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# MARITIME SECURITY



### Japan, Vietnam to bolster maritime security cooperation

- Mari yamaguchi

Japan and Vietnam agreed Tuesday to bolster their security ties through Japanesefunded projects including the upgrading of Vietnamese coastal patrol capabilities, defense equipment and technology transfer amid concerns about China's increasingly assertive activity in regional seas.

Vietnamese Prime Minister Nguyen Xuan Phuc and his Japanese counterpart, Shinzo Abe, held talks in Tokyo and shared "deep concern over the complex developments" involving China in the South China Sea. They urged China — without referring to it by name — to avoid taking actions to change the status quo and escalate regional tensions. China claims virtually all of the South China Sea, parts of which are also claimed by several other countries in the region including Vietnam.

Japan and Vietnam reaffirmed the importance of the Trans-Pacific Partnership trade pact and agreed to pursue it despite the United States' withdrawal. The two leaders agreed to cooperate in discussions among the 11 remaining TPP members to bring the agreement into force, according to a joint statement.

The two countries signed more than a dozen agreements, including one for 38 billion yen (\$350 million) in Japanese aid to upgrade Vietnamese coast guard vessels and their patrol capability. The maritime security upgrade is part of Japan's 100 billion yen (\$910 million) loan signed Tuesday, which also included science and technology and water management projects. Abe expressed hope that the assistance would also provide business opportunities for Japan to contribute its expertise and technology for Vietnam's development. Abe said Japan hopes to enhance cooperation to strengthen "a free and open international order based on the rule of law," calling it "the cornerstone of stability and prosperity for international society."

Source: <u>abcnews.go.com</u>, 06 June 2017

# Pirates are making a comeback on the high seas, and have Africa and Asia in their sights

-Mariam Amini

Across the world, pirates are setting sail on the high seas again, costing shippers and insurers hundreds of millions of dollars, after declining since the 2009 hijacking of the Maersk Alabama off Horn of Africa. Once contained by international policing efforts, piracy appears to be staging a comeback. According to a new report from watchdog group Oceans Beyond Piracy, seafaring incidents involving kidnap for ransom jumped last year, with West Africa and Asia becoming prime targets. The latter's Sulu and Celebes Seas, neither of which saw any attacks at all in 2015, combined for 21 in 2016, the organization said in its State of Maritime Piracy report.

Overall, Asia led the way with 125 instances of piracy, while West Africa had 95: Those figures included armed robbery, hijackings, kidnappings and ship boardings. The shores of Africa remain attractive to pirates, with an estimated 90 percent of all its exports and imports moving across the high seas. In East Africa alone, where Capt. Richard Phillips' Maersk Alabama was hijacked in 2009, pirates originating from Somalia cost businesses nearly \$2 billion last year in ransoms, security, insurance and other preventative measures. The hijacking was depicted in the 2013 movie "Captain Phillips," starring Tom Hanks.

In 2009, Somali pirates established a "stock market" in Haradheere, a small fishing village northeast of Mogadishu, to fund their hijacking activities off the Horn of Africa. More recently, Somali outlaws successfully hijacked a commercial oil ship for the first time in five years, underscoring the rising dangers to vessels sailing the high seas. Gerry Northwood, the COO at MAST, the maritime risk management consultancy, told CNBC there is still a considerable danger to commercial vessels. "If presented with an opportunity, pirate investors will gladly return to the business model which proved so lucrative between 2008 and 2010," said Northwood, a former Royal Navy counterpiracy commander. He referred to a time frame where piracy was rampant, reflected in the \$7 billion the shipping industry was forced to cough up in 2010, according to OBP data.

'Dipping their toe in the water once more'

At its peak, piracy in East Africa prompted NATO, the European Naval Force and U.S. Combined Maritime Forces to create an international coalition. Dubbed "Operation Ocean Shield" by NATO, the effort dramatically curbed attacks on the high seas, with

not a single ship having been captured by pirates off the Horn of Africa between 2012 and 2016.

However, MAST's Norwood said the rise in attacks could be seen as pirates "dipping their toe in the water once more." A NATO official told CNBC via email: "Given the complete lack of attacks during [2012-2016], Allies agreed that the mission had achieved its military objectives — but that the Alliance would keep a close eye on developments." Should the need arise, however, allies could restart counter-piracy patrols, he added.

According to the U.S. Navy, certain vessels have been able to fend off attacks themselves, or at least hold off attackers until naval forces arrived on scene. Still, MAST data show that of 48 instances of piracy in the first quarter of 2017, 36 were either boardings or outright hijackings.

Piracy in the South China Sea

For pirates, trade ships remain to be an attractive target in Asian waters as well: In this year alone, MAST reported 17 maritime crime incidents across Indonesia, the Philippines and Malaysia. About \$40 billion worth of cargo passes through the area annually, with at least \$700 million in Indonesian coal exports going to the Philippines. According to MAST, commercial vessels may already be rerouting around these islands, and any escalation of tensions in the area — such as China's territorial dispute in the South China Sea — could disrupt trade and give pirates a new opening in the Far East. "It is clear is that the maritime environment is linked to global events and not immune to crime and terrorism in their many forms," Northwood said.

Source: www.cnbc.com, 04 June 2017

# Piracy in the Gulf of Aden: Isn't it time already for the Warships to head home?

-Dinesh Yadav

On 13 March pirates hijacked an oil tanker, named Aris 13, off the Somali coast, when the tanker was carrying fuel from Djibouti to Mogadishu. It is interesting, however, to note that this was the first successful hijacking of a commercial ship by Somali pirates since 2012. Even more interesting is the fact that, in less than three days, the pirates released the 08 men Sri Lankan crew and the ship without ransom.

The last decade was witness to an unprecedented surge in piracy emanating from Somalia, which became the most serious threat to global shipping passing through the area. The Somali coasts sits astride two of the most significant maritime trade routes; one that connects Asia and the Persian Gulf with Europe, through the Gulf of Aden, and the other, the North–South trade route running along the East African coast. Severe lack of economic opportunities and an absence of government in Somalia allowed some of these Somali rebels to hijack some hapless merchant ships plying on these two busy sea routes, and trade them off for handsome ransoms.

Heightened piracy activities along one of the busiest maritime routes inflicted overwhelming financial losses for the shipping community. These costs were in the form of lost cargo, ransom money, higher insurance costs, added shipping times, extra compensation to crews, litigation and legal fees, etc. Even cruising faster through the area, in an effort to discourage pirates, added to fuel costs. A study has indicated that for a supertanker, cruising at 17.9 knots versus the typical 12.8 knots speed, adds an extra \$88,000 in fuel expense per ship per day. Some ships even started avoiding the area altogether by taking a much longer alternative route, adding to huge fuel, time and opportunity costs.

As the piracy incidents off the Horn of Africa crossed the threshold, the United Nations Security Council (UNSC), in 2008, issued its first resolution that empowered foreign navies to act against piracy in the waters around Somalia. Despite that, the acts of piracy continued unabated off the Somali coast and even expanded beyond its coastal waters into the high seas. These resulted in a series of other UN resolutions on piracy in general and Somali piracy in particular.

One immediate fallout of Somali piracy and subsequent UNSC sanctions was the assemblage of warships in the region from almost all major powers. There are a number of international naval alliances active in the region, these include the Combined Task Force (CTF) 151 under the 30-nations Combined Maritime Forces partnership; NATO's Operation Ocean Shield; and EU Naval Force Atalanta. In addition, there are a number of navies operating in the region individually which include China, Iran, India, Japan, Korea, Russia and Malaysia, etc. Such is the congregation of these warships in the region that it would rival the largest maritime firepower that would have come together anywhere during the World War II.

The piracy risk off Gulf of Aden is much suppressed today, and this has been possible due to deployment of a large number of warships in the region. However, the larger issue consequential to Somali piracy is the permanent presence of extra regional navies in the region. Deployment of warships for anti-piracy operations is a gross overkill. Deployment of a destroyer/ frigate sized warship with an array of advanced weaponry against a handful of pirates armed with basic personal weapons defeats all logic. Accordingly, the contention that warships are present in the region purely for anti-piracy operations appears to be implausible. China demonstrated this blatantly when it deployed one of its submarines for the operations. The huge assemblage of warships for anti-piracy operations is so much out of proportion that presently, there are more number of warships in the region than the total estimated number of pirates.

It is also true that the ground situation in Somalia has not improved and the pirate networks remain. It is, therefore, essential that credible foreign-led counter-piracy efforts remain in place. However, if the intent is transparent, stakeholders could handle the piracy issue by simply deploying helicopter carrying merchant ships, with Special Forces contingent embarked. Deployment of container vessels as Naval Auxiliary vessels by the Royal Malaysian Navy, for instance, Bunga Mas Lima, is a copy book example showcasing economy of effort and transparent intent in the case.

Such a large congregation of warships in its primary area of interest doesn't auger well for India. Accordingly, India should advocate progressive de-militarization of the region, with only appropriate number of warships deployed in the region, based on the nature and the scale of threat. On its part, India could deploy a modified ship from the Shipping Corporation of India (SCI) for anti-piracy operations, on similar lines as Malaysia's auxiliary vessels, and thereafter recommend the same for other stakeholders as well.

Source: www.maritimeindia.org, 05 June 2017

### Police reiterates commitment to maritime security in Niger Delta

The Nigeria Police Force has reiterated its commitment to ensure adequate security of lives and property in the maritime environment of the Niger Delta region. Mr. Chinedu Iwuozo, Force Marine Officer, Force Headquarters, Abuja, said this on Thursday in Yenagoa during an interaction with members of the Maritime Workers Union of Nigeria (MWUN), Bayelsa Chapter. Iwuozo, who was on a tour of Marine Police formations in the state, told the maritime stakeholders that the Inspector-General of Police, Mr Ibrahim Idris, was eager to reposition the marine section of the Force, to

achieve more efficiency. He said that the Force was prepared to provide better service delivery across states of the federation undertaking maritime activities. He added that more gunboats would be acquired to enhance patrol on the waterways. Iwuozo, a Superintendent of Police, said that the Force was currently mobilising officers from other departments to address manpower gaps in the marine section, adding that such officers would undergo special training for the tasks ahead of them.

According to him, the marine officers are also being sensitised to be more proactive and more pre-emptive, due to security threats in recent times He thanked the members of MWUN for their support to the Marine Police department and solicited further collaboration in the areas of information sharing for effective security of the Bayelsa waterways. Earlier, Lloyd Sese, the state Chairman of MWUN, decried the high rate of insecurity daily on the state's waterways. "The rivers and creeks of the state have become very unsafe for any meaningful business activity in the marine sector to thrive because of incessant attacks from sea pirates on members of the union and innocent travellers." Sese, however, expressed the hope that the visit would pave the way for total policing of Bayelsa waterways and save the travelling public from sea pirates' attacks.

Source: www.vanguardngr.com, 08 June 2017

#### Coast Guard in charge of port security nationwide in face of Maute threat

- Miguel R. Camus

The Philippine Coast Guard had assumed control and supervision of security operations in all seaports nationwide in light of the security threat posed by the Maute Group, the Department of Transportation said Tuesday. The group was behind the attacks on Marawi City, which prompted President Rodrigo Duterte to declare martial law all over Mindanao.

By virtue of Department Order (D.O.) No. 2017-008 issued on June 5, 2017, Transportation Secretary Arthur Tugade directed the PCG "to take over the security supervision of ports, and shipping, whether public or private, including the egress and ingress to all waterways from the Maritime Industry Authority (Marina) and the Philippine Ports Authority (PPA)."

Under the order, Tugade told the PCG to control movement of all vessels in seaports and harbours; designate security zones for maritime security purposes; enforce ports and ships identification system; regulate access to ports, vessels and waterfront

facilities; inspect cargoes to prevent the transport of contrabands; and to set and enforce appropriate security levels in all ports in Mindanao, pursuant to the provisions of the International Ships and Ports Security (ISPS) Code. The order allows the PCG to arrest, seize, and detain persons, cargo and vessels found violating maritime security and other pertinent laws and to file the necessary charges.

Further, the Coast Guard is to "strictly enforce maritime security communications; supervise, regulate and control port police and private security guards, K9 entities, divers and underwater operations in all maritime-related facilities and infrastructure." The order took effect immediately after its issuance and will remain in full force and effect until martial law in Mindanao is lifted.

Source: <u>newsinfo.inquirer.ne</u>, 13 June 2017

# An Uptick in Somali Piracy Caused by a Wave of Poor Maritime Decision-Making

Cheryl Strauss Einhorn is the creator of the AREA Method, a decision making system for individuals and companies to solve complex problems. Cheryl is the founder of CSE Consulting and the author of the book Problem Solved, a Powerful System for Making Complex Decisions with Confidence & Conviction. Cheryl teaches as an adjunct professor at Columbia Business School and has won several journalism awards for her investigative stories about international political, business and economic topics.

Piracy is on the rise off the coast of Somalia again and there's evidence that perhaps the maritime industry may have itself to blame. Indeed, the recent Somali hijacking of the Aris 13, a Comoros-flagged fuel tanker belonging to a Greek company, should be a wake-up call to the shipping industry that complacency is dangerous. How so? It seems that the maritime industry is a lot like many of us individually, prone to assumption, judgment, and common cognitive biases including confirmation bias, where we over value information that confirms our existing beliefs and salience bias, where we overweight evidence that is recent and vivid.

Back in 2011, piracy was front page news as pirates held crews hostage only to ransom them back for as much as \$13 million. The result was that maritime security costs shot up to \$7 billion a year as the industry installed extensive

security systems including lobbying for and receiving pricey navy patrols, as well as instituting protocols to re-route ships to take longer routes, or, at times increasing ship speed and fuel costs, while at the same time incurring hefty increases in ransom insurance rates. The coordinated vigilance worked. Piracy dropped from a peak of 488 incidents in 2011 to stabilize near 36 incidents each in 2015 and 2016, according to data from Oceans Beyond Piracy (OBP), a nonprofit that studies maritime security. But perhaps the industry misunderstood why piracy rates dropped. Looking at the hard data doesn't tell the whole story; the industry knows that the numbers are notoriously incomplete. Yes, along with increased security protocols, reporting has improved somewhat, but not much since investigations take time, costing shipping companies up to \$1000 per day of lost income, rates of prosecution are low and of course reporting impacts insurance rates, which can jump by 30 percent.

Still, industry security costs fell to \$1.7 billion in 2016 as the coordinated maritime efforts relaxed. Yes better threat assessments for different kinds of vessels lowered some insurance rates, but even more, the industry's memory has faded and collective attention to piracy has waned. As incidents dropped, international naval patrols have stopped, partly replaced by intelligence gathering and communication protocols. But security on the seas has now fallen to independent nations like China and Japan.

Moreover, private security forces are on the decline in the Indian Ocean. In 2011 private security cost nearly \$60,000 per transit. Today rates are lower yet only 34 percent of ships still use armed guards, and even those no longer carry the recommended four-men teams even though "the cost of the guards have come way down," says Jon Huggins, OBP's director.

In addition to fewer grey vessel patrols and on-board security, shipping companies are taking riskier actions again with regard to speed and proximity to the dangerous Somali coast, even as that country continues to suffer from weak government, warring territories, and ineffective or corrupt policing. The Aris hijacking took place reportedly while the vessel was traveling well below the recommended speed for its location. It was travelling the Socotra Gap, a route between Ethiopia and the island of Socotra in Yemen often used by vessels traveling along the east coast of Africa as a shortcut to save time and money.

The pirates have taken note. "Gangs are coming back," says Huggins, who says that the Aris's crew was let go allegedly after the pirates emptied a safe on board holding about \$70,000. Maybe it's time for the maritime industry to stop traversing its well-worn mental pathways and to pry open some cognitive space to allow for new information and insight to take hold. Then it might see that it's mixing up causation and correlation. Piracy didn't drop because it's waning. It's been thwarted by costly and effective international coordination. Vigilance pays and as William Faulkner wrote, "The past is never dead. It's not even past."

Source: www.cfr.org, 13 June 2017



# **MARITIME FORCES**



# China's FTC-2000 aircraft export-version rolls off production line

The export version of the China-developed light versatile FTC-2000 aircraft rolled off the production line of the state-owned aircraft developer in Anshun in southwest China's Guizhou Province Monday. With its desert-camouflage paint appearance, the FTC-2000 was developed by the Guizhou Aviation Industry Corporation under the state-owned Aviation Industry Corporation of China (AVIC). As one of the first batch of its model in the global-military trade market, it will be delivered to overseas clients after necessary procedures and tests, according to AVIC. The FTC-2000, also named Mountain Eagle, or Shanying in Chinese, is a supersonic advanced fighter trainer.

The single-engine light versatile aircraft is a new generation of advanced-fighter trainer designed for advanced training and lead-in fighter training for modern fighters. It is also capable of performing combat missions. The supersonic aircraft has a mach number of 1.5, and a maximum service ceiling of 16,000 meters. "It can be used for senior training, elementary combat training and tactical countermeasure training for fighter pilots. And it also has the ability to perform air-to-air and air-to-ground combat," according to Hu Jianxing, deputy manager and chief designer with the AVIC Guizhou Aviation Industry Corporation. "It completed the 'Stall and Spin Flight Test' within two seconds at the research stage. The FTC-2000 has high safety characteristics," said Hu, adding the model was highly efficient and reliable. The FTC-2000 maiden flight was on December 13, 2003. And the model has made two public aerobatic flight displays, at the 2006 and 2016 China Airshow in Zhuhai.

In China, the FTC-2000 is the the main advanced trainer used by the PLA Air Force and the PLA Navy. "The domestic version and export version have the same flying platform. And both are installed with China's home-developed WP-13 turbojet engine, which has been tested for high performance," Hu said. "The export version will be installed with various avionics systems, navigation guidance systems or external stores tailored for overseas client's demand for multiple missions." the FTC-2000 aircraft on the off-line ceremony in Anshun, southwest China's Guizhou Province. The export version of the China-developed light versatile FTC-2000 aircraft rolled off the production line of the state-owned aircraft developer in Anshun Monday. The FTC-2000, also named Mountain Eagle, or Shanying in Chinese, is a supersonic advanced fighter trainer.

Source: news.xinhuanet.com, 05 June 2017

# BEL eyes deal for 7 more Navy missile systems

Bharat Electronics Ltd (BEL) is looking to ink a contract by end-2018 for seven more Long Range Surface-to-Air Missile (LRSAM) systems as part of the Navy's P-17A stealth frigate programme. The defence electronics manufacturer has already signed a contract for the first four systems.

Since the process of procurement has already been flagged off by the Navy, BEL expects to sign a contract for the next seven systems soon. An announcement in this regard was made by the company on Wednesday. The missile system is a joint development with Israel Aerospace Industries (IAI) and DRDO. It includes a Track and Guidance Radar (MFSTAR), multifunction surveillance, launchers and missiles with advanced radio frequency seekers. BEL had teamed up with IAI for the missile project and signed a memorandum of understanding in December 2012 for ship-defence systems.

### Lead integrator

The BEL-IAI cooperation deal envisages BEL functioning as the lead integrator and producer of major sub-systems. IAI will continue to act as design authority and to produce sub-systems as a main sub-contractor of BEL.

Recently, IAI sealed a \$630-million deal to supply advanced LRSAM systems for four ships of the Indian Navy. Each system comprises at least one launcher, carrying eight missiles, among others.

#### Navy procurement

The Indian Navy plans to procure 12 LRSAM systems at a cost of more than \$2 billion. The LRSAM system offers protection against a wide range of aerial and naval threats.

Source: www.thehindubusinessline.com, 04 June 2017

#### U.K., France, U.S. Sign Submarine Agreement

- MarEx

Navy leaders from the U.K., France and the U.S. signed an agreement on June 1, designed to increase coordination for anti-submarine warfare activities in the Arabian Gulf, Gulf of Oman and Red Sea. Naval chiefs from the three navies affirmed their

commitment to enhanced interoperability in the area encompassing the U.S. Navy's 5th Fleet area of operations. "We believe this increased trilateral cooperation will help secure a future that is not only in the interests of our three nations, but in the common interests of our allies, partners and all like-minded nations who are committed to peace, prosperity and maritime security," an excerpt from the statement read. The U.S., U.K. and French navies regularly operate together in the region. France has deployed its nuclear aircraft carrier FS Charles de Gaulle twice to the Arabian Gulf in support of Operation Inherent Resolve aimed at defeating ISIS in the region.

In 2015, a French admiral, embarked on *Charles de Gaulle*, commanded NAVCENT's Task Force (TF) 50, a U.S. task force. A Royal Navy admiral also assumed command of TF 50 last November while embarked aboard the amphibious helicopter carrier *HMS Ocean*. Additionally, both navies have had ships serving as part of TF 50 and with the Combined Maritime Forces in the region.

In May, the International Maritime Exercise 2017, led by U.S. Naval Forces Central Command, was held to promote interoperability in all facets of defensive maritime warfare. The exercise included personnel from the U.S. and more than 20 partner nations, as well as representatives from the civilian shipping industry group Oil Companies International Marine Forum. Participants took part in field exercises simulating realistic scenarios that have occurred in or threaten the U.S. 5th Fleet area of operations. Situations included a simulated missile attack, mine threats, a mine strike on a naval vessel and a fast attack craft threat.

U.S. 5th Fleet's area of operations encompasses about 2.5 million square miles of water area and includes the Arabian Gulf, Gulf of Oman, Red Sea and parts of the Indian Ocean. The expanse is comprised of 20 countries and includes three critical choke points at the Strait of Hormuz, the Suez Canal and the Strait of Bab al Mandeb at the southern tip of Yemen.

Source: maritime-executive.com, 05 june 2017

#### Three San Diego Ships Departed for Deployment

The guided-missile cruiser USS Princeton (CG 59) and the guided-missile destroyers USS Howard (DDG 83) and USS Pinckney (DDG 91) departed their homeport of Naval Base San Diego, June 5, for deployment. This is a previously scheduled deployment and not in response to any specific incident or regional event. This deployment is an

example of the U.S. Navy's continuous presence in waters around the globe and reinforces the United States' commitment to stability, regional cooperation and economic prosperity for all nations.

The ships joined the aircraft carrier USS Nimitz (CVN 68) and guided-missile destroyers USS Kidd (DDG 100) and USS Shoup (DDG 86). Nimitz, Kidd and Shoup departed their homeports of Naval Base Kitsap and Naval Station Everett in Washington, June 1, and made a brief stop at in San Diego to meet up with the additional strike group units. The embarked air detachments from Helicopter Maritime Strike Squadron (HSM) 75 are serving as the air support for Princeton, Howard and Pinckney.

The Strike Group units have spent most of the past seven months underway preparing for global operations through a series of pre-deployment inspections and training evolutions, including a Composite Training Unit Exercise that certified them ready for deployment. Leadership at all levels has been impressed with the performance of the Sailors during this training cycle. "I am incredibly proud of the crew of USS Princeton. I have no doubt that Princeton and Strike Group Eleven are ready to support our nation's tasking whenever and wherever required." said Capt. Christopher Alexander, commanding officer of Princeton.

Princeton, Howard and Pinckney are part of U.S. Naval Surface Forces and U.S. 3rd Fleet. Third Fleet leads naval forces in the Pacific and provides realistic, relevant training necessary for an effective global Navy, working constantly with U.S. 7th Fleet. The forces of both fleets complement one another across the spectrum of military operations in the Pacific.

Source: www.public.navy.mil, 05 June 2017

# US Navy received its most powerful aircraft carrier ever: US\$ 12,9 billion

The United States Navy received the most powerful addition yet to its fleet of aircraft super carriers Thursday, the USS Gerald R. Ford. After 12 years of construction and US\$12.9 billion, the new carrier was delivered to the Navy from Newport Shpbuilding.

The ship is nearly 1,100 feet long with an expanded flight deck width of 256 feet, allowing it to hold more than 75 aircraft at a time. This is the first ship of the new Ford

class, which is expected to be a premier asset for the US Navy's crisis response, deterrence, power projection and striking capabilities.

According to the Navy, the newest super carrier, which went US\$2 billion over budget and was delivered behind schedule, will be able to increase sortie rates by more than 30 percent when compared to its predecessors. The Ford also has new launch and recovery technologies. It will be the Navy's first carrier to have all electric utilities, compared with previous models that contained some steam services.

The last carrier added to the fleet was the USS George H. W. Bush, which was delivered to the Navy in 2009. The Navy refers to its aircraft carriers as the "centerpiece of the forces necessary for operating forward." The new Ford class of carriers has received some criticism for its exorbitant costs, including from Senate Arms Committee Chair John McCain (R-Ariz.), who said "we simply cannot afford to pay US\$12.9B for a single ship," during a Congressional hearing back in 2015.

The USS Gerald R. Ford completed acceptance trials on May 26 and will be active in the fleet this summer. However, it won't be operational until 2020. It is expected to be in service for 50 years.

Source: en.mercopress.com,07 June 2017

#### India Deploys Warship to Monitor Marine Traffic in Malacca Strait

The decision to monitor movement on this strategically important shipping route is a result of the increased presence of Chinese submarines in the Indian Ocean Region (IOR). India's aircraft, which was deployed to check piracy activities, intercepted a Yuan class conventional submarine in the Andaman and Nicobar Islands near the Strait of Malacca in April this year. "It's not for patrol or deployment, but only for awareness of the busiest sea lane of communication that passes through these straits," The Tribune quoted a top naval source.

#### Chinese presence

It is expected that the deployment of People's Liberation Army Navy's ships and submarines presence will further increase in the backyard of India following submarine deals with Myanmar, Bangladesh and Pakistan.

"China's submarine deal with India's immediate maritime neighbors is motivated by Beijing's self-interest in terms of providing a fillip to its nascent defense industry, financial gains and creating strategic dependence among the IOR countries," Captain Gurpreet S Khurana (Indian Navy), Executive Director, National Maritime Foundation, told Sputnik. "This, however, would upset the military balance in India's neighborhood, creating problems of unintentional naval encounters at sea and water space management. India can do little to offset these new complications in the regional context. It is, nonetheless, doing the needful to ensure its immediate security concerns at various levels. At the national-strategic level, for instance, it is enhancing maritime engagement with its neighboring countries to foster greater trust. At the military-strategic level, the Indian Navy is bolstering its sub-surface (underwater) component of its Maritime Domain Awareness."

In the backdrop of the enhanced joint maneuvering of China and Pakistan, the Indian Navy started renewing its maritime policy to ensure that its dominance cannot be challenged in the IOR. In January this year, India's top security establishment including Prime Minister Narendra Modi and National Security Adviser Ajit Doval discussed a new security architecture which includes repositioning of military assets and establishment of a new war doctrine aimed to ensure its dominance in the Indian Ocean by 2020.

#### Joint patrol

In 2006, Indonesia, Malaysia, Singapore and Thailand launched the Malacca Straits Patrol (MSP) to ensure the security of the Strait of Malacca and Singapore. MSP comprises the Malacca Strait Sea Patrol, the "Eyes-in-the-Sky" Combined Maritime Air Patrols, as well as the Intelligence Exchange Group. This is the route through which 80% of China's crude and oil imports from the Middle East and Africa must pass. Japan and South Korea are also dependent on this route for trade. Currently, the Indian Navy is persuading the countries monitoring the Strait of Malacca to join them in patrolling the straits connecting the Indian Ocean with the South China Sea and the Pacific Ocean.

Source: sputniknews.com, 12 June 2017

# The Changing Contours of Underwater Maritime Warfare in the South China Sea

-RS Vasan

The recent developments in the South China Sea (SCS) have unnerved the neighbours that surround it, and stake holders around the world are concerned about the happenings. Whether it was the half-hearted effort to get a code of conduct in place some fifteen years ago; or the sustained efforts by China through cartographic aggression to claim all the areas within the so called nine dash line; or the subsequent militarization of the artificial Islands created by dredging the corals with utter disregard to environmental damage; or the helplessness of the ASEAN to even rebuke China due to the strong economic dependence on China for their own growth; and the inability of the USA under President Obama to stem the tide-all these hardly deterred China from pursuing its objective of total maritime dominance in the South China Sea. Notwithstanding the US Policy of slew to the Pacific which appears to be faltering under the Trump Administration, China today has consolidated its position in the maritime domain. While observers are sceptic, after a recently concluded ASEAN meeting, the members are optimistic that the frame work for an effective Code of Conduct (CoC) would be adopted by August this year.

Even the most important verdict of the decade by the Permanent Court of Arbitration (PCA) that indicted China on and supported the case of Philippines was rejected even before it was awarded. The maritime military capability and capacity of the PLA-Navy was not built overnight. This has been a carefully crafted strategy by China which worked assiduously to consolidate its position as a major challenger to the USA which was floundering in its policies in the western Pacific. Except for harping on the Freedom of Navigation and overflight, and sending some of its combatants close to the islands in the SCS, the USA was in no mood to precipitate its actions. The recent statements by the US Defence Secretary, James Mattis, stressing that, "We oppose countries militarising artificial islands and enforcing excessive maritime claims unsupported by international law. We cannot and will not accept unilateral, coercive changes to the status quo," has not been received well by China which slammed him for the comments made at the Shangri-La dialogue.

China's multifaceted strategy is transforming the regional balance totally in its favour. First and foremost, it is bringing the smaller economies in the region under its economic clout by their dependence on heavy Foreign Direct Investments and soft loans for various projects—which, in any case, have also helped the Chinese economy to grow. The second and most important dimension of this strategy was to consolidate

its military gains in the region by shoring up its response mechanisms. The artificial Islands in the SCS have extended the range of operations as they have built of runways on unsinkable carriers.

ASEAN members having disputes with China over territorial claims, are also adding to their own submarine and ASW capability. The presence of both surface and sub surface units of the USA, Japan and Australia also operate in the areas of interest. There are official reports that China is contemplating revisions of its Maritime Traffic Safety Laws MTSL 1984, which will make it difficult for certain foreign vessels and submersibles to enter its claimed (disputed) territory. This is being given final legal shape, and is expected to be in place by 2020. Once that law is in place, China will have the wherewithal to enforce the MTSL 2020.A credible Command, Control Communications, Computer Intelligence, Surveillance and Reconnaissance (C4ISR) structure to detect, deter, and defend its core interests in the South China Sea is a must if the PLA-Navy has to counter underwater surveillance/offensive missions by submarines/UUVs of adversaries in its claimed territory.

The recent announcement about creating a scientific underwater monitoring facility is to be analysed in the above context. The entire process of building a credible structure in the South and East China Sea is well planned. On completion, this will ensure that China achieves maritime supremacy in all the four dimensions (including cyber), and will aid its efforts to take a lead in the informatized warfare. According to the stated purpose, the underwater scientific station will enable a better understanding of the oceanic environment and its wealth. However, it is clear that the facility will be equipped to monitor the movements of both surface and subsurface vessels. This new facility, along with inputs from other sensors and platforms, will provide the PLA-Navy with a real-time capability to monitor all activity around its newly created assets in the SCS.

There is nothing new as far as such underwater monitoring facilities are concerned. During the Cold War, the USA and the erstwhile USSR depended on the SOSUS to keep track of SSBNs and other submarines which were proceeding to and from the patrol areas around the world. So, China is investing in a similar system, albeit after some five decades of a similar exercise by the super powers. However, the current level of technology, micro miniaturization and digitization offers more credible and cost-effective options for keeping the areas under continuous surveillance. It is important to note that there are reports about a similar Indian initiative in the Bay of Bengal along with Japan to detect the movement of PLA-N submarines by having a great underwater sonic from Sumatra to Indira Point.

It is clear from all the developments in the South China Sea and the Bay of Bengal that both China and India are gearing up to revamp their underwater detection, tracking, and prosecuting abilities by investing in updated current SOSUS technology in their respective areas of interest. This is a watershed moment in the history of both the Asian powers, and portends an impending Cold War in the Indo-Pacific region.

Source: www.maritimeindia.org, 09 June 2017



# SHIPPING, PORTS & OCEAN ECONOMY



### Krishnapatnam Port installs automated fertilizer handling system

Krishnapatnam Port, the country's largest all-weather deep water port on the east coast, has installed a first of its kind Automated Fertilizer Handling System (AFHS) in India that is expected to boost the port's fertilizer handling capacity. Amitabh Kant, CEO, Niti Aayog, on Saturday inaugurated the innovative infrastructural set-up at the port in Nellore district of Andhra Pradesh. The AFHS is one of the most modern and technologically superior infrastructural set up, which will be equipped to handle end to end fertilizer cargo operations right from the cargo discharge from vessel till evacuation by road/rail, the company said in a statement here.

The AFHS will enable the port to meet the increasing demand of imported fertilizers. The port is expected to meet the needs of fertilizer importers in a smart and efficient manner. This system will increase the port's existing handling capacity to more than three million tonnes per annum. The manual handling of fertilizer cargo which earlier used to take two to three days has now been reduced to six to eight hours. "The Indian market typically characterized with high logistics costs makes imports and exports very expensive. New age ports such as Krishnapatnam, through automation and global technologies, play very crucial role in efficient turnaround and cost reduction," said Kant.

The CEO of Niti Aayog said the launch of Automated Fertilizer Handling System is a huge operational leap for the port, which connects with Prime Minister Narendra Modi's initiative of 'Make in India' and his dream of 'Digital India'. "Backed with its excellent rail and road connectivity, Krishnapatnam has a great potential to become a transhipment hub and an excellent alternative to Colombo Port. Government is focusing on ease of doing business and will do everything possible to help the port," he added. C. Sasidhar, Managing Director, Krishnapatnam Port Company Ltd, said the demand for fertilizer cargo in India is huge, adding the country on an average imports about 14 to 18 million tonnes of fertilizer cargo in a year. "Considering benefits such as saving of time and cost along with customizable solutions, Krishnapatnam is all poised to become the most preferred among shipping companies and importers for fertilizer shipments," added Sasidhar.

Source: www.india.com, 3 June 2017

### Shipping industry's financial rebound good news for Port of Charleston

Now that bigger container ships are making their way to Charleston and other East Coast ports and industry consolidation is helping to reduce overcapacity, the world's shipping lines are reversing trends that led to \$10 billion in losses during 2016. They're still losing money but at a much slower pace than last year. And by the time the second quarter winds down at the end of this month, global shipping lines are expected to be back in the black, according to estimates by the Drewry consulting firm, which estimates a year-end profit of \$1.5 billion industry-wide. "Exceptionally strong demand growth in the first quarter of 2017 and far higher annual contract rates will create even more profitable conditions for the remainder of the year than we had envisioned," Drewry said in a report last week.

Shipping analyst Alphaliner last week provided more good news, nearly doubling its projection for year-over-year cargo growth worldwide to 4.6 percent. The revision was based on an unexpectedly strong first quarter, and Alphaliner said if the trend continues "the full-year figure may be adjusted further upwards" to levels not seen since 2014. Strong performances at Chinese, North European and North American ports — which, combined, account for half of global trade — is driving the year-over-year growth, Alphaliner said. The Port of Charleston has far outpaced North American ports as a whole, with nearly 17 percent growth in cargo during the first three quarters – more than double the continent's average, according to Alphaliner. Charleston also saw record growth in April, with volumes 20 percent better than a year earlier. "Our growth is broad-based with good import-export balance," said Jim Newsome, president and CEO of the State Ports Authority. When the fiscal year started in July, the maritime agency set what appeared to be an aggressive goal of 6 percent growth. Through April, volume was up 10.2 percent. "While we expect to see container trade growth moderate over the foreseeable future, the port is wellpositioned to surpass our volume goals this fiscal year," Newsome said.

Most of the major shipping lines saw higher revenues during the first quarter, led by CMA CGM's 36 percent growth due in part to its acquisition of Neptune Orient Lines. Maersk Line, the world's largest container shipping firm and the Port of Charleston's biggest customer, saw 10 percent revenue growth but it still lost \$42 million during the first quarter. Moody's Investors Service said in a report that the industry's financial woes have started to bottom out. Drewry added that while most carriers will have to wait slightly longer for profits to roll in, "all the indications are that they will be very pleased with the results from the second quarter onwards."

That's good news to Newsome, who said the SPA has had a tough time raising rates it charges to shipping lines because of their recent financial woes. "It's a lot easier to raise rates when they're making money than when they're losing money," he said. "They lost \$10 billion as an industry last year, and that makes it very difficult. I'm hopeful they start making money."

Source: www.postandcourier.com, 04 June 2017

# Japan plans to launch a fleet of 250 self-driving cargo ships by 2025 that could cut the risk of accidents at sea in HALF

Self-navigating cargo ships could soon be a reality, thanks to plans from a number of Japanese shipping firms. The schemes, which is expected to cost tens of billions of yen (hundreds of million dollars or pounds), would result in a fleet of 250 high tech vessels. The smart ships would utilise artificial intelligence to navigate the seas, plotting the safest, shortest and cheapest routes, and could be in service by 2025. Shipping firms Mitsui OSK Lines and Nippon Yusen are reported to be involved in the scheme, and will share expertise and the costs of getting the project off the ground. The system would include elements of the Internet of Things, which allows devices to connect to the internet to gather data.

This would allow AI software to analyse weather forecasts and other information to adjust the ship's heading. It would also be able to monitor maintenance, predicting malfunctions and other issues before they happen. And by implementing fully autonomous shipping in the future this could halve the roughly 2,000 maritime accidents per year, according to reports in Nikkei Asian Review. Participating shipbuilders, including Japan Marine United, will include the self-navigating system in new ship models. The plans are part of a drive in Japan to reclaim a bigger share of the cargo shipping industry. It is hoped that by taking the lead in automation technology, the country's share of the market will grow ten per cent from its current 20 per cent. This is not the first time that the possibility of autonomous shipping has been explored.

In June last year, Rolls Royce revealed planed for fleets of 'drone ships' to ferry carry around the world, all controlled from a central 'holodeck'. The firm believes an entirely unmanned ship could take to the seas by 2020.

Cameras would beam 360-degree views from the drone ship back to operators based in a virtual bridge. Rolls Royce is already testing a VR system in Norway for navigating the vessel remotely to steer them to their destinations. The firm eventually hopes it would be able to remove all crew from the ship. Speaking at the time, Rolls Royce's vice president of marine innovation Oskar Levander said: 'This is happening. It's not if, it's when. 'The technologies needed to make remote and autonomous ships a reality exist. 'We will see a remote controlled ship in commercial use by the end of the decade.' As well as plans for smart shipping, various companies are also examining the possibilities for self-driving cargo trucks. Waymo and Uber are just two of the firms currently testing out the technology.

Source: www.dailymail.co.uk, 09 June 2017

# India's Plan to Develop Key Iranian Port Faces U.S. Headwinds

Western manufacturers are shying away from supplying equipment for an Iranian port that India is developing for fear the United States (US) may reimpose sanctions on Tehran, Indian officials say, dealing a blow to New Delhi's strategic ambitions in the region. Lying on the Gulf of Oman along the approaches to the Straits of Hormuz, the port of Chabahar is central to India's hopes to crack open a transport corridor to Central Asia and Afghanistan that bypasses arch-rival Pakistan. India committed \$500 million to speed development of the port after sanctions on Iran were lifted following a deal struck between major powers and Tehran to curb its nuclear programme in 2015. But the state-owned Indian firm that is developing Chabahar is yet to award a single tender for supplying equipment such as cranes and forklifts, according to two government sources tracking India's biggest overseas infrastructure push. US President Donald Trump denounced the nuclear agreement on the campaign trail, and since taking office in January has accused Iran of being a threat to countries across the Middle East.

Swiss engineering group Liebherr and Finland's Konecranes and Cargotec have told India Ports Global Pvt Ltd, which is developing the deep water port, they were unable to take part in the bids as their banks were not ready to facilitate transactions involving Iran due to the uncertainty over US policy, the two officials said in separate conversations with Reuters.

These firms dominate the market for customised equipment to develop jetties and container terminals. One official said the first tender was floated in September, but attracted few bidders because of the fear of renewed sanctions. That fear has intensified since January. "Now the situation is that we are running after suppliers," one official said, speaking on condition of anonymity because of the sensitivity of matter. A Konecranes spokeswoman declined to comment beyond confirming the company was not involved in the project. Cargotec and Liebherr did not respond to requests for comment. Some tenders have been floated three times since September because they failed to attract bidders. A Chinese firm, ZPMC, has since come forward to supply some equipment, the same Indian official said.

### Threat of sanctions

Trump has called the agreement between Iran and six major world powers restricting Tehran's nuclear programme in exchange for lifting of sanctions "the worst deal ever negotiated". Last month his administration extended relief on Washington's broadest and most punitive sanctions, while carrying out a wider policy review on how to deal with Iran. Uncertainty over US policy is already causing long delays in contracts that Iran has sought with international firms to develop its oil fields and buy planes for its ageing airlines. The lifting of United Nations and European Union sanctions in 2016 partly reconnected Iran with the international financial system crucial to trade. But large international bankers with exposure to the United States remain unwilling to facilitate Iranian deals for fear of running afoul of narrower, unilateral US sanctions that remain outside the nuclear deal and uncertainty over whether wider sanctions relief will continue. India's ambassador to Iran said the process of procuring equipment for the Chabahar port was under way and that some of the customised cranes needed take up to 20 months to build. The banking situation was slowly improving, he added. "Tenders are re-floated for a variety of reasons including technical specifications not being met, etc. Banking channels, in recent months, have in fact somewhat eased," Saurabh Kumar said in an emailed response to Reuters from Tehran. "If some companies do not participate, it really is their business," he added.

India has been pushing for the development of Chabahar port for more than a decade as a hub for its trade links to the resource-rich countries of central Asia and Afghanistan. Access to those countries is currently complicated by India's fraught relationship with Pakistan. Bureaucratic delays, difficult negotiations with Iran and the risk of incurring Washington's displeasure during the financial embargo in Tehran had meant there was little progress on the port until now. But, prodded in part by China's development of Gwadar port, which lies barely 100 km from Chabahar on the

Pakistani coast, Indian Prime Minister Narendra Modi's government has unveiled massive investment plans centred around the Iranian port, offering to help build railways, roads and fertiliser plants that could eventually amount to \$15 billion.

So far, even an initial credit line of \$150 million that India wants to extend to Iran for development of Chabahar has remained a non-starter as Tehran has not been able to do its part of work. "They have not sought the loan from us because they haven't awarded the tenders, either because of lack of participation or banking problems," said the second government official. Ambassador Kumar said the Iran had indicated it would be sending proposals shortly to tap the credit line. Meena Singh Roy, who heads the West Asia centre at the Institute for Defence Studies and Analyses, a New Delhi think-tank, said increasing tension between Washington and Tehran would have an impact on the port project. "The Chabahar Project has strategic significance for India," she said. "However ... nothing much seems to be moving due to new uncertainties in the region."

Source: www.dawn.com, 12 June 2017

# India eyes a stake in Colombo Port in addition to Trinco

Ravi Karunanayake's first foreign trip as Foreign Minister, not surprisingly to India, comes at a time when much is in the balance in Sri Lanka's relations with key stakeholders in the development process. Sri Lanka's decisions relating to ports and their development have suddenly become a high-stakes game of balancing the interests of foreign powers engaged in a race to advance their own strategic interests in the region, on the one hand, with Sri Lanka's national interest, on the other. After having put up a tough fight to safeguard Sri Lankan interests (and control) in negotiations with China over Hambantota port and related investments, former Ports Minister Arjuna Ranatunga, as Minister of Petroleum Resources now faces the challenge of handling another political hot potato, the Oil Tank Farm in Trincomalee, where India seeks to extend its grip with projects that will (reportedly) include "A Port, Petroleum Refinery and other industries." Again he will be dealing with strategic assets where the outcome of negotiations will have far reaching consequences.

Recent developments show that the Colombo Port too has now come into the mix. It may not have been immediately evident to the casual observer, but the Indian proposed LNG Terminal / Floating Storage Regasification Unit (FSRU) in

Kerawalapitiya/Colombo," referred to in the MoU signed during Prime Minister Ranil Wickremesinghe's trip to Delhi in April, will actually translate into India having a stake in the Colombo Port. This is because of the nature of Liquefied Natural Gas-related operations, which require special docking and storage facilities. LNG as a energy source is new in Sri Lanka, and requires infrastructure that is not available at this point. "LNG is natural gas that has been converted to liquid form for ease of storage or transport" according to Wikipedia. "It takes up about 1/600th the volume of natural gas in the gaseous state," making it "cost efficient to transport over long distances where pipelines do not exist." It is shipped in specially constructed vessels and once it reaches its destined market it is converted back into the gaseous state and distributed in pipelines.

According to the Indian proposal, it would be used to fuel a (Indian-built) LNG-fired power plant in Kerawalapitiya, 12 km north of Colombo. "A Floating Storage Regasification Unit (FSRU) is the vital component required while transiting and transferring Liquefied Natural Gas (LNG) through the oceanic channels" according to Marineinsight.com. "Thus, FSRU can be termed as a special type of ship which is used for LNG transfer

Source: www.dailymirror.lk, 12 June 2017

#### First container terminal opens at India's Ennore port

Indian Shipping Minister Nitin Gadkari on Friday officially inaugurated a new container terminal and supporting rail infrastructure at the Ennore, or the Kamarajar, port about 15 miles north of Chennai. The capacity addition will add excess to a market that has become oversupplied from emergence of new privately-operated minor ports on the east coast, including the Kattupalli port operated by Adani Ports and Special Economic Zone (APSEZ), which along with other port facilities in the region has driven down capacity utilization at the publicly-owned Chennai port to around 50 percent capacity in recent years. The Rs. 724 crore (about \$110 million) container facility, the first at Ennore, is the initial phase of a 30-year concession APSEZ won in 2014, having offered a 37 percent share of revenue as annual royalty to the landlord port in a public tender. The Adani Ennore Container Terminal features a 400 meter (1,312 feet) quay, four rail-mounted quay cranes, 12 rubber-tire gantry cranes, and a capacity to handle 800,000 TEU annually. A Rs. 546 crore Phase II will include a quay line of 330 meters and a capacity of 600,000 TEU, taking total capacity to 1.4 million TEU per year.

At the ceremony, the minister also announced the opening of a multipurpose cargo terminal built by Chennai-based Chettinad Group and the use of radio-frequency identification technology (RFID)-enabled gate operations at Ennore. "The RFID system will lead to reduction of time and congestion in cargo traffic and enhance the port operations," according to an official statement.

APSEZ has been building up its presence on India's southeastern coast after solidly positioning itself on India's west coast with massive capacity and strong growth at Mundra, and last week started work on the deep-sea Vizhinjam International Container Transshipment Terminal about 10 miles southwest of Trivandrum in Kerala State. APSEZ's other port operations in India include cargo facilities at Hazira, Tuna-Tekra (Kandla), Dahej, Dhamra, Mormugao, and Visakhapatnam, and the company is widely believed to be a front-runner in the speculated sale of APM Terminals' majority stake in the Pipavav port. "We do not comment on market rumors and speculation. In the normal course of business, APM Terminals' strategy is to continuously review and optimize its existing global portfolio as well as explore new investment opportunities. We are always looking at opportunities to grow the business and improve shareholder value," APMT spokesman Tom Boyd told JOC.com.

Source: www.joc.com, 12 June 2017

# Container lines' improved capacity management skills lay groundwork for recovery

Dive Brief:

- The scrapping of slightly older vessels, combined with the stabling of excess others, has significantly contributed to the industry's recovery, according to a new report from Drewry. The Loadstar reported that delaying deliveries of pre-ordered ships is also part of a successful recovery strategy.
- Carriers are investing more in east-west trade than in north-south routes. Through May of this year, 141 east-west voyages were canceled, a far lower number than the 259 seen in 2016. Both years saw more cancelations on the Asia to US west coast route.

 Once new ships are delivered between 2017 and 201, the industry may need a second recovery period.

### Dive Insight:

Included among the reasons for shipping industry optimism is the cost to ship a container from Asia to Europe, which rose to \$965 in May, an increase of 55% over 2016 prices. The number of idled ships also shrank, falling to 3.5% in first quarter 2017 from 6.5% in fourth quarter 2016.

Consolidation among lines and increased services are also benefiting the industry. Maersk in particular has taken an early lead on enhanced services, offering not only a new app allowing shippers to track their cargo anywhere along its route, but also is partnering with IBM to digitize the paper trail through blockchain technology and track containers. It further announced a new trade financing option within six U.S. states (Florida, New York, New Jersey, Georgia, South Carolina and Texas) to allow shippers to retain more cash on hand.

Meanwhile, as WSJ revealed, oil tankers represent the decision point that shippers must face as they wait for business to rebound. Expectation is cautiously optimistic, as the scrapping of old vessels has climbed in 2017 as the purchase of new and used very large crude carriers (VLCCs) has jumped.

Source: www.supplychaindive.com, 13 June 2017

### Is Container Shipping on the Mend?

- Aiswarya Lakshmi

In the report, Container Shipping - A Financial Health Check - Macros and Micros, Drewry analysts have updated their independent assessment of the industry's financial health, identifying lingering areas of concern and even signs of hopes for the sector. As reverberations form the Hanjin Shipping fallout are still felt through the global supply chains ecosystem, the debacle continues to affect not only shippers, but vendors from ship leasing companies, port operators, container box lessors and suppliers, according to Drewry.

The report assesses the current state of each of the key players in the sector and identifies those over which warning signals continue to flash.

According to the report, the industry's debt situation is expected to improve as industry profitability returns. In Drewry's sample of 12 container lines, several operators have already started seeing improvements, but those at the bottom in the risk table have plenty of work ahead to mend their balance sheets. Analysis of the financial health of the operators show slight improvements are already underway. Most are likely to see better balance sheet and credit metrics if the improving profitability levels were to sustain over the next few years.

Gearing levels apart, the container shipping industry has remained afflicted with severe debt after investing heavily during the boom years; the expectation of a recovery in 2017 though is expected to ease the situation. Based on Q1 2017 data, industry debt is already in the process of establishing a declining trend, the report found.

Most operators are finally reining in their capital expenses, indicating that the race to add larger vessels may be coming to an end, Drewry said. Similar to leverage, interest coverage has improved, as companies have reduced expenses (increasing EBITDA) and debt.

Source: www.marinelink.com, 13 June 2017



# MARINE ENVIRONMENT



### Plastic in rivers major source of ocean pollution: study

Plastic that is dumped in rivers and then ends up in the world's oceans is one of the major sources of marine pollution, a new study said this week, with Asian waterways the main culprits. Researchers at The Ocean Cleanup—a Dutch foundation developing new technologies for ridding the oceans of plastic—say rivers carry an estimated 1.15-2.41 million tonnes of plastic into the sea every year, an amount that need between 48,000 to over 100,000 dump trucks to carry it away. Their latest study, published in *Nature Communications* journal Wednesday, added that two-thirds of the pollution comes from the 20 most polluting rivers, the overwhelming majority in Asia with the Yangtze River in China topping the list.

The Yangtze, the world's third-longest river, "is the largest contributing catchment", dumping some 330,000 tonnes of plastic into the East China Sea. This is followed by the Ganges River in India and a combination of the Xi, Dong and Zhujiang Rivers in China as well as four Indonesian rivers: the Brantas, Solo, Serayu and Progo. The rest of the world shared the remaining 14 percent of plastic pollution via rivers, The Ocean Cleanup researchers said. "Most of this river plastic input is coming from Asia, which emphasises the need to focus on monitoring and mitigation efforts in Asian countries with rapid economic development and poor waste management," they said. The researchers however issued a disclaimer saying "there is very little data to document these assumptions and thoroughly verify the validity of our model." "Yet, the relatively high concentrations of ocean plastic found at the surface of the North Pacific Ocean where buoyant plastics originating from Asia can accumulate, suggest that our assumptions are plausible," they said.

The study comes against the backdrop of the UN's first ocean conference opening in Miami on Monday, where plastic pollution was singled out as particularly harmful. UN Secretary General Antonio Guterres cited a recent study that showed plastic could outweigh fish in 2050 if nothing is done. Every year, more than eight million tons of plastic ends up in the ocean, costing at least \$8 billion (7.1 billion euros) in damage to marine ecosystems and killing an estimated one million sea birds, 100,000 sea mammals and untold numbers of fish.

Source: phys.org, 08 June 2017

#### Oceans 'under threat as never before,' UN chief Guterres warns

Secretary-General Antonio Guterres opened the first U.N. conference on oceans Monday with a warning that the seas are "under threat as never before," noting one recent study warns that discarded plastic garbage could outweigh fish by 2050 if nothing is done. The U.N. chief told presidents, ministers, diplomats and environmental activists from nearly 200 countries that oceans — "the lifeblood of our planet" — are being severely damaged by pollution, garbage, overfishing and the effects of climate change. The five-day conference, which began on World Environment Day, is the first major event to focus on climate since U.S. President Donald Trump announced Thursday that the United States will withdraw from the 2015 Paris Climate Agreement — a decision criticized by Bolivian President Evo Morales and other speakers Monday. Morales took a swipe at the United States from the UN podium, saying the withdrawal was "denying science, turning your back on multilateralism and attempting to deny a future to upcoming generations."

These actions are "the main threat to Mother Earth and to life itself," he said. Guterres said the aim of the conference is "to turn the tide" and solve the problems that "we created." He said competing interests over territory and natural resources have blocked progress for too long in cleaning up and restoring to health the world's oceans, which cover two-thirds of the planet. "We must put aside short-term national gain to prevent long-term global catastrophe," Guterres said. "Conserving our oceans and using them sustainably is preserving life itself." The first step to turn the tide is "ending the artificial dichotomy between economic demands and the health of our seas," he asserted. "The conservation and sustainable use of marine resources are two sides of the same coin."

Guterres called for concrete steps, from expanding marine protected areas to the management of fisheries, reducing pollution and cleaning up plastic waste. Guterres cited a 2016 World Economic Forum report on "The New Plastics Economy," which said the best research estimates there are over 150 million tons of plastics in the ocean. "In a business-as-usual scenario, the ocean is expected to contain 1 ton of plastic for every 3 tons of fish by 2025, and by 2050, more plastics than fish (by weight)," the report said. General Assembly President Peter Thomson, a Fijian diplomat, said, "The time has come for us to correct our wrongful ways." "We have unleashed a plague of plastic upon the ocean that is defiling nature in so many tragic ways," he said. "It is inexcusable that humanity tips the equivalent of a large garbage truck of plastic into the ocean every minute of every day."

Thomson also warned that illegal and destructive fishing practices and harmful subsidies for fisheries "are driving our fish stocks to tipping points of collapse." And, he said, the increasing human-caused carbon emissions tied to climate change are causing rising sea levels by warning the oceans and harming marine life by making the seas more acidic with less oxygen. Thomson said the conference probably represents the best opportunity ever "to reverse the cycle of decline that human activity has brought upon the ocean" and spur action to meet the U.N. goal for 2030 to conserve and manage the ocean's resources.

UN member-states are working on a "call to action" from governments, civil society and businesses that commit to taking steps to clean up the oceans and work preserve what is arguably the Earth's most important resource. Targets include protecting at least 10 percent of coastal and marine environments by 2020, reducing ocean pollution and strengthening ways to fight illegal, unreported and unregulated fishing.

Source: www.dailysabah.com, 06 June 2017

#### **Pollution Slowly Killing Planet's Ocean**

The remote South Pacific island of Henderson hit the headlines recently not for its pristine natural beauty, but for the 38 million tons of accumulated plastic and other debris that ocean currents had landed on its shores. The uninhabited island is a UNESCO heritage site and one of the world's biggest marine reserves. It is also a victim of the pollution that is slowly killing our oceans. "Conserving our oceans and using them sustainably is preserving life itself," declared U.N. Secretary-General António Guterres at the opening Monday of a week-long Ocean Conference at the United Nations.

That is not an understatement. The ocean provides nearly half of the oxygen produced on Earth and its marine bounty feeds billions. Some 4,000 leaders from the worlds of politics, science, academia, business and civil society have gathered for the conference, which kicked off on World Environment Day. They hope to draw attention to the effects of pollution, plastics, climate change, over-fishing and other factors that are affecting all marine life, with potentially disastrous consequences.

Plastics: A Top Offender

"Marine plastic debris is a slow motion catastrophe waiting to happen," warned Indonesia's Maritime minister Luhut Binsar Pandjaitan. Plastics and microplastics plastic particles under 5mm in diameter are among the biggest threats to the ocean and marine life. A World Economic Forum study warns that by 2050 the oceans could contain more plastics than fish. The ocean is overflowing with manmade items, including water bottles, plastic shopping bags, cigarette butts, and larger items from fishing nets to sunken vessels. It all presents a danger to marine life through entanglement, ingestion or leakage of harmful chemicals. "The ultimate way to keep marine debris from becoming a threat is by preventing it from entering the ocean in the first place," said Nancy Wallace, Director of the Marine Debris Program at the National Oceanic and Atmospheric Administration (NOAA) for the United States. "Changing behaviors is a particularly important aspect of prevention," she added.

That includes getting the public to cut back or eliminate its use of plastic shopping bags, cutlery and bottled beverages. In the Pacific, where the ocean covers 90 percent of the region and land is only two percent, leaders are striving for cleaner seas by 2025.

Kosi Latu of the Secretariat of the Pacific Regional Environment Program said his group did a recent study that examined 215 species of marine life. They found 136 types had ingested plastic, and in fish, the figure was 97 percent. "That gives you a sense of how big this problem is," Latu said. He noted that in the Pacific the rate is about 30 percent higher than the global average of about 67 percent. "The challenge is implementing, enforcing policies; it is enforcing legislation," Latu said. He said his region is also looking at innovative policies, not just banning plastics. "But looking at policies that will put the onus on those who produce the plastics, so making sure there is some way they contribute to the solution."

#### Call to Action

This week, conference attendees will discuss a range of other problems confronting the oceans. On Friday, they will formally adopt a Call to Action. So far, they have more than 700 voluntary commitments to improve the health of the ocean, and they are growing. The commitments include agreeing to implement long-term strategies to reduce the use of plastics and microplastics, as well as to develop and implement mitigation measures to help the ocean recover from other harmful impacts, such as climate change.

Source: www.voanews.com, 05 June 2017

#### Most Ocean Pollution Comes From Asian Rivers, Study Says

- Juliana rose pignataro

Not all nations pollute equally — and some of them are responsible for far more of the world's contamination than others. According to a <u>study</u> released Wednesday, most of the plastic currently in the ocean came from Asian rivers. Of the world's 40,760 ocean-bound rivers, a mere 20 are responsible for two-thirds of the ocean's pollution, according to the study by The Ocean Cleanup, a Dutch foundation that develops technology to decontaminate waterways. Most of those rivers are located in Asia. In the foundation's study published Wednesday, they found that overwhelming majority of pollution in the ocean came from the Yangtze River in China. "Most of this river plastic is coming from Asia, which emphasizes the need to focus on monitoring and mitigation efforts in Asian countries with rapid economic development and poor waste management," the study said.

Other main culprits included the Ganges River in India, the Xi, Dong and Zhujiang River in China and the Brantas, Solu, Serayu and Progo Rivers in Indonesia. The study's researchers cautioned that more data would be needed to verify their conclusion. "It's crucial that governments and other organizations speed up their efforts to mitigate the sources of the problem we aim to resolve," founder and CEO of The Ocean Cleanup Boyan Slat said in a Wednesday press release. "The results of this latest study can assist with those efforts."

Plastic in the world's oceans is no small matter: More than eight million tons of it are dumped into the water every year, according to nonprofit network <u>Plastic Oceans</u>. The garbage causes the death of more than 100,000 marine animals and one million seabirds ever year, the United Nations reported. And according to a World Economic Forum report published on the subject, if the world's plastic consumption continues on its current trend, plastic will outweigh fish in the ocean by the year 2050.

The results of such exorbitant plastic consumption are becoming more and more visible: In March, a Cuvier whale was <u>found beached</u> off the coast of Norway after having starved as a result of the 30 plastic bags and other items wedged inside its stomach. The whale had mistaken the detritus for food and was unable to digest it, preventing it from eating anything else. "It wasn't like it was in just part of the stomach," Dr. Terje Lislevand, a zoologist at the University of Bergen in Noway who studied the whale said at the time. "It filled up the whole space. I think the whale has been in pain."

And pollutants are reaching ever-deeper parts of the ocean as well. Scientists announced in February they had <u>located manmade pollution</u> in the furthest reaches of the earth, identifying "extraordinary" amounts of chemicals more than 36,000 feet deep. "We still think of the deep ocean as being this remote and pristine realm, safe from human impact, but our research shows that, sadly, this could not be further from the truth," said Alan Jamieson, one of the researchers responsible for the findings. "The fact that we found such extraordinary levels of these pollutants really brings home the long-term, devastating impact that mankind is having on the planet."

Source: www.ibtimes.com, 09 June 2018

#### Is marine plastic pollution a threat to human health?

- Enrique Gili

Would you like a side of plastic with your fish dish? Well, you might get it whether you like it or not. Ocean plastic pollution is pervasive. Scientists are trying to figure out the impact on human health. Litter-strewn beaches and trash-clogged coasts are unsightly, but it's what is invisible to the human eye that may pose a threat to animal and human health. The oceans are a veritable stew of sesame seed-sized bits of degraded plastic, commonly known as microplastics. They are either broken down from larger pieces of plastic or were already small particles, such as beads in facial scrubs. Each square kilometer of ocean has 63,320 such particles floating at the surface, according to one recent study. The 2016 United Nations Frontiers report estimates that East Asian seas are worst hit with levels some 27 times higher than average. Microplastics have been detected in environments as far-flung as Mongolian mountain lakes and the Arctic Circle. But what does that mean for human beings?

The jury is still out on if and how microplastic impacts various animals, including humans. But there is growing evidence to suggest it has the potential to mess with our health. So much so, that the UN has earmarked the tiny grains as one of six emerging environmental threats warranting further study. "The scientific community is racing to understand the level of exposure and physiological impacts of microplastic contaminants on various organisms, as well as the risk to human health through consumption of contaminated food," stated the UN Frontiers report.

#### You are what you eat

Bits of microplastic drift on ocean currents and into the paths of sea creatures foraging for food. Scientists have recorded zooplankton, which usually snack on algae, feeding on it. Microscopic themselves, plankton are a source of food for certain fish and other organisms, which are in turn a prey for seabirds and higher predators. And so microplastics move into and up the food chain. According to another recent study, 25 percent of marine fish tested in markets in Indonesia and California were found to have plastic and textile fibers in their guts. While microplastic in food may increase human exposure to chemicals found in the substance, so far there is no evidence that the risk is higher than exposure through other routes. But there is concern that microplastics bonded with microbes and persistent organic compounds (POPS) such as pesticides and flame-retardant materials, present a danger to marine life and humans, if ingested in sufficient quantities.

Lucy Gilliam, co-founder of eXXpedition, is part of an all-female research team investigating such marine pollution. "Microplastic is lipophilic," Gilliam told DW. That means, the tiny shards and filaments of plastic also "act like little sponges" absorbing POPs, added the British microbiologist. A life-long sailor, Gilliam worked at the UK's environment ministry on policy issues relating to plastic and endocrine disruptors, which are chemicals believed to disrupt hormones. Inspired by the ocean campaigners 5 Gyres, she co-founded eXXpedition in 2011, with oceans advocate Emily Penn. The duo wants to highlight the microplastic problem and encourage women to take leadership roles in ocean protection and science. Hence, the double XX chromosomes that determine female sex. Research has shown that once these contaminants enter the marine environment, they build up over time (a process known as bioaccumulation). They magnify each time a predator consumes its prey, to concentrate in the tissue of species at the top of the food chain.

So determining how microplastic enters and then work its way up the food chain warrants additional scrutiny, says Dick Vethaak, a water quality and ecotoxicology expert at the Vrije University in Amsterdam. "I consider microplastics to be a health hazard," Vethaak told DW. However, the ecological effects on marine life in the wild are understudied and inconclusive, at least for now, he explained. "You need to know something about the levels of exposure in the environment before you can say anything about the risk. Exposure and hazards makes the risk," said Vethaak.

#### Connecting the dots

Gilliam's team and 5 Gyres are on a quest to detect those hazards and measure the level of microplastics in the ocean. The organizations' 72-foot (22 meter) sailing vessel Sea Dragon has been out on the high seas collecting water samples for analysis by the Global Microplastics Initiative - a project organized by US-based nonprofit Adventure Scientist, which promotes citizen science among outdoor recreationists. One thing is for sure, "microplastic is pervasive," says Katie Holsinger, the coordinator responsible for collecting the data. And it comes from multiple sources, including lax landfill management, practices, illegal dumping and overtaxed sewage systems. But one aspect of the research surprised Holsinger. "Ninety percent of our water samples contain microfibers resulting from clothing or textiles," she said. Findings indicate that many of the synthetic garments designed to keep us warm in the outdoors are contributing to the ocean pollution problem.

A recent study commissioned by the eco-minded apparel company Patagonia Inc. concluded that a single fleece jacket sheds up to 250,000 microfibers with each washing. Based on the calculation that 100,000 fleece jackets were washed each year, researchers estimated the amount of fibers entering waterways equaled the amount of plastic found in up to 11,900 plastic grocery bags. Given the piles of synthetic garments in need of scrubbing, it's not too hard to imagine that microfibers enter marine and freshwater systems undetected via the spin cycle. And if we want to avoid eating the results, this is one of the pollution pathways we have to tackle, say scientists. "I think there's been a wake up," said Gilliam. "We need to solve this, the oceans are choking."

Source: www.dw.com, 08 June 2017

#### Oceans in distress: the rising sea level

World Oceans Day

Every year, the United Nations celebrates World Oceans Day on 8th June with a unique theme; and for this year it is: Our Oceans, Our Future. The UN believes it is important to have a day solely for creating awareness about the oceans among people, who may or may not directly depend, for their livelihood, on the oceans. It is, nonetheless, argued that each one of us, in one way or the other, is tied with the oceans, i.e., anything that happens to the oceans, whether positive or negative, eventually impacts each one of us. Therefore, the UN highlights the reasons/objectives for having a day reserved for the oceans, which essentially are to: "1) remind everyone of the

major role the oceans have in everyday life. They are the lungs of our planet, providing most of the oxygen we breathe; 2) inform the public of the impact of human actions on the ocean; 3) develop a worldwide movement of citizens for the ocean; 4) mobilise and unite the world's population on a project for the sustainable management of the world's oceans; 5) assure ourselves that they are a major source of food and medicines and a critical part of the biosphere; and 6) celebrate together the beauty, the wealth and the promise of the ocean". This day also brings to our notice the problems that our oceans face and the impacts those problems will have on our future.

Today we live in a very precarious world with a spectrum of crisis ranging from conventional conflicts to the ominous challenges of the climate change. Like Barack Obama, once said that the future threat might not come from the religious extremists or terrorists, it would come from the climate change. His statement reflects the future replete with threats to life that we all must be prepared to face. Climate change, as it is impacting the global environment, is gravely affecting the oceans. Among the many stresses that the oceans of our times are facing, 'rising sea level' is one of those

Rising sea level, is a phenomenon, which I call a 'distress for the oceans'. Sea level rise basically is an increase in the volume of world's oceans' water, which subsequently increases the global mean sea level. Orin Pilky and Rob Young, in their book titled 'the Rising Sea', posit that "the sea level rise has been a constant part of earth's history", and suggests that sea level changes have been occurring since 2.5 million years ago. They ask a very pertinent question: since the sea level rise (or fall in some cases) has been occurring so why the 'fuss' about it now? The answer is: humans; because of densely populated shorelines, the sea level rise now matters more than what it had thousands of years ago! Inter-Governmental Panel on Climate Change (IPCC) suggests that sea level has been steadily rising in the 20th century and it would continue to do so in 21st century — with an increased rate of rise. IPCC claims that the seas remain stable, i.e., without their level being raised or lowered, since the last 3000 years until late 19th century. Sea level rose at an approximate rate of 1.7mm per year, in the 20th century; however, since 1993, the rate has been higher, i.e., 3.0mm per year.

There are two causes for the sea level rise: 1) increase in the oceans' heat content; and 2) melting of land ice sheets. These two causes, in modern times, are the result of global warming, which in the words of Pilky and Young, "... is changing many things: the extent of ice on the surface of the Arctic Ocean, the extent of mountain glaciers, patterns of rainfall and drought around the world, and routes of ocean currents." While arguing on alarming consequences of the sea level rise, the authors of 'the Rising Sea' believes, "of all the ongoing and expected changes from global warming, however,

the increase in the volume of the oceans and accompanying rise in the level of the sea will be the most immediate, the most certain, the most widespread, and the most economically visible in its effects."

Sea level rise has been phenomenally portentous for countries like Maldives, Seychelles and low lying Islands. Even on our coast, if the ingress of Arabian Sea is not checked, we shall lose nearly half of Karachi by 2060. The key question, one may ask, is: why is this happening? The answer is palatably simple: the global warming. And, by any measure, the global warming is the work of man and not of nature, which has caused and would continue to do so the climate change. We, the humans, have been gradually consuming the resources of the world, generating power at the cost of environment and expanding land at the cost deforestation – which cumulatively led to excessive gases trapping the sun's heat within the earth's atmosphere. Consequentially, the global temperature started to rise, glaciers started to melt and many of the species started to become extinct! The rising sea level causes the coast to erode fast and make way for other eco-systems to be consumed by the sea ingression deep into the land. This necessitates those measures, which act as a shield against coastal erosion – and one of which is the increased plantation of the mangroves.

Mangroves, on our shores, especially the Indus Delta have been vanishing for the past few years, due mainly because the pollutants that Indus brings with it as it washes into Arabian Sea. Consequently, all of these problems are foundationally human-induced and can, somehow, be tackled with. Awareness is needed to make people convinced that whatever pollution they create eventually becomes part of the ocean; and would not only threaten the oceanic eco-system but also help in enhancing the ocean thermal expansion. The pollutants falling into the sea gradually reduce the mangroves, which is a bulwark against coast erosion.

Various government institutions in Pakistan, especially Pakistan Navy, have been attempting to create a greater awareness about pollution, its impact on natural habitat and asking people to help recover the lost/mutilated mangroves along the coast. In this regard, Pakistan Navy has started an initiative of planting more than a million mangrove trees all along the coast, in a bid to defend our coasts against sea water ingress and to raise awareness of the importance of mangrove protection amongst the public. This target has been achieved and future planting programmes are on the agenda.

Pakistan Navy initiatives to celebrate World Ocean Day include campaign through lectures to focus on the importance and ensuring clean oceans. The awareness campaigns have added much to the understanding of why mangroves are important, that protecting them and the coastal environment is critical to protection of marine life. Two vital components of the celebrations are cleanup campaigns of harbours/ports and beach walk to clean up the litter on the beaches. However, in these initiatives, each one of us should participate in enhancing awareness about mangroves, taking practical part in planting mangroves and promising not to be part of any action, which results in pollution.

Source: www.thenews.com.pk, 15 June 2017



## **GEOPOLITICS**



#### It's Not China, It's You, India Seems to Tell Spurned Aussies

-Bethany Allen

New Delhi hasn't forgotten Canberra's previous flip-flop on regional security, and isn't ready to let Aussies join three-way naval drills. China's growing assertiveness and economic heft across Asia, combined with a newly reticent United States, is making countries in the region wonder if and when they'll have to choose sides between Washington and Beijing. That's exactly what appeared to happen last week, after India rejected Australia's request to send warships to participate in big naval exercises in the Bay of Bengal. News reports painted the rejection as a way for India to appease China, or at least avoid needlessly provoking Beijing.

But former naval officers and analysts say the rejection more likely reflects New Delhi's worries that Australia may not be an entirely reliable security partner. "When it comes to formulation of a collective response to China, including in terms of 'moderating' Beijing's assertive behavior, Australia does not particularly inspire confidence," Indian Capt. Gurpreet Khurana, who also directs the National Maritime Foundation in New Delhi, told Foreign Policy. That's because the United States, India, Japan, and Australia have tried this before — only to see Australia walk away from four-way military exercises. In 2007, India, the United States, Japan, and Australia held naval exercises, along with Singapore. But China objected strongly, lodging diplomatic protests to each of the four main participants, as one goal of the quad was clearly a response to China's own expanding maritime interests.

After Kevin Rudd became Australian Prime Minister, he held several meetings with Chinese officials, and in February 2008 Australia withdrew from the quad in a joint press conference with the Chinese foreign minister. "New Delhi hasn't forgotten Canberra's hasty capitulation a decade ago," said Nitin A. Gokhale, a New Delhi-based national security analyst, in an email to FP. "Moreover, the foreign policy establishment is aware of the deep economic and political relations that Australia and China have."

Canberra has at times adopted a conciliatory approach to China, its largest trading partner. It has

declined to participate in U.S.-led freedom of navigation operations in the South China Sea to push back against China's expansive claims of sovereignty there, though Australia has participated in multilateral naval war games there. And, as demonstrated in the short-lived quadrilateral exercises of 2007, a change in government can easily usher in an about-face in its policy towards Beijing. But today, Australian security experts say, Canberra is eager to help make sure that one country doesn't come to dominate the Asia-Pacific region. "Australia is quietly seeking to build and support informal coalitions to balance Chinese power," said Rory Medcalf, head of the National Security College at the Australian National University.

He said any Indian doubts about Australia being willing and able to help bolster regional stability are misplaced. "Any such Indian concerns misread the depth of Australian security planners' determination to build a multipolar regional order. India may also not yet fully appreciate the extent of Australia's capabilities as a maritime power," Medcalf said. For decades, India and China have had a tense relationship, thanks to a disputed border which led to a war in 1962. China's increasingly tight economic and defense relationship with Pakistan — including the China Pakistan Economic Corridor — doesn't ease those tensions.

And they are spreading to the seas as well, as China has expanded its naval ambitions beyond just the South China Sea to include the wider Indian Ocean region. Beijing is building port facilities that can be used for commercial and military purposes from Sri Lanka to the Horn of Africa, and just established its first overseas military base in Djibouti. China has sent submarines into the Indian Ocean on at least six occasions since 2013, including several nuclear submarine deployments that can't really be explained by China's ongoing anti-piracy patrols. That has made Indian naval planners wary of being encircled — and emboldened Prime Minister Narendra Modi to push back against Beijing. "I don't believe the hesitation on [Australia joining the exercises] is primarily at this point driven by concerns about provoking China," said Tanvi Madan, director of the India Project at Brookings, in an interview with FP. "[Modi's] government, if anything, domestically has been criticized for taking too many provocative steps towards China." After more than twenty years of bilateral naval drills between the United States and India in the Bay of Bengal, Japan joined in 2014, just as Japanese Prime Minister Shinzo Abe looked to expand the country's traditionally pacifist defensive forces into a more active regional role.

But that trilateral group has yet to expand to include Australia, even though Aussies have sought to join for two years. Rather, New Delhi and Canberra are taking steps to firm up their own bilateral cooperation first. In September 2015, India and Australia held bilateral naval exercises, known as AUSINDEX, in the Bay of Bengal, focusing on anti-submarine warfare with a P-3 anti-submarine reconnaissance plane from Australia and a P-8 long-range anti-sub aircraft from India, along with naval vessels. Retired Vice Admiral Anup Singh, who led the Indian Navy's Eastern Command until 2011, highlighted that India's current approach to Australia's participation isn't a full-stop rejection, but rather more of a wait-and-see approach. "The Indian side has told the Aussies that we have to go through the bilateral [exercises] first," Singh told FP in an email. Other experts agree. "In my view, they wanted to wait for at least one more edition of Australia-India bilateral naval exercise to go through before firming up their opinion about Australia's long-term intentions and capacity to stay the course," said Gokhale.

Source: foreignpolicy.com, 05 June 2017

### South China Sea: US Bargaining Chip or Key Interest?

The US may back off from South China Sea so that China works on trade imbalances and acts to slow North Korea's nuclear program. The latest American assertion of freedom-of-navigation rights in the South China Sea may have reassured some that new bonhomie between presidents Donald Trump and Xi Jinping won't lead to abandonment of the region. But questions remain.

On 24 May, the guided missile destroyer USS Dewey transited within 12 nautical miles of Mischief Reef, a land feature occupied by China in the South China Sea. Analysts who had followed and criticized China's campaign to control the sea, upon learning of this Freedom of Navigation Operation may have shared the same thought: *Finally*! Not since mid-October 2016 had the US been reported to have conducted such operations in the South China Sea. Since Trump's inauguration in January, the Pacific Command had repeatedly been denied permission to conduct such a transit.

Speculation abounds. Was the Dewey's sail-by a one-off? Or did it augur a resumption of US efforts to forestall Chinese maritime dominion? Defense Secretary James Mattis will speak at the Shangri-La Dialogue in Singapore this week, and perhaps the Dewey's route is meant to reinforce a message of reassurance for Asian leaders, that the United

States is not resigned to Chinese primacy in the South China Sea. News of the Dewey's trip was not formally announced. Nor was it accompanied by an official promise to follow up with further freedom-of-navigation operations. Any assuaging message, if intended, was thereby undercut, all the more so by Trump's reputation for unpredictability and impulsiveness.

Uncertainty abounds, too, as the region is left to wonder whether the Trump administration will make an ongoing commitment or will it offer, by implication, a transaction in the shorter run: suspension of US willingness to check China in the South China Sea, in return for Chinese willingness to check North Korea. China's behavior may have made these questions academic. For several years, Washington has watched Beijing turn the South China Sea into a Chinese lake. Impunity has benefited the pace of appropriation, and already some analysts have concluded the game is over. The stronger, less reversible, China's maritime position becomes, the less valuable – bargainable – an American offer to accommodate it will be. American indifference has facilitated, or at least not impeded, China's efforts eventually to establish full-spectrum sway over one of the economically and strategically most crucial waterways in the world. A million square kilometers larger than the Mediterranean, the South China Sea is vital for the many countries that border or use it – including China, Japan, India, South Korea, Australia, members of the Association of Southeast Asian Nations and, not least, the United States.

Obama-style "strategic patience" not only failed to lessen the missile-tossing truculence of Pyongyang. It failed to slow Beijing's drive to dominate the South China Sea. Washington warned Beijing not to build up the land features it controlled; China did so anyway. Washington warned Beijing not to militarize those properties; China did so anyway despite Xi's public pledge to the contrary. <u>Freedom-of-navigation operations</u> were few, intermittent and increasingly far between, despite a promise to conduct them twice every three months.

Meanwhile, ASEAN's leaders were the objects of vigorous *yuan* diplomacy by China – attractive gifts and loans repayable in silence and deference. The Obama administration offered principles instead: good governance and navigational freedom. The Trans-Pacific Partnership promoted the first; freedom-of-navigation operations in the South China Sea defended the second. In San Francisco in February 2016, an astute Malaysian asked his American audience to put themselves in Southeast Asian shoes: The Chinese offer you a stack of cash to spend. The Americans offer you a stack of principles to follow. Which offer do you accept? It was a rhetorical question.

Trump may have abandoned the Trans-Pacific Partnership's provisions for reasons of good economic governance. But why was the principle of navigational freedom neglected? Why were the freedom-of-navigation operations performed less often under Obama and stopped altogether under Trump?

A one-word answer could be linkage. Obama's White House, including the National Security Council, viewed US relations with China as multi-stranded. Provoking Beijing with such operations risked losing cooperation on other issues that mattered to Washington: economic discrimination, cybersecurity, global warming, North Korea. As for Trump, initially, discontinuance of the operations could have been due to the new administration's internal disarray and lack of staff. By May, however, it appeared that Washington might not be restarting them for a different reason: to incentivize Beijing to alleviate American economic concerns and restrain Pyongyang.

It's become conventional to distinguish Obama's "strategic patience" from Trump's "transactional dealing," but linkage is present in both approaches. Both subordinate America's interest in restraining Chinese maritime assertions in East Asia to America's interest in gaining Chinese cooperation on other matters. In effect, Obama and Trump alike had bigger fish to fry. China's salami-slicing tactic also made its incremental advances too insignificant to pick a fight over. The Dewey's voyage past Mischief Reef has broken a string of seven months without freedom-of-navigation operations, raising more policy questions. If operations do resume, does that mean Washington has also broken the linkage to other issues on which China could be helpful? Is that freedom were worth defending *in its own right*? And what if no further operations ensue or follow a haphazard pattern?

Reassurances matter. In May, during his first trip to Europe, president Trump could have recommitted his country to defense of NATO partners by endorsing Article 5. He did not. Europeans now have reason to doubt America's willingness to defend them against President Vladimir Putin's desire to destabilize or even retake Russia's former satellite states. If the Dewey's journey was not a resumption, but merely a one-time blip, will ASEAN's leaders echo Germany Chancellor Angela Merkel in doubting America's willingness to restrain Xi's maritime ambitions in its own "near abroad"? Southeast Asian policy elites may already assume that the Trump administration doesn't care about their region. The gap between what these elites want from the US and what they expect to get emerges clearly in an April survey of more than 300 influential officials, businesspeople, scholars, journalists and activists across the 10 ASEAN countries on "How do Southeast Asians View the Trump Administration," conducted by ISEAS Yusof Ishak Institute

Of these respondents, an impressive 70 percent agreed that "Southeast Asia is more stable and secure with active US engagement." But 56 percent expected the US to become less engaged in Southeast Asia in future, while 52 percent felt that the Trump administration was "not interested" in the region or considered it "irrelevant." As to which country or regional organization was the "most influential" in Southeast Asia, a mere 4 percent of the respondents chose the United States, compared to the 18 percent who cited ASEAN and the whopping 74 percent who chose China. An even higher proportion, 80 percent, expected China to fill any "strategic vacuum" in the region that American "indifference" might create.

There is one supportive result for Washington in the April survey: 68 percent of the respondents agreed that "the US will uphold freedom of navigation in the South China Sea." The Trump administration should live up to that expectation. The Dewey's sailby should be followed by additional trips, performed regularly, publicly acknowledged, and justified by stating and restating strategic conviction: that no one country – not the United States, China, Japan nor any other state – should exercise exclusive control over the South China Sea. Such commitment, far from a chip to bargain with, is a key interest of the United States itself.

Source: yaleglobal.yale.edu, 01 June 2017

# Proposed Chinese Law on Maritime Traffic Safety: Interpretations and Implications

-Prakash Gopal

On February 14, 2017, the Legislative Affairs Office of the State Council of China sought public comments on a new draft legislation, proposed to replace the existing Maritime Safety Law of 1983. Coming in the backdrop of the rather uneasy peace in the South China Sea, certain provisions of the draft legislation garnered significant media attention. A closer examination reveals that most suggested provisions are a reiteration of either existing international laws on the subject (as codified in the United Nations Convention on the Law of the Sea [UNCLOS], 1982), or of existing domestic laws of China. There are also however, provisions that are problematic and not compatible with customary or codified international legal tenets and practices. Such provisions, when implemented are likely to lead to contested interpretations, and serious implications for the larger maritime region, and therefore merit greater analysis. A caveat worth highlighting is that this study was undertaken on an unofficial

English translation of the draft legislation, which may have inherent semantic inaccuracies.

Whereas the existing Maritime Safety Law has 53 Articles, the new proposed law has 134. Much of this increase in the volume of text can be attributed to new provisions on registration, and certification of vessels and crew members. There is also a relatively elaborate article (Article 21) on delineation of various zones, for management of maritime traffic, which includes 'forbidden zones', and areas that may be separately demarcated for military purposes.

The most striking issue with the proposed legislation, is the concurrent usage of terms which have a legal basis in the UNCLOS, together with those that do not have a standardized and internationally accepted definition. Article 2 for instance, talks about the geographical scope of application for this law. Standard terms such as Territorial Waters, Exclusive Economic Zone (EEZ) and Continental Shelf, are used, together with terms such as 'other sea areas under the jurisdiction of the People's Republic of China'. This term is open to interpretation in the absence of an internationally recognized and delimited span of maritime space that may be additionally under Chinese 'jurisdiction'. So when Article 21 talks about the maritime administrative authority retaining the right to promulgate 'forbidden zones', Article 2 would allow the promulgation of such areas even outside of the maritime zones to which China is entitled under the provisions of UNCLOS. This could pose a significant threat to freedom of navigation in the region, especially in the ambiguity that is associated with Chinese claims within the 'nine-dash line', as well as the large area of sea that is enclosed by it.

Another misuse of the 'jurisdictional' seas clause could also be made in the case of a 'hot pursuit'. While UNCLOS permits 'hot pursuit' to commence within different maritime zones depending on the nature of violation committed, the draft Chinese law permits its commencement even within the undefined 'jurisdictional' waters. The unfettered extension of jurisdiction over waters that may otherwise constitute part of The Area is a point of significant potential contest and conflict.

Yet another provision that has garnered notable media attention, is one that mandates foreign 'submersibles' to transit on surface, with its flag displayed, within Chinese Territorial Waters. This however is in consonance with the stipulations concerning 'Innocent Passage' in the UNCLOS (Article 20), which states that all 'submarines and other underwater vehicles' are required to traverse through the Territorial Waters of a Coastal State, on surface and showing their flag. With the increasing use of

Unmanned Underwater Vehicles (UUVs) in the South China Sea, especially by the US, and the large span of disputed waters within China's 'nine-dash line', it is likely that this provision would be extensively applied to curtail underwater activity in the region. This is also evident in the Chinese seizure and subsequent return of the US' UUV in December 2016, being operated off the coast of Philippines by USNS Bowditch.

The new draft law also reiterates China's position on foreign military vessels requiring permission to enter Chinese Territorial Waters. This is a tenet that has been contested by the US, through diplomatic demarches and the US Navy's Freedom of Navigation Operations (FONOPS). In this instance the Indian position is also somewhat similar, with the Maritime Zones of India (MZI) Act of 1976 requiring foreign military vessels and submarines to give prior notification to Indian authorities before entering Indian Territorial Waters. Additionally, while ratifying the UNCLOS on June 29, 1995, India made a declaration in accordance with Article 310 of the UNCLOS, to state that foreign military vessels are required to obtain prior consent before conducting military exercises within the Indian EEZ. India's position on the rights of foreign military vessels within its Territorial Waters and EEZ, is also in conflict with that of many other countries, and has also been subject to US diplomatic and military opposition.

While in its entirety, the new draft legislation appears to be an attempt to merely revise China's existing 1984-vintage legislation, there are some contentious provisions that do not conform to international maritime law. Once implemented, these have the potential to create conflicts at sea, which may assume greater military and diplomatic proportions, especially in the prevailing environment in the South China Sea. The introduction of this draft legislation also serves as a reminder for India to revisit its existing legal structures, and revise them as necessary. This may be an opportune time to evolve a comprehensive domestic legal framework that supports the pursuit of India's maritime interests and the fulfillment of its international obligations.

Source: www.maritimeindia.org, 01 June 2017

## China's Bases in Pakistan Will Have Strategic Ramifications for India -Expert

India has downplayed a US report which warned that China could set up military bases in Pakistan. Indian Navy chief Admiral Sunil Lanba said India has its own assessment and will not make any strategy on the basis of the US report. The US report claimed that expanding international economic interests are forcing China to operate in more distant maritime environments to protect its interests. "It is an assessment which is

there in the US report. We have our own assessments. Let us see what happens in the future," Admiral Lanba said on the report released by US Department of Defense on China's military prowess this week. "China most likely will seek to establish additional military bases in countries with which it has a longstanding friendly relationship and similar strategic interests, such as Pakistan," report added. The Chinese facility in Djibouti has already emerged as a full-fledged 'military base', notwithstanding what nomenclature Beijing accords to it. Considering approximately \$57 billion investment in China-Pakistan Economic Corridor (CPEC), a network of rail, road and energy projects — part of One Belt, One Road, China is most likely to strengthen its military capability in Gwadar. It is considered that after completing CPEC road projects, China can bypass the Strait of Malacca, if and when the need arises, and can offload energy products at Gwadar and transported to China through CPEC. But for India, a military base at Gwadar may have severe strategic ramifications. "For India, the strategic ramifications are rather grave. A decade ago, India's security establishment was assessing its military preparedness to deal with a 'two-front scenario' in terms of China (in the north) and Pakistan (in the west). Today, with China's ongoing deployment of the PLA security forces along the CPEC, and the imminent PLA Navy deployment at Gwadar to secure the maritime route, the interpretation of 'two front' scenario may soon change to 'China' (in the north) and 'China and Pakistan' (in the west)," Captain Gurpreet S Khurana (Indian Navy), Executive Director, National Maritime Foundation (NMF), told Sputnik. Meanwhile, China has claimed its logistics facility in Djibouti is to ensure the Chinese forces carrying out escort missions in the Gulf of Aden and off the coast of Somalia, and performing humanitarian aid missions, will refresh here. China has firmly discarded the report and termed it a "Cold-War mentality" product.

Source: idrw.org, 10 June 2017

# Trump 'looking forward' to meeting Modi on June 26, says White House; terrorism, H1B visa on agenda

The maiden meeting between US President Donald Trump and Prime Minister Narendra Modi would "set forth a vision" to expand the US-India partnership in an ambitious way, the White House said on Monday. The leaders of the world's two largest democracies, home to 1.6 billion people, will meet on June 26 to discuss a gamut of bilateral issues including terrorism and India's concerns over possible changes in H-1B visa rules. "I think you can expect the two of them to set forth a vision that will expand the US-India partnership in an ambitious and worthy way of both

countries' people," White House press secretary Sean Spicer told reporters at his daily news conference. The Indian external affairs ministry in New Delhi said that meeting would provide a new direction for a deeper bilateral engagement "on issues of mutual interest and consolidation of multi-dimensional strategic partnership."

Modi was invited to Washington when he rang Trump in January to congratulate the new president on his inauguration. "The president and the prime minister have had a number of positive phone conversations, and expect to further that discussion ... whether it's economic growth and reforms, fighting terrorism, expanding our cooperation as major defence partners," Spicer said in response to a question. The bilateral talks appear to be no bed of roses as they come amidst thorny issues like US' plans to reduce the number of H-1B visa slots that are mainly used by Indian IT workers, and its withdrawal from the historic climate accord. The White House said that the US-India trade has grown six-fold since 2000, from USD 19 billion to USD 115 billion in 2016, despite the recent hiccups over the H-1B visa issue.

Notably, Modi's US visit, which would begin on June 25, comes in the backdrop of Trump's announcement to withdraw the US from the historic Paris Climate Agreement signed by over 190 other countries. In his announcement of the decision for which he received a global condemnation, Trump had blamed India and China for the US withdrawal. "India makes its participation contingent on receiving billions and billions of dollars from developed countries," he had said. Strongly rejecting Trump's contention, India said it signed the Paris deal not under duress or for lure of money but due to its commitment to protect the environment. Apart from ways to enhance trade and business cooperation, Modi and Trump are expected to discuss defence ties.

US Defence Secretary James Mattis has already made it clear that his country recognises India as a major defence "partner partly out of respect" for New Delhi's "indispensable role" in maintaining stability in the Indian Ocean region.

The US was exploring "new ways" to address new challenges as well from maritime security to the growing threat posed by the spread of terrorism in Southeast Asia, Mattis has said. Regional security situation including Pakistan-sponsored terrorism and other international issues are expected to figure prominently during the meeting of the two leaders.

Source: www.hindustantimes.com, 13 June 2017

### Geopolitical bias blinds India to benefits of cooperation with China: daily

- Liu Jianxi

China denied accusations that its military helicopters had violated India's airspace on Monday. Reports from India claimed that the Chinese aircraft had been seen hovering over the "Barahoti sector" of the China-India boundary. China's foreign ministry responded to the reports, saying they were "regular border patrols" on the Chinese side of the Line of Actual Control.

Indian media has no need to make a fuss over China's routine military activities. Indian Prime Minister Narendra Modi commented at the St Petersburg International Economic Forum that "It is true that we have a border dispute with China. But in the last 40 years, not a single bullet has been fired because of [the] border dispute."

China welcomes Modi's remarks. Beijing and New Delhi have been exercising restraint over the border issue. A number of dialogue mechanisms, at governmental and non-governmental level, have been established to strengthen communications. The Sino-Indian Nathula Border trade channel was opened to boost bilateral trade, and meanwhile, China has put forward the Belt and Road initiative to aid regional connectivity. Beijing sincerely hopes that New Delhi can play a part in and benefit from the infrastructure initiative.

However, New Delhi is over-concerned about Beijing's intentions, and there are even critical voices in India against Modi's China-friendly remarks. It is because New Delhi still views the bilateral relationship with China from the lens of geopolitics and regards Beijing as a strategic rival. Every time China reaches out to strengthen cooperation with countries regarded by India as within its sphere of influence, India worries the cooperation is deliberately targeting it.

The reality is China's expanding cooperation is driven by China's economic growth. In fact, more and more Chinese enterprises are interested in investing in India. If New Delhi can understand China's connectivity initiative from the perspective of regional development, this will help enhance mutual trust between the two countries. Beijing's infrastructure initiative aims to promote the global economy by enhancing regional connectivity and building cohesive trade networks, and does not target any third party. An increasing number of countries welcome the Belt and Road initiative and are willing to hitch a ride on China's rise.

Strengthening mutual trust, a prerequisite to deepened cooperation, is a priority at present. More consultations are needed to handle border disputes, and Indian media outlets should avoid misinterpreting China's regular activities. The two sides can cooperate on projects that are not sensitive if historical issues cannot be immediately solved. The steady and sound development of China-India relations will benefit not only the two countries and peoples, but also the region and beyond.

Source: www.globaltimes.cn, 06 June 2017

#### Beijing Need Not Beg India To Join Belt And Road Project: Chinese Media

Geopolitical bias is blinding India to benefits of cooperation with China, a state-run Chinese newspaper said today, underlining that the two sides can cooperate on projects that are not sensitive if historical issues cannot be immediately solved. "New Delhi is over-concerned about Beijing's intentions, and there are even critical voices in India against (Prime Minister Narendra) Modi's China-friendly remarks," an op-ed article in the state-run Global Times said. The article claimed that India still views the bilateral relationship with China from the lens of geopolitics and regards Beijing as a strategic rival. Every time China reaches out to strengthen cooperation with countries regarded by India as within its sphere of influence, India worries the cooperation is deliberately targeting it, the article added. "The reality is China's expanding cooperation is driven by China's economic growth. In fact, more and more Chinese enterprises are interested in investing in India. If New Delhi can understand China's connectivity initiative from the perspective of regional development, this will help enhance mutual trust between the two countries," it said. The two sides can cooperate on projects that are not sensitive if historical issues cannot be immediately solved, it said, adding that the steady and sound development of bilateral relations will benefit not only the two countries and peoples, but also the region and beyond.

The article claimed that Beijing's infrastructure initiative aims to promote the global economy by enhancing regional connectivity and building cohesive trade networks, and does not target any third party. "An increasing number of countries welcome the Belt and Road initiative and are willing to hitch a ride on China's rise," it claimed. India abstained from last month's Belt and Road Forum in Beijing to highlight its concerns over the US \$50 billion China-Pakistan Economic Corridor which is part of the Belt and Road Initiative (BRI) and passes through Gilgit and Baltistan in Pakistan-occupied Kashmir (PoK). "The Belt and Road project initiated by China in 2013 is open

and inclusive and any countries, including Japan and India, are welcome to join it, but that does not mean that China needs to agree to any requests they might have," another article in the Global Times. "China would be pleased to see Japan's inclusion in the Belt and Road initiative, but no concessions will be made by China on matters of principle to ingratiate Tokyo," it stated. "We are willing to see the initiative help build up a cooperation platform for countries along the route, but China does not need to beg any countries, Japan and India included, to join the initiative," it said.

Source: www.ndtv.com, 07 June 2017

#### Can India-US naval partnership counter China in the Indian Ocean?

- Avinandan choudhury

The rise of India and China has brought about a situation that has never been witnessed in modern Asian history - the rise of two home-grown maritime powers. India and China have both been continental powers whose great ambitions and energy needs have led them to the seas of Asia. Strategists and scholars of both countries have talked about the growing rivalry between the two Asian giants, and with the rapid naval expansion and modernisation of both the Indian Navy and People's Liberation Army Navy (PLAN), the maritime rivalry is poised to intensify.

Nowhere is this rivalry between India and China more evident than in the Indian Ocean, where the Chinese navy forays into India's "backyard", and with continuing US dominance over global commons, a strategic triangle has formed in the Indian Ocean. The launch of a second Chinese aircraft carrier and the plan to construct a third aircraft carrier gives credence to the already strong belief among naval strategists that China is looking to strengthen its blue water capabilities. This also alludes to the speculation that China's aircraft carriers are being built with the Indian Ocean in mind, as aircraft carriers have much less utility in the Pacific, where the Chinese approach has been to deny sea access through anti-access and area denial strategies.

Aircraft carriers can bolster Chinese power projection capabilities beyond its near seas and especially in the Indian Ocean, where China is concerned about its strategically important sea lanes of communications (SLOC), on which China's sea borne energy supplies are depended. Furthermore, aircraft carriers, with their mighty size and humanitarian assistance and disaster relief capabilities, can act as vital instrument of Chinese soft power in the Indian Ocean region, where the Chinese are investing in maritime infrastructure and boosting their diplomatic clout among the nations. China

has been steadily increasing its naval footprints in the region and with its naval base in Djibouti coming up, it has secured a foothold for its navy in the strategic Gulf of Aden. The ascent of Chinese naval power has serious ramifications for the Indian Navy which has its own geostrategic interests in the Indian Ocean, which it views as its own "backyard", or to use 20th century geopolitical terms, its "sphere of influence".

In the international fleet review conducted by the Indian Navy off the coast of Visakhapatnam in 2016, India's naval prowess was at full show. Indian naval vessels along with ships from 52 countries including China participated in the region, which highlighted the rising stature and clout of India's naval might. The international fleet review was seen as a stern reminder to China that, apart from US naval presence, the Indian Navy is the "preeminent naval entity" in the Indian Ocean. Furthermore, the theme of the fleet review was "United through Oceans" - emphasising the concept of global commons and freedom of navigation, which is opposite of the Chinese expansionist approach in the South China Sea. The geography of India, with its southern peninsula thrusting into the Indian Ocean, offers immense geostrategic advantage to the Indian navy to project power deep into the Indian Ocean in three directions. In the decades after Independence, Indian policymakers, marred with a continental mind-set, failed to take advantage of the geostrategic significance of the location.

In the face of existential threats emanating from land-based powers of Pakistan and China, the navy was relegated to a mere support service and was commonly known as "the Cinderella service". As such India was never in a position to fill the naval vacuum that had existed in the Indian Ocean after the decline of the British Empire and its "east of Suez" declaration. The US navy ultimately took the role of the British Royal Navy and became the dominant naval entity in the Indian Ocean. A relatively similar situation may emerge again as the power of the US navy slowly wanes in the Indian Ocean and this time the Indian navy is well positioned to be the principle net security provider in the region. The official document regarding Indian maritime strategy, issued in 2007, was titled "Freedom to Use the Seas: India's Maritime-Military Strategy" and in 2015 the Indian navy has gone a step further and taken a more assertive stance in the maritime strategy document titled "Ensuring Secure Seas: Indian Maritime Security Strategy".

The "primary" area of interest for the Indian navy was extended taking a south-west trajectory to include the south western Indian Ocean and the Red Sea. The "secondary" area of interest was also enlarged to fit two additional choke points - the Mozambique Channel and Ombai-Wetar Straits. This highlights the Indian navy's focus on free shipping lanes and freedom of operational manoeuvre. With 90 per cent of India's trade being carried through sea, which accounts for approximately 42 per cent of GDP, the Indian navy is well justified in "ensuring secure seas".

Source: www.dailyo.in, 13 June 2017