Sub-surface Turmoil in the Indian Ocean: India's Submarine Travails

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The twenty-first edition of the trilateral Malabar naval exercises between India, Japan, and the US are scheduled to take place close to Indian shores in July this year. The modalities of the war games are being finalised in which fine tuning Anti-Submarine Warfare (ASW) skills will have particular focus with the China factor in mind. Though there is no visible confrontation, there is a visible undercurrent building and a 'wait and watch' game unfolding in the depths of the Indian Ocean as each player accesses the other's capacities and capabilities, a phase reminiscent of the cold war. This puts in question India's own capabilities and the modernisation of its Navy in light of the rapid augmentation of submarine strength of its adversaries and the near to medium-term picture does seem worrisome.

In fact, ASW has been one of the fastest growing areas in India's maritime cooperation and more even so on a bilateral basis with the US, Japan, and Australia. Interestingly, Australia which has been keen to join the Malabar exercises on a permanent basis has requested to be an observer this year. While Japan and the US have been open to the addition, India had been reluctant and Canberra is likely to be disappointed with the

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Indian response this time as well. However, the broader realignment has been specifically due to one developing phenomenon, the increasing presence of China's submarines in the Indian Ocean Region (IOR).

China has been sending its nuclear attack submarines (SSN) on deployment in the Indian Ocean ostensibly in the cover of anti-piracy operations in the Gulf of Aden. Last year, *Shang*, one of the more advanced of the Chinese SSNs, docked at Karachi from 19 to 26 May before returning home through the Malacca Straits. Navy officials believe that Pakistani Navy personnel were given access to the Chinese submarine during the brief stay there. Senior Navy officers in India and the US alike have questioned the logic behind the deployment of submariners to fight piracy and military planners, and experts see this as China's way of demonstrating the capability of its Navy to operate independently far from home.

In light of the development, both Indian and the US officials acknowledged that they have been cooperating in keeping a track of the Chinese movement through the region. According to Navy Chief Admiral Sunil Lanba(December 2016), 'As far as People's Liberation Army (PLA) Navy ships and submarines are concerned, the Indian Navy keeps a close eye and monitor their movements. We launch surveillance missions in the form of aircraft and ships to keep a track of them.' The US Pacific Command (PACOM) Chief Admiral Harry Harris during his visit to India in January this year said, 'there was sharing of information regarding Chinese maritime movement in the Indian Ocean.' In addition, the induction of US built P-8I long-range maritime patrol aircraft has been a game changer, officials acknowledge. Recently, the Navy saw a generational shift with the Russian built legacy Tu-142 fleet being retired and the P-8I formally taking over the mantle. Equipped with advanced sonar and armed with deadly Harpoon missiles, the P-8I is the most advanced submarine hunter flying today. India has already contracted four more aircraft to join the current eight in service. One officer said that they have a good idea of Chinese submarines from the moment they enter the Indian Ocean till they leave. The officer noted, 'We fairly know when they come in and go. We have mastered operation of the aircraft (P-8I). We have a very good

idea of the route they take.' While aircraft are useful ASW tools, having a strong sub-subsurface fleet is the most reliable weapon in the arsenal to maintain the upper hand in the IOR.

Indian Submarine Fleet

This brings into question India's own underwater capabilities and force modernisation and the present scenario and roadmap of the near term present a worrisome scenario.The ambitious '30-year submarine construction plan' of 1999 envisaged building 24 conventional submarines under two different production lines. The Navy presently has 13 conventional submarines, 9 Russian Kilo class and 4 German HDW class, and 1 nuclear submarine INS *Chakra*, an Akula-II class SSN on lease from Russia. In new inductions 6 French Scorpenes are being manufactured at Mazgaon Docks Limited (MDL) in Mumbai. After a series of time and cost overruns and controversies, the first Scorpene *Kulvari*, is all set to join the Navy in the next few months, the second one *Khanderi* has begun sea trials and the third one *Vela* has been assembled and expected to be launched after the monsoons. All six are planned to be inducted by 2021-22.

However, by the time all scorpenes join the fleet most of the oldest ones would have completed their life, so in order to keep them operational the Navy has now embarked on a Major Refit and Life Certification (MRLC) programme for six submarines, four Kilos and two HDWs. The approval for this was sanctioned by the Defence Acquisition Council (DAC) in August 2014 which will cost about Rs 1,000 crore per boat. As part of this, the first submarine INS *Sindhukesari*, a Kilo class submarine commissioned in 1989, is already in Russia. The six boats have completed over 25 years of life and the MRLC will extend the life by another 10 years.

INS *Chakra* which joined the Indian Navy in April 2012 for a period of 10 years would be heading back to Russia in April 2022. By then its successor, yet another Project 971 Akula-II class nuclear submarine would replace it as per the agreement concluded between India and Russia on the sidelines of the BRICS summit in Goa (October 2016). This is present

firm picture of the submarine plan. Other plans and proposals are all in various stages of procurement and in a state of uncertainty. The policy pronouncements both from the Navy and the government only add to this uncertainty rather than chart a clear action plan.

In sharp contrast to it, to say the regional situation is alarming would be an understatement. According to the 2016 US Department of Defence Assessment Report submitted to the US Congress, Chinese submarine fleet consists of five SSNs, four nuclear-powered ballistic missile submarines (SSBNs), and fifty-three diesel-electric attack submarines. And China is adding more advanced SSNs and SSBNs at an alarming rate. On the Western side, Pakistan operates five advanced French Agosta class submarines and is now in the process of strengthening its fleet with Chinese assistance. In 2016, Islamabad announced the procurement of eight Chinese conventional diesel-electric submarines and the first one is expected to be handed over by end 2023. According to the deal, the rest will be assembled in Karachi and will be ready by 2028.

New Additions

India is currently engaged in informal discussions with France for three follow-on Scorpene submarines as part of the optional clause in the original deal. Logic dictates that continuing the present submarine line and quickly adding more of the same type would make operational and sound business sense. However, a senior official has indicated that the follow-on deal would be contingent on having some major upgrades and the cost quoted for them by DCNS. The focus has shifted and the government and Navy seem quite upbeat on the next project for six submarines under Project-75I which will have some major increments in terms of capability. The process is presently held up due to the pending policy on Strategic Partnerships under the Defence Procurement Procedure (DPP).

The Project-75I has been pegged at about Rs. 50,000 crore for several years now and like all defence projects in India it will nearly double by the time it actually materialises both due to cost and technology transfer clauses.The present Scorpene project under Project-75 was supposed to bring in significant Transfer of Technology which added substantially to

the project cost of over Rs. 23,000 crore. Now some Navy officials argue that P-75I would bring in 'significant' Transfer of Technology (ToT) under the 'Make in India' initiative. It means that it would add substantially to the cost as well. So the moot question is what did we really gain from the Scorpene experience and what is the substantial value addition that is accruing out of P-75I? In addition the government is keen on bringing in the private sector to build defence equipment. Given the fact that no Indian private sector company has the ability or experience in building entire platforms, the project will be further delayed as the shortlisted company sets up manufacturing facilities from scratch and goes through the learning curve.

In addition to conventional submarines, the government has also cleared a project in February 2015 for indigenously building six SSNs. The country has after going through a long-learning curve has a SSBN to call its own in the form of INS *Arihant* which was quietly inducted into service in August 2016. The follow-on boats are now shaping up and the second one *Aridhaman* is all set to be launched for sea trials. This shows that a certain level of technology has been mastered and expertise gained which should ideally be now invested in building the SSN which despite having different functional roles have the same basic composition. However, the SSN project is still in the design stage and the timeline of the project as yet remains unclear.

Given India's great power ambitions and its desire to be the 'net security provider' in the IOR, having a credible force of SSNs is ideal. But that seems to nowhere on the priority list, instead the Navy is keen to add more and more lines of conventional submarines at exorbitant costs which if wisely invested in Research and Development (R&D) of SSNs would give better return on investment. It would have made sense if it was expedited and led to quick force accretion. But that does not seem to be the case defeating the purpose. In fact, this conundrum looks very similar to the situation in the Indian Air Force which has an extremely haphazard procurement plan at the moment and is keen on adding more 4++ generation fighters while the world is racing to building fifth generation fighter aircraft.

'Carrier' Debate and Cost Benefit Analysis

While talking of submarine acquisitions, it is absolutely essential to mention aircraft carriers for comparison sake and cost benefit analysis, more so in the Indian context. While there is considerable impetus to induct aircraft carriers, the same is not visible with respect to submarines. There have been some heated debates recently between several analysts for and against the relevance of carriers. While that issue is a debate onto itself, it is important to juxtapose them with submarines to prioritise acquisitions.There is no doubt that carriers are great instruments to project national power but there are increasing limitations on their use in battle in view of the changing regional threats and its submarines which would better serve the purpose. For instance, in case of a conflict with China, would India deploy its carrier INS *Vikramaditya* beyond the Straits of Malacca knowing full well that it could be the target of Chinese DF-21D 'carrier killer' missiles? Submarines score hands down here by their underwater characteristic and stealthy nature.

While the three carrier plans are admirable, does the country really need and can it afford large carriers? Or are our interests better served by medium-sized carriers which would be lighter on the purse and free up much needed resources. The country's first Indigenous Aircraft Carrier Vikrant is taking shape in Kochi and is scheduled launched for sea trials in December 2018. As a follow on, the Navy envisions the IAC-II to be of 65,000 tonnes and India and the US are in active discussions on incorporating the Electro-Magnetic Aircraft Launch Systems (EMALS) which is underdevelopment. EMALS is totally unviable for India both in terms of cost and technology. It makes practical sense to acquire technology for catapult systems from the market and build the carrier. This would enable ease of operation as the technology is fully mature due to which India would also be able to get hands of the technology to operate and maintain it on its own giving its flexibility in operations. In addition, one must bear in mind that the real increase in defence budget for capital procurements has been marginal and new acquisitions miniscule. With ever-increasing revenue expenditure and burden of pay and pensions they will be further strained.

Talking of India's haphazard defence modernisation, reminds of *Arming without Aiming* jointly authored by Stephen P Cohen and Sunil Dasgupta in 2010 which happens to be very so today. It is for strategic planners to factor in financial constraints and the geo-strategic compulsions and draw a long-term action plan. But the present direction raises questions on the validity and viability of the long-term integrated perspective plans. More specifically in the maritime domain, clearly national pride is tilted in favour of carriers than submarines and India is fast losing its superiority and natural advantage in the Indian Ocean. Correcting the imbalance has to be made the top priority and its submarines which can turn the tables around.