Emerging Paradigm of the Indian Ocean: Arihant’s Prowl and its Regional Implications

M Ihsan Qadir* and Saif ur Rehman**

Abstract

The Indian Ocean has traditionally been less contentious with respect to nuclear issues but recent fielding of the nuclear submarine by India has introduced a new dimension in the strategic stability of the region. Though the development of nuclear submarine is China-centric, yet, the littoral states of the Indian Ocean have started feeling perturbed. The Indian ambitious naval expansion plan, aligned with its evolving maritime strategy, has adversely affected the security dynamics of the Indian Ocean. Thus, the Indian Ocean has become an avenue of the intersecting interests of many regional (China and India) and extra-regional states. The predominant interest of extra-regional powers has been economic, embedded in the security concerns. In response to the Indian nuclear explosions in 1998, Pakistan compelled to became an overt nuclear state, yet, had no inclinations for taking nuclearisation to sea. However, the extraordinary development of induction of nuclear submarine in the Indian naval inventory has forced many regional states to premeditate their options in line with their security calculus and compulsions, which has resulted in the emergence of a new paradigm of strategic competition between India and China in the Indian Ocean.

Keywords: Indian Ocean, Nuclear Weapons, Strategy, Nuclear Submarine (Arihant).

Introduction

Throughout the modern history of mankind, the Indian Ocean has been remarkably free from naval nuclear friction, however, induction of nuclear-powered ballistic missile submarine, INS Arihant (Destroyer of the

* The author is faculty member at Defence & Security Wing at Higher College of Technology (Taveelh Campus), Abu Dhabi.
** The author is Director Human Resource Development at the Ministry of Defence, Islamabad.
Enemies) in the Indian naval inventory has altogether dawned a new age in the Indian Ocean Region (IOR). 1 The nuclear submarine induction would benefit India on many accounts. It bolstered her naval power projection capability, buttressed sea-based nuclear deterrence by completing its nuclear triad, assuring second-strike capability and lastly tipping the regional maritime strategic balance in its favour. This significant development has posed a serious threat to the regional stability and peace. The protracted rivalry of the extra-regional powers in the IOR has given rise to new contests and contentions. Reverberations of Mahan’s 19th century inscriptive syllogisms that whoever attains maritime supremacy in the Indian Ocean would be a prominent player in the international politics. His premise was built on the fact that the ocean is the key to the seven-seas, which makes it most probable that the destiny of the world will be decided in these waters are driving considerations for even today’s naval strategists. 2

These strategic thoughts transformed the IOR into a hub of power struggle and competition between regional and extra-regional states. The US naval presence facilitates monitoring of a smooth outward flow of oil from the region, which is the lifeblood of the western economies. India perceives the Indian Ocean as the ‘Indian lake’ and prefers maintaining it an outright zone of influence. Oil to China, Japan, South Korea and other South East Asian burgeoning economies pass through the Indian Ocean, making their economic interest intertwined. The economic interests overwhelm states, thus, economic security has come fore to assume a leading role in interstate relations. This strategic shift went beyond the conventional security realm. Operationalisation of an Indian nuclear submarine on February 23, 2016, has added a new dimension in the maritime landscape of the IOR. This development has disturbed the deterrence level in the Indian Ocean, which has remained nuclear-free zone for centuries. In this backdrop, the article examines repercussions of nuclearisation of the Indian Ocean on the regional stability, especially in maritime domain focusing on a revised threat perception and mitigation of emerging security challenges.

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Theoretical Framework

Major extra-regional powers furiously compete for their interests in the Indian Ocean. Their interests are mostly economic, superimposed by strategic adjustments and alignments. Every strategic move by these extra-regional powers in the IOR has an economic component. India is also heavily dependent on the Middle East energy resources. Around 80 per cent of its energy imports, mainly from the Middle East, are transported via the sea-lanes in the IOR. According to a US Department of Defence report, 84 per cent of China’s imported energy resources pass through the Strait of Malacca via the Indian Ocean. As Beijing and New Delhi press to maintain economic growth, their dependency on the safe transport of resources will likely intensify. China and India are two main regional rivals since they are vying for controlling the Indian Ocean resources. Though the strategic competition between the two major powers in the Indian Ocean existed since long yet, after the nuclearisation of the IOR, this new paradigm is emerging. Operationalisation of nuclear submarines by China and India have long-term strategic impact on the Indian Ocean, which will be explored through this article.

Geography of the Indian Ocean

The Indian Ocean is the third largest and the warmest ocean which covers about 20 per cent of the world’s water surface, spread over an area of 74 million square kilometres and hosts one-third of the world population. Geographically, the Asian continent lies on its north, Africa on its west, Indo-China towards east and Antarctica to its south. It spreads from the Bay of Bengal to Antarctica (north-south axis) which is 9,600 kilometres apart and extends up to 7,800 kilometres from west to east from East Africa to Western Australia. It houses 16 seas or gulfs, 57 Island groups or archipelagos. It borders 18 Asian, 16 African countries and the continent of Australia. Around 65 per cent of the world oil

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reserves belongs to just 10 of the Indian Ocean littoral states.\textsuperscript{6} It is the home of 40 per cent of world’s offshore oil and gas reserves and over 70,000 ships traverse through the it, annually.

**Map No. 1**

**Indian Ocean Area**

The Indian Ocean is situated between the two bigger oceans – Atlantic and Pacific – and serves as a ‘transit lounge’ for marine shipping from Atlantic to Pacific and vice versa. Around 80 per cent of trade (crude oil to Europe, US, China and Japan) is extra-regional, which makes the Indian Ocean a jugular vein of the maritime trade.\textsuperscript{7} The Atlantic and Pacific oceans are ‘open oceans’ whereas, the Indian ocean can only be accessed through six out of nine strategic choke points of the world, which makes it a ‘closed ocean.’ These choke points are of vital importance for the free flow of trade and oil supplies around the world. The daily flow of oil through various choke points of the Indian Ocean as in 2013 is shown in the figure below.\textsuperscript{8}

\begin{itemize}
\item \textsuperscript{7} Lehr, “Heidelberg Papers in South Asian and Comparative Politics,” Working Paper no. 13.
\item \textsuperscript{8} “World Oil Transit Chokepoints,” US Energy Information Administration (EIA),
\end{itemize}
The Indian Ocean houses one of the largest offshore natural resource endowments. The Gulf region is extremely rich in ‘on and offshore’ hydrocarbon deposits. The metallic and mineral resources are spread all along its coastline. Poly-metallic nodules and sulphides are the two mineral resources of great economic value. Poly-metallic nodules are of ‘golf-to-tennis-ball-size’ containing nickel, cobalt, iron, and manganese formed over millions of years on the sediment of the seafloor. Poly-metallic sulphides contain gold and copper, fuelling recent commercial interests. Other minerals in the Indian Ocean include coastal sediments containing titanium and zirconium off South Africa and Mozambique, tin deposits off Myanmar, Thailand, and Indonesia, and zinc and copper ore in heavy mud in the Red Sea.9

Expanding Indian Sphere of Influence

Over the years, India has reoriented its strategy from land to sea as its strategists have realised that great power aspiration can only be fulfilled by
expanding influence through the sea as other directions have formidable constraints.\textsuperscript{10} The Indian strategic perceptions were echoed in the speech of the Indian Foreign Minister “that after nearly a millennia of inward and landward focus, we are once again turning our gaze outwards and seawards, which is the natural direction of view for a nation seeking to re-establish itself, not simply as a continental power, but even more so as a maritime power.”\textsuperscript{11}

To materialise its strategy, India embarked on the development of the ‘blue water’ navy, which was ultimately aimed at the extension of its sphere of influence for the long aspired great power status. The share of the navy from overall defence budget was increased from 11 per cent to 18 per cent from 2008 to 09, for fulfilling its naval developmental plans. In 2015 availability of extra money resulted in the significant changes in naval force structure and developmental plans, announced in 2008, which stipulated a naval fleet of 160 ships including 3 aircraft carriers and 60 major combatants along with over 400 surveillance and fighter aircraft. For expanding the sphere of influence and selective sea control, it was planned to have three independent fleets, orchestrated around three aircraft carriers. Development of nuclear-powered submarine is a link of the same developmental chain which is being implemented in phases since the last decade.

This huge force structure was planned for three major reasons; firstly, for demonstrating own power projection capabilities; secondly, to pre-empt involvement of extra-regional powers; and thirdly, to develop security presence in and around the Malacca Strait, as a part of a wider emphasis on the maritime choke points.\textsuperscript{12} Over the years, in response to the Chinese ‘String of Pearls’ strategy, India has developed her own ‘Sapphires’ throughout the Indian Ocean by developing long-lasting security relationships with a special focus on states striding along important maritime chokepoints starting from Mozambique to the Persian Gulf to the Malacca

\textsuperscript{10} Rajiv Sikri, \textit{Challenge and Strategy: Rethinking India’s Foreign Policy} (India: SAGE Publications, 2009).
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Strait. The Indian Sapphires of the southwestern Indian Ocean include; islands of Mauritius, Madagascar, Mozambique and the Seychelles. Most of these islands are situated in and around the Mozambique Channel, which is an important shipping lane for transiting the Cape of Good Hope. Maritime relations with France through French Territory of Reunion Island situated in southwestern Indian Ocean are carried out through the regular port calls and joint naval exercises. South Africa is another destination, where maritime cooperation is being enhanced as it is located along an important chokepoint (the Cape of Good Hope) around the fringe of the African continent.

In the north-western IOR, India has long-term economic interest as her oil imports originates from the Gulf states. Her valuable sapphires include; Iran, the United Arab Emirates (UAE), Oman, Qatar, Bahrain and Saudi Arabia. India attaches special importance to maintaining cordial relations with these states for oil imports and its large Indian Diaspora. A recent agreement with Iran for development of the Iranian port of Chabahar is a case in point. However, its security cooperation with the Gulf states is constrained due to the strong maritime presence of the US in the region.

In the central IOR, Maldives islands enjoy strategic location by striding major east-west Sea Lines of Communication (SLOC), connecting East Asia with the Middle East. India has a special security agreement with Maldives and has been granted permission to use the Maldivian southern airstrips, which has significantly enhanced India’s capabilities in the central Indian Ocean.

India has paid special attention to the northeast IOR by developing security presence in the region. Apart from few other reasons, security role and monitoring of shipping, transiting in and out of the Malacca Strait, develop a focus of India’s maritime strategy. She aspires to play a prominent security role up to the South China Sea through the Malacca Strait; however, the same is intolerable to a few regional countries (Malaysia), which has vehemently opposed joint security patrols with India. The operational radius of aircraft based in Andaman and Nicobar Islands encompasses the Malacca Strait and the large portion of the South China Sea is a point of concern for the countries of the north-eastern IOR.13

13 A K Dhar, “Indian Air Force Carries out Exercise from Andaman Islands Base,”
Press Trust of India, 2005.
These Indian Sapphires are to be effectively engaged in achieving the aspirations of a greater power through maritime power projection and high-level interactions. The Indian government has engaged almost all of these countries by undertaking high-level visits by Prime Minister during last two years. In March 2015, the Indian Prime Minister’s visits to Sri Lanka, Mauritius and the Seychelles seems to have five foreign policy objectives with respect to maritime engagement attaching top priority to the littoral states of the Indian Ocean.\(^{14}\) The identified objectives of the Indian foreign policy are as under:\(^{15}\)

i. Greater emphasis on showing resolve for securing mainland and Island territories for defending maritime interests.

ii. Continuation of security cooperation with regional partners especially Island states.

iii. Strive to constitute multilateral cooperative maritime security in the Indian Ocean with India at its core.

iv. Work towards sustainable economic development in the IOR spearheaded by India.

v. Implementation of the Indian Ocean policy of engagement with major powers in the IOR.

This shows the Indian resolve for achieving the great power status. The means have been rightly identified by the Indian bureaucracy and politicians – development of maritime power and realignment of maritime employment strategy. Development of the nuclear submarine by India is in pursuance of its efforts of power projection in the Indian Ocean and bulwarking the Chinese advance towards the Indian Ocean. The Indian threat perception about the Chinese nuclear submarine prowling in the Indian Ocean is factual as China has conducted her first SSBN nuclear deterrence patrol in 2016.\(^{16}\) The recent docking of the Chinese submarine at Colombo (Sri Lanka) in 2014, is a prelude to the future deployments. As the information of development of nuclear submarine by the Chinese was in the air since long,

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therefore, India also decided to follow suit as security compulsion. This had an adverse effect on the strategic stability of the Indian Ocean, which has the potentials for intensification of maritime nuclearisation in the region.

**Nuclearisation of the Indian Ocean**

The Subcontinent witnessed overt nuclearisation in May 1998 (Pokhran II), when India exploded four nuclear devices in ‘sun-scorched desert of Rajasthan.’ Initially, the international community showed prodigious concern over nuclearisation of the subcontinent, however, the anxiety gradually waned and India started contemplating transition of its nuclear capabilities from land to sea for achieving second strike capability. To that end, India launched its first nuclear submarine, then known as Advanced Technology Vehicle (ATV) or S-2 in July 2009, from the dry dock of Visakhapatnam. The world response to this crucial event was subdued as project success was doubted by many commentators. This event was considered as a technological milestone by India to rise to the great-power status.\(^\text{17}\) The long-term impact of the launching of the nuclear-powered submarine on the Asian nuclear equation generally remained unexplored till its formal operationalisation. The Indian nuclear submarine has formally joined the Indian naval fleet by the end of 2016, and its sister ship would be commissioned in 2018. This watershed development has disturbed the regional balance of power, entailing long-term implications for the region.

**Regional Implications**

The overt nuclearisation of the subcontinent in 1998, had a long-lasting impact on the region. The sea-based nuclear deterrent is the most assured option for having a second strike capability in case of any adversarial adventurism. Apart from this, it offers the possibility of having fewer weapons with much larger strategic impact as land-based weapons are always vulnerable. However, as the nuclear submarine building is extremely complex activity, therefore, the Indian Navy (IN) has plans to deploy short-range nuclear missiles on the few selected surface platforms till the nuclear submarine fleet consisting on four submarines (SSBNs) comes to fruition. Till then, a mix of dedicated nuclear and conventional platforms will be...

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deployed by India in the Indian Ocean, creating further ambiguity, which has an inherent risk of inadvertent nuclear escalation. Test firing of a short-range nuclear ballistic missile, Dhanush, on November 24, 2015, by the IN patrol vessel (INS Subhadra) is a case in point.18

The presence of a nuclear submarine has forced all the 35 Indian Ocean littoral states to acquire more pronounced maritime orientation and cooperation. Malaysia, for example, is now more focused on the strategic stability of the Indian Ocean than ever before. On December 2, 2014, in Karachi, the Malaysian Chief of the Naval Staff, Admiral Tan Sri Abdul Aziz Jaafar, during a media interaction on the sidelines of the International Defence Exhibition and Seminar defence (IDEAS), highlighted the importance of the strategic location of Malaysia along the world’s most important waterway. He asserted that the emerging strategic environment in the Indian Ocean exposes the country to serious dangers and challenges. Therefore, he maintained, that the Malaysian Navy has established a new naval base and command centre at Langkawi, Malaysia’s only port directly fronting the Indian Ocean. He contended that the base would act as ‘eyes and ears’ of Malaysia for monitoring activities in our neighbourhood. It is believed that he was indirectly pointing towards forthcoming nuclearisation of the Indian Ocean. Plans to place Malaysian submarine force at Langkawi, as home port, is an indicator of her rising concern to the activities taking place close to her southwestern coast. The Malaysian Navy stated in May 2013, that country “would need at least six submarines to safeguard its sovereignty.” Recently, three regional countries — Malaysia, Indonesia and Philippines — have agreed to undertake joint security patrol starting from the western entry point of the Strait of Malacca to the South China Sea.19 Therefore, the area around the entry point of the Strait of Malacca from the Indian Ocean might witness intense naval activities in the days to come. Development of missile would be a next logical step for Malaysia.

The rationale behind the development of nuclear submarine is entrenched in the fear of being destroyed by powerful states in military terms. The reason for the Indian nuclear submarine development also lies

in the fear from emerging economic and military power of China. The same argument can be extended to almost all the littoral states of the Indian Ocean. Any state which has economic strength and technical acumen will certainly consider following the same path, resulting into a strong possibility that technologically advanced states like Malaysia may consider this option and even might have already started treading on this complex course. However, the African littorals have neither any external threat nor can economically afford any such venture. The Gulf states are though economically strong yet severely lack in experience of submarine operations.

Undoubtedly, the nuclearisation of the Indian Ocean has enhanced nuclear competition in the region. Sea-based rivalries would result in a greater instability in the maritime domain and in case of the Indian Ocean it would affect almost the whole world. Many analysts still believe that sea-based nuclear weapons can positively contribute to maintaining strategic stability. However, in case of the Indian Ocean, it would largely depend on the bilateral relations of the states because if the relations improve over the years than rivalry would witness a downward trend.

Nuclear power projection in the maritime domain will certainly grip the region with the frenzy of an arms race and will inevitably place it at the risk of a nuclear showdown. The growing Indo-US strategic relationship is largely seen as a counter-balancing act in the wake of China’s rise. However, any increase in India’s military power may also be seen by Pakistan and other regional countries as a potential threat and thereby stimulate counter-response.

Many naval experts argue that the operationalisation of a nuclear submarine requires an elaborate command and control structure along with an uninterrupted communication link with the deployed submarine. If the communication link with the vessel is disrupted, it could prove to be extremely risky. Since India’s nuclear command and control structure is still evolving, it may be a necessity to pre-delegate the launching authority of a

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21 Admiral Asif Sandila, Chief of the Naval Staff, Pakistan Navy, address at Naval War College Lahore, “Pakistan’s Naval Threat Perception,” July 23, 2013.
nuclear-tipped missile carried in a submarine, thus, raising the danger of a miscalculated and an unauthorised launch.

The sea trials of Arihant are in its final stages and soon it will be integrated with the Indian naval fleet. The submarine is fitted with 12 Sagarika (K-15) Subsurface Launched Ballistic Missiles (SLBM), having stated the range of 750-800 Kilometres. This has facilitated India to effectively engage selected targets in the southern half of Pakistan; however, the Chinese strategic centres are well out of the range of this SLBM. Thus it can be concluded that K-15 missile is either Pakistan specific as shown in figure no. 2 below or has grossly inadequate range.\textsuperscript{22} The option of getting closer to the Chinese coast by the forward deployment through Malacca Strait transit involves vulnerabilities in terms of detection, confined space operations and logistic support challenges. The forward deployment will have implications for most of the South Asian countries as it will affect their free accessibility to the SLOCS used for their oil import and trade.

**Figure No. 2**
Strike Radius of K-15 (Submarine Launched Ballistic Missile)

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India is currently working on the development of the two types of long-range SLBMs; K-4 having an intermediate range of 3500 Kilometres and K-

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5 with an extended range of 5000 Kilometres. K-4 has undergone successful test launch from a pontoon (replica of submarine) on March 24, 2014. The same missile was subsequently tested from Arihant on March 31, 2016, with full operational configuration. The extended range version of K-5 is still in its designing stage but is planned to be test fired in December 2018. The range of K-4 for engaging the Chinese major economic hubs is still suboptimal as submarine has to skirt the Myanmar coast to achieve her objectives. The range of the missile becoming a threat to many regional countries is shown in the figure no. 3 below. The operationalisation of K-5 missile would enable Arihant to engage the Chinese targets with impunity from the eastern Indian Sea board.

Figure No. 3
Strike Radius of K-4 (Submarine Launched Ballistic Missile)

Source: Iskander Rehman, Murky Waters.

Nuclearisation of the Indian Ocean has compelled Pakistan to undertake the few extraordinary measures to regain strategic parity for survival. In response to the launch of India’s nuclear submarine, Pakistan’s Foreign Office spokesman warned that without entering into an arms race with India, Pakistan will take all appropriate steps to safeguard its security and maintain

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strategic balance in South Asia.\textsuperscript{24} It has become imperative for Pakistan to re-establish deterrence, reinstate strategic balance and maintain the maritime balance of power for regional peace and prosperity. Pakistan, in the long-run, cannot hold her head above the water without attaining second strike capability. Pakistan Navy may seek to put nuclear-armed cruise missiles on its submarine.\textsuperscript{25}

In response to this development, Pakistan formally inaugurated headquarters of the Naval Strategic Force Command on May 19, 2012. Inter Services Public Relations (ISPR) issued a press release on the occasion stated that future naval strategic force, which is the custodian of the nation’s second strike capability, will strengthen Pakistan’s policy of Credible Minimum Deterrence and regional stability.\textsuperscript{26} In a recent conference at Carnegie Endowment for International Peace, Lt Gen (Retd) Khalid Ahmed Kidwai, ex-Director General Strategic Plans Division, stated that “second strike capability helps stabilise the first strike capability and, at some point in time, Pakistan should be looking at achieving second strike capability especially in a scenario when India is already on its way, we cannot allow strategic balance to be disturbed and Pakistan cannot remain oblivious to it.” Responding to a question, he iterated that development of a second strike capability “is a work in progress, different elements and segments will come and are coming and there will be a time when the platform will also be there and we are not far from it…in next few years.”\textsuperscript{27}

Till the development of a full capability as stated by Kidwai, Pakistan appears to have opted for a more unconventional naval nuclear force structure, strongly emphasising dual-use platforms for strategic ambiguity.\textsuperscript{28} The option of a dual-use platform may be a stopgap arrangement but not a long-term solution against this strategic deficiency. Keeping in view the inherent limitations of the conventional submarines in fulfilling the

\textsuperscript{28} Rehman, “Drowning Stability.”
requirement, Pakistan does not have any other option than going for a nuclear-powered submarine as the cost of survival outweighs the cost of extinction.\textsuperscript{29} However, national maritime objectives or the task assigned to Pakistan Navy may not merit a nuclear submarine. Nonetheless, preservation and credibility of deterrence value obligate such a consideration particularly in the evolving geo-politics in the IOR.\textsuperscript{30} Adopting this course would largely depend on the economic state of Pakistan. The deployment of the nuclear submarine is extremely cost intensive.

**Conclusion**

The Indian Ocean is of great economic and strategic significance and all countries share an equal burden of maintaining stability as a common goal. For centuries, the Indian Ocean has been an international thoroughfare for unhindered trade and commercial activities. It is now rapidly emerging as a major global intersection for geostrategic, economic and natural resource-related interests. Multiple security, maritime and governance, challenges are driving regional and extra-regional players to focus their attention on the Indian Ocean with complex geopolitical objectives, which are intricately intertwined. To safeguard political and economic interests, the littoral states are developing conventional and non-conventional forces much more than justified needs, which are adversely impacting on regional stability. The intersection of the economic and security interests of the regional and extra-regional countries have resulted in additional strategic friction amongst the nations.

Overt nuclearisation of the subcontinent in 1998, has disturbed the regional balance of power. Expanding nuclear leg towards sea has further compounded the fragility of peace in a region, where more than half the population of the world resides. Apart from affecting commercial freedom of navigation, it has increased the probability of a nuclear arms race. This development is very dangerous due to higher levels of prevalent poverty as the feeding of large populations with two secure meals would be a real challenge for the governments especially India and Pakistan. The pretext of developing nuclear submarine by India for countervailing the Chinese


prowling of the Indian Ocean as a security measure in not completely true as the Chinese cannot afford any instability in the Indian Ocean. Their economic interests are paramount for them than any confrontation. The joining of the nuclear club though would provide strength to national pride to both India and Pakistan but would be too costly in terms of sufferings of populations.