



MAKING WAVES

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France targets Ports with ‘Maritime Surveillance’

Advanced technology must be used to increase the capabilities of maritime surveillance, Augier noted in an interview. Maritime security in France is monitored by a complex network of surveillance centres that are inked together by a central system, Augier said. France’s strategy for maritime security is focussed on protecting key facilities such as nuclear plants, ports, ships, and passengers. Different security measures may be implemented depending on the size and scale of the port, as a blanket approach for all ports is likely to be ineffective.

At larger ports, such as Calais, it is more important to focus on protecting the port itself, whereas at smaller ports like Cherbourg and Roscoff with lower border control investment, protecting ships and passengers is more efficient. Among different countries, the inconsistency in laws and control systems means that it is not practical to integrate systems for data sharing on the movement of people, for example those deemed to pose a terrorist threat. While calling the embassy is usual practice in this situation, but greater communication about who to contact in the event of a security issue would serve to aid efficiency and result in an increased ability to address security breaches.

Augier said: “We need to improve the way in which we exchange information.” France, through such measures, also aims to prevent illegal trafficking of people and drugs and the pollution of French coastline. But much of the focus of French maritime surveillance and security is currently on the channel.

Source: www.porttechnology.org, 01 September 2017

Africa: States don't prioritise Maritime Security - Here's why they should

- Dirk Siebels

Piracy off the African coastline has been a headline grabbing phenomenon for more than a decade. For a few years though, Somali pirates appeared to have a quiet spell. Then, recently they had their first successful attack against a merchant vessel since 2012. Other attacks followed, including one in April that was foiled by Chinese and Indian navies. On the other side of the continent, attacks against ships in the Gulf of Guinea remain a concern for shipping companies, particularly off the coast of Nigeria. The State of Maritime Piracy report reiterates that the Nigerian coastline is a dangerous area for seafarers and has been for years.

However, coastal states affected by piracy often have other priorities. Take Somalia for example. The country is battling many issues including the effects of a long drought and frequent Al-Shabaab attacks. The situation is similar in other countries. The Africa Centre for Strategic Studies points out that national security and economic policies rarely emphasise maritime security. This is due to a lack of awareness, political will and resources. For years maritime security has been neglected throughout Africa. Recently however, there has been renewed focus on maritime issues. This was highlighted by the African Union's maritime strategy and the Lomé maritime summit. These developments show that maritime matters have become more important. But this is still not enough. To develop their economy coastal states need to start addressing maritime security issues beyond just piracy. It should also include factors such as illegal, unreported and unregulated fishing. Unfortunately politicians and academics have traditionally framed maritime security in Africa as a purely counter-piracy affair. The debate needs to be broadened significantly to include an appreciation of the economic potential of the seas.

How to secure the oceans

Sea based economic activities (known as the blue economy) include; offshore oil and gas production, maritime trade, fishing activities and coastal tourism. While these activities happen at sea, solutions to improve maritime security must be developed by national governments first. It is not enough to relegate security to navies and coastguards. Governments must first determine where patrols are needed.

In theory, they can do this using comprehensive surveillance techniques to gather intelligence on all activities within their exclusive economic zones. However, many governments in the developing world lack the sufficient technical capabilities to do so.

However, if Africa's coastal states are really committed to developing their blue economies they will also need to employ a wide-reaching maritime strategy over and beyond basic security. The island nation of Seychelles has been particularly active in this area. Maritime strategies help to identify the resources needed to realise the economic potential at sea. They are also the basis for security cooperation between neighbouring countries. This is because maritime insecurity is often a transnational problem. National security agencies, the international community and NGOs should collaborate to develop a maritime strategy. At the national level, missing capacities can even be provided by the private sector. To manage this multi-agency approach national governments must ensure that their own priorities are front and centre. Limiting maritime security to counter-piracy activities will not lead to sustainable solutions. Governments must adopt a more holistic approach to securing the oceans. It does not make sense to focus on pirate attacks while ignoring other criminal activities at sea.

Source: theconversation.com, 02 September 2017

Port Security grant recipients announced

- MarEx

Late Friday, the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) announced the recipients of the \$100 million FY 2017 Port Security Grant Program, and more than 33 ports were awarded direct grants. The program is one of a number of measures authorized by Congress to strengthen critical infrastructure against risks associated with potential terrorist attacks. The funds are intended to improve port-wide maritime security risk management; enhance maritime domain awareness; support maritime security training and exercises and to maintain or reestablish maritime security mitigation protocols that support port recovery and resiliency capabilities. The investments made must address U.S. Coast Guard and Area Maritime Security Committee identified vulnerabilities in port security and support the

prevention, detection, response, or recovery from attacks involving improvised explosive devices and other non-conventional weapons.

In the past, funds have been used to purchase rapid response boats and disaster exercises. The funding program is a top American Association of Port Authorities priority. The House FY 2018 DHS Appropriations bill includes \$100 million for the program, and the Senate is expected to mark up its version of a DHS appropriations bill this month.

Source: www.maritime-executive.com, 05 September 2017

PCG acquires French sea vessels for Maritime Security

- By Philippine News Agency

The Philippine Coast Guard (PCG) has inked a deal Wednesday afternoon with a French shipbuilding firm for the acquisition of five shipping vessels for maritime security. The contract effectiveness agreement was signed by Department of Transportation (DOTr) Undersecretary for Maritime Felipe Judan and OCEA director of maritime safety and security Fabrice Weinbach and witnessed by Secretary Arthur Tugade and French Embassy representative Laurent Estrade. The signing paved the way for the implementation of the Philippine Ports and Coast Guard Capability Development Project. It also marks the first major vessel acquisition for the PCG under the Duterte administration. The project involves the supply, delivery and maintenance of four brand new 24 meter fast patrol boats (FPB) and one 84 meter offshore patrol vessels (OPV) to be purchased by the DOTr for the use of the Coast Guard. “The acquisition of the vessels will enhance the capability of the PCG in performing its functions on maritime security, safety, maritime search and rescue, marine environmental protection as well as offshore patrol of the country’s exclusive economic zone,” DOTr Assistant Secretary for Maritime Lino Dabi said in an interview with the Philippine News Agency. He said the sea vessels may be deployed to deter piracy incidents in southern Mindanao and defend the country’s territorial claims over the West Philippine Sea.

The French government has provided a loan worth 97.03 million euros through Official Development Assistance (ODA) using the remaining balance of the Greater Maritime

Access (GMA) RoRo Port Projects of the Arroyo administration. Under the agreement, supply of goods shall be made within 23 consecutive months with its first delivery to be made on the first quarter of 2018. This will involve the provision of four FPB 72 and 1 OPV 270. The contract for the purchase of the sea vessels was signed on September 9, 2014 with OCEA and the then DOTC. With the signing of the contract effectiveness agreement, this means that certain conditions precedent for the coming into full force and effect of the contract has already been completed.

Source: news.mb.com.ph, 07 September 2017

What did the latest US Asia Maritime Security Exercise achieve?

- By Prashanth Parameswaran

WASHINGTON, D.C. – Last week, the United States and South and Southeast Asian states ended the latest iteration of the Southeast Asia Cooperation and Training (SEACAT) exercise. The drills, which featured a larger number of participants compared to the previous year, represents one of several steps the United States is taking to increase its bilateral and multilateral exercises in the Asia-Pacific.

SEACAT, which began in 2002 under the name “Southeast Asia Cooperation Against Terrorism,” was renamed in 2012 to expand the scope of training among regional navies and coast guards. Designed to promote multilateral cooperation and information-sharing among navies and coast guards in South and Southeast Asia, SEACAT typically brings together liaison officers to execute maritime responses to scenarios to better tackle maritime security challenges such as smuggling and piracy. It usually comprises a series of workshops, information exercises, as well as operations at sea. The 16th iteration of SEACAT, which took place from August 21 and went on up to September 1, featured participation from eleven countries – the United States, Bangladesh, Brunei, Burma, Indonesia, Malaysia, the Philippines, Singapore, Sri Lanka, Thailand, Vietnam. This is an increase from the nine countries last year, reflecting both a boost for SEACAT itself as well as for a broader U.S. effort underway to expand its bilateral and multilateral exercises in the Asia-Pacific which I have written about previously.

This year, Burma, Vietnam, and Sri Lanka were included, reflecting the uptick in maritime cooperation – to varying degrees – we have witnessed of late in these cases. Meanwhile, Cambodia was unsurprisingly left out given the signs we have seen in the broader U.S.-Cambodia defense relationship (and Cambodian foreign policy and domestic politics more generally ahead of next year’s general elections) over the past year. Another notable development with respect to this year’s SEACAT was an expansion in terms of the involvement of maritime operation centers in both Singapore and Brunei, Arlo Abrahamson, public affairs officer at the U.S. Seventh Fleet’s Task Force 73, which helps plan and execute these exercises, told *The Diplomat*. There was an academic seminar held in Singapore, a command post exercise involving Singapore and Brunei, and a boarding workshop in the Philippines that saw the participation of both the Philippine Navy *and* the Philippine Coast Guard for the first time. The shape of Manila’s participation this time around is not without significance. At a broader level, it is yet another indicator of the ongoing defense cooperation between the two treaty allies in spite of the complications posed by President Rodrigo Duterte. But more specifically, it is important because of the role that the Philippine National Coast Watch Center plays in wider U.S. regional and subregional maritime security initiatives like the Southeast Asia Maritime Security Initiative (MSI). That is worth emphasizing, especially as headlines continue to be dominated by “firsts” in the Sino-Philippine relationship as Duterte continues his engagement of Beijing as part of what some members of his administration have termed an “independent foreign policy.” This includes unprecedented cooperation between the coast guards of both countries, which appears to be gradually progressing.

Liaison officers from Sri Lanka, Burma, Bangladesh, Thailand, Malaysia, Singapore, and the United States operated from Singapore’s Multinational Operations and Exercises Center; personnel from the Philippines, Brunei, Indonesia and the United States operated from Brunei’s Multinational Coordination Center; and U.S. Coast Guard personnel also conducted a comprehensive boarding workshop in Manila with the Philippine Coast Guard (PCG) alongside boarding teams from Sri Lanka, Thailand, Vietnam, Malaysia, the Philippines, and Indonesia. All in all, the sea phase of the exercise featured seven boarding operations across three vessels, including the expeditionary fast transport vessel USNS *Millinocket*.

Source: thediplomat.com, 06 September 2017

New Maritime Security Corridor for Gulf of Aden and Horn of Africa

- Marcus Hand

The Combined Maritime Forces (CMF) are setting up a security corridor Gulf of Aden and Bab Al Mandeb in response to recent attacks in the region. The busy sealane has become the focus of both renewed pirate attacks and instability from the conflict in Yemen. “Recent attacks against merchant shipping in the Gulf of Aden and Bab Al Mandeb (BAM) have highlighted the risks associated with transiting these waters,” CMF said. “The multiple types of risks and the broad expanse of ocean on which these attacks can occur dictate that Naval Forces must be used in the most efficient manner possible. To assist in this, CMF is establishing a Maritime Security Transit Corridor (MSTC).” The MTSC encompasses the Internationally Recommended Transit Corridor (IRTC), the BAM traffic separation scheme (TSS) and the TSS West of the Hanish Islands, and a two-way route directly connecting the IRTC and the BAM TSS. The CMF said it recommended that all vessels use the MSTC to benefit from military presence and surveillance. “All vessels transiting the Gulf of Aden and Bab Al Mandeb should follow the guidance of BMP4 to the maximum extent possible and consider the use of embarked armed security. Recent piracy attacks in 2017 serve to emphasise the importance of robustly following this guidance,” CMF added.

Source: www.seatrade-maritime.com, 08 September 2017

EU Naval Force seeks to enhance Somalia's Maritime Security

- liuxin

MOGADISHU, Sept. 11 (Xinhua) -- The European Union Naval Force personnel have helped train Somalia's Maritime Police Unit in Mogadishu to help strengthen the Horn of Africa nation's maritime security to help deter piracy along the coastline. The EU Capacity Building Mission in Somalia (EUCAP) said on Monday the vital training which it organized, will help in enhancing local capability in maintaining maritime security.

"The training included how to plan effective patrols at sea and boarding a vessel that is suspected of being involved in piracy and other illegal activity," the EU mission said in a statement released in Mogadishu. The mission said maritime training with regional partners is an extremely important aspect of the European Union's efforts to help develop the capabilities of local maritime forces and to deter piracy off the coast of Somalia. "The development of the maritime police in Mogadishu is a critical element in supporting Somalia in securing its principal sea port and its approaches," EUCAP Somalia's Head of Operations Chris Reynolds said. The mission said Naval Force's sailors and marines from its warships ITS Fasan and ESPS Rayo, have been assisting staff from EUCAP Somalia, to train members of the Somali maritime police unit at sea off the coast of Mogadishu. EUCAP Somalia is a civilian EU mission, under the auspices of the Common Security and Defence Policy, which assists Somalia in strengthening its capacity to ensure maritime security. The EU naval force, a counter-piracy military operation off the coast of Somalia has been protecting Somalia bound ships, belonging to the UN World Food Programme and the African Union Mission in Somalia (AMISOM).

Source: news.xinhuanet.com, 12 September 2017

Russia sends warship on mission to fight pirates in Atlantic Ocean

MOSCOW, September 13. /TASS/. The Alexander Otrakovsky large landing ship of the Russian Northern Fleet has set off on a long mission to the Atlantic Ocean to fight pirates and terrorists, Fleet Spokesman Captain First Rank Vadim Serga said. "While on the mission, the large landing ship will travel to important areas of the ocean," he pointed out. "Its priorities are to ensure maritime security and Russia's maritime economic activities, as well as to respond to the threats of the present day, such as piracy and international terrorism," he added. The ship's crew will also hold defense and damage control exercises to train skills useful on long sea missions. In 2015-2016, the Alexander Otrakovsky spent a total of 588 days at sea.

Source: tass.com, 13 September 2017



Russian frigate fires Kalibr Missiles at daesh terrorists in Syria

A Russian frigate in the Mediterranean Sea has fired a salvo of Kalibr cruise missiles at militants near the western Syrian city of Dayr al-Zawr. The frigate Admiral Essen of the Russian Black Sea fleet fired the missiles on Tuesday morning, a statement by the Russian Defense Ministry said. The barrage destroyed a communications center, weapons depots, and a repair workshop used by the Daesh terrorists, the statement said. The targeted militants were mainly from Russia and countries of the Commonwealth of Independent States (CIS). “The missile strikes supported the advance of Syrian government forces, and have foiled the plans of the ISIL militants to regroup and strengthen terrorist positions near the city of Dayr al-Zawr,” the statement said, using an English acronym to refer to Daesh. 'US-led coalition hindering Dayr al-Zawr op.'

Separately, the operations command for allied forces in Syria says a US-led coalition carrying out a bombardment campaign in the country is the main reason behind a delay in the recapture of Dayr al-Zawr. The command orchestrates and coordinates the military efforts by the Syrian army and its allies against terrorists countrywide. Syria’s War Media on Tuesday cited the command as accusing the coalition of plotting against Syrian troops and intentionally bombing them to tilt the balance on the battleground in favor of terrorists. The US-led coalition, which launched its operations in Syria in 2015, says its goal is to bomb the Takfiri terrorist group of Daesh. Over the past months, the coalition has reportedly transferred Daesh ringleaders to other locations for unidentified reasons, it said, adding that Daesh terrorists seized by the army had confessed to the alliance between the outfit and the US-led forces.

Last Friday, the so-called Syrian Observatory for Human Rights group said the US had conducted 10 heliborne operations, transferring Daesh elements. The most recent of the operations, it said, saw three helicopters carrying out an airlift in al-Sawh District in Dayr al-Zawr’s western suburbs last Wednesday. Citing informed sources, the group said the US had been moving mercenaries as the Syrian army and their allies were closing in on

Dayr al-Zawr. Last week, the Russian Defense Ministry named Dayr al-Zawr as “the last stronghold of the international terrorists on Syrian soil.”

Source: www.presstv.ir, 05 September 2017

Lake Worth native flies Navy’s new, most advanced helicopters

- Wesley Holzapfel

A Lake Worth native is serving with a U.S. Navy helicopter squadron that flies the newest and most technologically advanced helicopter. Lt. j. g. Austin Stack, a 2009 King’s Academy graduate, is a pilot with the Air wolves of Helicopter Maritime Strike Squadron (HSM) 40, a Mayport-based squadron that operates the Navy’s next generation submarine hunter and anti-surface warfare helicopter, the MH-60R Seahawk. Each helicopter is nearly 65 feet long, may weigh up to 23,500 pounds and can travel over 120 mph for nearly 320 miles on a tank of gas. As a pilot, Stack is responsible for flying the MH-60R. “It was a big deal to me — earning my wings,” said Stack. “It was the most time-consuming thing I’ve ever done. In fact, it was more studying than I’d ever done in college. I’m proud to wear my wings today. It’s definitely a good reward for all that work.”

According to Navy officials, the MH-60R is the most capable multimission helicopter available in the world today. It is used for a variety of missions, including hunting and tracking enemy submarines, attacking enemy ships, search and rescue, drug interdiction, delivering supplies and supporting the Navy’s special operations forces. It will replace the Navy’s older helicopters because of its versatility and advanced weapon systems. Stack said they are proud to be part of a warfighting team that readily defends America at all times. Sailors’ jobs are highly varied within the squadron. Approximately 297 Navy men and women are assigned to keep all parts of the squadron running smoothly. This includes everything from maintaining helicopter airframes and engines, to processing paperwork, handling weapons and flying the aircraft. While serving in the Navy, Stack is learning about being a more respectable leader, sailor and person through handling numerous responsibilities. “I’m proud to serve, and do what others who have gone before me have done,” said Stack. “It’s great that I get to do my part to defend my country.”

Source: www.palmbeachpost.com, 06 September 2017

‘Beyond Hardware and Technology’: The Intangibles of china’s Naval Power

-Gurpreet S Khurana

This is part two of a three-part series on China's naval power

As introduced in Part 1, so far, most analyses of China’s naval power worldwide have examined the PLA Navy’s existing and projected force-levels, and its associated hardware inductions and technological progression, with little emphasis on the ‘intangibles’ of China’s naval power, such as the strategic intent, objectives and strategy; tradition, operational experience and joint-service synergy, and the trends with regard to training and exercises, maintenance philosophy, and so on.

While Part 1 assessed China’s naval doctrine at the ‘military-strategic’ level, Part 2 undertakes an assessment of the intangible elements of China’s naval power at the ‘operational’ (campaign) level. Part 3 will address the ‘tactical’ level.

Operational Planning & Operational Art

Since Sun Tzu’s Art of War – the oldest treatise on operational art – Chinese military operational theory has developed in insular environs. This has led to a substantial difference between the Chinese and other militaries in fundamental doctrinal nomenclature and concepts. The Chinese express operational art in a very different manner, which is difficult for a non-Chinese analyst to understand. For instance, there is no single word in Chinese that directly corresponds to ‘doctrine’, but many documents talk about ‘operational theory,’ which is linked to ‘operational practice’ through ‘military science.’

The doctrinal variance is best exemplified by the differences in the two strategy board games – the Chinese ‘Weichi’ and the Western ‘Chess’, which explains how the Chinese think vis-à-vis their counterparts in the West. In ‘Chess’, the player aims to checkmate the opponent’s king (operational ‘centre of gravity’) through a single decisive encounter. On the contrary, ‘Weichi’ is essentially an ‘encirclement game’ involving multiple battles over a wide front, whose objective is to fully surround a larger total area of the board than the opponent. Clearly, therefore, the Chinese ‘Weichi’ is oriented to fighting a land campaign,

and thereby – unlike the western ‘chess’ – entails capture of territory. On the other hand, ‘chess’ is more akin to a naval campaign, which does not entail holding of territory, unless during an amphibious campaign; in which case too, the military objective lies inland.

Another difference between Chinese and Western operational thought lies in the subtle nuances of ‘operational manoeuvre.’ Although ‘manoeuvre’ is the cornerstone of Sun Tsu’s treatise, and also essential in the Chinese game of ‘Weichi,’ its relevance is confined only to the initial part of the campaign to avoid the strength of the adversary. In the Chinese operational thought, decisive victory is achieved at a later stage only through ‘attrition’. In contrast, in Western doctrine, as exemplified by the ‘Chess’ game, ‘manoeuvre’ is critical for the entire length of the campaign, particularly since the operational objective would not usually involve capture of territory. This variance possibly emanates from the historical-cultural divergence between China and West. Whereas the western militaries having learnt lessons from its ‘bloody’ history, seek to avoid ‘attrition’ of own forces at all costs, China’s perceives its strength to lie in numbers – in terms of both platforms and human resource – and thus its ability to absorb ‘attrition’ of own forces.

Chinese operational theory, therefore, evolved largely for land campaigns, capitalizing upon the numerical advantage of forces. Later, China adapted to the operational design of naval warfare by imitating the practices of the major naval powers. Fundamentally, therefore, the PLA Navy’s operational tenets of warfighting are not different from those of the western navies. To a casual observer, nevertheless, the difference may seem conspicuous due to two reasons.

- First, conceptual and linguistic differences have been a major challenge for the PLA Navy to adapt to the western operational doctrine. This has led to Chinese naval operational art being ‘underdeveloped’ vis-à-vis the other major navies.
- Second, while China and the non-Chinese navies alike follow the practice of SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis, the deductions for China usually differ substantially from those of the western powers, necessitating a vastly different approach by the PLA Navy. For instance, China’s substantial technological inferiority vis-à-vis its potential adversaries in the Western Pacific rim leads to the deduction that it must employ its numerical strength and asymmetric capabilities like antiship ballistic missiles (ASBM), submarines and missile boats.

Inter-Service (Functional) Integration/ Jointness

For a long time since China's emergence as a nation-state, joint-service planning/operations has been virtually non-existent in the Chinese armed forces. The primary reason for this has been the continental disposition of the Chinese and the primacy of land-based operations in China's military-operational doctrine, resulting in the dominance of the PLA Army.

This led to the PLA Navy and PLA Air Force being merely branches of the Army-dominated PLA, not only in nomenclature, but also in functional terms. The PLA Army's functional integration/ jointness with the PLA Air-Force was somewhat justifiable, but its synergy with the PLA Navy was considered unnecessary, since the latter operated in a completely different (maritime) realm, and was thus required to deal with its maritime security functions on its own. In order to ward off the enemy's amphibious assaults across its seaward frontiers, China developed the Marine Corps in the 1950s for the PLA Navy. This diminished further the need for PLA Navy's functional integration with the PLA Army.

In the mid-1990s, as a strategic guideline for fighting a 'Local War Under High Technological Conditions', China implemented the 'War Zone Concept' (WZC). As per the WZC, during war, all army, navy and air forces from more than one Military Region were to be brought directly under the command and control of the HQ of one Military Region, which was then reconstituted as a "war zone" (theatre) [战区], with the operational command exercised by a single unified commander. However, the WZC had two serious voids.

- First, the WZC was not a permanent organisation. In peacetime, the Chinese military continued to operate with the erstwhile Command and Control organisation of seven military region (MR) commands representing China's seven geographic regions.
- Second, although the WZC did cater to a maritime conflict – such as in a Taiwan scenario – it was based on the seven Military Regions, and was thus largely optimised to fight a land-based war.

In 1999, emulating the western defence structures, China promulgated its first-ever Joint Campaign Guidance (Gangyao) – along with Joint Logistics Campaign Guidance

(Gangyao). However, this endeavour was also flawed. The Chinese term “Gangyao” (联合) literally means ‘united’ (rather than ‘joint’ or ‘integrated’), merely indicating that the units of two or more services are operating together at the tactical level, and are not joint (or integrated) at the operational level. This realisation dawned upon the Chinese military in 2004, when it coined a new term, “Integrated Joint Operations” (体化联合作战), to describe what the western defence forces refer to as theatre-level ‘joint planning and operations’. The concept was formally incorporated in China’s Outline of Military Training and Evaluation (OMTE) only in 2009. Since then, China began emphasizing upon this ‘integrated’ concept in its Defense White Papers. However, even thereafter, inter-service integration has been more of rhetoric and symbolic than substantive, as also indicated by the kind of tactical exercises undertaken by the PLA even today (examined in detail later in part 3 of this paper).

In December 2015, China replaced the WZC with a permanent ‘Theatre Command Concept’, when the former seven MR Commands were replaced by five Theatre Commands. The reorganisation emerged from Beijing’s realization that inter-service operational integration needs to cater effectively to fight a maritime war. Accordingly, the PLA Navy’s East Sea Fleet (ESF) and the South Sea Fleet (SSF) now form part of the Eastern and Southern Theatre Commands respectively. Notably, with this reorganisation, a PLA Navy Vice Admiral (Commander of the Southern Theatre Command) became the first non-PLA Army officer ever to command a Military Region (MR) or a Theatre Command (TC).

Soon thereafter, in 2016, to achieve a genuine jointness in defence planning, China undertook a major reorganisation of the PLA Headquarters’ (PLA HQ) under the Central Military Commission (CMC). The PLA HQ and its four “general departments” (Staff, Political, Logistics, and Armaments) were hitherto performing two concurrent functions, as follows:

- HQ of the PLA Army, similar to to the HQs of the PLA Navy, the PLA Air Force, and the PLA Rocket Force (formerly known as the Second Artillery Force).
- HQ of joint staff responsible for overall policy and strategy formulation for the Chinese military.

The four “general departments” were dismantled; all joint staff–type functions were assigned directly to the CMC, and a separate PLA Army HQs was created.

The two latest measures of 2015-16 are indeed notable, which could potentially transform China’s joint warfighting effectiveness in the Western Pacific rim. However, these would need some years to ‘settle down’ to contribute effectively to its envisaged purpose. Besides, these are not devoid of significant challenges, particularly in terms of the operational effectiveness of the PLA Navy in a maritime conflict:

- First, although the PLA appears committed to integration, the Army’s historic dominance over other services may complicate these efforts. Some officers have complained that the ongoing dominance of the “great infantry” concept across the military has affected the development of joint operations and training.
- In March 2017, China announced its plans to expand the size of its Marine Corps from the existing 20,000 troops to about 100,000 troops. Beijing, considers this upgrade essential for China to provide the PLA Navy an integral forward-deployed quick-reaction capability overseas, beginning with Djibouti and Gwadar. Notably, this is indicative of China’s quest to emulate the force planning of the major western powers. However, this would dilute the motivation and efforts to integrate the PLA Navy with the other armed forces of China, for enhanced inter-service synergy for a campaign in the Western Pacific.

Naval Operational Logistics

Over the years, the lack of inter-service functional integration has also adversely affected naval logistics for joint operations in the Western Pacific rim. Until recently, maritime logistics has also been a notable void for PLA Navy’s independent missions. The three key causes are the following:

- The PLA Navy has been compelled to maintain a high teeth-to-tail ratio to counter the militarily superior adversaries in the Western Pacific rim through an ‘anti-intervention strategy’. This has led to an emphasis on combat platforms at the expense of their supportive logistic elements.
- The PLA Navy’s ship-borne logistics concept has traditionally been based upon provision of fuel, food and water. This is inadequate for comprehensive sustenance of

naval forces overseas over extended periods, and also necessitates the provision of technical and other services, the associated spare-parts and ordnance/ ammunition.

- Traditionally, the PLA Navy's warship crews have lacked experience of extended sea deployments, which also bears upon the expertise for routine maintenance of machinery and equipment during such deployments (examined later in Part 3 of this paper).

The voids in PLA Navy's maritime logistics became conspicuous during its counterpiracy mission in the Gulf of Aden beginning December 2008. Among the most salient problems was the low operational availability of logistics ships. Until mid-2011, due to the poor material state of its older logistic ships, the PLA Navy was compelled to deploy its two latest logistic ships Weishanhu and Qiandaohu for consecutive missions, and alternate between these, leading to considerable strain on their material and crew.

However, over a very short period, the PLA Navy transformed its operational logistics in the Gulf of Aden. From mid-2011, the strain encountered by Weishanhu and Qiandaohu was shared by the new logistic ships – beginning with Qinghaihu, and later by Taihu and Chaohu. By end-2014, the PLA Navy had achieved the comfort level to deploy its seven new logistic ships in succession.

Traditionally, China was conceptually reliant on the ships of State-Owned Enterprises (SoE) like the China Ocean Shipping Company (COSCO) for providing support to the PLA Navy during a crisis necessitating distant operations like logistic support and strategic sealift. In 2015, Beijing issued a set of new guidelines to build all Chinese commercial ships to warship standards. The option to employ these ships for logistic support in the Gulf of Aden mission was considered. However, it is likely that Beijing realized the highly specialized nature and demands of maritime operational logistics, and thus discarded the option. Besides, tasking these vessels would be detrimental to their primary commercial function, thereby adversely affecting Chinese economy, at a time when the PLA Navy's *raison d'être* is to support 'economics', and not the other way around.

Notably, for the first time, China's 2014 Defense White Paper lays emphasis on 'sustenance' of the forward-deployed naval platforms through "strategic prepositioning". This indicates that China is likely to seek overseas access facilities – possibly, even fullfledged military bases – in the Indian Ocean, or even resort to the U.S. concept of 'seabasing'. The latter possibility is supported by recent news-reports about China

developing 7 large 'Mobile Landing Platforms' (MLP) similar to those used by U.S. expeditionary forces. This trend constitutes the key indicator for China's intent for distant force-projection in the Indian Ocean Region (IOR) and beyond.

Source: www.maritimeindia.org, 06 September 2017

India's second Indigenous Nuclear Sub to be launched soon

India's second indigenous nuclear submarine is likely to be launched in less than a month's time, towards the end of September or the beginning of October, government sources said. Launching of a boat refers to the process of transferring the vessel to the water from a dry dock. Once launched, the boat will undergo extensive sea trials before it is inducted in the Indian Navy some time in 2019. The launch is likely to be done by Defence Minister Nirmala Sitharaman in keeping with the tradition that a boat is launched by a woman. The first indigenous nuclear submarine, INS Arihant, was launched in 2009 by former Prime Minister Manmohan Singh's wife, Gursharan Kaur.

INS Arihant was quietly inducted in the Indian Navy in August 2016. It was the first nuclear attack submarine built by a country other than one of the five permanent members of the United Nations Security Council. Being built under the Advanced Technology Vessel (ATV) project at the Ship Building Centre in Visakhapatnam, the second boat, Aridhaman, will have double the number of missile hatches than its predecessor. It will also be powered by a more powerful reactor than INS Arihant's 83 MW pressurised light-water reactor. Aridhaman will have a seven-blade propeller powered by a pressurised water reactor and can achieve speed upto 12-15 knots on surface and 24 knots under water. It has eight vertical launch tubes and can carry up to 24 indigenously-developed K-15 (Sagarika) missiles or eight K-4 missiles. The K-15 has a range of 750 km while the K-4 has a range of 3,500 km. INS Arihant has four vertical launch tubes and can carry 12 K-15 missiles or four K-4 missiles. The K-4 missile was developed as the Agni-III missile could not be deployed on INS Arihant due to space constraints.

Source: economictimes.indiatimes.com, 12 September 2017

India sticks to plan of leasing third Russian Nuclear Submarine

NEW DELHI (Sputnik) — India has decided to go ahead with its plan to lease a third nuclear attack submarine from Russia. Sources said a Project 971 SSN submarine has been picked out from among many options and that the boat would undergo massive repairs and modernization at a Russian shipyard before being handed over to India. The refit will be carried out at the Russian shipyard in Severodvinsk and the refitted boat will be named 'INS Chakra-III.' The entire process will be completed over an estimated six-year time frame. "Acquiring another nuclear attack submarine (SSN) from Russia is not only prudent but also exigent for India's national security. An SSN is required to influence events in distant areas of the country's maritime interest, where conventional surface and integral aviation cannot operate due to whatever reason," Captain Gurpreet S Khurana (Indian Navy), Executive Director, National Maritime Foundation, told Sputnik. India is also awaiting the delivery of a second Project 971 (Akula-class) SNN which it had leased from Russia a year ago. The Indian Navy (IN) currently operates two SNNs; the oldest of which is the INS Chakra, formerly the Russian Navy's K-152 Nerpa, commissioned into the navy in April 2012. India's second SSN, INS Arihant, is an locally-built nuclear-powered ballistic missile submarine commissioned in August 2016.

At present, negotiations are underway to accommodate India's desire to send a delegation of shipbuilders to the Severodvinsk yard to witness and assist in the refitting and modernization of the third SSN India intends to lease. The hands on experience would be of significant help to Indian shipbuilders who are being tasked with the responsibility of constructing at least six nuclear-powered submarines, locally at an estimated cost of over \$12 billion.

Source:sputniknews.com, 12 September 2017

India's long wait for Scorpene-Class Submarine may end any day now

- Shaurya Karanbir Gurung

NEW DELHI: India is likely to get its first Scorpene-class submarine within days, naval and industry sources have told ET. The Indian Navy, which has been struggling with an

ageing submarine fleet, will get the new submarine—named Kalvari after the dreaded Tiger Shark—at a time when China has been beefing up its presence in the Indian Ocean Region. “The delivery is to take place around the middle of September,” one of the people quoted above said. The delivery means that the trials of Kalvari are over and the navy has accepted the boat, which is expected to be commissioned this month. The second of the Scorpene class submarines, named Khanderi, is likely to be delivered next year. India is developing a total of six Scorpene-class submarines at the Mazagon Docks in Mumbai with technology transfer from French defence major Naval Group under a programme titled Project-75. Project-75 was launched in October 2005 and the first submarine was to be delivered by 2012. But teething problems delayed the project. The Cabinet Committee on Security had in 1999 approved a 30-year plan for indigenous submarine construction. The plan was to develop two production lines on which six submarines each under Project 75 and Project 75 (I) would be built with foreign submarine makers. Meanwhile, the navy would develop its own indigenous design to produce 12 more conventional submarines on the two production lines.

By 2030, the navy would have 24 modern conventional submarines. The plan was later amended to include nuclear submarines. The government had in July also launched the process for Project 75 (I) by issuing a request for information (RFI) to six foreign firms. The two projects are crucial for the Indian Navy because it needs replacements for 13 of its Sindhughosh and Shishumar class submarines, most of which are close to 30 years old. The government also issued a fresh RFI in August to five firms, including Naval Group and Sweden’s Saab, for supplying heavy weight torpedoes for submarines, including those under the Project 75.

Source: economictimes.indiatimes.com, 12 September 2017

India and Japan likely to finalise Long-Pending US-2 amphibious Aircraft deal

India will likely seal a deal with Japan for the purchase of ShinMaywa US-2i amphibious aircraft during Prime Minister Shinzo Abe’s visit to India, *Times of India* has reported. India may buy up to 12 aircraft off-the-shelf from Japan with 18 more being manufactured domestically, in line with Prime Minister Narendra Modi’s “Make in India” initiative.

This will reportedly be India's first defence purchase from Japan and is expected to cost India around \$1.3 billion. Negotiations between the two sides, ongoing since 2014, had remained inconclusive due to New Delhi's concerns regarding the per-unit price and questions regarding technology transfer. According to the *Hindu Business Line*, a meeting between former Defence Minister Arun Jaitley and Japanese Minister of Defence Itsunori Onodera on 5 September in Tokyo regarding the deal had been fruitful, with Japan offering around 10-15 per cent discount on each aircraft. This search-and-rescue maritime surveillance aircraft will reportedly be deployed in the strategically located Andaman and Nicobar Islands. The 4,500 km range of the aircraft would allow the Navy to support civilian and naval vessels and carry out patrols in the larger Indian Ocean Region.

Source: swarajyamag.com, 14 September 2017

Hyundai-HSL to build first of five Fleet Support Ships

The strategic partnership to be finalised between leading shipbuilder Hyundai Heavy Industries Co. Ltd of South Korea and Hindustan Shipyard Limited, the Visakhapatnam-based Ministry of Defence Undertaking, will see construction of Fleet Support Ships for the Indian Navy in both the countries. The agreement is expected to be inked in mid-2018. Talks are in progress between the MoD and its counterpart in South Korea. Prime Minister Narendra Modi had visited Hyundai in May 2015 during which the issue of mutual cooperation was discussed. HSL Chairman and Managing Director Rear Admiral L.V. Sarat Babu said on Wednesday that the first ship was expected to roll out in October 2022 from the Hyundai facility in South Korea. Simultaneously, the construction of another FSS would start at HSL with the expert guidance of Hyundai. "Our plan is to roll out one FSS every 10 months after the delivery of the first vessel from Hyundai," the CMD told *The Hindu*. Such ships are used for replenishment of manpower, weapons, and provisions from one vessel to another.

Total cost

The total cost of the five FSS would be around ₹9,500 crore, he said. A discussion was held between India and South Korea on the course ahead last month. Timelines and

strategies would be finalised shortly. The MoD agreed to place the order for FSS on HSL on nomination basis.

Mini submarines

The process of refilling the request for proposal (RFP) on two Special Operational Vessels is now in process. Rear Admiral Sarat Babu said they would get an order for two SOVs on nomination basis. The value of the order for both the vessels would be around ₹2,500 crore. SOVs are also known as mini submarines or midgets. The construction of SOVs involves complex technology. For HSL, it would not be a difficult task as it has proven experience in submarine retrofitting of INS Sindhukirti and other submarines of the Indian Navy. Now, it has undertaken the contract for retrofitting of INS Sindhuvir. The refit of Russia-made INS Sindhuvir, an EKM Class submarine, will be completed in 27 months at a cost of ₹500 crore.

Source: www.thehindu.com, 14 September 2017

The Emerging Strategic importance of India's Joint Military Exercises

- Balaji Chandramohan

- The operational importance of the *Malabar 2017* exercise assumes significance as the Indian, Japanese and US navies fielded a diverse range of platforms encompassing the air, surface and subsurface aspects of naval operations.
- The focus of this exercise was aircraft carrier operations, air defence, surface and anti-submarine warfare, search and rescue and joint manoeuvres.
- *Malabar 2017* paves the way for the Indo-US Communications Compatibility and Security Agreement (COMCASA), an updated version of the Communications Interoperability and Security Memorandum of Agreement.
- The *Malabar* exercises will take on increasing relevance, not only for the countries that participate, but also for regional states, including Australia and Indonesia, and extra-

regional actors, such as China and Russia, which have important stakes in the Indo-Pacific.

Summary

As the United States, India and Japan contemplate China's increasing maritime assertiveness in the Indo-Pacific region, the sea phase of the *Malabar 2017* trilateral naval exercise held in the Bay of Bengal assumes significance as an attempt to create an informal alliance. The operational importance of the exercise becomes significant because the navies fielded a diverse range of platforms encompassing the air, surface and sub-surface aspects of naval combat. The exercise featured sixteen ships, two submarines and several aircraft.

Analysis

The US Navy was led by the aircraft carrier USS *Nimitz* with its air wing, a cruiser, destroyers with embarked helicopters, an attack submarine and a long-range maritime patrol P-8A aircraft. Japan dispatched its largest and most sophisticated maritime self-defence ship, the JS *Izumo*, along with the destroyer JS *Sazanami*. The *Izumo* is designated a helicopter destroyer and carries at least nine helicopters and resembles a small aircraft carrier, which is politically and symbolically significant. The *Sazanami* also carried its embarked helicopter. India was represented by its lead ship, the aircraft carrier INS *Vikramaditya*, with its MiG-29K aircraft. It was joined by a destroyer, stealth frigates, corvettes, submarine, P-8I (the Indian variant of the P-8A), and a fleet tanker. The focus of this exercise was aircraft carrier operations, air defence, surface and anti-submarine warfare (ASW), search and rescue, and joint manoeuvres. It was aimed at mutual familiarisation of platforms, personnel and best practices between the three navies. The Bay of Bengal, with its increasing strategic relevance, was the locus of these operations. Anti-submarine operations were a central element of this year's iteration of the exercise, given the nature of this emerging threat in the Indo-Pacific. India and the US decided last year to enhance their co-operation on submarine detection and tracking in the Indian Ocean. To enhance that co-operation, India's latest anti-submarine corvette, INS *Kamorta*, JS *Izumo* and helicopters from other warships practiced ASW operations. The presence of the P-8A and P-8I aircraft, along with the submarines, increased the sophistication of these operations.

During the exercise, India's fleet tanker, the INS *Jyoti*, transferred fuel to American and Japanese warships. Helicopters from the American and Japanese warships landed and took off from those of the other two countries. An important aspect of the exercise was the landing of the US P-8A aircraft at INS *Rajali*, the naval air station in Tamil Nadu which is home to India's P-8I squadron. This would appear to indicate that, in the event of some future conflict, the US would be comfortable in sending its troops to aid India. It further indicates the development of an informal strategic alliance. Returning to the exercise's co-operation-building activities, India's MiG-29Ks flew over the *Nimitz* and American F-18 fighters flew over the *Vikramaditya*. These flights initially appear to be of little significance but it is imperative for both navies to be comfortable with friendly foreign aircraft passing over their most valued assets. The flights could also serve to acquire and ascertain radar readings by both aircraft carriers to better identify those aircraft, indicating further co-operation in times of conflict. The aircraft did not perform cross-deck operations like the helicopters, given the technological differences between the two carriers.

On the other hand, the exercise also signalled the importance of the Air-Sea Battle concept developed by the United States to be used in the Indo-Pacific in the event of a confrontation – presumably with China – and, as a consequence, equal importance was given to anti-submarine warfare. China has routinely watched naval exercises in the Indian and Pacific Oceans. For example, Chinese ships are detected in the vicinity of US-Australia *Talisman Sabre* and *Rim of the Pacific* naval exercises, which is ironic since China was invited to participate in those for the first time this year and in 2014, respectively. The *Malabar 2017* exercise saw 95 aircraft, sixteen ships and two submarines participate. The main operational importance of the exercise was that it involved participation from both the US Seventh and Fifth Fleets, implying that India could increase its co-operation with both Fleets in the future in order to nullify any increased Chinese maritime assertiveness in the Indo-Pacific. It would appear, then, that the Indian Navy will increase its co-operation with the US Central, African and Pacific Commands, thus increasing the maritime synergy and coherence between India and the United States in the Indo-Pacific region. As if to emphasise that point, the US House of Representatives passed an enabling act that could allocate up to US\$621.5 billion to promote defence co-operation with India. The US Defence Department and the State Department have been given six months in which to propose a roadmap to intensify that co-operation.

But that roadmap is most likely to depend upon India agreeing to sign a new military pact, the COMCASA or “Communications Compatibility and Security Agreement”. The COMCASA is the most recent nomenclature for a pact that the US proposed more than a decade-and-a-half ago. It was then known as the Communications Interoperability and Security Memorandum of Agreement (CISMOA). India has been hesitant to enter into this agreement because of fears that such a pact could compromise the security of its military communications equipment. That fear could dissipate, however, following the *Malabar 2017* exercises. If that is the case, it would imply that a much deeper level of military co-operation between the US and India is imminent. Military co-operation between the two countries was mooted during Prime Minister Modi’s visit to the United States earlier this year. Their maritime co-operation was strengthened during an earlier visit. It was reported that the United States was considering selling twenty-two unmanned, unarmed, long-range maritime surveillance aircraft to India. These are a variant of the same aerial systems used by the US military and Department of Homeland Security. The drones can be used in concert with the American-made P-8I Poseidon surveillance aircraft, greatly increasing India’s ability to monitor the Indian Ocean – a vital thoroughfare for international trade and important for India’s security.

Apart from its operational importance, the exercise signals a change in the strategic orientation of the three countries involved and a move towards an informal strategic alliance, despite contrary arguments that the exercises were solely an operational continuation of the strategic ties forged between the governments of India, Japan and the United States. It is also expected that the maritime co-operation between India, the United States and Japan will be facilitated by joint maritime co-operation around the Andaman and Nicobar Islands, which India is trying to convert into a military base. To achieve that objective, India is expected to undertake joint projects with Japan and the United States to install sound surveillance sensors in the vicinity of the Andaman and Nicobar Islands. This is an important element of controlling the Indian Ocean operations of China’s Southern Fleet and to monitor its activities. Australia could join in the installation of the sound sensors as it will help Canberra to project its influence in the Indian Ocean and, in so doing, aid in tracking the movements of Chinese submarines in the wider Indo-Pacific. It could also compensate for India’s refusal to permit Australia to participate in the *Malabar 2017* exercises.

The co-operation between India, the United States and Japan in the Andaman and Nicobar Islands may not stop with the installation of acoustic systems and it is expected

that a joint project to lay an undersea optical fibre communications cable from Chennai to Port Blair could eventuate. Once completed, the network is likely to be integrated with the existing US-Japan “Fish Hook” network that was created specifically to monitor the Chinese navy’s submarine activity in the South China Sea and the Indian Ocean Rim. Australia will watch such developments with interest.

On the other hand, it is understood that Australia’s participation in the next iteration of the joint exercises maybe on the cards in 2018. The navies of India, the US, Australia, Singapore and Japan last conducted joint exercises in the Bay of Bengal in September 2007. Despite refusing to permit Australia to take part in the *Malabar 2017* exercise, India and Australia conducted the AUSINDEX exercises 2017 in Perth, as part of which the Indian naval ships *Jyoti*, *Shivalik* and *Kamorta* visited Fremantle, signalling more maritime co-operation between the two countries. It is not entirely out of the question that Australia, Japan, the United States and India could reconsider forming a quadrilateral strategic alliance if they find increasing reason to be concerned about China’s naval operations in the Indo-Pacific region. It is also understood that the United States agreed to sell India 22 advanced surveillance drones, which could be deployed to the Strait of Malacca and used to track Chinese naval movements.

India and Japan have an institutionalised trilateral strategic dialogue partnership with the United States. Initiated in 2011, the partnership aims to maintain the existing balance of power in the Asia-Pacific as well as maritime security in Indo-Pacific waters. A similar dialogue exists between the US, Japan and Australia. At the strategic level, the expectation is that Australia could be invited to participate in the *Malabar* exercises from next year and that the subsequent quadrilateral military exercise could even evolve into a pentagonal format, if Indonesia were to also join.

On the other hand, the conjoining of the US, Indian and Japanese maritime forces in this exercise could prompt increased military co-operation between China and Russia, at least in the Indo-Pacific region. Although the odds of that occurring might be long, it would pose operational and strategic challenges to the other maritime powers in the Indo-Pacific region. After *Malabar 2017* and AUSINDEX, the maritime co-operation between India, Japan and the United States is set to increase in both the Indo-Pacific and the wider Asia-Pacific region. The expectation will be for Indonesia and Australia to become more involved in such initiatives in the years to come, with the annual maritime exercises eventually evolving into a quadrilateral involving India, Japan, the United States and

Australia and, later, possibly a pentagonal by tempting Indonesia to also take part. On the other hand, countries which are not participants, such as China and Russia, may decide to conduct similar such maritime exercises, even despite their differences in other areas, such as Central Asia.

Source: www.futuredirections.org.au, 14 September 2017

India: MANSA calls for Unified Ministry to promote Multi-Modal Transport that integrates Coastal Shipping

India must have a single unified ministry with a clear mandate to integrate coastal shipping into a multi-modal transport system that would contribute to the country's larger development goals, said a white paper released by Mumbai and Nhava Sheva Ship Agents Association (MANSA) at its 39th annual general meeting. The white paper submitted to the shipping ministry MANSA recalls the 2014 report submitted by National Transport Development Policy Committee to the erstwhile Planning Commission on this subject. While the government is now looking to deliver on the multi modal aspect of that recommendation, it should not lose sight of the unified ministry goal, the white paper said. "The strategy should be to adopt a hub-and-spoke model for the logistics sector in place of the present point-to-point mode," the white paper said. The paper also recommended continued privatization of Indian Railways container operations. "As an industry body, we believe in sharing our domain insights with the policy makers and regulators and this white paper is part of our adopted process. The transport and logistics sector are fundamental to the development of a country, especially so in India where it is estimated to provide employment for 45 million people," said Captain Vivek Anand, President of MANSA.

Currently, India spends 14.4% of its GDP on logistics compared to 8% by other developing countries, as roadways constitute 60% of total freight carried in the country followed 32% by railways and the rest by coastal shipping. Over 50% of the long haul freight movement takes place on road, which is typically 25-30% expensive than railways on long haul routes, the white paper said. Sharing his impetus on coastal shipping, Captain Anand said, "India's geographical layout is peninsular.

So, if cargo were to move from Gujarat to West Bengal, the distance by road is 2300 km and by sea is 8500 km. Unlike China, India's coastal shipping faces the issue of return cargo, which pushes costs up on one way cargo and hence needs to be subsidised."

Documenting the cost benefit ratio in coastal shipping, the white paper pointed out that a large cement player can transport 3500 tons of cement from Gujarat to Mumbai by road through 350 truck trips and a turnaround time of seven days for 700 km. Alternatively, a coastal vessel could do the 300 km trip along the coast in just 24 hours saving time and money.

Earlier, MANSA had also shared a white paper on Master Plan for development of Indian Ports and Terminals and the same was well received, Captain Anand said.

Source: www.hellenicshippingnews.com, 04 September 2017

Plans underway to make Bintulu Port a ‘green’ Shipping hub

KUCHING: Strategic plans are to be implemented by the Bintulu Port Authority (BPA) towards making Bintulu Port an environmentally-friendly ‘Green Port’. According to BPA general manager Zulkurnain Ayub, this is in line with Chief Minister Datuk Amar Abang Johari Tun Openg’s digital economy aspiration. Zulkurnain said the plans would include transforming Bintulu Port into a ‘smart port’ – one that would use information and communications technology (ICT) and digitalisation. He said this during a BPA courtesy call on Abang Johari at the Chief Minister’s Office in Wisma Bapa Malaysia here yesterday. Zulkurnain was appointed as the authority’s general manager in May this year. The courtesy call by BPA was among four received by the chief minister yesterday. A group from Kota Samarahan Municipal Council – led by Walikota Dato Peter Minos – also met Abang Johari, who then received an invitation to officiate at the ceremony to mark the council’s first anniversary this Nov 11 at Samarahan Civic Centre. The chief minister was also invited to attend the launch of the ‘Sarawak Indian Women Heritage Book’, scheduled to take place at Astana Negeri here this Oct 16.

The delegates from Sarawak Indian Women Association (Siwa), led by their president Kapitan Lucy Lingam, presented the invitation to Abang Johari. It is learnt that Head of State Tun Pehin Sri Abdul Taib Mahmud is expected to officiate at the launch of the book. Abang Johari also hosted a meeting with the representatives of the National Council of Professors (MPN), led by its president Prof Datuk Dr Raduan Che Rose.

The courtesy visit was meant to congratulate Abang Johari on his appointment as the state's sixth chief minister and also as a show of support for the development of the state under his leadership.

Source: www.theborneopost.com, 06 September 2017

Better productivity lifts growth at major Indian Ports

Efficiency gains from technological advances combined with a slew of ease-of-doing-business schemes are driving up growth at India's major, or public, ports that together account for roughly 70 percent of the country's total container trade. The newest port data collected by JOC.com shows major ports' cumulative throughput in August increased 7.7 percent to 772,000 TEU from 717,000 TEU in the same month last year. Much of that growth is owed to an 8.5 percent year-over-year volume rise at Jawaharlal Nehru Port Trust (JNPT) during the month, reaching 409,000 TEU from 377,000 TEU previously. With steady productivity improvements, that trend is expected to gain further momentum at India's largest public harbor. August throughput at the Chennai Port was up 5 percent to 134,000 TEUs from 128,000 TEUs a year earlier, a clear sign that the busiest eastern harbor has been vigorously fighting to hold onto its market share amid cut-throat competition from private rivals. A previous JOC.com analysis showed Chennai still commands roughly 40 percent of total South India container trade, but privately-operated minor ports, especially Adani Group-owned Kattupalli, are making rapid inroads into the market that is already oversupplied and has limited hinterland cargo potential. JNPT and Chennai together load the majority of India's containerized freight moving through major ports. Like JNPT, Chennai is expanding the direct port delivery (DPD) program to cut dwell times. DPD volume in the April-to-August period increased to about 17 percent, or 63,2497 TEU of the total 380,503 TEU, from 14 percent in the same period last year. August volumes at other major ports were as follows: Kolkata, up 9 percent from 64,000 TEU to 70,000 TEU; Tuticorin, or V.O. Chidambaranar, essentially flat at 56,000 TEUs; Cochin (DP World-operated Vallarpadam Transshipment Terminal), up 15 percent from 44,000 TEU to 51,000 TEUs; and Visakhapatnam, down 6 percent from 34,000 TEUs to 32,000 TEUs, new statistics show.

The figures at DP World Cochin are reportedly a monthly volume record, suggesting that it is making headway in meeting the long-term government goal of recapturing domestic cargo transshipped over foreign hub ports, especially Sri Lanka's Colombo.

However, New Delhi's plans to develop a dedicated transshipment hub at Enayem, near Colachel, and Adani Ports' new Vizhinjam project, just 140 miles from Cochin, could weigh on growth at Cochin upon their completion. On a year-to-date basis, major ports' total throughput was up 6.4 percent to 3.8 million TEU from 3.5 million TEU in the April-to-August period of 2016, with JNPT accounting for 2.02 million TEU, a gain of 6.2 percent year-over-year, according to the collected data. Technology-backed ease-of-doing-business program at Indian ports will enter a new phase Oct. 1. Customs will begin allowing "electronic self-sealing" services for factory-stuffed export shipments with the use of radio-frequency identification tags, which is expected to significantly enhance supply chain security and facilitate smoother cargo flows by eliminating many physical on-site customs inspections.

Source: www.joc.com, 06 September 2017

Could Blockchain Technology revolutionise Shipping?

-Eva Grey

Blockchain technology has taken many industries by storm, with everyone from financial firms to charities and NGOs jumping on the bandwagon. The technology, which works to secure data as it passes through many hands, is now slated to change the face of global trade, as shipping giants and key ports have started trialling its capabilities. First launched in 2009, blockchain gained notoriety as the technology that makes bitcoin transactions possible. In recent years however, it has spread beyond the crypto-currency realm, to become synonymous with an effective, transparent and cyber-secure data sharing platform between companies and individuals.

Naturally, financial institutions were the earliest adopters. Last year, a study by Greenwich Associates reported that the sector was expected to invest \$1bn in blockchain initiatives and projects. At the start of this year, the Bill & Melinda Gates Foundation

announced plans to use blockchain to help the two billion people worldwide who lack bank accounts. When it comes to shipping, the solution has the potential to save the industry billions of dollars, according to IBM and Danish transport and logistics firm Maersk. In June, the two companies announced their partnership to use blockchain technology to help transform the global supply chain. The solution, expected to go into production later this year, will help manage and track the paper trail of tens of millions of shipping containers across the world, protecting the supply chain from human error, unwanted and wasteful delays, as well as cyber threats. “We believe that this new supply chain solution will be a transformative technology with the potential to completely disrupt and change the way global trade is done,” said Bridget van Kralingen, senior vice president of industry platforms at IBM. “We’ve long understood the challenges facing the supply chain and logistics industry and quickly recognised the opportunity for blockchain to potentially provide massive savings when used broadly across the ocean shipping industry ecosystem.”

Preventing astronomical shipping costs

Today, the vast majority of the transactions in the shipping sector are paper-based. In a study carried out in 2014, Maersk found that just a simple shipment of refrigerated goods from East Africa to Europe goes through nearly 30 people and organisations, including more than 200 different communications among them. The costs associated with the document processing and administration side of things are estimated by IBM to be up to one-fifth of the actual physical transportation costs. Not only this, but the paperwork can be delayed, misplaced and altered, causing further problems and resulting in mounting costs. Blockchain can counteract all of these issues by acting as a permanent and transparent database, mutually accessible to all parties involved, where transactions are recorded in a way that cannot be undone or changed. This makes possible any type of operation, from the exchange of sensitive documents, such as contracts, to the transfer of money.

Marine Transport International estimates that blockchain could save \$300 per container in terms of labour and processing associated documents. For one ultra large container ship, which carries up to 18,000 containers, the savings amount to \$5.4m.

It can also help with cyber security. In June, Maersk was one of the victims of a global ransomware attack, which caused outages at its computer systems across the world and

cost the company \$300m in lost profits in the third quarter of this year. In the wake of the attack, TrustMe managing director Antony Abell argued that blockchain could have prevented the attack from happening. Despite the recent partnership with IBM, Maersk's blockchain capabilities are not yet fully fledged.

Testing blockchain at sea

The collaboration will see the two giants work within a network of shippers, freight forwarders, ocean carriers, ports and customs authorities to build the new global trade digitisation product, according to the companies. Their partnership was recently revealed to reach even further, after IBM signed a Memorandum of Understanding (MoU) with ocean shipping carrier Pacific International Lines and port group PSA International, two of Singapore's key traders. This marks a huge step: Pacific International Lines represents the 12th largest container shipping company in the world, while the port group handled 68 million twenty-foot equivalent units (TEUs) in 2016. A number of other, separate trials have already helped make the case for this technology in shipping.

Damco, Maersk's supply chain solutions company, shipped flowers from Kenya, oranges from California, and pineapples from Colombia to the Port of Rotterdam, with the shipment transactions logged via blockchain. The Port of Rotterdam, Europe's largest shipping port, is taking part in its own logistics consortium that will test sharing information via blockchain over the next two years.

Similarly, neighbouring port of Antwerp in Belgium has partnered with tech firm T-mining to work on a pilot project using blockchain technology to make container handling at the port more efficient and secure.

Meanwhile, an EU-funded project, SmartLog, also demonstrated the technology in June in Estonia's largest cargo port, Muuga Harbour, when the journey of ten sea containers was tracked and shared through data points submitted into the blockchain database by ten different companies.

Source: www.ship-technology.com, 11 September 2017

Drop in oil prices leads to increase in abandoned ships off UAE shore

-Ramola Talwar Badam

The decline in oil prices and tough economic conditions faced by shipping companies have contributed to an increasing number of ships being abandoned off the country's coast. Ships are being abandoned by small companies operating in the offshore business that run into trouble when they expand their fleet but business dries up or there is insufficient cash to pay salaries. "The fall in the price of oil has had a major impact on the maritime business in the Gulf that is dominated by the oil industry," said Paul Burt, head of welfare group Mission to Seafarers. "Some shipping companies have a cash flow problem because they themselves haven't been paid by their clients. The way it works is they ring fence each ship. The common practice is each ship has to pay its way on the basis of its own activity. It can't be subsidized with money from another area that the company may have. One might want to argue that that practice should change in the face of human suffering, but that's the way it tends to work." Sailors reach out for aid and guidance from the group that works with various parties to resolve cases. "It's time consuming and we take each case on merit. We have to listen to the story on both sides," Mr Burt said. "They (owners) are not all crooks. Some are simply suffering because of bad economic conditions and are doing all they can to relieve the suffering of their men." Abandoned ships are a global problem that is significantly under-reported, so it's difficult to know the actual picture, said Ben Bailey, assistant director of advocacy and regional engagement at the mission's London office. "For many, the abandonment is total, no contact from the ship owner, no food, no supplies and no wages. For others, the abandonment might be partial, they may still be getting food and bunkers, but the wages have been stopped," he said, adding that the declining price of oil caused some owners to lay up vessels until the price made it worthwhile to trade. Abdulla Al Kathiri, general manager at the Federal Transport Authority, urged sailors to do their homework. "If the seafarer is recruited through a crewing agency, he must make sure that the agency is properly run and has a system for checking the stability of companies for which they supply crew."

Ships are often registered in a different country from the owner making it complicated to resolve the issue. "Most ships abandoned in the UAE are foreign flag ships with foreign seafarers on board. If the owner fails to fulfil his obligation towards his crew, it's the country with which the ship has its flag that should interfere to take action to ensure the crew are taken care of, provided with decent living conditions, ensure wages are paid, and

repatriate them back to their home countries. Unfortunately, most of the ships abandoned are registered with the flag of convenience. Flag of convenience is a business practice whereby a merchant ship is registered in a country other than that of the ship's owners. Owners of a ship may register the ship under a flag of convenience to reduce operating costs or avoid the regulations of the owner's country," Mr Al Kathiri said.

Source: www.thenational.ae, 13 September 2017

Afghans spur India on Chabahar Development

Afghanistan has urged India to speed up development of Iran's strategic port of Chabahar which is on a course to open a transport corridor to landlocked Central Asian nations. Foreign Minister of Afghanistan Salahuddin Rabbani met Indian External Affairs Minister Sushma Swaraj in New Delhi Monday and the two sides exchanged a number of agreements. Afghans see the route central to their hope of streamlining trade with India and boosting access to markets in India, Europe, the Middle East, and the world beyond. The port would also allow India to transport goods to Afghanistan by sea and provide access to Central Asia.

On Monday, Swaraj told Rabbani that India would step up the development work and begin supplying wheat to Afghanistan within weeks through Chabahar. India is said to have committed up to \$500 million for development of Chabahar along with associated roads and rail lines but an Iranian developer said Monday the Indian investment is only \$85 million. Managing Director of Aria Banader Iranian Co. Yaser Ebrahimi said his company has undertaken to supply land and sea equipment for the port under a build-operate-transfer (BOT) agreement worth \$403 million. "Indians are expected to invest only \$85 million in Chabahar, and this is not a big figure compared to \$403 million of investment being made by Aria Banader."

However, the state-owned Indian company India Ports Global Limited (IPGL), which is developing Chabahar, will provide \$150 million in finance to the Ports and Maritime Organization of Iran for purchases, Ebrahimi said.

Speaking to reporters in Chabahar Monday, the official outlined some of the equipment supply deals which his company has signed with the firms dominating the market for customized equipment to develop jetties and container terminals. The first batch of equipment worth \$21 million arrived in Chabahar from Germany in February last year, which included 9 Liebherr cranes, he said. The second batch worth \$10 million, including 13 reach stacker vehicles for handling intermodal cargo containers, is about to arrive from Germany on Tuesday. And the third batch worth \$20 million is for joint production of grain suction equipment by Germany's NAIRO and Iran's Machine Sazi Arak, Ebrahimi added. Another German company is building two marine exploration and rescue boats with the participation of Iran's Defense Industries Organization, he said, stating that a Dutch company is jointly building other equipment. "We make all our purchases through international tenders, and we buy only from the manufacturer without any intermediaries," the official said. Foreign manufacturers are required to partner with Iranian parties. Ebrahimi cited Iran Shipbuilding & Offshore Industries Complex, SADRA Iran Marine Industrial Company, Iran's Defense Industries Organization and Machine Sazi Arak among the local companies which are carrying out joint ventures.

Iranian companies are also building a mechanized cereals storing silo with a capacity of 100,000 tonnes and a 5,000-megawatt power station in Chabahar. "Currently, the overall development of the Chabahar port under Aria Banader's \$403 million contract is estimated at 37%," Ebrahimi said. His account of physical progress contradicts Western media reports that manufacturers were shying away from supplying equipment for development of Chabahar for fear the United States may reimpose sanctions on Tehran. They have specifically cited Swiss engineering group Liebherr, Finland's Konecranes and Cargotec to have turned down requests to take part in the bids because their banks allegedly were not ready to facilitate transactions involving Iran.

Source: presstv.ir, 13 September 2017



MARINE ENVIRONMENT



Global treaty to halt Invasive Aquatic Species enters into force

A key international measure for environmental protection that aims to stop the spread of potentially invasive aquatic species in ships' ballast water enters into force today (8 September 2017). The International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM Convention) requires ships to manage their ballast water to remove, render harmless, or avoid the uptake or discharge of aquatic organisms and pathogens within ballast water and sediments. The BWM Convention was adopted in 2004 by the International Maritime Organization (IMO), the United Nations specialized agency with responsibility for developing global standards for ship safety and security and for the protection of the marine environment and the atmosphere from any harmful impacts of shipping. "This is a landmark step towards halting the spread of invasive aquatic species, which can cause havoc for local ecosystems, affect biodiversity and lead to substantial economic loss," said IMO Secretary-General Kitack Lim. "The requirements which enter into force today mean that we are now addressing what has been recognized as one of the greatest threats to the ecological and the economic well-being of the planet. Invasive species are causing enormous damage to biodiversity and the valuable natural riches of the earth upon which we depend. Invasive species also cause direct and indirect health effects and the damage to the environment is often irreversible," he said. He added, "The entry into force of the Ballast Water Management Convention will not only minimize the risk of invasions by alien species via ballast water, it will also provide a global level playing field for international shipping, providing clear and robust standards for the management of ballast water on ships."

Dealing with ballast water

Ballast water is routinely taken on by ships for stability and structural integrity. It can contain thousands of aquatic microbes, algae and animals, which are then carried across the world's oceans and released into ecosystems where they are not native.

Untreated ballast water released at a ship's destination could potentially introduce new invasive aquatic species. Expanded ship trade and traffic volume over the last few decades has increased the likelihood of invasive species being released. Hundreds of invasions have already taken place, sometimes with devastating consequences for the local ecosystem, economy and infrastructure. The Ballast Water Management Convention requires all ships in international trade to manage their ballast water and sediments, according to a ship-specific ballast water management plan. All ships must carry a ballast water record book and an International Ballast Water Management Certificate. All ships engaged in international trade are required to manage their ballast water so as to avoid the introduction of alien species into coastal areas, including exchanging their ballast water or treating it using an approved ballast water management system. Initially, there will be two different standards, corresponding to these two options.

The D-1 standard requires ships to exchange their ballast water in open seas, away from coastal waters. Ideally, this means at least 200 nautical miles from land and in water at least 200 metres deep. By doing this, fewer organisms will survive and so ships will be less likely to introduce potentially harmful species when they release the ballast water. D-2 is a performance standard which specifies the maximum amount of viable organisms allowed to be discharged, including specified indicator microbes harmful to human health. New ships must meet the D-2 standard from today while existing ships must initially meet the D-1 standard. An implementation timetable for the D-2 standard has been agreed, based on the date of the ship's International Oil Pollution Prevention Certificate (IOPPC) renewal survey, which must be undertaken at least every five years.

Eventually, all ships will have to conform to the D-2 standard. For most ships, this involves installing special equipment.

Background

IMO has been addressing the issue of invasive species in ships' ballast water since the 1980s, when Member States experiencing particular problems brought their concerns to the attention of IMO's Marine Environment Protection Committee (MEPC). Guidelines to address the issue were adopted in 1991 and IMO then worked to develop the Ballast Water Management Convention, which was adopted in 2004.

IMO has worked extensively with the development of guidelines for the uniform implementation of the Convention and to address concerns of various stakeholders, such as with regard to the availability of ballast water management systems and their type approval and testing. Shipboard ballast water management systems must be approved by national authorities, according to a process developed by IMO. Ballast water management systems have to be tested in a land-based facility and on board ships to prove that they meet the performance standard set out in the treaty. These could, for example, include systems which make use of filters and ultraviolet light or electro chlorination. Ballast water management systems which make use of active substances must undergo a strict approval procedure and be verified by IMO. There is a two-tier process, in order to ensure that the ballast water management system does not pose unreasonable risk to ship safety, human health and the aquatic environment. To date, more than 60 ballast water treatment systems have been given type approval.

GloBallast programme

Since 2000, the Global Environment Facility (GEF)-United Nations Development Program (UNDP)-IMO GloBallast Partnerships Project assisted developing countries to reduce the risk of aquatic bio-invasions through building the necessary capacity to implement the Convention. More than 70 countries directly benefitted from the Project, which received a number of international awards for its work. The GloBallast programme also engaged with the private sector through the Global Industry Alliance (GIA) and GIA Fund, established with partners from major maritime companies.

Examples of invasive species

The North American comb jelly (*Mnemiopsis leidyi*) has travelled in ships' ballast water from the eastern seaboard of the Americas e.g. to the Black, Azov and Caspian Seas. It depletes zooplankton stocks; altering food web and ecosystem function. The species has contributed significantly to the collapse of Azov Sea, Black Sea and Caspian Sea fisheries in the 1990s and 2000s, with massive economic and social impact. The Zebra mussel (*Dreissena polymorpha*) has been transported from the Black Sea to western and northern Europe, including Ireland and the Baltic Sea, and the eastern half of North America. Travelling in larval form in ballast water, on release it has rapid reproductive growth with no natural predators in North America. The mussel multiplies and fouls all available hard surfaces in mass numbers. Displacing native aquatic life, this species alters

habitat, ecosystem and the food web and causes severe fouling problems on infrastructure and vessels. There have been high economic costs involved in unblocking water intake pipes, sluices and irrigation ditches. The North Pacific seastar (*Asterias amurensis*) has been transported in ballast water from the northern Pacific to southern Australia. It reproduces in large numbers, reaching 'plague' proportions rapidly in invaded environments. This invasive species has caused significant economic loss as it feeds on shellfish, including commercially valuable scallop, oyster and clam species.

Source: www.imo.org, 08 September 2017

Ballast Water Discharge regulated

The International Convention for the Control and Management of Ships' Ballast Water and Sediments (also known as Ballast Water Management Convention, or BWM Convention) has come into force in Iran since Sept. 9 following its global enforcement on Sept. 8. Ballast water is water kept in a tank to provide stability for a vessel. The water can contain thousands of aquatic or marine microbes, plants and animals, which are then carried across the globe. Untreated ballast water released at the ship's destination could potentially introduce a new invasive marine species, sometimes with devastating consequences for the local ecosystem. The BWM Convention was adopted in 2004 to introduce global regulations to control the transfer of potentially invasive species. Under the treaty, ballast water needs to be treated before it is released into a new location, so that any microorganisms are killed off.

The convention includes technical standards and requirements for party states. Parties to the convention are given the option of taking additional measures that are subject to criteria set out in the convention and to guidelines of the International Maritime Organization. Iran joined the convention in 2011.

Only Mideast Signatory

According to Parvin Farshchi, the deputy head of marine environment at the Department of Environment, Iran is the only country in the region to sign the international treaty. "Iran Ports and Maritime Organization is the reference entity for the adoption of the convention and has close cooperation with DOE in this regard," she was quoted as saying by IRNA. Based on the guidelines, all ships are required to discharge their ballast water

in mid-ocean (within a minimum distance of 200 miles (322 km) from the coast) as an intermediate solution. PMO is in charge of monitoring the process.

However, eventually all ships will be required to install an on-board ballast water treatment system. "Modern vessels are already equipped with the system, but old ships are given a two-year time-limit to install the equipment," she said. Also, DOE is tasked with collecting and testing samples of ballast water for non-native species as well as possible oil pollution.

According to Farshchi, the Persian Gulf and Sea of Oman, through which some 40,000 vessels transit annually, are among the main bodies of water susceptible to the negative impacts of ballast water discharge. Over 1,600 species of fish (about 500 in the Persian Gulf and 142 in the Oman Sea) live in the two southern waters of Iran. The biodiversity includes 15 species of shrimp, 10 mammal species, five turtle species, more than 90 bird species and a wide variety of planktons.

Source: financialtribune.com, 10 September 2017

Death by noise: Sound of ships kills marine mammals in Mumbai

- Badri Chatterjee

Noise from ships, cargo vessels and trawlers is likely to be one of the main reasons behind the increasing casualties of marine mammals, a study has revealed. Over the past two years, carcasses of 80 marine mammals, including dolphins, porpoises and whales, have been washed ashore in Mumbai and surrounding areas. Authorities, however, have been puzzled as they have failed to find the cause of the deaths. A study by the Maritime Research Centre at the Indian Maritime Foundation, Pune, has found that shipping activity is the single ubiquitous noise source in the ocean and it is doubling every decade.

The report, titled Impact of Maritime Security Policies on Marine Ecosystem, took into account a few Mumbai cases where dolphins and porpoises lost sense of direction owing to their communication pattern being affected due to noise from ships. The study found three main sources (see box) – ships using sonar technology, seismic surveys, and the

sound of various machines used by ships and vessels – as the cause of noise pollution under water. “The growing stranding and fatalities of marine mammals off the Indian west coast are strongly attributable to acoustic habitat degradation. The marine mammals are known to use sound for biologically critical function and thus, over a period of time have developed very sensitive acoustic capabilities,” said Arnab Das, author of the paper, former commander in the Indian Navy and director of the Maritime Research Centre. “Growing human activities at sea have significantly increased the noise in the ocean.” According to the Maharashtra Maritime Board, almost 30,000 large ships and vessels are identified every year along the entire Indian coastline, excluding smaller domestic ships (more than 400) and fishing boats. Of this, 65% are along the west coast. “The traffic of large ships or vessels along the Maharashtra coast is not as much within the state boundaries (within 12 nautical miles) than what is witnessed in central government waters. At the same time, the exploration of oil is mostly done in areas identified as special economic zones. However, the data is alarming and we will consult the national maritime foundation to help study impacts on marine life before serious damage is caused,” said Atul Patne, chief executive officer, Maharashtra Maritime Board (MMB).

Das said the frequency and speed of sound play a huge role in degrading marine mammal habitats as sound travels much faster in water (1500 metres per second) than in air (335 m/s). The study identified that frequency range of sonar signals was the highest at 5 kilo hertz (kHz) to 200 kHz; seismic surveys is beyond 200 kHz; and sound of movement of ships is below 1 kHz. “Similarly, marine mammals have different frequency bands to communicate. While large sized whales like the Blue Whale use low frequency (300 Hz), dolphins and porpoises have high frequency (around 150 kHz),” said Das. “Once the noise source matches their hearing band, the sound begins to affect the species internally and their communication falls apart.” Depending on the proximity of these mammals to the source of the noise, minor to major injuries are caused, said the study. “More than 120dB can cause discomfort to these species, more than 170dB can cause serious internal injuries, bleeding and even hemorrhages, and noise beyond 200dB can cause instant death,” Das said. “It is the need of the hour to investigate recurring deaths along the west coast and post-mortems need to be carried out considering the issue of acoustics and noise pollution.”

While the International Maritime Organization (IMO) is yet to include noise as a pollutant in its 1978 MARPOL Convention, the Noise Pollution (Regulation and Control) Rules, 2000, do not have any standards for underwater noise. “While there has been hardly any

research regarding underwater noise pollution, it is a significant issue as marine mammals can only communicate based on sound. There have been countless examples of mammals losing their sense of direction that has led to their death, along the country's coastline. The Union environment ministry needs to issue safety standards for ships and vessels under noise rules," said E Vivekanandan, consultant and scientist, Central Marine Fisheries Research Institute.

Source: www.hindustantimes.com, 03 September 2017

Researchers warn about 'worrying' state of Pacific Corals

A survey of Pacific corals has found many severely bleached, some near-dead, according to marine researchers who warned Wednesday that global warming threatened the precious ecosystem's very survival. An in-depth probe along a 50,000-kilometre (31,000-mile) stretch of the Pacific found that up to 90 per cent of some coral colonies around the Samoan islands had been bleached. Around the Tuamotu archipelago, up to half of colonies are bleached, according to researchers on board the French research schooner Tara. Around the islands of Tuvalu and Kiribati, sections of reef were dead by the time the team got there. Even in more temperate waters to the north, reefs did not escape bleaching, said the team, with up to 70 per cent of corals damaged around Okinawa, Japan. "All along Tara's Pacific route, we observed coral deaths and very serious bleaching," Tara scientific director Serge Planes of the French CNRS research institute told AFP in Paris, where the report was released.

Corals make up less than one percent of Earth's marine environment, but are home to an estimated 25 percent of marine life. They act as nurseries for many species of fish. Corals are tiny, invertebrate marine creatures that live in colonies and require algae to survive. The algae live on the corals, providing them with food and the bold colours that reefs are known for. Corals "bleach" when they are stressed by environmental changes - due to ocean warming or pollution. They expel the algae and turn bone-white.

If the harm is not too severe, reefs can recover from a bleaching event, although this can take many years. Tara departed on its mission from the port of Lorient in northwest France in May last year. It is about halfway through its mission, having visited 15

countries from east to west. Wednesday's report was based on analysis of some 15,000 coral samples collected in 2,000 dives, and concluded that global warming is the main culprit. The data revealed that bleaching events happen much more frequently than in the past, giving reefs less time to recover between bouts, said Planes. "Clearly, these events are no longer associated with exceptional climate events," as in the past, when there were typically 20-25-year breaks between bleachings caused by such warming phenomena as El Nino.

Also, in sparsely populated areas like Polynesia, with comparatively little ocean pollution, warming is the only explanation for the coral damage, the team said. "It is worrying," said Planes, adding that the data "throws into question the future of these coral reefs."

Source: timesofindia.indiatimes.com, 06 September 2017

Oil spill at Clifton beach raises concerns

-Asfia Afzal

An oil spillage on the Clifton beach has spread panic and fear among beachgoers on Wednesday. However, experts say the oil slick does not pose any serious threat to humans, however marine life that comes under the slick will be affected.

According to local media reports, the oil spill has spread between McDonald and the Village Restaurant and is reported to extend beyond the Devil's Point on the Clifton Beach. On the report of the oil spill, WWF-Pakistan's team immediately rushed to the area to obtain first-hand information. It is revealed that this oil slick is not widely spread in seaward direction and is restricted to the intertidal area. Saqib Ejaz Hussain, an environmental expert, told *Geo News* that Pakistan's Marine Pollution Control Board had all the tools needed to control the oil slick in a timely manner. The Maritime Security Agency (MSA) is also clueless about the source of the oil spill and termed it a 'monsoonal activity'. The expert claimed that nothing could be done now except wait for a few days until it settles down.

Source: www.brecorder.com, 08 September 2017

Climate change induces disasters, says NEA official

- Yai Dibba

Famara Drammeh of the National Environment Agency has said that natural disasters are becoming frequent worldwide making the risk of disasters a global concern. He said these disasters have created huge losses and damages to the economy, humans and society such as what has happened in Freetown, Texas and other parts of India and Bangladesh. He made the statement during an interview with our reporter about the flood situation in The Gambia The downpour of rains in the country recently has caught them off guard creating massive destruction across the country leaving many families homeless. He said the main question was how prepared are we as a nation to respond to similar flooding or bigger magnitude of flooding?? “The Gambia is a low land coastal state with high vulnerability to flooding and sea-level rise. Some parts of our capital city (Banjul) is 0.5m below sea-level, especially around ports (ferry terminal) and Bond Road areas,” he said.

He declared that that meant a slight increase in sea-level or high precipitation above normal range could possibly flood the entire capital city. Mr Drammeh revealed that the pump house/ levee constructed at Bond Road was currently not operational. He quizzed what measures were in place to protect life, properties and key infrastructure in the city. “I am not entirely sure about the existence of land use policy, zoning and building codes in The Gambia to keep citizens away from waterways,” he noted. “However, we are witnessing an increase in the number of new homes being built on high flood risk areas mostly in the Kanifing Municipal Council and West Coast Region,” he said. The real estate companies are busy selling plots of land to citizens in areas that were rice fields or swampy areas without EIA or due consideration to the potential climate change, Mr Drammeh stated.

In the future, when those areas got flooded, who would be responsible, landowners, real estate companies or the Government, he asked According to Mr Drammeh, The Gambia’s dependency on sand for construction is taking away beautiful beaches, nesting grounds for the endangered marine turtles, land for horticultural gardening, cultural and heritage sites and most importantly leaving the coastal communities more vulnerable to the impact of flooding. He said mining is not done in accordance with EIA guidelines, and in most cases no supervision was done to ensure that the mining companies do not dig deep

down to the water table or stop cutting vegetation found on site. He stated that at the end of mining at each location, the companies would simply leave and move to the next site without restoring the damaged areas as required by the National Environment Management Act (NEMA).

According to Mr Drammeh, most of these abandoned sand mining sites, especially in Kartong are flooded all year around and infested with mosquitoes increasing the risk of malaria in the village. Crocodiles are now harboring in the pools posing another threat to women in their vegetable gardens, he warned. He said Gunjur, Sanyang and Batokunku are now facing a similar situation, adding that ecosystem played a vital role in biodiversity conservation and flood control in the area. "Our environment sector is currently going through difficult times in view of the waste problems going in KMC, Banjul and around Tanji wetlands ecosystem, timber trade to China, habitat destruction and fragmentation in Brufut woods, Bijilo Forest Park and marine pollution at Gunjur Beach."

He cautioned that unless the Government reconsiders environmental protection as a national priority and fulfill her obligations to the various International Conventions such as UNCBD, UNFCCC, UNCCD and Sendai Framework for Disaster Risk Reduction, disaster would be inevitable and more pressure would be on the National Disaster Management Agency.

Source: thepoint.gm, 08 September 2017

Plastic trash that honors the Sea life it kills

- Casey Martin

At Tacoma's Point Defiance Zoo & Aquarium you can see penguins, wildcats, and now sculptures of marine life made from plastic trash. The sculptures are there to spread ocean pollution awareness and were designed by Oregon-based artist Angela Haseltine Pozzi. There are 10 sculptures at the zoo now, each at least 10 feet tall and made completely out of plastic debris found on the beach. A sculpture can take six months to a year to complete. "We never supplement it with anything except the garbage off the beaches," says Haseltine Pozzi. "Sometimes it takes us a while to accumulate certain colors or

certain types of things.” The sculptures are part of a traveling exhibit that's gone to the Smithsonian and the United Nations. Haseltine Pozzi says zoos and aquariums are the perfect venue to reach people. “We want to reach everybody and all ages and all abilities and all interests and all socio-economic levels because everybody’s part of the plastic pollution issue,” she says. “We have to have it be attractive from a distance so that people want to get up close and want to get their picture taken in front of it – that’s kind of the whole idea. And then they get up close and go, ‘Oh my god, I didn’t realize that there were this many toothbrushes on the beach, and why are there cigarette lighters? All these lighters are on the beach and bottle caps?” The sculptures are on display at Point Defiance through October

Source: kuow.org, 08 September 2017

Galway bay prawns face extinction due to Pollution

Prawns in Galway Bay face extinction because of increasing plastic pollution in the Atlantic Ocean. That’s according to research carried out by a team at NUI Galway, who say the pollution poses significant economic risk to important Irish fisheries. Researchers at NUI Galway have published a new study on microplastic pollution and its effects on marine life along the west coast. It finds that ‘pervasive’ pollution poses significant risks to economically important Irish fisheries – and list the Galway Bay prawn as a prime example. The study found the Galway Bay prawn may be experiencing high exposure to microplastic pollution – leading to reduced fitness and potential reproductive failure.

Researchers noted that the Aran Grounds fishery off the coast of Galway has a catch of prawns worth almost 100 million euro – which supports the entire fishing fleet from Rossaveal. According to the Irish Daily Mail, although microplastic pollution is increasing over time, identifying the source of the pollution is very difficult. Researchers say nylon fibres are predominant at the sea floor – but it’s impossible to say whether they originate from fishing gear, water treatment plants or household run-off.

Source: galwaybayfm.ie, 09 September 2017



GEOPOLITICS



Why the BRICS meeting is significant for India & China against the backdrop of Doklam issue

- Sreeram Chaulia

The ninth summit meeting of the BRICS group of nations in Xiamen, China, on September 3-5 is an occasion to reflect on how far this unique institution of emerging economies has come, what its key contributions are, and where it is headed. The Chinese hosts have highlighted this year's summit as marking the completion of one "golden decade" of cooperation among member states who are showing the path to other developing countries via determined multilateralism. In the contemporary era, apart from the G-20, there is no other notable multilateral body except BRICS which has delivered tangible benefits to large masses of people. The New Development Bank (NDB) of BRICS, headed by an Indian and headquartered in China, has been making rapid strides. It issued its first tranche of loans for seven projects worth \$1.5 billion with a focus on solar, wind and hydroelectric power generation. A second cluster of projects amounting to \$1.4 billion has just been approved by the NDB in areas such as flood control and rural water management. Compared to Western-dominated funding mechanisms like the World Bank, which on average take two years to approve loans, NDB is doing so in just six months and that too by disbursing in local currencies. As NDB expands and goes up to a capacity of fifty projects involving tens of billions in loans by 2021, the prospect of a new multilateral financing option available to the whole developing world and driven by leading developing countries will become an operational reality.

Political Undertone

Besides spurring South-South economic development, trade and investment, BRICS has political benefits. It helps to soften worst-case scenarios stemming from bilateral bad blood. For example, the military face-off between India and China over the Doklam

plateau was resolved partly owing to Beijing's concern that Indian Prime Minister Narendra Modi might boycott the BRICS summit in Xiamen

Source: economictimes.indiatimes.com/, 03 September 2017

Sanctions will never make North Korea give up its Nuclear Programme, warns Putin

- Alec Luhn

Vladimir Putin, the Russian president, said on Tuesday that US-led calls for harsher sanctions on North Korea were futile and warned that military escalation could lead to a global catastrophe, arguing that Pyongyang rightfully fears for its security. Mr Putin called North Korea's nuclear test on Sunday "provocative" but said Kim Jong-un "definitely won't forget" the US-led military actions in Libya and Iraq. Saddam Hussein gave up his weapons of mass destruction only to be hanged after the US invasion, he said. "The use of any kind of sanctions in this situation is already useless and ineffective," Mr Putin said. "They will eat grass but they won't give up (the nuclear) programme if they don't feel safe." Mr Putin's comments came as concern grew that the North was planning to carry out another weapons test – possibly the launch of an intercontinental ballistic missile to mark the anniversary of its founding this Saturday. Defence officials in Seoul confirmed that a launch was likely after local media reported that a missile had been moved into position on the North's west coast overnight on Monday. France's defence minister said on Tuesday that North Korea could develop ballistic missiles able to strike targets in Europe sooner than expected.

In a phone call with Mr Trump on Tuesday Theresa May agreed with the president on the need to increase pressure on China "to ensure North Korea stopped conducting these illegal acts", Downing Street said. South Korea responded with its second show of force in two days, dispatching warships to conduct live-fire drills. More naval drills are expected this week, the defence ministry said.

Military chiefs in the South also appear to have secured an agreement from the US to increase the warhead weight limits on their maximum-range missiles. Mr Putin pushed

back against this “military hysteria” as the way to a “global planetary catastrophe,” calling instead for a renewal of dialogue without any “threat of (North Korea's) destruction”.

China, meanwhile, has been censoring its media and Internet to stifle alarmist talk relating to North Korea’s nuclear test. Xi Jinping, the Chinese president, is keen to ensure stability in the run up to the Communist Party’s crucial Party Congress next month, while propaganda chiefs are keen for the spotlight to be on the Brics summit.

Although China has the most influence over North Korea, Russia will likely spearhead their joint opposition to US calls for harsher sanctions in the United Nations security council, said Anthony Rinna, an expert on Russia and North Korea at the Sino-NK research group. “China and Russia will likely be in sync,” he said. Mr Putin said on Tuesday it was “absurd” to ask Russia to support sanctions against North Korea when it itself was under US sanctions, adding that Moscow could kick out more US diplomatic staff after the closure this weekend of its San Francisco consulate. Mr Putin poked fun at a reporter who asked if he was disappointed in Donald Trump, the US president, and their failure to build better relations. “He's not my bride, I'm also not his bride, nor groom,” he said. “We're involved in government activities, and each country has its own interests.” Although China is by far North Korea's largest trade partner, Russia has been developing closer political and economic ties. Mr Putin said on Tuesday that Russia couldn't pressure Pyongyang economically since its exports to North Korea - including 40,000 tonnes of oil each quarter - amounted to essentially “nothing”. But tens of thousands of North Koreans have been working in construction and logging camps in Russia in conditions the United Nations has called “slave-like,” providing much-needed hard currency to Kim Jong-un's regime.

A Russian company in May launched the first regular cargo and passenger ferry service to North Korea. The United States sanctioned 16 Chinese and Russian entities and individuals in August for supporting Pyongyang's nuclear and ballistic missile programmes, including Russian companies it said were involved in trading oil and metals with North Korea. An August report by the International Institute of Strategic Studies said two new long-range missiles unveiled by Kim Jong-un's regime appeared to be powered by a modified version of the Soviet-designed RD-250 engine that both Ukraine and Russia have deployed in missiles and rockets.

While some Russian scientists are believed to have gone to work on developing nuclear weapons in North Korea after the Soviet collapse, there is no evidence of Kremlin assistance, Mr Rinna said. Alexander Vorontsov, a North Korea expert at the Russian Academy of Science, said preventing a new conflict on the Korean peninsula, which would likely send refugees over its border, was a key Russian concern. “We of course understand that the North Korean missiles are not directed at us, that doesn't worry us, but a conflict on the Korean peninsula worries us,” he said. “Even if it's not a nuclear conflict, South Korea has many nuclear power stations that could become second Chernobyl.”

Source: www.telegraph.co.uk, 05 September 2017

Countering China's presence in South Asia

China's inroads into South Asia since the mid-2000s have eroded India's traditional primacy in the region, from Afghanistan to Myanmar and also in the Indian Ocean. As Beijing deploys its formidable financial resources and develops its strategic clout across the subcontinent, New Delhi faces capacity challenges to stem Chinese offensive in its own strategic backyard. Prime Minister Modi's new 'Neighbourhood First' policy, unveiled in 2014, has consequently focused on reaching out to other states to develop partnerships across the region. This balancing strategy marks a departure from India's unsustainable efforts to insulate South Asia as its exclusive sphere of influence and deny space to any extra-regional actors. Officially, these unprecedented outreach efforts are implicitly referred to as a partnership with “like-minded” countries. According to Foreign Secretary S Jaishankar, in its quest for more “people-centric” connectivity projects and a “cooperative regional architecture,” India is “working closely with a number of other international players whose approach is similar.”

New South Asian partners

A range of examples speak volumes about this new strategy. With the US, India now conducts close consultations on smaller states such as Nepal, Bangladesh, or Sri Lanka. In 2015, following Japan's permanent inclusion into the Malabar naval exercises, Tokyo and New Delhi developed a joint “Vision 2025” plan promising to “seek synergy... by closely coordinating, bilaterally and with other partners, for better regional integration

and improved connectivity,” especially in the Bay of Bengal region. The Asia-Africa Growth Corridor, announced in 2016, further highlights India’s willingness to work with Japan to develop alternatives to China’s Belt and Road Initiative (BRI).

In 2014, India and Russia signed an unprecedented agreement to cooperate on developing nuclear power in third countries, with a focus on Bangladesh and Sri Lanka. Year 2015 saw the first Australia-India Maritime Exercise (AUSINDEX) off India’s Eastern coast. And with the UK, India signed a statement of intent on “partnership for cooperation in third countries” with a focus on development assistance in South Asia, and held its first formal dialogue on regional affairs in 2016. With Brussels, Paris, and Berlin, New Delhi has engaged in dialogues about maritime security and the Indian Ocean region, and shared intelligence to bolster regional counter-terrorism efforts. Finally, contrasting with its past reluctance to involve multilateral organisations, India has enthusiastically endorsed the Asian Development Bank’s South Asia Subregional Economic Cooperation (SASEC) operational programme for 2016-25, focused on improving connectivity between the subcontinent and Southeast Asia.

Expanding partnerships

While many of these partnerships are still nascent, there are measures that will allow their expansion across three sequential levels. First, to increase mutual consultation, New Delhi and extra-regional powers must invest in creating institutional mechanisms dedicated to sharing assessments on South Asia. Under existing consultations, Afghanistan, Pakistan, or broader Asian strategic issues frequently overshadow Nepal or Sri Lanka. This must give way to specific bilateral dialogues on three specific regional vectors: political and strategic issues, with a focus on China, counter-terrorism, and maritime security; economic issues, with a focus on connectivity, trade, and investment initiatives; and developmental issues, with a focus on aid projects and other economic assistance initiatives.

Second, to increase the prospects for coordination, India and partners can identify bilateral areas for policy coordination across South Asia, agreeing to a division of labour that maximises each side’s advantage. In Bangladesh, for example, India has focused on political and capacity-building objectives, while Japan is concentrating its financial might in infrastructure projects. Similarly, there are also indications that India and the US have

successfully coordinated their political postures on the Maldives, with a “good cop, bad cop” dynamic leveraging “carrots and sticks” to shape Male’s behaviour.

At the third and highest level, in order to contain China and advance concrete cooperation across South Asia, India and its extra-regional partners should aspire to integrate efforts and implement joint projects. This will require expanding bilateral dialogues to include third countries, on the model of the India-US-Afghanistan trilateral. Such partnerships could focus on a variety of specific sectors to strengthen third countries in the region, including joint disbursement, implementation and monitoring of development assistance; establishment of dedicated funds to facilitate infrastructure development or acquisition of military equipment; capacity-building training for administrative and security personnel; democracy assistance to strengthen good governance and the rule of law; and joint military exercises, focusing on humanitarian assistance and disaster relief operations.

Challenges ahead

While India and its extra-regional partners develop efforts to consult, coordinate, and cooperate across South Asia, they will also have to prepare for a variety of challenges. First, extra-regional partners will have to continue to recognise India’s predominant role in the region and defer to its security concerns, whether real or imagined.

For example, by allowing India to “take the lead” and consolidate its role as a “first responder” to regional crises in recent years (such as the Nepal earthquake), the US has earned much goodwill in New Delhi. Second, as the region’s small states play an increasingly sophisticated balancing game, seeking to play off India and its partners against China, closer consultation and coordination will be key.

Finally, when it comes to the normative dimension of democracy and human rights, New Delhi and its like-minded friends will also face occasional tensions given their different priorities. For India, the focus is naturally on the short-term, with economic and security interests incentivising the pragmatic engagement of any regime type in its neighbourhood. While the West’s liberal interventionist impulse has receded, the US and European partners will, however, continue to privilege a value-based and long-term approach that emphasises pressure on authoritarian regimes.

This last challenge is currently playing out in Myanmar, with clashing Indian and Western positions on the importance of the Rohingya refugee issue. As former Indian diplomat Shiv Shankar Menon presciently noted in the late 2000s, “the desire for sanctions” is always “directly proportional to the distance from Myanmar of the country demanding it.” Under rising international pressure, Naypyidaw is tilting back to China for support, further complicating India’s connectivity plans across the Bay of Bengal. Similar balancing dynamics can be observed in Sri Lanka, Bangladesh, Nepal and the Maldives, which further highlight how critical India’s global outreach efforts are to its quest to remain influential in its own region.

Source: www.thehindubusinessline.com, 12 September 2017

Why ignoring Myanmar could hurt India

-Kanwal Sibal

Our relations with Myanmar are important for multiple reasons. Curiously, despite being a direct neighbour, it does not impinge on our national consciousness in the same way as our other neighbours do. Actually, Myanmar deserves equal attention, if not more, for weighty national security reasons. It abuts our northeastern states whose full integration into the national mainstream has been difficult because of geography and local insurgencies. The economic development of this region has suffered in consequence.

Insurgents

Today, with the Sheikh Hasina government rooting out anti-Indian insurgents (ULFA) from its soil and open to granting India transit rights to the Northeast, the political and security environment as a whole has improved for us. This has made our ties with Myanmar even more important for achieving our twin objectives of integrating and economically developing our northeastern states. If China’s increasing grip over Pakistan causes us great concern, so must the geopolitical gains China has made in Myanmar. If through the China-Pakistan Economic Corridor (CPEC) China is accessing the Arabian Sea, it is gaining access to the Bay of Bengal through the oil and gas pipelines and other connectivity projects in Myanmar.

In both cases, we are being outflanked in the Indian Ocean. If China is the largest investor in Pakistan today, it is the largest investor in Myanmar with over \$18.5 billion of investment compared to India's \$2 billion. Both Pakistan and Myanmar support China's Belt and Road Initiative (BRI) which India opposes. If China's port building activity in Sri Lanka as part of its so-called maritime silk route project makes us uneasy, acquiring port facilities in Myanmar is very much a part of China's grand design to expand its maritime presence in the Indian Ocean.

However, unlike in the case of a hostile Pakistan, we have a friendly government in Myanmar that would favour a balancing of China's influence in view of rising domestic resistance to the costs of Beijing's enveloping embrace. Myanmar is vital for our Act East policy as we cannot connect with ASEAN by land except through it. If we want to balance China's BRI in Asia, we have to expedite the construction of the much delayed 1,400km-long India-Myanmar-Thailand tri-lateral highway as well as the Kaladan Multi-modal Transit Transport Project (KMTTP) that will serve to connect landlocked Mizoram to the Bay of Bengal. In general, improved infrastructure in the region will facilitate the economic development of the Northeast, where a continuing feeling of neglect can damage our national security. Our geopolitical stakes in Myanmar are, therefore, high both bilaterally and in the context of China's hegemonic ambitions in Asia.

Beleaguered

Prime Minister Narendra Modi's visit to Myanmar from September 5 to 7 on his way back from the BRICS summit in China was timely and produced extra gains as it took place when Myanmar and Aung San Suu Kyi have attracted international opprobrium on the Rohingya issue. In their joint press conference, Modi gave comfort to the beleaguered Myanmar leader by defining the problem as one of "extremist violence" in Rakhine, an aspect glossed over by Islamic countries and humanitarian organisations, both of which become indignant selectively as our own experience has often shown. The joint statement frames the issue more widely by describing the situation in the Rakhine state as having both a developmental and a security dimension, with India willing to contribute constructively to a medium-term solution by participating in the state's development through infrastructure and socio-economic projects. India is not insensitive to the humanitarian dimension of the Rohingya exodus, but talking about it would prevent us from deporting the 40,000 that have entered India illegally through Bangladesh (which shows that our borders with it remain porous despite the 20 million plus illegal

Bangladeshi migrants in India, a problem that requires controlling) and have by the thousands settled down in Jammu & Kashmir where Muslims rally against any settlement of Hindu refugees as a conspiracy to change the demographic balance in the state. This disturbing lack of internal controls over refugee movements requires serious attention.

Terrorism

On terrorism, the joint statement fully meets our requirements, to Pakistan's undoubted vexation. It seeks strong measures against states that "provide sanctuary to terrorists... and falsely extols their virtue", condemns the "recent barbaric terror attacks during the Amarnath Yatra in India as also various acts of terror perpetrated by terrorists from across the borders" and opposes the "glorification of terrorists as martyrs". Other gains consolidated by Modi's visit are Myanmar's commitment to not allow "any insurgent group to utilise Myanmar's soil to undertake hostile acts against the Indian government", an agreement to foster "deeper defence cooperation", promote "closer bilateral cooperation in maritime security" (for which a MoU was signed during the visit) and "stand by each other as good and trustworthy neighbours in the years ahead". The joint statement notes the substantial progress on the KMTTP with the completion of works on the Sittwe Port as well as on reconstruction of bridges on some sectors of the Trilateral Highway. With increased energy cooperation in view, leading Indian oil and gas companies are in the process of opening their offices in Myanmar. The first consignment of the high-speed diesel from an Indian refinery reached Myanmar on September 4, 2017. However, the issue of Indian restrictions on the import of pulses from Myanmar, a sensitive issue for that nation, has not been resolved.

Source: www.dailyo.in, 12 September 2017

China's "Strings of Pearls" threat to India's Strategic hold in Indian Ocean Region.

- Rabin Prasad Kalita

It becomes obvious that, under the banner of One Belt One Region (OBOR) China is developing land and maritime trade routes but one must not be oblivious to the fact that they always carry a military ambition at the back of their minds. India has already been

looped by Chinese military and commercial facilities and also as per the piecemeal reports, Pakistan's soil has been used for establishing Chinese military and naval base which would become a possible last slot in the chain of pearls encircling India. It would be worth mentioning here that similar military as well as commercial facilities also have been developed by China to encircle Japan and other American allies. Since our concern is India, our prime motto is to discuss Chinese presence in Indian Ocean Region only which might cost us heavily if any conflict should arise with China. Our concern is about the much talked Chinese doctrine of "String of Pearls" around India. China is also trying to foothold her presence establishing maritime as well as military bases covering both land and maritime footprints of India in the region. 'String of Pearls' refers to a geopolitical network theory of Chinese crooked intentions in Indian Ocean Region (IOR). Rather, it precisely refers to the network of Chinese military and commercial facilities developed around countries falling on the Indian Ocean.

Nearly 80 per cent of China's oil imports from the oil fields of the Middle East pass through the Straits of Malacca. Hence, Straits of Malacca is indispensable for China until it develops an alternative route. India has a good amount of strategic hold on Malacca straits because of Andaman and Nicobar Islands' easily accessible vicinity. Therefore, China is very keen to improve relations with countries like Malaysia, Singapore and Indonesia which surrounded the Malacca Straits. Moreover to check India's movement China is said to have developed a naval base on Cocos Keeling Archipelago, which is an Australian External Territory in the Indian Ocean. Likewise in Kyaukpyu Port situated in the Bay of Bengal, Woody Island in the Paracel archipelago, Port in the Spratly Islands, Sihanoukville of Cambodia, Istmo de kra of Thailand, port of Chittagong in Bangladesh, Hambantota Port in Shri Lanka, Marao port of Maldives and the Gwadar port in in the south-west of Pakistan's Baluchistan province are the encircling ports developed by China as their commercial and strategic military deployment base in last few years.

Moreover, China is heavily dependent upon the sea routes that pass through the South China Sea near the disputed Spratly and Paracel islands where they have made their positions strong enough to thwart any untoward happenings. These islands are currently a source of tension amongst China, Taiwan, Vietnam, the Philippines and the United States. Even the proposed Bangladesh-China-India-Myanmar Corridor (BCIM) has also been susceptible to India's advances against China in the event of any scuffle, thereby, limiting the viability of BCIM corridor, China is putting more efforts and interest in CPEC for her energy security. Moreover, it cannot be made null and void China's weaknesses in

regards to the India's increased maritime surveillance in this area, which has shaken her. Hence, to by-pass these hostile and combative areas, the CPEC project will definitely add a new vein as an alternative route for them which would also decrease any possible confrontation. This alternative route would definitely reduce the shipping cost and transit time to half of the currently available circuitous sea route which is roughly 12,000 kilometers long. This new route from Gwadar to Kashgar (Xinjiang province, west part of China) would be approximately 3000 kilometres and another 3500 kilometers from Xinxing to the eastern part of China. Crude oil is expected to be refined at the Gwadar port and then sent to China via ongoing land pipeline (Gwadar- Kashgar project under CPEC). This route under CPEC will also enable them easy access for doing business with Middle East, Africa and Europe with much shorter time and distance. No doubt, it is a well-managed gambit of China by making Pakistan a string-puppet for her sole interest. China is trying to outplay and exert its control over India in Indian Ocean Region with her significant string theory where India has ever dominated. That is why China is trying to turn ports into naval bases in Sri Lanka, Pakistan, Bangladesh, Myanmar and Maldives where she can house combat aircrafts and other hardware by hook or by crook. A well-orchestrated plan by China to block India's growing Maritime interests is the need of the hour. China is trying to help those poor countries with a number credit line scheme to have control over those poor island nations in Indian Ocean, so that, they change their mood and sing in favour of China. After having made so much infrastructures in those countries encircling India, China hasn't limited herself, but it has also made its presence felt on the African coast and the Middle East. She is said to have a commanding presence with powerful military base on the African coast i.e., in Sudan and Kenya. There are a lot of things that India can learn from China's foreign policy maneuvering strategies. So, better late than never, India's doctrine of 'Look East Policy' (LEP) now renamed by Prime Minister Modi as "Act East Policy"(AEP) will surely prove to be the answer to the Chinese 'String of Pearls'. The sluggish LEP got a boost in recent years after focusing on promoting connectivity with ASEAN states including security, strategic relations, counter-terrorism, trade and commercial relations, defense collaboration and also rejuvenating ties with the neighbouring countries to a greater extent. India has a lot of scope for better trade and economic opportunities provided she seeks greater involvement in this region. The desire to fulfill her ambition to upgrade her age old relations with those countries is possible only through the dynamic and judicious implementation of the "Act East Policy".

Source: www.theshillongtimes.com, 11 September 2017

A new beginning for ‘Code of Conduct’ in South China Sea: Is one required for the Indian Ocean?

-Gurpreet S Khurana

On 06 August 2017, the foreign ministers from the Association of Southeast Asian Nations (ASEAN) and China met in Manila, The Philippines, and adopted the "Framework of the code of conduct (CoC) in the South China Sea (SCS)". The framework is meant to lead eventually to the CoC comprising a set of rules outlining certain norms, proper practices and responsibilities of all those involved in maritime activities in the SCS.

The SCS encloses some of the world's most important international shipping lanes (ISL), and is believed to be rich in mineral and marine resources. This has led to the area being the locus of politico-military jostling – including over competing maritime-territorial claims between China and many ASEAN countries – and varied interpretations on the provisions of international law on ‘freedom of navigation’.

While adopting the framework, the Chinese Foreign Minister Wang Yi stated China’s intent “to begin consultations on the text of the COC sometime within the year”. For long, the ASEAN countries have vied for the CoC as a ‘holy grail’ that could be fruitfully employed by the ASEAN solidarity to moderate China’s assertion of its maritime-territorial claims in the SCS. It is important to note that the CoC framework has come 15 years after the ASEAN and China agreed upon the Declaration of Conduct (DoC) for SCS in 2002 amidst heightened tensions in the disputed waters.

Towards a win-win end-state of a benign environment in the SCS and the consequent stability of the broader Indo-Pacific region, it may be hoped that the CoC fructifies. However, imponderables and uncertainties abound. Notably, China has avoided releasing in the public domain even the details on the CoC framework's content, stating fears of possible attempts by external powers like the United States to ‘meddle’ in the process. China’s intent remains unclear. Does the framework signify a policy change in Beijing, making it amenable to negotiate its maritime-territorial claims multilaterally? Or is it merely assuaging its maritime neighbourhood to wean away the influence of the United States and ‘bide time’. Will the CoC interpret and extrapolate the legal order stipulated by the UN Convention on the Law of the Sea, 1982 (UNCLOS)? If the CoC is not legally

binding, it will lose all its ‘teeth’, barely serving as another meek instrument for confidence-building.

During the Indian Ocean Conference 2017 (IOC-17) held at Colombo on 31 August – 01 September 2017, Sri Lanka proposed that the countries of Indian Ocean Region (IOR) emulate the ‘success’ (albeit partial) of the ASEAN, and develop a similar CoC for the Indian Ocean, which could address the key aspect of freedom of navigation.

It is true that since its first articulation in a 2007 academic paper, the ‘Indo-Pacific’ concept has led to a mental map portraying Pacific-Asia (enclosing the western Pacific, including its contiguous seas) and the IOR as an integrated region. However, such interconnectivity between the two areas is premised on the broader geopolitical and strategic rationale, rather than in terms of maritime security. After all, the inherent security characteristics of the western Pacific and the Indian Ocean are vastly dissimilar. The environment in the former is characterised by traditional military threats, which differs substantively from that in the latter, wherein non-traditional issues are predominant.

In the best case scenario, the conception of a CoC for the Indian Ocean may be an ‘overkill’, or at least premature. In the worst case, it may even lead to a deleterious effect on regional stability. Owing to the divergent strategic alignments of the IOR, any multilateral deliberation on a CoC could germinate geopolitical polarisation, which may be accentuated through lobbying by the extra-regional stakeholders. This could stymie cooperation among the member countries of the recently revitalised Indian Ocean Rim Association (IORA) on all fronts. The proposed CoC could also adversely affect the IORA’s nascent agenda of maritime safety and security, which needs to grapple with the exigent issues relating to non-traditional security. It may also impair the IORA’s ‘inclusive’ approach to security that seeks a constructive contribution of the extra-regional powers, which are represented in the IORA as dialogue partners.

The current CoC suggestion of Colombo is reminiscent of Sri Lanka’s erstwhile initiative of declaring ‘Indian Ocean as a Zone of Peace’ (IOZOP), which led to the adoption of the UN General Assembly Resolution 2832 on 16 December 1971. The objective of IOZOP was well-conceived to mitigate the Cold War super-power rivalry in the Indian Ocean, and spirit of living in a benign environment unconstrained by the motives of external powers was endorsed by India’s National Security Advisor (NSA) as lately as in 2016. However,

the IOZOP effort collapsed in 2005, when China stepped up its role in the deliberations of the *Ad Hoc* Committee on the Indian Ocean, established in 1972 to study practical measures to achieve the objectives of IOZOP. Ostensibly, the lack of a sustained endorsement and involvement of India as the key Indian Ocean power took its toll on the otherwise laudable initiative from Sri Lanka.

Hence, while the IOR countries would need to continue conceptualising innovative means to enhance regional security and stability, the proposed replication of the CoC for SCS in the Indian Ocean may not be a good idea, particularly without India being onboard. Rather than the CoC as a political agreement, a functional arrangement to de-conflict unintended encounters among warships of different nationalities may contribute more substantively to maritime security in the Indian Ocean. Such de-confliction is becoming exigent due to the increasing presence of China's PLA Navy in the Indian Ocean, including through its submarine deployments in the area. In 2014, the Western Pacific Naval Symposium (WPNS) developed such a mechanism called the Code for Unplanned Encounters at Sea (CUES). The Code provides for basic instructions for communicating and manoeuvring when warships and military aircraft of different nationalities meet at sea unexpectedly. In September 2016, China and the ASEAN jointly agreed to abide by the CUES in the SCS. The Indian Ocean Naval Symposium (IONS) is presently discussing the proposal to emulate the CUES, which needs to be taken forward.

Source: www.maritimeindia.org, 08 September 2017

The North Korean Crisis: A Geopolitical Analysis

Introduction

North Korea has been under the dictatorial regime of the Kim dynasty since the end of the Second World War. Currently under Kim Jong-un, it is considered a pariah state which pays no heed to democratic values, prioritises military build-up at the cost of starving its citizens, has a closed Stalinist economy, and has the dubious distinction of being the only country to perform nuclear tests in the twenty-first century. North Korea has conducted more than a hundred missile tests from the 1980s until the time of writing.

This includes two Intercontinental Ballistic Missile (ICBM) tests. North Korea has also conducted six nuclear tests. The situation has intensified with the ICBM tests in July 2017 and the nuclear test on 3 September 2017. North Korea's relations with the United States have had a very rocky history. Every successive US president has tried to reign in North Korea without much success.

North Korea has been testing missiles since the late eighties. Hence, Kim Jong-un is not doing anything new every time he tests a missile. He uses it as a leverage mechanism to extract concessions from the international community. North Korea's weapons capability provides it with effective deterrence and ensures the stability of the regime. The change has also happened in terms of the improved range and capability of the missiles, but this was expected. It was widely believed that if it goes unchecked, North Korea would soon test an Inter-Continental Ballistic Missile and may soon arm one with a nuclear warhead. However, the international community is a lot more concerned this time about the likelihood of a conflict breaking out in the region. This concern arises from the fact that North Korea has been confronted by another unconventional and unpredictable leader – US President, Donald J. Trump.

This paper examines whether there has been any change in the American policy towards North Korea under the Trump administration. The paper first analyses the American policy towards North Korea under successive US presidencies. Thereafter, it briefly looks at the role of other stakeholders in the region— China, Japan and North Korea. Finally, the paper examines the implications of the North Korean missile crisis for India.

American Policy towards North Korea

Upon a cursory glance, Trump's approach towards North Korea would seem naive and bereft of any understanding of the situation. It merely looks like the unnecessary chest thumping of a populist leader. He has not been consistent with the chest thumping either. One can see a lot of contradictions in the American policy towards North Korea with President Trump saying one thing and the Secretary of State and the Defence Secretary saying quite another, and President Trump contradicting himself at other times. On closer examination, however, a clear pattern emerges in the US approach towards North Korea. But, before looking at Trump administration's policy, there is a need to briefly examine the history of the US policy towards North Korea.

Bill Clinton (1993-2001)

Bill Clinton's Presidency is a good starting point. This is because North Korea successfully tested a missile in 1993. Bill Clinton wanted to rein in a North Korea that felt increasingly threatened after the dissolution of the Soviet umbrella. Clinton got North Korea to sign the Agreed Framework in 1994. As part of the Agreed Framework, North Korea was to shut down the Yongbyon nuclear reactor in exchange for the US providing oil deliveries, cutting down on sanctions and providing proliferation resistant light water reactors to meet its energy needs. This was successful until 1998 when America failed to follow up on its commitment towards the Framework, and began dilly dallying on the oil shipments and the light water reactors. This caused the regime to restart the reactor leading up to the breakdown of the Framework. While failure of the Agreed Framework is often cited to point out the flaw in appeasement as an approach towards North Korea, it was American hesitation to honour the terms of the Agreement that led to the failure of the Agreement. It must however be conceded that North Korean demands are not always reasonable. But this is a concern that must be addressed before committing to them.

George W. Bush (2001-2009)

George Bush, who took over from Clinton in 2001, followed a diametrically opposite policy compared to his predecessor which was called "Anything But Clinton Approach (ABC)". He designated North Korea as part of what he called "The Axis of Evil". He squeezed North Korea the tightest in terms of sanctions and coercive diplomacy. He made not just denuclearization, but the reduction of even conventional weapons as a precondition for negotiations. The strategy did not work very well as North Korea conducted its first nuclear test in 2006 and proliferated nuclear technology and material to Iran, Syria and Pakistan.

Barack Obama (2009-2017)

Obama's leadership was one of experimentation with both the Bush strategy and that of Clinton's i.e. both carrots and sticks. While it has been described as "Strategic Patience" by the administration, it can be argued that the phrase is a misnomer. This is because Obama's policy became very harsh towards North Korea after the nuclear test in January 2016. He imposed unilateral sanctions on North Korea, and he got the United Nations Security Council to issue tough sanctions against North Korea. During Obama's tenure

North Korea conducted three nuclear tests and a lot more missile tests than during the predecessors. However, this statement must be appended with an important consideration. The North Korean leadership changed during Obama's tenure.

Donald J. Trump (2017-)

Donald J. Trump took over as the President of the United States in January 2017. Up till the period of writing, there has not been any clearly laid out strategy towards North Korea. In order to understand the US foreign policy, therefore, this paper has tried to analyse each tweet and statement made by the current US administrators on North Korea in the past eight months. Based on this, the paper tries to look for patterns or the lack of it.

The Trump administration began with very hawkish views by the President towards North Korea. It must be noted that Trump had a favourable view of Kim Jong-un during his Presidential Campaign. However, immediately after he assumed leadership, the US Secretary of State declared the "End of Strategic Patience" towards North Korea, indicating a shift away from Obama's approach. This has been followed by a series of seemingly confusing and contradictory statements by President Trump and other American office bearers. But, on closer examination, one could find a clear pattern in the administration's approach towards North Korea.

There are small cycles of aggression and abatement visible in the US administration's views towards North Korea. Based on this analysis one could argue that Trump's policy towards North Korea is not very different from Obama's "Strategic Patience". However, it is also not the same. Trump's policy can be called "Strategic Impatience". This policy can be described as one that makes overt displays of "impatience", but this is part of the strategy, and hence the term "strategic". The businessman in Trump comes to play here. He passes aggressive statements towards North Korea on the one hand, but after a period of time passes conciliatory remarks. His hawkish statements are also abated by the dovish statements made by the other office bearers.

This pattern of aggression and abatement is also visible in Trump's approach towards China with respect to North Korea. A very tough stance towards China is visible in the first few weeks of April 2017. This view changes a few days after the Mar a Lago meeting with Xi Jinping. One could argue that this is simply a reflection of Trump's ignorance of

the larger geopolitics of the region. But, this argument would not explain why Trump resorts to an aggressive stance towards China once again.

The Council of Foreign Relations' Task Force Report argues that North Korea follows a predictable pattern of behavior towards the United States too. The report talks about this pattern as having three stages — Provocation, Intensification and Abatement. One could argue that the 2017 cycle is also a reiteration of the pattern which has repeated itself for decades. This cycle started with the period of provocation from February to July 2017 with the very frequent missile tests. This cycle witnessed its peak with the July ICBM tests and climaxed with the sixth nuclear test on 3 September 2017. The strategic community believes that the second ICBM tested in July has the ability to reach the US mainland. If the pattern is to be believed North Korea will show abatement behaviour after this as the peak of the cycle has been reached. North Koreans have mastered the understanding of this cycle based on which they seek concessions from the United States.

Other Actors in the Region

There cannot be a discussion of North Korea without factoring in China. It has been dominantly argued that China has heavy interests in maintaining the North Korean regime's survival to ensure a strategic buffer between the United States and itself. China also does not want the regime to collapse as this would mean heavy immigration into China and instability in the region. China is blamed for the failure of sanctions against North Korea as 85 per cent of North Korean trade is with China. Sanctions by no other country against North Korea would be effective. However, it is also important to point out that China has increasingly been keen to curb North Korea in the recent past, and there are several examples to prove this. China has been voting in favour of most UNSC resolutions against North Korea. The first nuclear test by North Korea in 2006 went against the Chinese wishes. The Chinese state media has been increasingly critical of the North Korean regime, there have also been reports of China's PLA having deployed Light Armoured Formations in its border with North Korea. This Chinese dilemma must be suitably exploited by the international community.

An escalation in the Korean peninsula will quite obviously have a direct effect on Japan and South Korea. The direct effect involves attack by North Korea on Japan and South Korea, primarily due to the US bases in both these countries. But, the indirect consequences are also plenty. A conflict in the peninsula would finally expedite the

increasing “normalisation” of Japan’s security policy. It would provide the Japanese government a valid reason to convince the pacifist opposition to amend the constitution. This would also have larger consequences on India’s defence and security cooperation with Japan. South Korea is the prime reason for the US restraint in acting towards North Korea. South Korea will be the biggest casualty of a conflict in the region.

Implications for India

Most countries have been condemning the North Korean missile mania but India’s silence on the issue until recently has been very loud. India’s Ministry of External Affairs released a statement in July 2017 after the ICBM test asking North Korea to refrain from such activity. After the North Korean nuclear test India issued a more strongly worded statement. Although on the right track, India’s response is still reactive and not proactive, and is too little too late. While the stakes for India might not be so direct in the region, but instability in the region will have immense geo-economic repercussions for India. Another reason for India’s silence could be the need to stay out of the mess of a country outside the Non Proliferation Treaty regime. But this should hardly be a concern for India. The track record of India and North Korea with respect to nuclear and weapons proliferation cannot be compared. India should condemn North Korea proactively and use this as a strategic communication to the international community on India’s clear stand on the issue. The Pakistan-North Korea nuclear nexus is another reason India should be more enthusiastic in its condemnation. Pakistan’s relationship with North Korea is also a powerful indicator of its loyalty towards China. China has always defended Pakistan’s nuclear and non-proliferation record. In exchange China uses Pakistan as the intermediary funnel for supplying North Korea with nuclear materials.

Conclusion

Going back to the American policy towards North Korea, one can clearly see that Donald Trump is quite intentionally cultivating a culture of his seeming unpredictability. On paper, however, American policy towards North Korea remains the same. In America’s relations with North Korea the cycle of provocation, intensification, and abatement from North Korea is nothing out of the ordinary, and this cycle would live itself out irrespective of Trump’s approach. It is not that there is no peaceful solution to the North Korean problem. The Agreed Framework as mentioned earlier is a good example of the success of engagement. However, the approach has to be a mixture of engagement and containment.

And the trick to containment is not more and more rigid sanctions, but the successful implementation of these sanctions. In this regard China's gradual change in stance towards North Korea must be used favourably. India should see this situation as an opportunity to come across as a responsible nuclear power which is not insecure of its position in the international community.

Source: www.maritimeindia.org, 12 September 2017

Post-Doklam: Why China is a key factor in India-Japan Summit talks

-Jayanth Jacob

China will be the necessary subtext of the discussions when Prime Minister Narendra Modi and his Japanese counterpart Shinzo Abe hold the 12th annual India-Japan summit talks — fourth by the two leaders — in Gujarat's capital Gandhinagar on Thursday, sources said. Japan was the only major power that openly took a position favouring India in the recent military standoff with China at Doklam at India-Tibet-Bhutan tri-junction, which has set a new normal in the way border dispute could play out in their ties. Both India and Japan have a great deal of commonality on a host of issues and there is also substantial convergence the way they see rise of China, balance of power in Asia-Pacific and international developmental cooperation in third countries, particularly in African continent. The two countries are also part of G -4 grouping (two others being Brazil and Germany) and would want to become permanent members of the United Nations Security council.

As Abe said in a public message before he arrived in India, the two countries have common interest in India-Pacific region. India-Japan working together would be mutually beneficial in a way that would also counter the growing influence of China in the region, experts say. India and Japan are focusing on building infrastructure in other countries. The countries in African continent, where the Chinese took definite lead in this area are a case in point. India giving aid to big infrastructure projects in Africa is a recent phenomenon started by the previous Congress-led UPA II government and is carried forward by the incumbent NDA government. The Japan is focusing on a “quality infrastructure strategy,” aimed at countering China's infrastructure development spree in

many parts of the world. According to Various estimates China would pump in one trillion USD into Africa as part of its One Road One Belt initiative. Japan's overseas development assistance to Sub-Saharan Africa was 226 billion yen in 2015 and the figure for Middle-East and North Africa in the same year was 171 billion yen. Japan is assisting the development of Mombasa port in Kenya, which is a gateway to the East African market, where Indian firms have considerable influence and presence. Japanese manufacturing companies are also looking for base to set up more of their units and sell their wares in other countries. The setting up of two Industrial parks in Gujarat is part of this strategy.

Source: www.hindustantimes.com, 14 September 2017