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All set: Indian navy is readying its guided missile destroyer INS Kolkata for the test-firing of Barak-8 Missile

Indian navy's air defence systems Falling in place

One of the first and foremost Indian action in terms of ship-borne naval air defence systems is the imminent test of the Indo-Israeli Long Range Surface-to-Air Missile test called the Barak-8 or Barak NG that will extend the range of interception of enemy aerial threats up to 70 kilometers. Indian Navy is readying its latest guided missile destroyer INS Kolkata for the first ever test-firing of the Barak8 missile. Once this test is successful, Barak-8 is all set to be the standard LR-SAM on board Indian warships in the coming years, including retrofitted on major combatants such as INS Vikramaditya. The development of Barak-8 has had its share of uncertainties. India and Israel had first signed up for Barak-8 joint effort, a Ia Indo-Russian BrahMos supersonic cruise missile, in 2006. At that time, the project was said to be worth about \$600 million. A decade since, with the obvious time overruns, the cost escalation of the project is only apparent. The cost overruns are yet to be calculated or revealed officially, though. But ahead of the Barak-8 becoming a reality, India's Cabinet Committee on Security (CCS) headed by Prime Minister Narendra Modi envisioned the uncertainties involved in the project, the possible delays in operationalising the weapon system, and decided to arm the Indian warships, including INS Vikramaditya, with the Barak-1 surface-to-air missile that has a 9-km range. In September 2014, the CCS had cleared the purchase of 262 Barak-1 missiles from Israeli Rafael for Rs.880 crore. The missiles are for 14 frontline warships such as Shiva Ilk-class frigates and Mysore-class destroyers. In March 2015, India's Defence Acquisition Council (DAC) directed the Defence Research and Development Organisation (DRDO) to go ahead with its talks with European missile maker MBDA to jointly develop a Short Range Surface-to-Air Missile for the Indian Navy's nine warships - mainline destroyers and frigates. The project could cost up to \$5 billion or around Rs.30,000 crore and could take a few years to fructify. The SR-SAM proposal for collaboration between DRDO and MBDA had stalled two years ago after the IAF and the Indian Army decided to go in for the indigenous Akash Air Defence Missiles instead of the joint development project. The talks for the joint development project had begun in 2007 following delays in the Akash missile development. However, the DRDO hastening the work on the Akash missile project to the satisfaction of the Army and the IAF lead to a rethink in the Navy on the SR-SAM project with MBDA. SR-SAM, originally code named as 'Maitri', was till recent times considered as a case closed for the Army, the IAF and the Navy. However, the Navy conveyed to the Defence Ministry in recent months that their qualitative requirements on the SR-SAM were not met by the indigenous Akash missile. The SR-SAM proposal was revived to have the DRDO-MBDA joint project for the Navy's requirement. There are factors such as sea-keeping, salinity, stability of the system mounted on a pitching, rocking and yawing platform like a warship and others that made Akash unsuitable for the Navy. The Navy needs at least 40 missiles each initially for the nine warships and the number could increase on the basis of new warship inductions in the future. The naval SR-SAM will be designed to not only enable warships to defend themselves against enemy aircraft, helicopters, missiles and unmanned aerial vehicles at a range of 25 kilometers to 30 kilometers.



Indian navy's long- term technology road-map

It is said that a picture can speak a thousand words. This is true if one takes a look at the picture of the inside of a Boeing P8- I reconnaissance plane which is in service with the Indian Navy. There are more radars and sensors visible, which actually allow the Navy to conduct surveillance and reconnaissance of vast swathes of the Indian Ocean with the help of technology. Thus, technology provides the Indian Navy the ability to perform its task. In the past most of the technology required for the Indian Navy was being imported. However, the Navy has been in the lead to indigenize and has taken steps to move towards the acquisition of indigenously manufactured technology. This is also in tune with the Modi Governments 'Make in India' policy. The Navy has therefore identified around 100 advanced technologies for DRDO to develop in the next 10-15 years. The Indian Naval Indigenisation Plan (INIP) for 2015- 2030 aptly states that the force as a long- term strategy needs to " identify need based functional domains and relevant technologies required for the next 15 years so as to channelize the indigenous efforts to accomplish self- reliance in the domain of cutting- edge defence technologies". With a view to make long- term strategic decisions more domestic with regard to the Navy, the Indian Navy has chosen to develop ship- borne systems through two routes. The first route aims to harness DRDO's R& D potential and the Directorate of Indigenisation. The other route is through 'Transfer of Technology (ToT)' with industry partners. As per the Navy's long- term technology roadmap the focus is on weapons, sensors and cutting- edge technologies, with certain milestones and required timelines. Presently, India has made considerable advances in the indigenous development of the hull and superstructure of warships. This has been made possible through the production of high- grade steel by SAIL and DRDO. But the Navy still lags behind in areas such as propulsion and weapons & sensors components. The current Navy chief Admiral R. K. Dhowan recently informed to the media that in the area of propulsion the force lags behind at 60% and in weapons and sensors 30%. In order to reduce dependence on imports the Navy has sought to bolster its ' fight' capability (basically weapons and sensor components) by tasking DRDO to design, develop and produce several technologies, including guns, missiles, radars and sonars. The problem has become more acute as the Navy is keen on inducting new platforms at a rapid pace. But if requisite technologies to bolster the new ships are not made available by DRDO, then it is a challenge. Notably, last year the 6,800- tonne destroyer INS Kolkata, the largest- ever warship to be built in India was commissioned, but without the critical long- range surface-to-air missile system. The Navy is therefore working closely with DRDO, DPSUs like BEL and private sector firms like L&T, Mahindra Defence Systems, Tata Power SED to bridge existing capability gaps. Indigenisation is the right step to move for the Indian Navy. However, some modern technologies are not going to be immediately available and would therefore have to be imported. Possible US- India collaboration on the design of aircraft carriers was hinted at in the joint statement issued by both countries at the end of President Obama's state visit to India. At the heart of the proposed collaboration is a U. S. offer to share the Electromagnetic Aircraft Launch System (EMALS) developed by General Atomics and which is now being installed on the Gerald R. Ford class of carriers that are joining the US Navy. The Indian Navy is today a potent and capable force which is highly regarded for its professional competence. The planned induction of advanced platforms and technology, and creation of modern infrastructure, will boost the capabilities of the Service even further in the years to come. New acquisitions like the aircraft carrier INS Vikramaditya and construction of the nuclear submarine, INS Arihant send out strategic signals in terms of force structuring and capabilities. It is time to take advantage of the new position India has in the world to get the best of both worlds - indigenise as much as we can, but import the essentials as and when necessary. That is the central message that the Indian Navy is giving out today.



The need for maritime recon

Naval chief admiral R. K. Dhowan said in an interview last year that it was imperative to expand the Indian Navy's "maritime surveillance footprint to meet operational requirements." Existing capabilities were proven even then, when the Navy's P- 8I reconnaissance plane found a Chinese submarine heading towards Sri Lanka in 2014. But, the Navy Chief's wishes were really fulfilled in November 2105 when the Defence Minister Manohar Parikkar dedicated the Boeing P- 8I Long Range Maritime Patrol aircraft to the nation at INS Rajali, Arakkonam, about 70 Km off Chennai. There are now eight such aircraft in the Indian inventory. The Defence Minister pointed out to the importance of platforms like the P-8I and addressed the larger issue under consideration here, i. e., importance of maritime reconnaissance for India. These aircraft provide the Indian Navy the reach and flexibility to undertake surveillance. It also gives us the ability to respond swiftly to contingencies in the Indian Ocean. As an example, it may be recalled that the Navy's P-8I was among the first platforms to be used to search for the missing Malaysian airlines flight MH 370. Maritime reconnaissance is today of vital interest to India as it prepares to protect its interests in the Indian Ocean. Energy security, protection of the sea lanes of communication, coastal security and environment all make for a potent mix that requires constant maritime surveillance. Today, there is another issue of concern that is refugees who are taking to the seas in search for better pastures. This too, requires a surveillance capability that is real-time. Another aspect of maritime reconnaissance and surveillance is the need for satellites that can assist with communications and surveillance. The Indian Navy has G-SAT7 as a dedicated satellite. Launched in 2013, the multiple- band spacecraft is being used by the Navy to ensure secure, real-time communications among its warships, submarines, aircraft and land systems. This makes it easier to communicate threats emanating in the region for speedier response. As part of its strategy to enhance ship- borne surveillance capability, the Indian Navy is also planning to deploy UAVs (Unmanned Aerial Vehicles) on INS Vikramaditya. The Indian Navy knows that satellites are necessary to tracking naval movements, gather data on radio frequencies, predict weather for effective use of weapons systems, guide weapons to designated locations, and provide data on strength of potential adversaries. The intermeshing of all surveillance and reconnaissance into C4ISR has become a major task for armed forces around the world and Indian Navy is making efforts to achieve this in given circumstances. There is another aspect of maritime surveillance that could be mentioned here. This relates to regional cooperation in the field with a view to enhancing capabilities across the South Asia region. Mention may be made of the India, Sri Lanka and Maldives trilateral cooperation on sharing information of maritime concern. The other is setting up coastal surveillance radars in friendly countries like the Seychelles. India eventually aims to set up 32 surveillance stations fitted with navigational radars in Mauritius, Seychelles, Maldives and Sri Lanka to keep an eye on maritime traffic in the Indian Ocean. This provides the basis for cooperation in this sphere with a much wider canvas and will give us the ability to develop complementarities for maritime surveillance and reconnaissance. The Indian Navy is currently engaged in setting up operational turnaround bases, forward- operating bases, and naval air enclaves to enhance India's surveillance capabilities in the Indian Ocean. All this will take time and money, but efforts in this direction have been initiated and will send out a positive signal to friends and adversaries alike.



Navy fleet for a new century

Synergy: with Russian support, the make in India effort will get a boost

Cooperation between Delhi and Moscow in the naval field has been underway for more than 50 years. All these years the Soviet and then Russian ships, submarines and naval aviation made up the backbone of the Indian Navy. The situation is changing and the key challenge facing India now is to develop its domestic shipbuilding industry. Taking into account the existing relationship of trust, Russia still remains a natural partner for implementing the Make in India policy. Competence of Russian developers and shipbuilders will be a useful aid in establishing production and construction of the Project 75I diesel- electric submarines. The latest Russian submarines Amur-1650, offered as a baseline project, have incorporated all the latest advances achieved by Russian design bureaus, so upon their completion India's Project 75I submarines will be among the most advanced boats in the world. The successful experience with co-production of the Su-30MKI fighters, T-90S tanks and BrahMos supersonic missiles in India demonstrates Russias readiness to transfer the necessary technology. Given the need to equip the Navy with modern dieselelectric submarines as soon as possible, Russia's special exporter Rosoboronexport may offer the Project 636 boats as an interim solution. Large- scale production of these submarines has been well established for the Russian Navy and foreign customers and so they can be delivered at short notice. This will help maintain the capabilities and operational availability of the Indian Navy at an invariably high level before Project 75I submarines enter service. Another potential project is to establish production of the Project 11356 Talwar-class frigates in India. Since 2003 Rosoboronexport has supplied India with six ships of this type which earned high praise from the military. The first batch of three ships was built in St. Petersburg and the second one in Kaliningrad. Now it is proposed to move their production to Indian shipyards in line with the Make in India procurement policy. The Project 20382 Tigr-class corvette, Project 22356 and Gepard 3.9-class frigates may also be of interest to the Indian Navy. The combat effectiveness of the latter was demonstrated in October this year, when 4 ships of the Caspian Flotilla (including the frigate Dagestan built to a project similar to Gepard 3.9) successfully destroyed ISIS targets in Syria with 26 Kalibr cruise missiles (the export version is the Club missile system). Russia may also facilitate the implementation of India's ambitious plans to build a powerful carrier battle group.

The contract for delivery of the aircraft carrier Vikramaditya, the flagship of the Indian Navy, showed the abilities of the parties to find a mutually beneficial solution in the most difficult situations. Today, Rosoboronexport participates in building and equipping India's first indigenous aircraft carrier Vikrant. All this experience will be certainly useful during the construction of the next Indian aircraft carrier Viraat as well. A numerous Navy fleet is expected to include rescue vessels. Russia is now building the latest ships of this class to Project 21300. The whole set of rescue equipment, including helicopters, pressure chambers and the deep- sea rescue vehicle Bester-1 operating at depths up to 700 meters, is housed on board. Vessels of this class can also be built in close cooperation with leading Indian shipyards. In fact, there are the prospects for equal cooperation between Russia and India on all types of naval hardware and weapons. With Russian support, the Make in India program will be the beginning of a qualitatively new development stage for national shipbuilding and the defence industry as a whole.



A long- standing mutual partnership

Rolls- Royce and Indian Navy: India continues to be one of the most important strategic markets for US

By Kishore Jayaraman

Rolls- Royce has been associated with India for the past eight decades and is contributing significantly towards the modernisation of Indian armed forces. We are proud to have powered the first aircraft of both the Indian Air Force and the Indian Navy, and are committed to continuing this relationship long into the future. The Indian Navy and Rolls- Royce have been partners since the inception of the country's naval services and a great example of it is the INAS 300, where we have worked alongside the squadron for over 50 years. Today, we are proud to support the Indian Navy's fleets of Sea Harriers and Sea Kings, and welcome the latest chapter in our partnership with the entry into service of the Adour-powered Hawk Advanced Jet Trainer. Our priority today is to support the current fleets- in particular the Sea Harrier as it plays a vital role in India's maritime security. We will continue to support the operation of the Sea King, a critical military asset, which has years of operation remaining. We will also help the Indian Navy maximise its use of the Rolls- Royce powered Hawk Advanced Jet Trainer, which is an expanding fleet, crucial to the Navy's combat aircraft capability. Looking to the longer term, there are a number of Rolls- Royce powered aircraft that we believe could be of interest to the Indian Navy. The most obvious of these is the US-2I amphibious aircraft which shares largely common engines with the Indian Air Force's C-130J fleet. We are also planning to offer MT30s for the future programmes of the Indian Navy. We are deeply embedded in India as an investor, a high- skills employer and as a supplier of power systems for use in the air, on land and at sea.

Make in India - We are already leveraging the vast engineering talent pool and playing a leading role in the government's 'Make in India' initiative. We have been undertaking license production in India for nearly 60 years with increasing levels of capability transfer throughout this time. We started with licensed production of Orpheus engines that powered the Kiran aircraft, progressing to co-production on the Adour family of engines. The Hawk Advanced Jet Trainer's Adour Mk 871 engine marks the latest in a long line of Rolls- Royce engines that have been produced under license by HAL in Bangalore, with the first locally assembled aircraft and engine handed over to the IAF in August 2008. In recent years we have moved beyond the license production model, undertaking world class manufacturing for our global civil customers through our IAMPL joint venture. The facility is now at full production employing over 130 people for a wide range of engine programmes including the Trent XWB. In addition, around 1,000 engineers, through our partnership with QuEST & TCS, work at Roll- Royce managed engineering centres in Bangalore. For our new engineering centre, which will produce components and develop technology in support of our aerospace business, we plan to employ around 500 people by 2017 in Bangalore.

The Statesman

04 December 2015

Intl fleet review in Vizag from 4 Feb

Aqua sight

Forty-seven countries have confirmed their participation in the "prestigious" International Fleet Review to be held here from 4 to 8 February, a senior Navy official said today. "47 countries have confirmed their participation. The Indian Navy has extended invitations to 89 countries and response from 26 countries was pending as of now," Vice-Admiral Satish Soni, Flag Officer Commanding -in-Chief, Eastern Naval Command (ENC) told reporters on board INS Sahyadri. He said President Pranab Mukherjee, Prime Minister Narendra Modi, defence minister Manohar Parikar and a host of delegates along with 25 chief of the Navies and 32 delegations from foreign countries will take part in the review. "Mukherjee would review the fleet on 6 February. INS Sumitra, an indigenously built naval offshore patrol vessel would be the Presidential Yacht and lead the President Column," he said. "During the final stage of the review, a mobile column of warships and submarines will steam past the President Yacht," the Flag Officer added. However, the events will commence on 4 February with Andhra Pradesh chief minister N Chandrababu Naidu laying a wreath at the War Memorial at Rama Krishna beach here in remembrance of the martyrs of the 1971 Indo-Pak war. Naidu will also inaugurate the maritime exhibition, which will showcase various entrepreneurs in the maritime domain. Soni said on 7 February a two-day 'International Maritime Conference' would be inaugurated by Parikkar on the theme 'partnering together for a secure maritime future'.

How can India become a maritime superpower?

By Amber Dubey

The Indian Navy has a mammoth task of protecting 7,500 km of coastline and an economic zone of about 2.3 million sq km. Apart from that, it is also involved with anti-piracy operations and maritime diplomacy. Maritime trade routes which pass through India handle around 30% of the global trade and nearly 50% of the world's container traffic. These trade routes are expected to grow further once the 'Act East' policy of the Indian government gains momentum. China's military engagement with India's neighbours and muscle flexing in South China Sea is growing. It is, therefore, a no-brainer that Indian Navy's blue-water capabilities need significant enhancement. This cannot be done on the back of imports of critical naval equipment. India depends on imports of critical equipment, including engines, radars, sonars, control systems, combat management systems, gearboxes, diesel generators, etc. Same is the case with the Navy's aviation wing comprising of fighter jets, helicopters and trainers. The long drawn procurement procedures add to the risk of rupee devaluation, inflation and obsolescence. This cannot continue indefinitely. Changing the status quo may require a long-term perspective, radical policy reforms and swift execution.

Why Private Sector? - The order book of public sector undertakings (PSUs) at Mazagaon, Vizag, Kolkata, Goa and Cochin is brimming with submarines, aircraft carriers, destroyers, offshore patrol vessels, minesweepers, etc. They have a large backlog with little room to expand. This is where the Indian private sector could have come in handy. They have been marginalised through years of neglect, apathy and distrust, despite the fact that they have several retired naval officers in leadership positions. The private sector is also where some of India's distinct young engineers and scientists work.

DPP Overhaul is Key - A huge challenge of defence manufacturing under 'Make in India' is that the customer is just one - the Ministry of Defence (MoD). Unless MoD supports the private sector with orders and funding, the current impasse is likely to continue. The Defence Procurement Procedure (DPP) reform committees under Mr Dhirendra Singh and Dr VK Aatre have been working towards DPP reforms and one hopes their formulations are futuristic, and not just incremental. The MoD can select reputed private sector organisations, based on a transparent criteria, for building naval vessels and aircraft and give orders on a nomination basis. This could also provide them an incentive to specialise, move up the value chain and hunt for export orders. India has the capability to become a leading centre for defence manufacturing - both naval and commercial - provided we take bold measures, without worrying about its political implications.

Handhold Private Partners - PSUs must be directed by MoD to sub-contract components to private companies to address their overflowing order books. This could help PSUs to focus on their core strength of design and integration, reduce time and cost overruns, and catalyse the development of a robust defence industrial base in India. Engineers from the Navy and PSUs can be deputed to these private companies to handhold them, with adequate checks and balances.

Reform PSU Shipyards - PSU shipyards struggle with time and cost overruns. A key example is the aircraft carrier INS Vikrant (P71) which was approved in 2003 at an estimated cost of around \$ 500 million. It was launched in 2013; the sea trials are expected in 2016 and the commissioning in 2018. The total cost of the carrier has ballooned to around \$ 3 billion. Divestment and listing of DPSUs should be taken up on priority to help ensure greater accountability, financial independence and market discipline. The government's decision to divest 10% in Cochin Shipyard is a good first step. Other government shipyards must follow suit. PSU shipyards should engage external consultants, after due scrutiny, to help them with supply chain, operational and financial planning. To believe that our shipyards are fully capable and need no external expertise or fresh ideas is nothing short of being delusional.

Enhance FDI Limit - Sensitive technologies may not come to India under the current FDI limit of 49%. The authors have been proved right, unfortunately so, in their assessment in June 2014 that increasing FDI limit from 26% to 49% would bring no meaningful investment. The opposition to higher FDI from DRDO, PSUs and the 'Bombay Club' is perhaps driven more by insecurity than logic. Global OEMs that are not keen to 'Make in India' are also happy with the 49% limit, since that, along with limited demand and an outdated DPP, gives them a convenient excuse to stay out of India. FDI in defence should be at least 74%, subject to the Foreign Investment Promotion Board (FIPB) clearance above the said limit. The ecosystem thus created could allow Indian professionals to learn, innovate and export back to the OEMs, with respect to the auto and IT sector. Twenty years from now, some Indian defence companies may rise to become competitors to global OEMs. The Indian Navy has set high standards in indigenisation of shipbuilding; however, critical components still continue to be imported. This warrants a radical transformation in the mindset because time is running out for India to expand the indigenous naval manufacturing base before large acquisition programmes are concluded.

India finalizing plans to order three more Scorpene submarines

Rajat Pandit

Faced with an ageing underwater combat arm even as China and Pakistan bolster their fleets, India is now finalizing plans to order three more French Scorpene submarines after the first six are constructed at Mazagon Docks as well as issue the tender for six new-generation stealth submarines by next year. India is also steadily cranking up military force-levels and infrastructure in the strategically-located Andaman and Nicobar Command in a bid to effectively counter China's strategic moves in the IOR as well as ensure security of sea lanes converging towards Malacca Strait, as was reported by TOI earlier. "The aim is to ensure the islands are not only well protected but also act as a strategic location for basing aircraft, warships and submarines. The proximity of A&N Islands to Malacca Strait makes them very strategic since they overlook busy sea lanes and choke points," said Navy chief Admiral Robin Dhowan on Thursday. On the underwater combat front, work is also underway to draw up technical parameters and select the shipyard for the construction of six nuclear-powered attack submarines

MARITIME PUNCH & FORCE PROJECTION

NAVY TRANSFORMING INTO MULTI-DIMENSIONAL, NETWORKED BLUE-WATER FORCE

► To protect India's strategic interests from Persian Gulf to Malacca Strait

► Act as net security provider in Indian Ocean Region (IOR)

► Counter China's growing strategic footprint in IOR



EXISTING | 138 warships (includes 2 aircraft carriers, 48 major warships & 14 submarines) as well as 240 aircraft, helicopters & drones

UNDER-CONSTRUCTION | 47 warships for over ₹3 lakh crore in domestic shipyards. Includes 6 Scorpene submarines, 40,000-tonne aircraft carrier INS Vikrant, 5 destroyers & 7 stealth frigates

PLAN | To be a 198-warship and 600-aircraft strong force by 2027

UNDERWATER COMBAT ARM

CONVENTIONAL

13 old diesel-electric submarines (9 Russian Kilo & 4 German HDW)

PROJECT-75 | 1st of 6 Scorpene subs to be delivered by Sept 2016. Rest 5 by 2020 at a total cost of ₹23,562 crore. 3 more to be ordered

PROJECT-75-INDIA | Tender next year. Will take 10 years for 1st of 6 stealth subs to roll out. Cost: over ₹60,000 crore



NUCLEAR

► 1 nuclear-powered INS Chakra on lease from Russia for \$900 million since 2012. Deal for 2nd one being finalised for \$1.5 billion

► 3 nuclear subs (SSBNs) under construction at Vizag. First one, INS Arihant, to be commissioned in 2016

► 6 nuclear-powered nuclear submarines (SSNs) to be constructed in India. Cost: over ₹50,000 crore

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India finalizing plans to order three more Scorpene submarines

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(SSNs), which got "acceptance of necessity" earlier this year. "The six SSNs will be constructed under the Make in India programme," said Admiral Dhowan. INS Arihant, the country's first nuclear-powered submarine armed with nuclear-tipped ballistic missiles, called a SSBN in naval parlance, will also be commissioned next year. The other two follow-on SSBNs are in an advanced stage of construction at Vizag. "INS Arihant's sea trials (which began a year ago) are proceeding satisfactorily," said the Navy chief. All these projects may seem a lot but remember India currently has just 13 ageing conventional diesel-electric submarines -- 10 of which are well over 25 years old -- and one SSN in INS Chakra on lease from Russia, which is not armed with nuclear missiles in line with international treaties. China, in sharp contrast, has 51 conventional and five nuclear submarines, and is on course to induct another five JIN-class SSBNs with the 7,400-km range JL-2 missiles. The frequent forays of Chinese conventional and nuclear submarines in the Indian Ocean region, with halts from Colombo to Karachi, has only added to India's strategic challenges in the region over the last couple of years. The combat edge India has over Pakistan is also fast eroding, with Islamabad recently ordering eight more advanced diesel-electric submarines from Beijing. The Navy, however, is nonchalant. "Collaboration between Pakistan and China is nothing new, nor is their development of Gwadar port. The geostrategic environment keeps on changing. We take note of the developments and factor them into our own plans," said Admiral Dhowan. Asked about China's plans for an overseas military logistics facility in Djibouti, he said: "It's their plan. We are focusing on our strategy of shaping a favourable and positive maritime environment with presence and cooperation with IOR countries." "Today, our Navy is a multi-dimensional, networked force, which is combat-ready to take on any challenge in the IOR as well as protect the country's huge maritime interests," he said, adding his force's "operational footprint" had steadily increased over the years from the Western Pacific in the east to the North Atlantic in the west. The maritime capability perspective plan has laid down the route for the Navy to become a 198-warship and 600-aircraft force by 2027, even though it's currently grappling with critical operational deficiencies in submarines, multi-role helicopters and minesweepers.

Deccan Herald

04 December 2015

Navy chief says dearth of critical equipment

Govt silent on construction of warship weapons By Kalyan Ray

As China rapidly builds its maritime muscle, the Indian Navy looks at a long list of shortage of critical weapons and platforms, from submarines and torpedoes to missiles and helicopters. The required materials are nowhere on the horizon though the urgency of their necessity was conveyed to the government years ago. Navy Chief Admiral R K Dhowan on Thursday said the service was awaiting the defence ministry's response on procuring torpedoes for Scorpene submarines, the first of which is slated to be commissioned within a year, and creating a second assembly line to manufacture six more conventional submarines. The world's fourth largest Navy struggles with severe shortage of helicopters, essential for maritime operations. The government is also silent on the construction of tank-carrying warships known as landing platform dock. The two recently commissioned Kolkata-class destroyers are without their main air defence weapon-the long-range surface to air missile, whose first successful trial was conducted only last week. The missile was tested from an Israeli naval platform. "The successful trial opens up the way ahead for trials in Kolkata class ships soon," Dhowan said. The two Kolkata-class ships are INS Kolkata and INS Kochi. On P-75I India building six more diesel-electric submarine in an Indian shipyard, the navy chief said: "The report of the shipyard survey has been submitted to the defence ministry, which will have to take a decision." The project was approved a decade ago following a 1999 naval perspective plan that envisaged having 24 submarines in the fleet. Mumbai-based Mazgaon dock is constructing six Scorpene class submarines with French technology. The first one, to be named INS Kalvari, is likely to be commissioned in 2016. The submarine, however, doesn't have its most potent weapon-the Black Shark torpedo. Black Shark is a fully stealth, wire guided and self-homing heavy-weight torpedo that can be integrated with any types of torpedo tubes.



The Indian Navy's blue-water quest

Arun Kumar Singh

The global security situation is changing fast and India, currently focused on economic growth while it deals diplomatically with what is now being termed as "hybrid war", needs to adapt quickly. Prime Minister Narendra Modi, despite his numerous successful foreign visits, needs to shift his attention towards the Indian Navy. The Indian Navy, which celebrates Navy Day on December 4, is manfully shouldering its responsibilities for hybrid and nuclear deterrence. New home-built ships are joining the fleet while the home-built SSBN (ship submersible ballistic nuclear submarine), INS Arihant, is carrying out its final sea trials and should join the Navy soon. Also, in October this year the Indian Navy had published its updated maritime doctrine, titled "Ensuring Secure Seas: Indian Maritime Security Strategy". This is the fourth such document since 1998. It shows how the Navy is aware of its growing responsibilities. However, the final strategic decisions can only be taken by Mr Modi. I hope India will soon get rid of the dubious tag of being the only major nation without a national strategy document. Tensions continue in the South China Sea where the US Navy has carried out "freedom of navigation patrols" (FONP) near the artificial islands newly created by the Chinese. India, whose 50 per cent sea-borne trade passes through the South China Sea, should support this move. However, its Navy does not have the assets to participate in the FONP. Despite all the bonhomie between Mr Modi, Japan's Prime Minister Shinzo Abe and US President Barack Obama, the fact remains that the Indian Navy has a growing but still very limited blue-water capability to operate in the Indian Ocean, with limited annual deployments of about 60 days to the South and East China Seas. The Indian Navy needs more funds for accelerated growth because the Pak-China sea-borne threat will only grow with terror and nuclear weapons going to sea on Pakistan's naval ships and submarines. Nonetheless, aware of the importance of Indian sea power, Mr Modi will, within a few days of Indian Navy Day, board the aircraft carrier INS Vikramaditya at sea to address the tri-service commanders conference on December 15. Next year from February 5-8, the Indian Navy will play host to over 90 warships from over 50 nations when the second International Fleet Review (IFR) is held at Visakhapatnam, and President Pranab Mukherjee (also in attendance will be Mr Modi, ministers, governors, ambassadors, foreign and Indian military personnel) will review the warships at anchor. India held its first IFR at Mumbai where China refused to participate because Pakistan was not invited. During the last decade, China has held two IFRs and the Indian Navy participated. Thus China will attend IFR 2016. Pakistan, though invited for the first time, is unlikely to participate. While India has improved strategic ties with the US and Japan, Mr Modi needs to urgently clear misgivings in Moscow, which is our only supplier or potential supplier of nuclear submarines, fifth-generation stealth fighter aircraft (FGFA) and space exploration technology. Russia - with its economy in shambles due to Western embargoes, falling oil prices and upset by India buying expensive weapons from the US and France - has decided to sell helicopter gunships to Pakistan and the latest Su-35 fighter jets to China. Russian nationalism and the need to flex its military muscle in support of Bashar al-Assad in Syria surprised many Western "experts" who were astonished by the ruthless and clinical military efficiency displayed by "bankrupt" Russian airstrikes and "Kaliber" land attack cruise missiles launched by small warships sailing 1,500 km away in the Caspian Sea. Many years ago I had visited Yekaterinburg in the Urals where, on July 17, 1918, the last Emperor of Russia and his family were executed. Located not far from this execution spot is the cruise missile factory, which even 15 to 20 years ago made cruise missiles with ranges of 1,500 to 2,500 km, and these could be armed with conventional or nuclear warheads. While, India has similarity of views with almost all major nations on issues like climate change, combating terror, etc., it cannot ignore Pakistan, which for geo-strategic and geo-political reasons is "kept afloat" by the US, China (subsidised military and nuclear aid) and Saudi Arabia (money). Having attended numerous international conferences in the last two years, I have noticed a deliberate and growing Western trend to "re-hyphenate" Pakistan with India, and give Pakistan a civil nuclear deal similar to India, while also talking of the Kashmir dispute. It appears that the West and China are keen to use Pakistan's strategic location to safeguard their interests in mineral-rich Afghanistan and oil-rich West Asia. Pakistan is happy to play the regional role of a "local mercenary force". China, which has a border dispute with India, has pledged \$46 billion in the "China-Pakistan Eco-nomic Corridor" which passes through Pakistan-occupied Kashmir and connects the strategically located Gwadar Port. The challenge for Mr Modi is to avoid getting India sucked into the conflict while expanding the role and reach of the Navy. India needs to enhance its defence and homeland security capabilities (and raise military morale) while creating the climate to ensure that India's economic growth of 7.5 per cent not only continues but also crosses 8 per cent so that our present \$2 trillion GDP reaches \$5 trillion by 2025. Hopefully it will reach \$25 trillion in 2050, by which time India should be a superpower with a three-ocean Navy capable of serving our national interests in the Pacific, Atlantic and Indian Oceans.

Stronger ties must for 'stability' in Indian Ocean

India is the strongest naval nation today. None of the other nine Indian Ocean rim nations with navies to speak of - South Africa, Iran, Pakistan, Bangladesh, Thailand, Malaysia, Singapore, Indonesia and Australia - has the wherewithal of New Delhi's Navy

Abhijit Bhattacharyya

Strong regional ties are a must to ensure stability in Indian Ocean region. Quotes from the speech of the Indian Navy Chief in Sri Lanka make it loud and clear that the word "region" is meant for those nations which have an Indian Ocean coastline. However, what remains unexplained and unelaborated is the exact description of, and prescription for the words "regional ties"? Presumably, it has got to do with those who not only have a coastline but also possess a reasonably sustainable navy to operate and deploy to the sea, well beyond their coast, to look after, and if need be, to exert its economic and geopolitical interest. That may sound impressive as a theory but does not look realistic in the sea as things stand today. How many of the contemporary 19 states surrounding the Indian Ocean (which has an area of 24.9 million square miles or almost 75 million square kilometre) and 10 island chains, are "navy-capable" to resort to suo motu non-combat patrol, not to speak of operational deployment? To this author, it does not seem to be more than nine states, whereas the list of littoral states is twice the number thereof. It would, however, be in order to begin with the history of the geography of the islands of the ocean to understand the importance of the subject. Let us start with Socotra. Located at the mouth of the Red Sea, this island was conquered by the Portuguese in 1505; by the British in 1834 and became British protectorate in 1866. In 1967, it became part of south Yemen and in 1990 it belonged to unified Yemen. Vasco da Gama landed in Zanzibar in 1499 and the Portuguese established trade outpost in 1503. Sultan of Oman ousted the Portuguese in the 17th century. Although Zanzibar briefly became an independent Sultanate 1856, it soon was occupied by the British 1870 who ruled it till 1963. Zanzibar today is politically united with Tanzania since 1964. Ninth century onwards Seychelles served as outpost of Arab merchants. In 1502 Vasco da Gama discovered its maritime importance. Anglo-French war made it a British territory in 1811. Since 1976 Seychelles is an independent island nation. From 800 AD Persian and Arab merchants landed islands of Comoros and Mayotte and introduced Islam resulting in a Sultanate. French made it a protectorate/colony in 1841. Although partial autonomy was granted 1961, independence dawned only in 1975 for the predominantly Muslim Comoros, and the Muslim-Christian Mayotte preferred French administration to this day. Mauritius too was a settlement base for Malays and Arab merchants since 10th century. The Portuguese arrived in 1507, only to be driven out by the Dutch in 1598. As piracy reached an intolerable stage, the Dutch vacated the island, which first became a "rule of pirates" from 1710 to 1715 to be followed by the French conquest which made it a colony in 1715-1810. But again the British ousted the French and made it a "crown colony" till 1968, when Mauritius attained independence. Nearer home, Buddhists from India and Sri Lanka settled in Maldives fifth century BC. Around 1150 AD came the Arab merchants who encouraged conversion to Islam and establishment of Sultanate. Thereafter came the brief rule of the Portuguese 1558-1573 in Male (the capital), followed by the Dutch rule in the 17th century and the British rule from 1796 to 1968 when Maldives attained independence. The Indian islands of Lakshadweep (which constitute a cluster of some 30 islands) finds mention in the works of Egyptian geographer Ptolemy in early 1st/2nd century AD. The Pallavas (of modern day Tamil Nadu area) ruled over it 680 to 720 AD. Around 1150 AD the Sultans of Maldives conquered and introduced Islam in Lakshadweep. In the 16th century, the islands were briefly occupied by the Portuguese followed by the conquest thereof by the Muslim kings of Kannur and then Mysore in 1780s. It was only after the British managed to wrest it from the native rulers in 1799 that Lakshadweep became a unit of India post-1947. In the east, Marathas annexed part of Andaman & Nicobar islands in the 17th century. And in one of the most shocking episodes of the history of India,



Contd...

part-2

Stronger ties must for 'stability' in Indian Ocean

Contd...

these islands were first claimed by Denmark in 1756, followed by its becoming an Austrian colony 1778-1784. Subsequently, in 1789 the British East India Company colonised it. Briefly, however, the Japanese occupied the Andaman & Nicobar islands and transferred sovereignty thereof to the "exile government of Free India" of Subhash Bose in 1943. Today, these strategically sensitive islands constitute the eyes and ears and "out of area" command, control, communications and operations centre of the sovereign India. The idea of giving a brief history of few islands of the ocean was to put across a point - that each and every island state in the sea is vulnerable and fragile as is seen from the pages of history. They cannot, on their own, be in a position to either defend themselves from, or make alliance with, the powerful naval nations. It has to be other way round. Maritime nations with sound economics and sustainable naval assets (like India) can/should approach them with honourable terms of mutual benefit and political reciprocity/equality to create goodwill first. Gone are the days of the aggressive, marauding, pirate-like psyche and actions of the tiny western nations of mainland Europe which subjugated numerous island territories from Tristan da Cunha to Tahiti, and Socotra to Samoa and indigenous populace thereof. Coming back to Indian Ocean littoral states, let it clearly be understood that the strongest naval nation today happens to be India, as none of the other nine maritime states like South Africa, Iran, Pakistan, Bangladesh, Thailand, Malaysia, Singapore, Indonesia and Australia has the wherewithal of New Delhi navy at this point in time. However, there is a problem, a very big problem. Unlike the Americans and the British, India does not have a single naval overseas base. And without it, mere talk of alliance, stability, "Indian Ocean as a zone of peace" would not take India anywhere to be counted upon. British ruled owing to its command and control of the strategic geography from Gibraltar to Suez, and Aden to Singapore and Persian Gulf to Cape of Good Hope. Britain still does have the Falkland Islands (in South Atlantic Ocean) over which they went to war with Argentina in 1982. Britain also possess a large number of remote island assets like Anguilla, Bermuda, British Antarctic Territory, British Indian Ocean Territory, Cyprus, St. Helena etc. The six commands of the USA covers the globe and the fleets thereof are present virtually in the vicinity of every island which matters in the eyes of the USA. Also, China today is expanding its wish list as it acknowledged plans to set up a naval logistics centre in Djibouti which will surely bolster its presence in the Indian Ocean and enhance the out-of-area operational capability. Thus, India just cannot sit back idle and propose stability to fulfil its economic wishlist. No-base in the ocean means no-capability of the navy. That is the history and that is the geography, on which depends the economics of prosperity, especially if the 1.25 billion heads of India want to rise for the sake of its own self along with those whose interests are found to be in common with that of New Delhi. The author is a graduate of the National Defence College, New Delhi

The Tribune

04 December 2015

Navy ramping up infra in Andaman & Nicobar

Ajay Banerjee

Terming the Andaman and Nicobar Islands as India's strategically extended arm, Navy Chief Admiral RK Dhowan today said infrastructure on the islands was being strengthened to allow submarines, warships and aircraft to be based there. The islands in the Bay of Bengal sit at the 'mouths' of the straits of Malacca, which is one of the biggest shipping choke points of the world as an important sea lane of communication (SLOC) passes through it. Some 70,000 ships cross the Malacca annually - that works out to eight ships every hour. China's entire oil supplies from the Persian Gulf pass through these straits and this is India's biggest military base closest to the contentious South China Sea. Addressing a press conference ahead of Navy Day, Admiral Dhowan said "The enhancement of infrastructure is on, particularly in the Andaman and Nicobar islands so that we can deploy ships and aircraft to carry out surveillance on the SLOC and the choke point". The islands are very important, he said, adding that strengthening of infrastructure of ports and harbours and extension of airfield runways was getting the attention. "All are getting due priority and due importance as (it's) an important strategic location where assets (warships and planes) can be based. On what would be the response to an armed conflict in the South China Sea. Admiral Dhowan said: "The Navy is monitoring the ocean all the time and we will be monitoring it even more so in case of armed conflict. It's a hypothetical question, but we will monitor and take appropriate action at that point of time."

Smooth sailing for naval power

Transformation of the Indian Navy from virtually "nothing to write on," into one of the top five seafaring forces of the world deserves credit. Despite fault lines and chaotic polity, the stress on self-reliance seems to have paid off.

Abhijit Bhattacharyya

Even at the grim possibility of being criticised, one dare suggest that never before in the history of South Asia, has India had such a powerful and indigenous navy as it has today. The credit for this does go entirely to a few naval-minded administrators and fewer sea-power enthusiasts and protagonists (both military and civil) of independent India. They realised the failure and folly of past negligence and the future centrality of seapower of the state. Understandably, the conspicuous lack of a robust and proactive naval tradition of India took long to change. The reason for this was the history of continuous defensive land wars being fought by the Indians since time memorial to fend off aggressive hordes of foreign invaders through land. It may be recalled that virtually the whole of Ramayana, except till the arrival of Hanuman on the scene, is the story of land warfare. Water force has never been the forte of the Indians, notwithstanding the existence of innumerable waterbodies and hundreds of rivers. The epic war of Mahabharata too had no semblance of any sea force. The story virtually revolves round the heartland surrounding modern Delhi. In a way, the mother of all battles could be considered to be the precursor and predecessor of the battles of Panipat-syndrome of Indian history. It signified the importance of land warfare of South Asian heritage in the psyche of the indigenous ruling class of India. One would like to believe the name Panipat, translated into English, could mean Pani (water) and Pat (Path?) thereby denoting the existence of "the way/path the water flows" or "the path/way lying near water"? Is not it natural that one would, post-bloodshed, like to have perennial source of water bodies in the vicinity to clean, clear and wash the blood and dead bodies by water? Even when the "victorious Pandavas" are retreating (retiring?) post-war reign, they traverse the high hills of Himalayas (the eternal source of water of South Asia), but do not explore the ocean or go anywhere near waterbodies. The magnetic attraction of land perhaps is a key to eternal human psyche evolved over centuries. As the history of the world usually is the history of war, to capture land and enjoy the fruits thereof, it is a natural propensity of humans to capture, hold and settle therein. Nevertheless the one exceptional feature of the last 500 years of world history is that the capture or conquest of land traditionally (since the 15th century) has been the prerogative of the western nations. This despite unprecedented achievements and conquests of some great land warriors from, the heartland of Euro-Asian plains. Except Japan, from the late 19th century, and Turkey to a limited extent, command, control and campaign missions in the oceans usually fell under the sole domain of the UK, Spain, Portugal, France, Netherlands, Germany and Italy and at a later stage, post-World War 1, that of the USA. Even the Russians were nowhere near their west European competitors, except from the beginning of World War II. The Mughals, despite having achieved the status of South Asia's "super land power. At the height of its power, status and glory, they spanned modern-day Kabul in the north-west to the Cox's Bazaar in south-east, and Kashmir in north to river Kaveri in the south. They virtually had no navy to counter the advent of the Europeans, who landed in their vessels in the vast, open and unguarded coastline of India. Few rulers of India had an idea of the importance of a navy and fewer still had any semblance of ocean experience. Little wonder that the Indians failed whenever and wherever they faced the Europeans in the sea. Thus Vasco da Gama landed at Calicut without any hassle, as reportedly, he was extended more hospitality, than hostility, and "due" courtesy. And in reality, if there took place any naval skirmish on the Indian coastline, inevitably it (mostly) took place between rival and competing Europeans and rarely with Indians as various wars between European empires, more often than not, spilled over to the South Asian terrain and territorial waters. On November 29 and 30, 1612, the nascent British East India Company fleet defeated the Portuguese fleet near Surat. On May 2, 1654, came the next naval fight when the Dutch boats defeated the Portuguese flotilla off the coast of Colombo. The Portuguese, arguably one of the most ferocious and skilled of early European sea warriors, in April 1713, defeated disparate elements of Indian force off Cheul and again near Karwar in 1718. In reality, except the rare victory of Raja of Travancore over a Dutch naval force at Colachel on August 10, 1741, the Indians managed to continue with their conspicuous lack of naval tradition. The Indian Navy is one of the top five sea-going forces of the world, with an impressive line of in-house production and commissioning of boats. India, however, needs to ensure that its enterprise does not get sabotaged by those to whom it may be the loss of a lucrative business deal. After all, defence is business, economics, employment as well as fat profit.

Navy maintains spirit of secularism

Navy Chief Admiral R K Dhowan today said the Navy has sent the report on "assessment of shipyards to keep in line with Make in India," to the Defence Ministry and is hopeful of an "early direction". Addressing the media ahead of Navy Day tomorrow, he said six SSN submarines would also be part of the Make in India programme. On the Indigenous Aircraft Carrier (IAC), the Navy Chief said it is in the second stage of assessment. The design, he said is being developed by Naval designers. Admiral Dhowan, who spoke on various other issues ranging from threat perception to coastal security, was also asked about the tolerance issue. He said "Every ship of the Indian Navy is a microcosm of India and we have personnel from every state and every religion. The Navy is totally secular in nature." Asked about the state of coastal security since the Mumbai 26/11 attack, he said steps are being taken to ensure safe coastal boundaries, and the work for providing biometric identification cards to fishermen is nearly 60-70 per cent complete. "Post 2008, navy and other agencies made a coastal security plan and today we have established 87 automatic identification stations and 46 coastal radar stations," Admiral Dhowan said. "But this is a very serious challenge because there can be no boundary at sea," he added. Referring to the post-Mumbai attack decision to provide biometric identity cards to fishermen, he said: "Around 60-70 per cent work is over. In some states, up to 80 per cent fishermen have been given identity cards." Admiral Dhowan said the navy went to coastal villages and reached out to the fishermen to make them the "eyes and ears" for the armed force. "Coastal mapping has also been done... under this, fishermen and the coastal community have been trained to become our eyes and ears and are part of the surveillance chain. UAVs and helicopters are used to keep an eye on coastal areas," he added. Pay panel shortcomings taken up with govt: Admiral R K Dhowan said the armed forces have examined the report of the 7th Pay Commission and whatever shortcomings are there have been taken up with the Defence Ministry. Talking to reporters here ahead of Navy Day celebrations tomorrow, he said, "All issues of concern would be taken up with the Ministry of Defence." The Navy Chief was replying to a question on the apparent discontent in the armed forces, especially at the level of officers, on the recommendations of the 7th Pay Commission.

Deccan Herald

04 December 2015

Navy's patrolling shifts piracy zone

Helps India's shipping industry save Rs 23k crore

The Navy's anti-piracy operations have shifted the line demarcating the High Risk Area (HRA) 780 nautical miles westwards from the Indian coastline, thereby saving over Rs 23,000 crore for the country's shipping industry. "Dedicated patrolling of the Gulf of Aden and the Arabian Sea by the Indian Navy has resulted in nil cases of piracy being reported in these waters since January 2015 which is a significant achievement and gives immense confidence of safety to our seafarers," Vice Admiral S P S Cheema, Flag Officer Commanding-in-Chief, Western Naval Command, told reporters on board aircraft carrier INS Vikramaditya on Thursday, on the eve of the Navy Day. The Navy continues with its operations unabated and has so far escorted more than 3,000 ships along the Gulf of Aden besides foiling piracy attacks on 46 ships, he said. The Piracy HRA was extended from 65° East Longitude to 78° East Longitude in 2010 in the wake of a surge in piracy incidents off the Somalia coast. India had been seeking revision of the HRA back to 65° East longitude as continuation of the extended HRA had both economic and security implications. Payment of Additional War Risk Premium over the extended HRA added to the cost of transportation. Stressing the Indian economy is on an upswing, Vice Admiral Cheema said: "The economy is directly linked to the growth in trade. Majority of India's voluminous trade uses the sea route for import and export. The Middle East remains a major source of the country's crude oil imports. The Indian Navy ensures that the seaborne trade is safe at all times, thereby guaranteeing unhindered growth of our economy and prosperity," he said. India's strategic location in the Indian Ocean requires continuous monitoring of eight major shipping lanes as a large number of foreign warships are always sailing in these waters. "More than 1,00,000 ships pass through the waters along India's coast annually. If this trade is disrupted for any reason, not only India's but the entire world's economy would have to bear the impact. Indian Navy thus plays a major role in keeping these major and sensitive shipping lanes safe," he said.

Rise in India's maritime might

Indian Navy today is well-poised to shape a favourable maritime environment for a secure and prosperous nation

It is often stated that the 21st Century belongs to the Indian Ocean and if the events that have shaped up in the first 15 years of the century are anything to go by, the prophecy is coming true. India, which occupies the geographical centrality in the Indian Ocean, is acknowledged as a major maritime power in the region. In consonance with the rise in India's stature, the Indian Navy has been spreading its influence and reach across the oceans to as far as Pacific in the East and Atlantic Ocean in the West. The Indian Navy commenced undertaking operational exercises with friendly navies in 1992 and today engages with over 12 navies ranging from US in the West to Japan in the East and closer home with Sri Lanka. Most recently the Indian Navy conducted its maiden bilateral exercise with Royal Australian Navy (AUSINDEX) in Sep 15 and with Indonesian Navy in Oct 15. The range of naval ships that participate in these exercises include nuclear powered aircraft carriers, nuclear submarines, destroyers, fighter and maritime patrol aircraft. In addition to bilateral exercises, Indian naval ships have also participated in various multilateral naval exercises like RIMPAC (RIM of the Pacific), IBSAMAR (India Brazil South Africa Maritime Exercise) and ADMM (ASEAN Defence Ministers' Meeting) Plus to name a few. Recognising that transnational maritime challenges require global response, Indian Navy conceptualised the MILAN series of multilateral engagement in 1995. MILAN, which started with participation by seven navies in 1995, has grown to a robust construct with the presence of 16 navies in 2014. A large number of navies have shown interest in being a member or an observer in MILAN indicating the positivity and maritime relevance of MILAN Indian Ocean (IONS) Naval Symposium conceptualised and initiated by the Indian Navy has been widely acclaimed to be an inclusive platform for discussing issues of maritime security among Indian Ocean littorals. IONS has been portable to garner support from all member nations and has generated interest in extra regional powers such China and Japan. IONS today comprises 22 member nations and four observers. IONS has emerged as a potent maritime construct with setting up of three IONS Working Groups IWGs) focussing on Humanitarian Assistance and Disaster Relief (HADDR) (India as Chair), Counter Piracy South Africa as Chair) and Information Interoperability (Pakistan as Chair) as delivery mechanisms. Russia, Spain and USA have shown interest becoming observer in IONS indicating the growing status and footprint of an Indian Navy led initiative. Indian Navy has been supporting regional navies to enhance their capacity to meet their maritime security needs.

The footprint of Indian Navy extends across a wide spectrum of cooperative activities such as training, hydrography, information exchange and other such benign activities. For example, the Indian Navy today provides training to a large number of foreign naval personnel from over 30 navies every year. Training is also being imparted in host countries through mobile training teams. Regular interactions between professionals as well as senior leadership form ideal platforms to take foreign cooperation forward. From a modest beginning in 2005, Indian Navy today engages with over 19 navies in Navy to Navy Staff Talks that provide avenues for progressing foreign cooperation in a structured format. The issues discussed during such interactions cover the entire range of maritime activities. Indian Navy's footprint therefore not only covers the geographical extent in the primary and secondary area of interest but also cuts across the entire spectrum of maritime cooperation, be it material support, training, hydrography, information exchange, bilateral and multilateral exercises, coordinated patrolling, or high level exchanges.

Russia delivers missile systems to Iran: Report

The arms trade adviser to President Vladimir Putin says Russia has begun delivering S-300 air defense missile systems to Iran, according to the Russian state news agency Tass. Tass quoted Vladimir Kozhin as saying Thursday that the implementation of the contract for the delivery of the S-300s has begun and the deliveries have started. He didn't provide any specifics. Russia in 2010 froze a deal to supply advanced long-range S-300 missile systems to Iran, linking the decision to UN sanctions. President Vladimir Putin lifted the suspension earlier this year following Iran's deal with six world powers that curbed its nuclear program in exchange for relief from international sanctions. Officials said last month that Russia and Iran finalized the contract for their delivery. The S-300 deal has long worried Israel and other countries in the region, as well as the US, which see it as destabilizing.

The Asian Age

04 December 2015

'North Korea digging new nuke tunnel'

Satellite photographs from October and early November indicate North Korea is digging a new tunnel for nuclear testing, but there are no signs that such a test is imminent, a US research institute said on Wednesday. A report on 38 North, a North Korea monitoring website run by Johns Hopkins University's school of advanced international studies in Washington, said the images showed significant construction since April at Punggye-ri, on North Korea's east coast, where three previous nuclear tests were conducted. The commercial images showed the excavation of a new tunnel in addition to the three others where North Korea has either conducted nuclear tests or excavated tunnels in the past, the report said. "While there are no indications that a nuclear test is imminent, the new tunnel adds to North Korea's ability to conduct additional detonations at Punggye-ri over the coming years if it chooses to do so," the report said. On October 30, South Korea's Yonhap news agency quoted a South Korean government source as saying there was active movement of workers and vehicles working on a new tunnel at the site. The source said this indicated an intention to conduct a nuclear test "at some point", though this did not appear to be imminent. North Korea conducted its last nuclear test in 2013, drawing international condemnation, including from China, its main diplomatic ally. North Korea is under United Nations sanctions that ban trade that can fund its arms programme. Pyongyang has vowed to continue to conduct nuclear tests and to launch what it says is a rocket to put a satellite into orbit, something South Korea and its main ally, the US, say would be a disguised long-range missile test. The United States and South Korean defence chiefs have expressed "grave concern" over North Korea test plans and urged it to cease all activities related to its nuclear programme immediately.

The Tribune

04 December 2015

US military opens all combat roles to women

Women can compete for all US military jobs, including front-line combat posts, Defense Secretary Ash Carter said on Thursday, overriding Marine Corps objections in a historic move to strike down gender barriers in the armed services. "As long as they qualify and meet the standards, women will now be able to contribute to our mission in ways they could not before," Carter told a Pentagon news conference. "They will be allowed to drive tanks, fire mortars, and lead infantry soldiers into combat. They'll be able to serve as Army Rangers and Green Berets, Navy SEALs, Marine Corps infantry, Air Force parajumpers and everything else that was previously open only to men," he said. Carter said the opening to women would take place following a 30-day waiting period required by law, after which women will be integrated into new roles in a "deliberate and methodical manner." During the waiting period, the military services will finalise plans for integrating women into the new positions, he said. The move comes nearly three years after the Pentagon first eliminated its ban on women serving in front-line combat roles and began a process that would let women compete for 2,20,000 additional military jobs.

Front-line combat roles' ban lifted 3 yrs ago

* The move comes nearly three years after the Pentagon first eliminated its ban on women serving in front-line combat roles and began a process to let them compete for 2,20,000 additional military jobs

* Women represented about 2 per cent of US casualties in Iraq and Afghanistan, with some 3,00,000 deployed to the conflict zones

Iran did 'relevant' nuclear work pre-2003: IAEA

Iran had a "coordinated effort" relevant to the development of a nuclear bomb until 2003, the UN nuclear watchdog said on Wednesday in an unexpectedly clear verdict on Iran's past activities and atomic weapons. Iran's possibly arms-related work continued beyond 2003, but in a less coordinated way, and there was no credible indication of anything past 2009, the International Atomic Energy Agency (IAEA) said in a report to its Board of Governors. The report obtained by Reuters was required under a July deal between Tehran and six major powers that provides for sanctions against Iran to be lifted in exchange for restrictions being placed on the country's nuclear activities. The IAEA's board must now decide to what extent the agency will continue to examine whether Iran sought nuclear weapons in the past. Iran has said it will not uphold its side of the deal unless the matter is closed by the board. "There's no smoking gun in there but we didn't expect one," one Vienna-based diplomat said of the report, but added: "Importantly, it's not a clear balance sheet for Iran." The report entitled "Final Assessment of Past and Present Outstanding Issues Regarding Iran's Nuclear Programme" said: "The Agency assesses that a range of activities relevant to the development of a nuclear explosive device were conducted in Iran prior to the end of 2003 as a coordinated effort." The year 2003 was when the IAEA confirmed that Iran had built a secret underground facility for enriching uranium. The report added the IAEA had "no credible indications of activities in Iran relevant to the development of a nuclear explosive device after 2009". Iran's senior nuclear negotiator, deputy foreign minister Abbas Araqchi, said shortly after the report was circulated to IAEA member states that it showed the programme had no military dimensions. Iran believes that the IAEA should now say the matter is now closed. Meanwhile, the United States said on Wednesday that it was ready to take the next step in implementing the Iran nuclear deal after an IAEA report on Tehran's weapons program. State department spokesman Mark Toner said that the UN watchdog had confirmed Washington's long-standing allegation that Tehran had once been working on a nuclear bomb, but he added that Iran had cooperated adequately with IAEA investigators. "The IAEA report is consistent with what the United States has long assessed with high confidence," Mr Toner told reporters. "The report allows for procedural closure of the PMD file but this will not limit the agency's ability to ... look at concerns if they arise," the Vienna-based diplomat said.

The Asian Age

04 December 2015

US, China seal cyber crime pact

Joseph Menn And Eric Beech

The United States and China have reached an agreement on guidelines for requesting assistance on cyber crime or other malicious cyber activities, the US justice department said on Wednesday. The agreement was reached in talks in Washington this week among officials, including US Attorney-General Loretta Lynch, US department of homeland security secretary Jeh Johnson and China's public security minister Guo Shengkun. The justice department said in addition to the agreement, China and the US will conduct "tabletop exercises" in the spring with a number of scenarios designed to improve understanding of the expectations for response and cooperation. The talks had long been planned to follow a landmark agreement between the two countries reached in September. The next round will come in June, the justice department said. China's ministry of public security said the agreement would have a "major impact" on the implementation of internet security measures, adding that the two sides resolved to maintain frank discussion on the issue. The statement made no mention of a report from China's Xinhua news agency this week on the hacking of sensitive personnel records on people holding US security clearances at the office of personnel management last year. Xinhua said the hacking was criminal, not state-sponsored. The Washington Post reported Wednesday that multiple people had been arrested in that case, which compromised data on more than 22 million federal workers, though people close to US officials told Reuters they believed it was a legitimate intelligence target and a government-sponsored intrusion. US officials have said they are unaware of any evidence demonstrating that the hacked OPM data had been used for any nefarious purposes.

India, China urge rich world to fulfill their commitment to green fund, not dodge it

Vishwa Mohan

Flagging the issue of finance as super-critical to the success of the climate change summit, a group of 134 countries, including India and China, said on Thursday emphasizing that the contributions of rich nations must be categorically stated. "The (issue) of finance is critical ... It will make or break (the summit)", the group said. Articulating the united stand over the issue, which divides the developed and developing world, group chair ambassador Nozipho Mxakato-Diseko from South Africa said the UN Framework Convention on Climate Change (UNFCCC) is explicit on what needs to be done. The G77 and China, which forms the biggest group in the ongoing Paris climate talks, on Wednesday strongly objected to attempts made by rich nations to dilute the Convention that call on developed countries to extend support to poorer nations. It in its first formal statement, the group said, "The G77 and China is deeply concerned with the attempts to introduce economic conditions in the finance section currently under negotiation here in Paris". Asked about the economic conditions, the chair on Thursday termed such a move by the rich nations as an attempt to escape from their responsibility as laid out in the Convention. She said, "These countries jumped out of the Kyoto protocol. They did not even ratify it... World should be asking these small group of countries (rich nations) what is their responsibility". Though she was clearly referring to the US which initially signed but never ratified the protocol and also Canada which later opted out of the protocol, she chose not to call out the two. Asked to name the countries, she said, "We don't name and shame them. But, they name us." Her remarks, on behalf of the entire 134 developing countries came just a day after the group flagged its concerns over the approach of rich nations towards finance. She late on Wednesday evening said, "This approach is not consistent with the Convention, the mandate of the ADP and the sovereignty of Parties. Any attempt to replace the core obligation of developed countries to provide financial support to developing countries with a number of arbitrarily identified economic conditions is a violation of the rules-based multilateral process and threatens an outcome here in Paris". The group on Wednesday expressed its concerns over the narrative which suggests that the world has changed since the UNFCCC was adopted in 1992 due to the dramatic economic development gains of some of the developing countries (China, South Korea, Saudi Arabia and UAE among others) and hence that it is time to expand the pool of so-called "donors" of climate "aid" and to narrow the list of those eligible to receive this "support" to only the "poorest of the poor". "This narrative serves narrow national interests of developed countries and says little about reality. If the world has really changed so much, we ask why it is that after all these decades all our members remain developing countries with little or no voice in global decision-making processes and institutions", said the ambassador. The G77 and China stressed that nothing under the UNFCCC can be achieved without the provision of means of implementation to enable developing countries to play their part to address climate change. Mxakato-Diseko said that the full picture of financial arrangements for the enhanced implementation of the Convention kept on eluding the Group. "We believe that it will help the process if all matters related to finance, whether it is under the Convention, the Kyoto Protocol and under the ADP (Ad Hoc Working Group on the Durban Platform for Enhanced Action) can be discussed in a comprehensive and coherent manner, regardless of where they will be reflected in the end, whether in the decision or the agreement", she said. The group also emphasized that it is now time for all developed countries to convert their pledges to the Green Climate Fund (GCF) into contribution agreements, as well as scaling up commitments in the ADP process. Under the Convention, developed countries are obliged to provide financial resources, including technology transfer and capacity building to all developing countries. This is a legal obligation under the Convention. It is neither aid nor charity, nor is it the same as development assistance. Finance support from developed countries relates to the impacts of historical emissions, which will only get worse with time for developing countries.

STICKING POINTS

Expanding Climate Finance

- All groups of developing countries – G77 plus China and Like-minded Developing Countries (LMDC) – flagged Climate Finance strategy
- There is a goal to mobilise \$100 billion a year from both public and private sources by 2020
- There is, however, no clear roadmap to mobilise \$100 billion a year from 2020
- Rich nations are expected to contribute to the Green Climate Fund (GCF) – a well-timed fund to help poor/developing countries fight climate change
- Rich nations want the emerging economies, including India, to contribute to the GCF
- Rich nations also want that the money to be provided to only poor nations and not to countries like India

POINT COUNTERPOINT

- World has changed since initial Paris Frameworks. Conceived in 1992, UNFCCC was adopted in 1992 due to dramatic economic gains of some developing countries like China, South Korea and UAE among others
- It is time to expand the pool of so-called 'donors' of climate 'aid' and to narrow the list of those eligible to receive this 'support' to only the poorest of the poor
- 134 countries of G77 plus China group, including India, want all rich nations to contribute to the GCF and the money be made available to all developing countries
- Developing countries want rich nations to keep loans and existing overseas development aid out of climate finance
- Developing countries also want the rich nations to scale up their contributions to GCF beyond \$100bn per year target
- As of Nov 2015, GCF has raised \$10.2bn (ex-ante) in pledges from 36 governments
- Out of \$80.2bn, only \$5.0bn has been capitalised to the fund
- India says it would also contribute but it will not be part of GCF

India's contribution, like China, will be made under south-south cooperation (developing countries)

16 desi institutes figure in Times' top 200 univs

Indian educational institutes occupy 16 places among top 200 universities in Times Higher Education BRICS and Emerging Economies rankings for 2016. At 16th place, Indian Institute of Science, Bangalore is the only Indian institute to feature in the top 20. China, on the other hand, has five institutes among top 10 followed by two from South Africa, and one each from Taiwan, Brazil and Russia. Even Taiwan has done better than India with 24 universities in top 200. Releasing the report on Thursday, Phil Baty, editor, Times Higher Education World University Rankings, said, "It is good news for India that 16 of its institutions feature in this year's list of the best universities in the BRICS nations and emerging economies. However, India will have to work harder to compete with other developing nations, such as Russia, which have a higher proportion of institutions in the upper echelons of the table. India is the only BRICS nation without a university in the top ten." At 29th place, Indian Institute of Technology, Bombay makes to the Top 30, but rankings show that it requires investment and international collaboration if it has to compete with institutions from other BRICS nations. China dominates the rankings, with Peking University and Tsinghua University at first and second position respectively. The University of Science and Technology of China is at seventh place, Zhejiang University at eighth and Shanghai Jiao Tong University at tenth. From Russia, Lomonosov Moscow State University is at third place; from South Africa, University of Cape Town is at fourth and University of Witwatersrand at sixth. National Taiwan University is at fifth. In fact, Taiwan has 24 universities in top 200. University of Sao Paulo, Brazil is at ninth place. Speaking about the performance indicators that the rankings are based on Baty said, "These rankings are based on the same established and trusted thirteen performance indicators used to create the annual Times Higher Education World University Rankings, but they are specially calibrated to reflect the development priorities of universities in emerging economies." Baty said, "India spends less than 0.88% of its GDP on science research, compared with 2.76% for the United States and 4.04% for South Korea. With the population of young people in the country continuing to expand resulting in further pressure on resources, it is now more crucial than ever that India invests in research and strengthens its links with other nations." Rankings that also include a number of countries which are outside the BRICS bloc, show they had a good year. Chile has six institutions represented (two last year) while Colombia has two universities included (one last year). The National Autonomous University of Mexico (23rd) is the highest ranked Latin American institution outside Brazil. In South Asia, seven Thai universities are ranked (three last year); Malaysia is represented by four universities (one last year) and institutions from Indonesia and Bangladesh are included for the first time. European countries making their debut in the 2016 ranking include Romania, Slovakia, Slovenia, Lithuania, Estonia, Serbia, Cyprus and Greece. Meanwhile, African and Middle Eastern nations represented for the first time include Kenya, Nigeria, Ghana, Jordan, Qatar and Oman. Egypt returns to the ranking, having had no institutions represented last year.

List of universities

Indian Institute of Science 16
 Indian Institute of Technology, Bombay 29
 Indian Institute of Technology, Madras 36
 Indian Institute of Technology, Delhi 37
 Indian Institute of Technology, Kharagpur 45
 Indian Institute of Technology, Roorkee 48
 Jadavpur University, 80
 Indian Institute of Technology, Guwahati 83
 Indian Institute of Technology, Kanpur 95
 Panjab University 121
 Savitribai Phule Pune University 127
 University of Calcutta 137
 Aligarh Muslim University 150
 University of Delhi 154
 Amrita University 181
 Andhra University 193