. The four 850 Military Patrol Boats (MBPs) were commissioned into service by President and Commander in Chief Yoweri Museveni on 19 June after a firepower demonstration near the UPDF Marine base at Port Alice Pier near Entebbe. The Marines also demonstrated combat tactics, water survival skills and scuba diving capabilities. At the same time, Museveni commissioned five cadet officers. He said it is vital for Uganda to secure its bodies of water as 20% of the country is under fresh water. "*Lakes are very easy areas of infiltration, there is need to defend our fisheries but also stop border lakes from being used by terrorists and criminals*."Museveni said search radars are needed to improve security on Uganda's lakes. The boats were built in Cape Town and supplied by Twiga under contract from sister company Impala Services and Logistics in Uganda. Training and technical support was part of the package, with training taking place in Cape Town and Entebbe. Museveni said the military should consider partnering with Impala Services to be able to make the boats in Uganda instead of importing them and thanked Impala Services for supplying the boats. Each boat is fitted with a machinegun mounted on the bow and a machinegun on each side of the rear of the vessel and is powered by two 200 horsepower Yamaha outboard engines giving a top speed of around 35 knots. The MPB marine electronics system includes radar, underwater scanners, engine management system and wifi system. The boats are 8.5 metres long and 2.3 meters wide accommodating three gunners and boarding party of four, coxswain and marine electronic system operator. The Twiga rugged patrol boat range, which includes the 850 Military Patrol Boat, is made from High Density Polyethylene (HDPE), which make them virtually indestructible water platforms, although slightly heavier than conventional boats. They are built by Rhino Marine, which has granted Twiga the sole agency for its military craft. The MPB are supplied from 6.5 to 12.0 meters and designed for riverine and close to coast operations. The HDPE provides positive bouncy and is simple to maintain should it suffer damage. The Chief of the UPDF, General David Muhoozi, said the Marines have plans to increase their fleets with more vessels and strengthen the Marines' capabilities. Impala Services and Logistics has worked with the UPDF since 2011, manufacturing the Nyoka Armoured Personnel Carrier in Jinja together with the Ugandan military. The first Nyoka were commissioned at the Maga Maga defence industry facility in August 2014. Impala Services continues to manufacture in Uganda and provides fourth line re-manufacture for the UPDF in Mogadishu. Twiga and Impala have been in business since early 2011 and supply military and security forces with armoured vehicles, night vision equipment, rugged boat systems, thermal imaging devices and a wide range of training and support programmes. Around 90% of Twiga's business is joint venture manufacturing of armoured

personnel carriers, the supply of spares, weapons mounts, night vision systems and ex-South African vehicles and equipment. **Source: http://www.defenceweb.co.za**

Reports: Australia Picks BAE Systems Design for $26B Warship Deal

By: Ben Werner
June 28, 2018 3:51 PM

BAE Type 26 Frigate, BAE photo

BAE Systems won a $26 billion contest to design and build nine frigates for the Royal Australian Navy, according to Thursday media reports. Prime Minister Malcolm Turnbull is expected to formally announce the award Friday, *The Wall Street Journal* and other media outlets reported. The BAE Type 26 frigates, to be named Hunter-class, will be built in Australia by the state-owned ASC Shipbuilding at its Osborne Naval Shipyard. *The Wall Street Journal* reported the yard will become a BAE subsidiary during the length of the contract. ASC, which operates three shipyards in Australia, builds the Hobart-class air warfare destroyer for the Royal Australian Navy, and built and maintains Australian's fleet of six Collins-class submarines, according to the company. BAE, maker of the 7,000-ton Type 26 design, had been competing against Italian-based Fincantieri and Spain-based Navantia for the contract. While the Fincantieri and Navantia designs are both being considered for the future U.S. Navy frigate competition, the BAE Type 26 and Type 31 were not eligible for the U.S. frigate, contest because the rules required designs submitted to already in service, not a concept or in production. Last year, BAE started building the first batch of what will ultimately be a fleet of eight Type 26 frigates for the U.K. Royal Navy. The design is also under consideration by the Royal Candian Navy for its future frigate. "*The ships specialize in anti-submarine warfare, protecting the U.K.'s overseas territories and interests across the globe. The flexible design will allow the capabilities to be adapted throughout its lifespan to counter future threats*," the Royal Navy said in a statement when the contract was announced. **Source: https://news.usni.org**

Team Torpedo: US Firms Sell & Support MK48s and MK54s

Jun 22, 2018 04:58 UTC by Defense Industry Daily staff

June 22/18: Maintencance needed The Navy is contracting Northrop Grumman Systems Corp. for maintenance work on its arsenal of Mk48 heavyweight torpedoes. The $17,9 million cost-plus-incentive-fee, cost-plus-fixed-fee and cost-only contract provides the commanders of the US Atlantic and Pacific fleet's submarine force with approximately 56,160 man-hours per year to operate the progressive depot-level repair facility and provide depot-level repairable management functions for Mk 48 readiness. The Mk-48 is a huge 19 feet long, 3,500 lb. heavy torpedo with advanced homing, wire guidance capabilities, and devastating consequences when its 600 lb. warhead hits a target. It is designed to kill both fast, deep-diving nuclear submarines and high-performance surface ships, and is carried by US Navy and Royal Australian Navy submarines. These torpedoes can operate with or without wire guidance, and can use active and/or passive homing, and can conduct multiple re-attacks if they miss the target. Cost estimates for this weapon are around $2 million each, rising to almost $3 million in some cases with upgrades factored in. This Work will be performed in Yorktown, Virginia, and is expected to be completed by September, 2018.

Power of the Mk 48 Torpedo

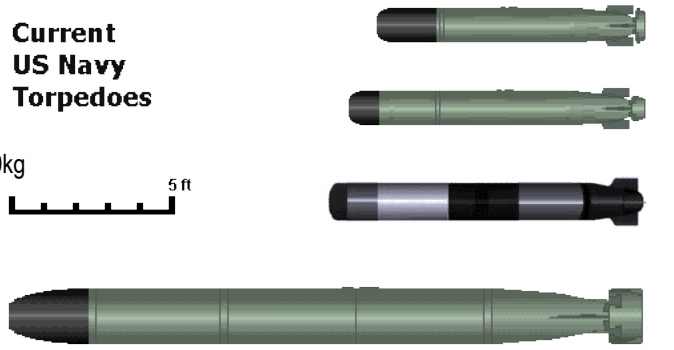
Mk 48: Before and After

The Mk-48 is the standard heavyweight torpedo used by the US military, and is mounted primarily on submarines. Surface ships use the smaller Mk46 or Mk50. The Mk-54, in contrast, stemmed

from the need for a smaller, lighter, and cost effective advanced torpedo – one that could be dropped from helicopters, planes, and smaller ships. In recent years, the US has moved to modernize and maintain its Mk-48 inventory; the Mk-54 also requires servicing and spares. Many of these contracts were issued under a total enterprise partnership between Raytheon and the US Navy called Team Torpedo, dedicated to meeting the needs of U.S. and allied naval fleets. Team Torpedo combines Raytheon's manufacturing, design engineering, and support services expertise with the systems engineering and testing capabilities of Naval Undersea Warfare Center (NUWC) operations in Newport, RI, and Keyport, WA. Now, a new provider has entered the picture. DID has the complete set of contracts below… plus more details regarding the torpedoes involved, and the answer to the question "what the heck is CBASS standard"?

Heavyweight & Flyweight: Mk-48 ADCAP and Mk-54

Heavy Hitter: The Mk-48



US torpedoes

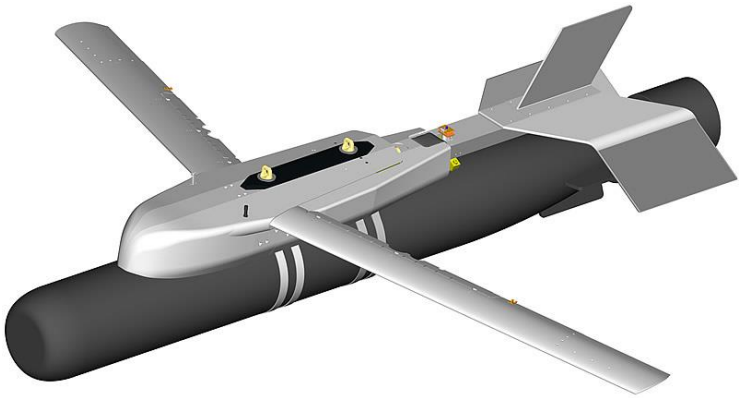
The Mk-48 is a huge 533mm torpedo (19 feet long, 3,500+ pounds) with advanced homing, wire guidance capabilities, and devastating consequences when its warhead hits a target. It is designed to kill both fast, deep-diving nuclear submarines and high performance surface ships, and is carried by US Navy and Royal Australian Navy submarines. The Mk 48 ADCAP has improved target acquisition range, reduced vulnerability to enemy countermeasures, reduced shipboard constraints such as warm-up and reactivation time, and enhanced effectiveness against surface ships. These torpedoes can operate with or without wire guidance, and can use active and/or passive homing, conducting multiple re-attacks if they miss the target. Cost estimates for this weapon are around $2 million each, rising to almost $3 million in some cases with upgrades factored in. The Common Broadband Advanced Sonar System (CBASS) kit is for the Mk48, and includes a Broadband Sonar Analog Receiver, preamplifier and interfacing hardware. This gives the retrofitted torpedoes the ability to transmit and receive over a wide frequency band, and takes advantage of broadband signal processing techniques to improve their targeting & tracking capabilities. This is especially helpful in shallower waters, where the bottom and other clutter is more likely to be in the way. CBASS kits procured before the end of FY 2007 were for Mk-48 ADCAP Mod 5 and below, and so they included the Torpedo Propulsion Upgrade (TPU) modification required for forebody/ afterbody compatibility. After that, the kits are used with Mk-48 ADCAP Mod 6 torpedoes, which don't require the TPU. Initial CBASS contractor Raytheon also manufactures the AN/BYG-1 combat management system used in new American submarines, and scheduled for retrofit to older Los Angeles class boats and the Royal Australian Navy's Collins class submarines. This reportedly allows for a degree of synergy that improves the Mk-48 ADCAP torpedo's effectiveness. In 2011, however, Lockheed Martin stepped into the picture with a key contract win for CBASS kits. The USA, Australia, Brazil, Canada, and the Netherlands are Mk-48 customers, and Turkey has requested them for its new U214 subs. The Mk-48 doesn't lack for international competitors, though: Britain (Spearfish), France (F21), Germany (Sea Hake), Italy (Black Shark), and now South Korea (White Shark) all produce plausible alternatives for western submarines. Russia, India, Japan, and China also produce their own heavy torpedoes, but they wouldn't compete with the Mk-48 because the submarines that carry them are local or Russian designs.

Torpedo to go: The Mk-54

Mk-46, Mk-50, MK-54

The Mk-54 stemmed from the need for a smaller, lighter, but cost effective advanced torpedo that could be dropped from helicopters, planes, and smaller ships. To achieve this, it combined the expensive Mk-50's search and homing system with the propulsion system of the Mk-46 torpedo (the previous NATO/US standard), and added off-the-shelf electronic components. Its size improves its ability to go after targets in shallower littoral regions, but the torpedo is designed to work in both deep water and near-shore or shallow environments. Cost estimates for this weapon

are around $1 million each. In 2013, the Navy ordered the MK-54 MOD 0 array and transmitters. The MK-54's sonar array and transmitters hadn't been produced since the Navy completed MK-50 production in the mid-1990s, as the MK-54's common parts were just taken from older MK-50 stocks. The new MOD 0s are substantially the same design, but obsolete parts and material have been switched for modern electronics. A new receiver is also part of Northrop Grumman's contract, and the technology refresh and proof of design testing were accomplished by Advanced Research Laboratory, Pennsylvania State University (ARL PSU). The MK 54 MOD 1 LWT kit is an upgrade that adds a new sonar array assembly, and improved processing capability. The full kit includes a 112-element array, transmitter, receiver, Processor Group Assembly (PGA), Modular Recording and Exercise Control System Second generation (MRECS2), and associated cables. It's still a developmental product, under a SBIR Phase III framework. Progeny Systems Corporation, of Manassas, VA owns the intellectual property rights, so they've been the sole-source for all contracts.



Mk54 HAAWC

Look up! The new 737-derived P-8 Poseidon aircraft is spurring the special development of special GPS-guided, high-altitude launch kits for the MK-54. The HAASW add-on kit from Boeing is derived from their JDAM bombs, allowing accurate torpedo drops from 35,000 feet in P-8A Poseidon Increment 2 aircraft, instead of the usual ceiling of several hundred feet. Lockheed and Raytheon have developed similar solutions.

Competitors: The MU90 Eurotorp is the Mk-54's primary international competitor, and it has been very successful in the international marketplace. It ran into severe problems in Australia, however, and those have taken a long time to sort out. BAE Systems' Stingray has made a few sales as well, and South Korea's K745 Blue Shark could become an interesting future competitor. Meanwhile, there are still a lot of Mk-46s in service around the world.

Source: https://www.defenseindustrydaily.com

New Surface Warfare Officer Career Path Stresses Fundamentals; More Training Before First Ship, More Time At Sea

By: Sam LaGrone

June 28, 2018 12:25 PM • Updated: June 29, 2018 12:55 PM

Secretary of the Navy Richard V. Spencer observes training in the littoral combat ship simulator during a visit to Surface Warfare Officers School (SWOS) Command June 12, 2018. US Navy Photo

The U.S. Navy is retooling the career path for surface warfare officers in the aftermath of last year's fatal guided-missile destroyer collisions. The plan requires more school for new officers before they report to their first ships, institutes a new testing regime through major commands and shapes the career path so SWOs spend more time at sea. The announcement of the new career path comes a few weeks after an evaluation of 164 qualified officers of the deck throughout the fleet that found only 29 of those tested passed with no concerns. "*The intent of this career path is to develop the absolute best commanding officers who are proficient mariners, experienced warfighters and leaders of character*," Vice Adm. Richard Brown, commander of U.S. Naval Surface Forces, wrote in a June 18 message obtained by USNI News. The goal of the new plan is to increase

the capability and experience of surface forces commanding officers. "*The way to do that is primarily through increasing our officers' experience at sea in ships*," SURFOR spokesman Cmdr. Patrick Evans told USNI News. "*The changes span all SWO ranks – from first-tour division officers to commanding Officers – in order to increase readiness, proficiency, and competency across the fleet. The revised SWO career path and training continuum helps us continue to develop commanding officers who prepare their teams to sail over the horizon and face any challenge, win, and return home safely. That is the gold standard*." The focus of early SWO training is built around "*two courses to prepare them to drive ships and lead sailors*," according to Brown's message. The largest changes put an emphasis on basic mariner skills earlier in the career path. In addition to the current basic officer course, new ensigns will attend a six-week officer of the deck course that will include "*International Standards of Training, Certification and Watchkeeping (STCW) courses in Radar Operator, Electronic Chart Display and Information System-Navy (ECDIS-N), Automated Radar Plotting Aid (ARPA), and more than 100 hours of simulator training*," the message reads. The Navy will roll out a four-week OOD course next year and the full course by 2021. "*Following successful completion of these two courses, an ensign will report to their first warship, where their focus will be to qualify as OOD and surface warfare officer*," the message reads. "*A junior officer can complete either a 30-month tour followed by a second 18-month sea tour or one single longer tour of 48 months*." Following a junior SWOs first division officer tour, they will report to a second newly developed officer of the deck course that emphasizes managing the bridge. The SWOs will be tested again before heading to a second division officer tour. For the division head tours, the service eliminated afloat staff tours as an option, thereby pushing SWOs into operational jobs on ships. For executive officers, the plan adds an additional ship handling evaluation before XOs can move on to command. What the plan doesn't change is the XO ship commander "*fleet-up*" structure that has executive officers become the next commanding officer of a ship when the CO moves on. The fleet-up program, instituted in 2006, has been criticized following the Western Pacific collisions, and internal Navy studies have shown the program has had a mixed record of success. In his message, Brown stood behind the fleet-up concept. "*The CO will build upon their XO tour on the same ship; will know their ship and crew; and will have the competency, character and leadership to effectively command on day one*," he wrote. The emphasis on seamanship training ashore is a move away from a previous generation of thought in which SWOs were expected to learn their craft while underway and juggling the responsibilities of a junior officer. In the early 2000s, the Navy eliminated the 16-week Surface Warfare Officer School Division Officers Course in favor of computer-based instruction and practical training for junior SWOs underway. The so-called SWOS-in-a-box regime was eliminated in 2012 in favor of an eight-week course ashore before SWOs reported to their new ships. Still, the two reviews the Navy conducted after last summer's fatal collisions of **USS *Fitzgerald* (DDG-62)** and **USS *John S. McCain* (DDG-56)** found that basic ship handling and navigation proficiency was lacking. That understanding was reinforced by Brown's study of OOD qualified surface sailors. "*We must be realistic in confronting the systemic shortfalls that they revealed in core proficiencies across the junior qualified members of the force. We as a community can and must tackle our deficiencies and ensure there is meaningful experience behind our qualification letters*," Brown wrote in his June 6 message. Former U.S. Surface Forces commander Vice Adm. Tom Copeman told USNI News that the new SWO career path is reminiscent of the division officer training and career path in the early 1980s. That was before an explosion of missions, tasks and more complex technology required of the surface fleets. While Copeman approved of the direction of the new career path and the additional training time and assessments, he told USNI News the proposed training regime is still more modest in time and money than the training for aviators or submarine officers. "*It costs money to train and to provide the experiences needed to be a seagoing professional*," Copeman said.

Source: https://news.usni.org

It is incredibele that the US Navy does not completely understand the value of practical watchkeeping, ship handling and seamanship. Increasing training before can only find its way into expertise by actually transferring theory into practice, and that requires time at sea. There should be enough time at sea to do training. I think that the system the SA Navy previously followed was sound, with theoretical training, boosted by pracrical at sea training, appearing in front of the Watchkeeping Board, be under the supervision of an OC for a further period of time before the actual qualification is obtained. I am also not convinced that the fleet-up program is working, in light of the continuous *loss of confidence* in Ocs to command.

Malabar 2018 concludes off Guam

Navy ships from the US, India and Japan have concluded the trilateral maritime exercise **Malabar 2018** off the coast of Guam. The exercise ran from June 7 through June 16. While ashore in Guam, training included subject matter expert and professional exchanges, maritime patrol and reconnaissance operations, anti-submarine warfare, medical operations, damage control, helicopter operations, ship tours, and visit, board, search and seizure (VBSS) operations.

Ships from the Indian Navy, Japan Maritime Self-Defense Force (JMSDF) and the U.S. Navy sail in formation during **Malabar 2018**. **Photo: US Navy**

The at-sea portions conducted in the Philippine Sea were designed to advance participating nations' military-to-military coordination and capacity to plan and execute tactical operations in a multinational environment. Events planned during the at-sea portions included liaison officer professional exchanges and embarks, a photo exercise, submarine familiarization, high-value unit defense, air defense exercises, surface warfare exercises, communications exercises, search and rescue exercises, helicopter cross-deck evolutions, underway replenishments, gunnery exercises, VBSS exercises, and anti-submarine warfare. Surface ships from the U.S. Navy participating in the at-sea phase of the exercise included the aircraft carrier **USS *Ronald Reagan* (CVN 76),** the guided-missile cruisers **USS *Antietam* (CG 54)** and **USS *Chancellorsville* (CG 62)**, and the guided-missile destroyer **USS *Benfold* (DDG 65).** Japan Maritime Self Defense Force was represented by helicopter carrier **JS *Ise***, Takanami-class destroyer **JS *Suzunami*** and Akizuki class destroyer **JS *Fuyuzuki***. India sent frigate **INS *Sahyadri***, corvette **INS *Kamorta*** and tanker **INS *Shakti***. This is the first year that Malabar was conducted in the Guam operation area. The two-phase exercise took place ashore in Guam and underway in the Philippine Sea.

Source: Naval Today

The Evolution of Maritime Strategy and Naval Doctrines in North East Asia

June 20, 2018 Guest Author

By Pawel Behrendt

Chinese Navy sailors take part in an international fleet review to celebrate the 60th anniversary of the founding of the People's Liberation Army Navy in Qingdao, Shandong province in this April 23, 2009. (REUTERS/Guang Niu)

Great power competition and arms races are back, especially in Asia. According to the Stockholm International Peace Research Institute (SIPRI) Asia and Oceania countries in 2017 were responsible for 27 percent of global military expenditures. In absolute numbers it totalled U.S. $477 billion. Three out of the 15 top spenders are located in North East Asia: China ($228 billion), Japan ($45.4 billion), and South Korea ($39.2 billion). Given the role of maritime trade for the economies of these three powers it is no surprise that navies are an important part of their military budgets. But maintaining old and ordering new warships is not everything. The shape of naval force employment is dependent on doctrine and strategy. These in turn depend on threat perception, political and economic needs, as well as ambitions.

Japans' maritime strategy and naval doctrine has been very stable during the last half century. Recent changes that aim to grow the capability of the Maritime Self Defence Forces (MSDF) are rather minor. On the flipside, the People's Liberation Army Navy (PLAN) and the Republic of Korea Navy (ROKN) underwent radical development in the past two decades, reshaping them from brown water into green water navies with the eventual ambition to become blue water forces. Many of these changes are, especially in the case of South Korea, surprising and unexpected.

Japan

"Generally, naval power was born from the need to preserve freedom of the seas, enabling sea lanes of communications (SLOCs) and economic growth to prosper and expand."[1] – Admiral Tomohisa Takei (MSDF) Protecting SLOCs along with "Defense of Surrounding Waters" is the most important task of the MSDF. Given Japan's dependence on sea trade it is no surprise, however the current doctrine is equally the result of the experience of World War II and post-war pressure by the United States as a political-economic calculation. During the war the effects of unrestricted submarine warfare by the U.S. Navy were devastating to the merchant marine of Japan. The protection of merchant shipping proved to be inadequate, nearly 85 percent of the pre-war tonnage had been sunk.[2] After the war the protection of sea lanes was advanced as a priority to be fulfilled by rebuilding the naval forces of Japan. Thus till the late 60s lasted an intensive debate between supporters of a strong navy oriented toward SLOC protection and a limited ant-invasion force. The main potential invader was then the Soviet Union. Finally the dispute resulted in a more balanced fleet, capable of both effective escort operations at range and the defense of its own coast. Such doctrine was supported by the Pentagon. The U.S. Navy needed an efficient ally, able to protect naval bases, but simultaneously able to secure SLOCs in the Pacific. Such a division of tasks would allow the devoting of more U.S. forces for offensive operations.[3] At the same time the growing Japanese economy became more dependent on maritime shipping and a better understanding of the importance of SLOCs emerged.[4] Japan has become a crucial and indispensable ally of the U.S. in East Asia, fomenting a deep interoperability between the U.S. Navy and MSDF. Geopolitical changes after 1991 at first did not greatly influence the naval doctrine of Japan. An Escort Flotilla has remained up until today the main unit. Currently there are four such Flotillas (1-4) based in Yokosuka, Sasebo, Maizuru, and Kure. Each unit is grouped around a helicopter destroyer and two Aegis destroyers plus five smaller combatants, usually frigates. Changes came during the 90s and early 2000s. Expanding international activities, terrorism, and the rise of China pressed the MSDF to pursuit new capabilities. The first visible sign of changing attitude was the

procurement of *Ōsumi*-class amphibious landing ships. For the first time since World War II Japan was capable of power projection. Next was the refueling mission during **Operation Enduring Freedom** in Afghanistan where MSDF logistics ships refuelled coalition ships in the Indian Ocean, and anti-piracy missions off the coast of Somali. This latter mission brought the first Japanese overseas base in Djibouti and a larger appreciation of unconventional threats at sea.[5]

LST-4003 Kunisaki Osumi-class landing ship. (Wikimedia)

ow the main challenge has become China, who also strongly depends on maritime transportation. The growing quantity and quality of the People's Liberation Army Navy only strengthened its ability to protect SLOCs. What's more, fear of potential invasion has returned and is more and more visible in the military planning of Japan.[6] This new threat perceptino gained the name of "*Counterbalancing China*."[7] Hence, despite growing rivalry between both states and Japan's pursuit of power projection capability, escort tasks and coastal defense continue to be the main duties of MSDF.

The People's Republic of China

During the last 20 years the People's Liberation Army Navy (PLAN) has come a long way. Since 1949 there were two main missions for Chinese naval forces: reunification (invasion) of Taiwan and coastal defense. During the 80s lack of funds and concentration on continental threats led Admiral Liu Huaqing[8] to the "*offshore defense*" doctrine. It focused on operations within China's Exclusive Economic Zone (EEZ), what admiral Liu characterized as the Yellow Sea, South, and East China Seas, as well as waters around Taiwan and Okinawa. An additional task was nuclear deterrence. However, the main tasks of the PLAN largely stayed the same in spite of these ambitions. During the 90s economic changes, U.S. led operations in Iraq, Serbia, and the Taiwan Strait Crisis of 1996 gave impetus to change. Admiral Liu and his adherents were given arguments to expand the bounds of maritime capabilities beyond coastal waters. It resulted in the doctrine of "*distant sea defense*." It asserted an intensive naval buildup and was defined not by geographical limitations but by the PRC's maritime needs.[9] A turning point for the PLAN was the year 2004, when President Hu Jintao called for pursuit of capability to sustain a maritime presence in strategic locations, in hostile conditions, and for extended periods. The doctrine of "*distant sea defense*" still encompassed the Taiwan issue and coastal defense but now also the distant protection of maritime sovereignty. This helped intensify the East and South China Seas disputes, and provided China with a long-term goal of effective defense of crucial SLOCs and in the future (perhaps around 2050) of becoming a global naval power.[10] Even more attention has been paid to naval forces since Xi Jinping came to power. His "**Belt and Road Initiative**" greatly emphasizes the value of maritime communication. Under BRI China has invested about $44 billion in port infrastructure both at home and in other countries while further foreign investments of nearly $20 billion were declared for the near future. Especially interesting projects are the China-Pakistan Economic Corridor, along with highways, railways, and pipelines connecting the coastal regions of Myanmar with Yunnan province and Kra Canal in the Malaya Peninsula. All of these aim in part to solve the "**Malacca Dilemma**" and reduce China's dependence on the maritime chokepoints of Southeast Asia.[11] Still it does not diminish the role of the South China Sea as a crucial waterway leading through the chokepoints in Indonesia and Malaya. Hence strengthening military presence in the region and pursuit for the capability to control it fuels China's policy in the SCS dispute as well as prestige issues and protecting national resources. More military-oriented aspects of BRI are growing PRC naval presence in the Indian Ocean and the great expansion of the PLAN Marine Corps which is expected to increase fivefold. This force now numbers 20,000 soldiers organized into two brigades, but the goal is as many as 100,000 troops in six brigades. This does not mean only the formation of new units, as it was reported that two brigades from the Ground Force had been subordinated to the Navy. The main task of this huge force would be the protection of the maritime thread of the New Silk Road and defense of the overseas interests of the PRC. The Chinese Marines are already stationed in Djibouti and have appeared in Gwadar, Pakistan. Both garrisons are rumored to have as many as 10,000 soldiers. Still such a great buildup causes many problems. The PLAN Marine Corps lacks experience in expeditionary missions and does not have sufficient equipment. What is more, a force that has spent years preparing mainly for an invasion of Taiwan and operations in nearby waters of South and East China Seas requires a thorough reorganization to face new, global tasks.[12] All of this concerns the whole PLAN as well. As of January 2018 the PLAN had in service 26 Type 054A class frigates[13] and 39 Type 056 class corvettes.[14] These escort vessels are the real workhorses of the Chinese Navy. Both classes are more developed toward the anti-submarine warfare (ASW) mission. As was unofficially disclosed in the perception of the Chinese admiralty one of the biggest threats to both military and merchant ships are submarines, especially the conventionally-powered vessels of the MSDF. Thus the development of ASW capability has become a top priority.[15] On the other hand

experience in escort missions was gained during the anti-piracy mission off the coast of Somalia. The permanent presence of the PLAN in the Horn of Africa is also a key milestone in the process of building a blue water navy."[16]

Republic of Korea

The Republic of Korea (ROK) is a very interesting case. Despite the location on the Asian mainland, in geopolitical terms it is effectively an island. The Democratic People's Republic of Korea (DPRK) separates South Korea from the rest of the Asian mainland. Also in economic terms the ROK is virtually an island nation, 99 percent of its exports and imports go via sea.[17] Since the end of the Korean War the main task of South Korean naval forces was the defense of littoral areas against the North and securing the EEZ against intrusions of foreign fisherman.[18] Similarly as in China the situation changed in the 90s. One of the results of its economic boom was a deepening dependence on SLOCs as well as growing overseas interests. In 1995 then Chief of Naval Operations Admiral An Byoung-Tae called for the construction of a blue water navy. Admiral Byoung-Ta's ambitions were endorsed by President Kim Young-Sam and he in effect became to the ROKN the same as Admiral Liu Huaqing was to PLAN. However, the vision of President Kim remains quite far from the concepts of military planners from China and Japan. Kim defined two areas of operations: East Asia for the long term and the Indian Ocean and the Strait of Hormuz for short term missions. He emphasized participation in multinational coalitions and thus giving South Korea more influence on the international arena and better ability to shape near and far political environments.[19] During the last 20 years South Korea has now built naval power second in East Asia only lesser than that of China and Japan. Thanks to several landing ships, three Aegis destroyers, and nine smaller destroyers the ROKN has gained noticeable power projection capability. The recent arming of destroyers with cruise missile has built a credible deterrence capability against not only DPRK but also China, Japan, and Russia.[20] However, ASW and mine countermeasure (MCM) capabilities lay far behind. According to the MSDF, South Korean naval forces are unable to protect the crucial link to the ROK's economy, the Tsushima Strait. The solution to this situation could be closer cooperation with Japan, but it is greatly hampered by strong anti-Japanese sentiment and several territorial disputes.[21] Insufficient ASW and MCM capabilities were noticed and addressed by ordering new frigates and mine hunters. Still, in the case of frigates more attention was paid to include them into the national anti-missile defense system than increasing their ASW capabilities. Such a stance is incomplete given the threat posed by DPRK's midget and small submarines. An example here is the fate of the ***Cheonan*** corvette that was sunk by a North Korean submarine.[22]

Conclusion

The SLOCs are lifelines for the dynamic economies of East Asia. As CSIS estimates any long closing of the Strait of Malacca would generate costs, about $350 million after one month, that would have an impact not only in regional but also in global scale.[23] Thus the protection of merchant shipping and the secure delivery of hydrocarbons remain crucial tasks of nearly all mentioned naval forces.

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A blast from the past

Portugal's Tall Ship ***Sagres*** sails out of Halifax for Miami. **Photo : René Serrao, Portuguese Cove, NS (c)**

Workhorses of the sea

The ***DLV2000*** finishing up 35km CRA pipelay project in Australia for Woodside

Photo : Alex Phimister Chief Mate/SDPO Marine Assets & Operations DLV 2000 ©