



INDIAN NAVAL DESPATCH

Winter 2020





एडमिरल कर्मबीर सिंह
पी वी एस एन, ए वी एस एन, ए डी सी
नौसेनाध्यक्ष
Admiral Karambir Singh
PVSM, AVSM, ADC
Chief of the Naval Staff



रक्षा मंत्रालय
एकीकृत मुख्यालय (नौसेना)
नई दिल्ली 110011
Integrated Headquarters
Ministry of Defence (Navy)
New Delhi 110011

FOREWORD

The *Indian Naval Despatch* is being launched as the Indian Navy's flagship journal, aimed at promoting education and awareness on strategy, naval, defence and maritime issues, with an overall intention to encourage and enhance maritime thought. The vision of the *Indian Naval Despatch* is epitomised by its theme, '**Lighting Maritime Thought.**' The journal would reach out to not only our own maritime community, as a medium for engaging in rigorous discussion on issues relevant to the 'seascape' of the maritime domain, but also to our partners from friendly foreign countries as well. I hope to see the *Indian Naval Despatch* provide a common platform for promoting understanding of maritime security issues, and sharing knowledge and awareness amongst all ranks of the Indian Navy as also the general public. It is envisaged that this would become the primary forum for thinking and discussions on professional naval issues for the Indian Navy, and even regional navies.

The *Rig Vedas*, written in circa 1500 BCE, exhorted "आ नो भद्राः कृतवो यन्तु विश्वतः ...let noble thoughts come to us from every direction..." Through the *Indian Naval Despatch*, we intend to offer a forum for a variety of professional thought, discussion and reflection on maritime subjects to reach us from across our maritime neighbourhood - with a view to create a shared understanding of our maritime environment. All views, opinions and voices are welcome. This inaugural edition aims to bring together

thoughts that reflect these philosophies towards engendering a cooperative regional community - bound by common interests and focussed on the socio - economic prosperity of our citizens.

With contributions and ideas from across the region, I am certain that in the days to come, the *Indian Naval Despatch* will represent the voice of maritime issues for the region. It is indeed a harbinger of the future that the inaugural edition has contributions from a number of subject matter experts and practitioners. I am confident that the contents of this journal will foster a wider debate on many issues - leading to new ideas and concepts.

My compliments to the editorial team for an inspiring inaugural edition.

A handwritten signature in red ink, appearing to be 'K. B. S.', is located in the lower right quadrant of the page.

FROM THE EDITORIAL ‘DECK’

The Naval War College, as the Indian Navy’s apex institute of higher Professional Military Education, has been given the responsibility for conceptualising, collating and coordinating publication of the inaugural edition of the *Indian Naval Despatch*. It amalgamates the earlier *NWC Journal* and the *Naval Despatch* into a single, professional journal, which would be published bi-annually to start with, and eventually become a quarterly. Envisaged as the Indian Navy’s flagship journal, it aims to discuss, debate and deliberate upon the range of professional naval matters, which naval thinkers, planners and practitioners need to grapple with, amidst a dynamic, interlinked, maritime and strategic environment. The journal’s logo, viz. ‘Lighting Maritime Thought,’ reflects this aim. The inaugural edition, accordingly, covers a vast spectrum of genres and themes, viz. geo-politics in the Indo-Pacific, naval strategic thinking, China and the South China Sea, nuances of nuclear deterrence, maritime security cooperation, Covid-19 implications for India, power-play in the Arctic, changing dynamics in Afghanistan and ramifications for India, continental strategy and land warfare in the Indian context, India’s coastal security architecture, communication strategy in the armed forces, fleet maintenance, technology and innovation, and naval history.

A rich canvas of contributions were received, and put through a rigorous peer review and editorial process. An encouraging aspect has been that, besides senior experts, there were numerous articles submitted by mid-level officers. It augurs well for the Indian Navy that ‘leaders’ of tomorrow are budding ‘scholars’ today, indicative of enquiring minds and growing intellectual capital, with inclination towards research. This, indeed, is in keeping with one of the stated aims of this platform, viz., harnessing and leveraging maritime thinking.

We hope this inaugural edition of the *Indian Naval Despatch* will ‘light maritime thought’ and stimulate intellectual, professional debate. It bears reiteration that the views expressed in this journal are solely of individual authors and do not represent or reflect the official policy or position of the Naval War College or the Indian Navy. We look forward to receiving your valuable feedback, suggestions and contributions to improve and diversify the follow-on editions of the journal.

04 December 2020

The Editorial Team



INDIAN NAVAL DESPATCH

Vol. 1 No.1

CONTENTS	Page
Dynamics of Security in the Indo-Pacific <i>Adm Karambir Singh</i>	01
Strategic Thinking in the Indian Navy <i>Adm Arun Prakash (Retd)</i>	08
China's Maritime Strategy in the South China Sea: Masterstroke or Monumental Blunder? <i>VAdm AK Chawla</i>	22
Maritime Security Cooperation: Assessment of India's Act East Policy <i>Prof Shankari Sundararaman</i>	40
Evolving Nature of International Relations in the Indo- Pacific: The Malabar Confluence <i>Cmde Odakkal Johnson</i>	49
India's Strategic Calculus in the Post Covid-19 World <i>Cdr Apoorv Pathak</i>	62
Strategic Power-Play in the Arctic <i>Cdr B Puneet</i>	72
Nuclear Deterrence Strategy for India in South Asian 'Complex Situation' <i>RAdm MD Suresh</i>	82

CONTENTS	Page
A Review of Pakistan's Nuclear Doctrine <i>Dr Shalini Chawla</i>	95
Pakistan's TNWs and India's Massive Retaliation - Is There a Credibility Gap? <i>Dr Manpreet Sethi</i>	107
India's National Security Strategy in Afghanistan: Need for a 'Reset' <i>Dr Shanthie M D'Souza</i>	115
Evolution of a Continental Strategy and Development of Modern Land Warfare in the Indian Sub-Continent <i>Maj Gen BS Dhanoa (Retd)</i>	123
Strengthening Maritime and Coastal Security in India by States and Union Territories <i>Capt Himadri Das</i>	132
Coherent and Cogent Communication Strategy - A Challenge for Armed Forces <i>Cmde Nitin Kapoor</i>	143
Optimising Naval Fleets Through Maintenance Management Using AI and BDA <i>Cdr MSN Murthy and Cdr Navdeep Manhas</i>	153
De-italicizing 'Jugaad': Making Innovation Succeed <i>Cmde Arun P Golaya</i>	162
Adhar Kumar Chatterji - The Admiral Who Shed His Vice and Built the Navy <i>Cmde Srikant B Kesnur</i>	172
Admiral AB Cunningham - Britain's Fortune in WW II <i>Cmde G Prakash (Retd)</i>	184

DYNAMICS OF SECURITY IN THE INDO-PACIFIC

Admiral Karambir Singh, PVSM, AVSM, ADC

Introduction

Indo-Pacific, as a term, was introduced by former Japanese Prime Minister Shinzo Abe in 2007.¹ The past decade has witnessed the term gaining currency and also establishing itself in the foreign policy lexicon of several nations (Germany being the most recent).² The exact contours and priorities for the Indo-Pacific have been variously defined by different nations. This variation could well be attributed to Miles Law, which states that “Where you stand, depends on where you sit,” and although predominantly used in politics, this adage holds salience in international affairs and geo-strategy as well.³

Notwithstanding the varied interpretations, diverse imperatives and differing priorities of stakeholder nations in the Indo-Pacific, some commonalities in their approach to the Indo-Pacific, nonetheless, stand out. First, the Indo-Pacific is emerging as the centre of gravity of global geopolitics, and an arena of emerging great power rivalry. Secondly, the unique geography of the region bestows upon the Indo-Pacific a predominant maritime orientation, something that will shape the contours of engagement, discourse and relationships within the Indo-Pacific in the foreseeable future. Thirdly, the interplay between powers in the region lends the Indo-Pacific a cooperative, as well as a competitive connotation.

Cooperation and Competition in the Indo-Pacific

In terms of cooperation, Prime Minister Narendra Modi characterised the Indo-Pacific as a ‘natural region,’ whose destinies are interlinked.⁴ Most nations in the Indo-Pacific have a core interest in keeping the seas free for trade and commerce. Additionally, the region offers several collaborative opportunities for partner nations, such as harnessing the full potential of the ‘Blue Economy;’ enhancing cross-national connectivity; and increasing intra-regional trade. The region also faces numerous trans-regional challenges such as drugs, piracy, terrorism, Illegal, Unreported and Unregulated (IUU) fishing, climate change, natural disasters, etc. The wide expanse, and the ‘tyranny of distance’ of the Indo-Pacific, has led to a

recognition that a cooperative approach is integral to overcoming challenges in the region – “no one can do it alone.” In sum, opportunities as well as common challenges afford an environment to ‘work together’ through a collaborative approach, to strengthen security in the region.

Simultaneously, the ongoing great power competition and resource scarcity lends the region a competitive connotation. In the broader context, competition between ‘status quo’ and ‘revisionist’ powers has shaped recent global interactions, with key elements

Great power rivalry is being played out in the Indo-Pacific

of the ‘great power rivalry’ being played out in the waters of the Indo-Pacific. Given the intricate inter-dependencies between nations of the region, it is difficult to remain isolated from the ‘ripple effect’ of the ongoing competition. Further, untapped sea-based natural resources (both proven and potential), amidst depleting land-based resources, has exacerbated competition in the region. Differing interpretations of International Law also risks the ‘Indo-Pacific Commons’ being transformed into ‘Contested Seas.’

India’s Approach to the Indo-Pacific

Amidst these congruencies and contradictions, India’s approach to the Indo-Pacific has been shaped by its quest for regional prosperity and security, since it remains a prerequisite for national development and progress. India is an aspirational power; India’s population constitutes nearly 1/5th of humanity;⁵ and India aspires to become a \$5 trillion economy by 2024.⁶ The pursuit of this goal is intimately linked to India’s engagements transcending borders, to which end, safe, stable and secure seas are crucial - to progress unhindered trade, harness resources, and ensure development, growth, well-being and prosperity of our citizens. An inclusive, rules-based system to manage the maritime commons is, thus, inescapable to support these priorities.

Amidst these imperatives, India’s overall approach to the Indo-Pacific has been ably articulated by our External Affairs Minister, Dr S Jaishankar, “... (for India) the Indo-Pacific is for ‘something’ - not against ‘somebody,’ and that ‘something’ is Peace, Security, Stability, Prosperity and Rules.”⁷ In sum, the idea of a Free, Open and Inclusive Indo-Pacific underscores India’s very approach to the region. The question, however, arises, as to what does

‘Free,’ ‘Open’ and ‘Inclusive’ imply? To amplify:-

- ‘Free’ denotes freedom to progress lawful activities in pursuit of prosperity.
- ‘Open’ implies availability to all nations both, within the region as also others beyond the region, who have a legitimate stake in the common pursuit of progress and prosperity of the region.
- ‘Inclusive’ refers to collaborative and cooperative frameworks that do not stand against anyone.

In alignment with these imperatives, India’s outreach in the Indo-Pacific has an unmistakable maritime imprint, anchored in specific national objectives, guidance and priorities:-

- The concept of Security and Growth for All in the Region, viz. SAGAR, which is closely linked to the maritime element and, in many ways, articulates an overarching Indo-Pacific Strategy.
- Neighbourhood First, which prioritises engagements within India’s neighbourhood, in alignment with national aims and values.
- The ‘5S’: *Sammaan* - Respect; *Samwaad* - Dialogue; *Sahyog* - Cooperation; *Shanti* - Peace; *Samridhi* - Prosperity; all concepts which find acceptability and resonance among most nations of the Indo-Pacific.
- Act East, which is a natural progression of our ‘Look East’ initiative and includes aspects of cooperative security, thus, widening its scope to the broader Indo-Pacific Region.

These imperatives and factors guide India’s pragmatic approach to the Indo-Pacific, which prioritises convergences instead of coalitions, arrangements instead of alliances. As articulated by the External Affairs Minister, “faced with global regimes and coalitions, India chose to turn to more energetic diplomacy...(we) recognise that we are entering into a world of convergences and issue-based arrangements.”⁸

Philosophy in the Indo-Pacific - Indian Naval Perspective

As far as navies are concerned, it is often said that “Flag follows Trade” - ergo, navies operate wherever national interests lie. As India’s interests expand, operating farther and outward from Indian shores is a strategic imperative and necessity for the Indian Navy, in consonance with these interests. Indian Navy’s operational philosophy in the Indo-Pacific is, thus, premised on the overarching principle of operating in concert with India’s

national interests and endeavours, broadly implemented along three lines of effort: -

➤ **Line of Effort 1 - Collaborate and Cooperate towards Comprehensive Security.** This line of effort emphasises that security in the region is not a 'zero-sum' game, and collaboration and cooperation offers compelling benefits in achieving comprehensive security. In concert with this, the Indian Navy has prioritised the following: -

- Developing the idea of Collective Military Competence to tackle regional challenges. Each navy, or nation, bring certain unique capabilities to the table - whether it is a certain niche area of expertise, information; Our aim is to create a participative, access, intelligence, inclusive ecosystem geographical locations, assets, etc. Our aim is to create a participative, inclusive ecosystem, where each of these strengths can be harnessed for the collective good, instead of creating a prohibitive, elitist hierarchy of maritime engagement in the region.
- Coordinating operations with regional navies through Joint Patrols/ EEZ Surveillance/ CORPATs, etc., so that our collective capability could be put to use to ensure safety and security of the maritime commons.
- Attention to non-traditional security challenges being faced by nations with limited capacities to overcome them. Most of the island littorals, for instance, have their economies closely integrated with the seas. However, their capability to ensure comprehensive maritime security, relative to their responsibility, is limited. Indian Navy's endeavour has been to partner with such nations in every way feasible, whether in terms of preventing threats, such as narcotics smuggling, human smuggling, IUU fishing, etc., or sharing operational information to help shape responses.
- Prioritising and exchanging Maritime Domain Awareness by leveraging India's geo-strategic location. The aim is to develop the Indian Navy as the maritime information hub for the Indian Ocean Region (IOR), towards better awareness and understanding of security developments, as also response capability to collective security challenges. Indian Navy's Information Fusion Centre -

Indian Ocean Region (IFC-IOR) supports this effort through linkages with nearly two dozen countries and MarSec Centres. Participation of International Liaison Officers (ILO) at the IFC-IOR allows nations to harness this resource and assure greater security of the region.

➤ **Line of Effort 2 - Forge Regional Solutions to Regional Problems.**

The second line of effort involves developing tailor-made, regional solutions to regional problems, given our intrinsic understanding of the collective challenges faced. Some of the elements include:-

- The IOR is relatively less integrated in terms of regional security. The Indian Navy actively supports initiatives to bring the region together. To this end, initiatives such as the Indian Ocean Naval Symposium (IONS); Goa Maritime Conclave (GMC); MILAN series of interactions; the Indo-Pacific Regional Dialogue; etc., help promote collaborative engagements among maritime forces of the region, forging tailor made responses to challenges faced.
- Being the 'First Responder' and 'Preferred Security Partner' for littoral nations. Towards this, Mission Based Deployments have proved invaluable, with the Indian Navy deploying mission ready ships to the farthest reaches of the region. This enables close cooperation and quick response to emergent situations. A case in point was deployment of ships from the First Training Squadron of the Indian Navy to the West Indian Ocean in March 2019. These were the first ships to render assistance when Cyclone *Idia* struck Mozambique.
- Apart from operational cooperation, the Indian Navy also aims to be the preferred port of call for capacity building and capability enhancement efforts.

➤ **Line of Effort 3 - Enhance Reach and Sustenance.** 'Reach' and 'Sustenance' are two key ingredients of naval operations. Towards this, the Indian Navy has prioritised certain enablers: -

- Standing mutual arrangements with littoral countries for faster operational turn-around of assets.
- Logistics agreements with like-minded maritime nations for better inter-operability, such as the Logistics Exchange Memorandum of Agreement (LEMOA) with USA, Logistics

Support Agreement (LSA) with Republic of Korea and France, and Reciprocal Logistics Pact (RELOS) with Australia.

Conclusion

As we look to the future, Indo-Pacific would remain the centre of gravity of geo-politics - an arena of cooperation and contestation, while also offering opportunities and newer possibilities. As great power rivalry intensifies, India and the littoral states will not remain isolated from its ripple effects.

India's approach to issue-based convergence and SAGAR could be a model for like-minded countries in the region to follow. A free, open, rules-based and inclusive maritime ecosystem is crucial for India's - and indeed the region's - prosperity. As Indo-Pacific nations look to the future with hope of engendering socio-economic prosperity for their citizens, we must prioritise our convergences to support a free, open and inclusive Indo-Pacific in the quest for national progress.

The Indian Navy remains fully committed to supporting this free, open and inclusive maritime ecosystem in the Indo-Pacific, in a collaborative and cooperative way.



Adm Karambir Singh was commissioned into the Indian Navy in July 1980. He is a helicopter pilot and, in a career spanning over 40 years, he has commanded four frontline warships and has held important staff and operational appointments both, afloat and ashore. He assumed command of the Indian Navy on 31 May 19, as the 24th Chief of the Naval Staff.

- 1 Mr Shinzo Abe introduced the “confluence of two seas” - the Indian and Pacific Oceans, during his speech to the Indian Parliament in 2007.
- 2 Germany published its Indo-Pacific guidelines on 01 September 2020.
- 3 Coined in USA in the Truman era to reflect the state of bureaucratic politics.
- 4 PM Narendra Modi’s keynote address at Shangri La Dialogue on 01 June 2018.
<http://pib.nic.in/newsite/PrintRelease.aspx?relid=179711>.
- 5 India’s population is 17.7% of the total world population, as on 29 September 2020, based on Worldometer elaboration of the latest United Nations data. www.worldometer.info.
- 6 Finance Minister Ms. Nirmala Sitaraman, while presenting the Union Budget 2019-20, projected the aim of India becoming a \$ 5 trillion economy by 2024.
- 7 PIB Official Press Release titled ‘*External Affairs Minister’s remarks during Press Interaction with Secretary of State of the United States of America*,’ 26 June 2019,
https://www.mea.gov.in/Speeches-Statements.htm?dtl/31471/External_Affairs_Ministers_remarks_during_Press_Interaction_with_Secretary_of_State_of_the_United_States_of_America, accessed on 29 May 2020.
- 8 EAM Address at 4th Ramnath Goenka Lecture, 2019.

STRATEGIC THINKING IN THE INDIAN NAVY

Admiral Arun Prakash, PVSM, AVSM, VrC, VSM (Retd)

Introduction

There is considerable irony in the fact that it took the recent Sino-Indian border confrontation on the Himalayan heights to bring focus on India's maritime domain. Given the huge asymmetry between the two Asian giants - economic, military and technological, and the active China-Pakistan nexus, the best that India can hope for in a land conflict is a stalemate on its northern and western fronts. Therefore, many observers are turning towards the maritime domain with an expectation that India may have a better hand to play in the South.

So, what cards do we hold? Even if our civilian decision-makers are not very clear on this count, one hopes that the Indian Navy (*IN*) knows exactly where it stands and what it is capable of, in the Indian Ocean as well as the Indo-Pacific. The basic assumption is that India's maritime power, perhaps on its own but certainly in partnership, can exert significant leverage vis-à-vis China. An important question, in this regard, is - how does India's maritime strategy enable such leverage vis-à-vis China, and how should it evolve to retain the leverage?

The *IN*'s strategic thinking in the future will be influenced greatly by its evolution in the past and the nation's current internal and external environment. Therefore, as India's civilian and military leadership grapples with an increasingly expansionist and aggressive China, understanding the evolution of the *IN*'s strategic thinking since independence is important at this juncture. From an inherited strategy at independence, which was unsurprisingly aligned with Britain's interests, to a document titled *Ensuring Secure Seas: India's Maritime Security Strategy* (IMSS) articulated in 2015, great changes have taken place in the *IN*'s strategic thinking.

From an outward looking strategy involving securing trade routes at independence, the *IN* turned inwards and changed its focus to homeland defence. Over the decades post-independence, multiple events and factors influenced the *IN*'s strategic thinking and growth. That India should have a navy was never a matter of contention and, yet, no serious debate ever took

place about its size, shape and roles; thus leaving us in a doctrinal void. For a long time, the Navy grappled with the dilemma “between hardware and strategy, which should come first?” Not all nations have the luxury of choice and, for many years, the *IN* improvised as it went along till it became necessary to create a strategy at the turn of the millennium.

Peering into the future, India’s maritime strategic thinking will need to evolve further as India will be faced with a powerful and inevitably hostile China in the maritime domain. A suitable maritime strategy to be employed across the competition continuum against a stronger adversary will become necessary in the coming decades.

An Intellectual Void

A historical void related to strategic thinking has persisted in India and, even after 73 years as a sovereign nation, we lack a clearly articulated statement of national interests, aims and objectives. This strategic vacuum denied the *IN* a contextual frame of reference, and the absence of a strategy impacted adversely on force planning, equipment acquisition and infrastructure development processes.

Over time, three factors compelled Naval Headquarters (NHQ) to focus on the vital issue of creating an intellectual underpinning for the Navy’s strategic thinking. First, induction of foreign hardware was never accompanied by operational expertise or doctrine, because such things are not to be had for money. Secondly, in the absence of any higher strategic direction, the *IN* had to draw inspiration from something as lofty as the Constitution of India or in documents such as the Raksha Mantri’s (RM) Operational Directive.¹ Therefore, the hope was that the formulation of *IN*’s maritime strategy document would force the national security establishment to shake off its inertia and deliver a national level security directive - a hope that has yet remained unfulfilled. And, finally, globalization brought awareness of the Navy’s role as an instrument of state power as well as the fundamental link of trade and energy to the maritime domain.

There are several examples of countries amply endowed with weaponry that have come to grief for lack of doctrines. We should be clear that there is little point in accumulating military power unless there is clarity about doctrine and strategy to guide its employment. Such an intellectual void

plagued the *IN*'s strategic thinking for several decades after independence.

The *IN*'s Strategic Thinking Post-Independence (1947-62)

As the end of WW II hove into sight, British planners had started reassessing the Royal Indian Navy's (RIN) role. They considered India vulnerable to a southward push by the Soviets in their quest for a warm-water port. The British visualised the RIN as a component of a larger Commonwealth force, tasked with convoy protection, anti-submarine warfare (ASW) and joint/ amphibious operations.

On 15 August 1947, as India awoke to freedom, the civilian leadership was dealing with myriad problems, including the violent throes of partition and, understandably, had little inclination for maritime strategic thinking. Post-independence, the strategic emphasis shifted to protection of the homeland against a seaborne invasion and security of India's maritime communications. Both demanded a navy with a strike capability and long reach.

India had little inclination for maritime strategic thinking

At independence, the RIN was a very small force that consisted of less than half a dozen sloops. In 1948, NHQ drew up a grandiose 15-year expansion plan for two fleets, which envisaged four carriers, four cruisers, 16 destroyers, 16 submarines and about 400 aircraft. The 'Naval Plans Paper 1948' drafted by DNP is referred to until this day.² Clearly unrealistic for an impoverished nation with meagre resources, it was superseded by a more pragmatic and spartan plan, which included one light fleet carrier, a second cruiser and eight modern frigates to be built in British yards. All of this materialized by the early 1960s.³

In 1963, soon after the Pakistan Navy inducted its first submarine, India started its own quest for submarines and modern ships. A long-term agreement was signed with the USSR in 1965 for submarines and several ships. Simultaneously, serious thought was devoted to an indigenous warship-building capability and a decision was taken in 1960 to undertake construction of Leander class frigates under license. The first keel was laid in 1966 and a ship-design office was established.⁴

The *IN*'s strategic thinking in the initial days was excessively ambitious and completely out of sync with the nation's economic resources. On the other hand, despite exhortations of the *IN*'s leadership, the inexorable link between India's prosperity and maritime power through trade and energy

had not yet dawned on the civilian leadership, which almost regarded the Navy as a redundant force, a notion that manifested itself in the coming wars. Therefore, the *IN*'s strategic thinking did not translate into a coherent strategy nor did it result in commensurate force build up.

Quest for a Role in India's Wars (1962-1971)

The 1962 War did not involve the *IN* or, regrettably, even the IAF. The 1965 War caught the *IN* on the wrong foot entirely for several reasons. While the carrier and other ships were in refit, the rest of the fleet had to be recalled from the Bay of Bengal. The Navy received a baffling Ministry of

1971 War showcased the Indian Navy as a powerful instrument of state policy

Defence (MoD) directive, which barred operations north of the latitude of Porbandar. The *IN*'s ignominy was total when the Pakistan Navy undertook night bombardment of Dwarka, 60 miles north of Porbandar, and the submarine PNS *Ghazi* was deployed off Bombay.

While there was undoubtedly a lack of maritime awareness at the politico-bureaucratic level, did the naval leadership communicate with the politicians - and what role did the Navy's strategic thought process play? The conflict also exposed the absence of tri-service coordination and the *IN* discovered many operational voids, including the absence of submarines, poor equipment state, lack of a fleet-tanker and dedicated maritime reconnaissance aircraft effort.

Five years later when the Bangladesh crisis started brewing, the *IN*, still smarting from the ignominy of inaction in 1965, was determined to make ample amends. As soon as the war broke out, a bold leadership unleashed the full range of maritime capabilities - missile-warfare, carrier operations, submarine and anti-submarine warfare, shore-bombardment and mine countermeasures. The *IN* contribution to this successful tri-service campaign clearly demonstrated to India's ruling elite the Navy's potential as a powerful instrument of state policy. Sea control and blockade by a lame duck carrier, suffering from major machinery defects, and sinking of PNS *Ghazi* in the East brought home major lessons. In the West, lessons from Indian missile boat attacks from the high seas, and the submarine PNS *Hangor* torpedoing INS *Khukri*, were duly registered in the *IN*'s strategic cognition.

Soviet Influence and the ‘Chicken and Egg’ Conundrum (1970s - 80s)

For a long time, the Navy grappled with a ‘chicken and egg’ dilemma - “between hardware and strategy, which should come first?” As the *IN* evolved, India had very little leeway in the ‘hardware-strategy’ conundrum and we just took what we could get. Coupled with our indifferent communication strategy, this created some awkward situations.

During the 1980s, frustrated by the lack of response to his queries from our NHQ, the editor of *Jane’s Fighting Ships* had commented in his foreword that, “the Indian Navy is one of the few major navies which first buys hardware and then thinks about how to use it!” He was possibly

The IN inventory grew rapidly in the 1980s

referring to the flurry of acquisitions which had seen the *IN* inventory growing rapidly in the 1980s. These included an aircraft carrier with 27 ship borne fighters, five guided-missile destroyers, 12 diesel electric submarines, nine missile corvettes, five maritime reconnaissance aircraft and a nuclear attack-submarine on lease. This was also the period when Prime Minister Rajiv Gandhi had decided to adopt a pro-active regional approach, leading to military interventions in Sri Lanka and the Maldives.

A different kind of reaction came from the *Time* magazine, which produced an issue carrying an imposing photograph of INS *Godavari* on its cover, with the caption - “Super India: the Next Military Power.”⁵ This was possibly meant to convey that the world had begun to take note of India as an emerging power. But this hyperbolic presentation, once again, served to cause apprehension in the neighbourhood. Critics in Australia and Singapore began to cry wolf about India’s maritime expansion and the possible existence of an ‘Indian Monroe Doctrine.’

Both these reactions were a result of poor communication on our part and created apprehension in our neighbourhood. The reality was that the accretion was not the outcome of a well-considered strategy, but the result of adhoc benevolence extended by the Soviet Admirals at ‘friendship prices’ in order to reinforce their leverage.

Under the influence of Mahanian ideas, we remained convinced that the *raison d’etre* of navies was only to engage the enemy in a big battle at sea and plans were shaped accordingly. However, the lessons from exercises as well as the 1971 war clearly proved that navies like ours could achieve decisive results only by conducting maritime operations with a linkage, no matter how indirect, with events on land. This ‘Corbettian’ wisdom dawned

on us rather late. The Navy's other roles namely 'Diplomatic,' 'Benign,' and 'Constabulary' were not clearly understood or articulated, even though the *IN* did play a significant diplomatic role in fits and starts.

An *IN* Military Strategy was issued to units as a classified document in 1988, but was accessible only to a few, and did not help from the communication strategy perspective.⁶ ***Maritime operations have a linkage with events on land*** Therefore, despite substantial force accretion, the *IN*'s strategic thinking underpinnings remained inadequate in the 1980s, with the *IN*'s strategy and force build up aspirations being out of sync with the nation's resources. A poor communication strategy, with respect to force accretion, only added to India's maritime power woes.

'Trending' in the 1990s

Those of us who served in NHQ during the 1990s noted a few general trends in the Navy's affairs. A major portion of time and attention in the regular morning briefings would be taken up by the Director of Naval Intelligence, who focused on the conflicts in the Middle East, the Sri Lankan civil war and the affairs of our neighbours in the Indian Ocean littoral.

From the discussions, two facts seemed obvious. First, that naval diplomacy was the Navy's most important, if not the only, function in peacetime. It also highlighted the fact that of the three services, only the Navy had a clear-cut, ongoing and substantive role in peacetime. This paradigm was in stark contrast to the *IN*'s hitherto Mahanian strategic thinking alluded to earlier. The Navy's role in implementation of the Look East Policy in 1991 and Exercise *Malabar* with the US Navy (USN) 1992 onwards amply proved this thought. Secondly, that naval diplomacy was a complex issue which the Directorate of Naval Intelligence was neither manned nor equipped to handle.

The second area of intense NHQ focus was with respect to low force-levels. Disintegration of the Soviet Union had impacted the spares supply-chain. In addition, age was catching up with many of our units and both issues adversely affected ship and aircraft availability. Operational logistics was an area of serious concern and indigenization remained just a catchphrase and an ever-receding mirage.

A bright spot however, was indigenous warship production. By 1988,

six Leander Class and three Godavari Class frigates had been delivered. Despite the limitations of the Leanders, this British hull design provided naval architects with an invaluable opportunity for innovation and experimentation. Successful in-house integration of Soviet and Western weapon/ sensor technologies had stunned observers. However, despite several projects being in the works, budget constraints coupled with NHQ's planning oversights, resulted in no new ships being ordered for nearly a decade from the mid-1980s.

***Budget constraints,
planning oversights
resulted in no new ships***

A flurry of indigenous productions and foreign acquisition options became available as the liberalized economy gained momentum in the late 1990s. The foreign acquisition options narrowed temporarily with Pokhran-2 and opened up again shortly after the Kargil War. Russia, however, continued to maintain intense political pressure, leaving few options for NHQ when confronted by the *fait accompli* of signed and sealed inter-governmental agreements and the knotty defence procurement framework.

The overall picture remained one of uncertainty because acquisition and manpower cases languished for years, as they were questioned at every stage in the Ministries of Defence and Finance, and even by the Cabinet Committee on Political Affairs. A bureaucrat or a so-called 'Financial Adviser' at any level could raise an objection and hold up or even stall a vital project/ case. We were caught in a vicious cycle. Since no government had ever issued a security strategy and no assurance of funding existed, we did not draw up a force-architecture design or manpower plan. Consequently, every bureaucrat felt free to question NHQ proposals at every step. Given the nature of emerging threats and the pace of technological change, it became obvious that the Navy's strategic thinking had to create a long-term vision for itself and for the government.

Coming of Age (2000s and 2010s)

At the turn of the century, it was RAdm Raja Menon, one of India's most cerebral military-thinkers and writers who provided the catalytic spark for the IN's strategic thinking. He had argued in his book *Maritime Strategy and Continental Wars* that India, with its continental preoccupation, would face immense difficulties while crafting a maritime strategy and must, therefore, gain relevance by ensuring that it affects the national political

purpose.⁷ He recommended the use of modern technology to “speed up the battle” and offered options that would enable smaller navies to influence land wars. The *IN* leadership took RAdm Menon’s advice to forget ‘ship counts’ and strive instead for capabilities. His prescriptions relating to communications satellites, special forces and aerial reconnaissance were translated into policy initiatives during 2004-06. Formulation of the 2007

***Post the 2004 tsunami,
27 ships were dispatched
within 36 hours***

Maritime Military Strategy owed much to his advice and assistance. For many years he had also been a strident advocate for a naval think-tank and, in 2005, NHQ was able to obtain MoD approval and funding for the ‘National Maritime Foundation,’ which has provided a fillip to maritime strategic thinking in India.

The *IN*’s sterling performance in the aftermath of the 2004 tsunami, wherein 27 ships were dispatched within 36 hours to render assistance to affected regions, including Sri Lanka, Maldives and Indonesia, established our Navy’s credentials as a credible regional force. Within a week, the navies of USA, Australia, Japan and India had come together to form Joint Task Force-536, to establish the framework for ‘quadrilateral coordination.’ Remarkably, the PLA Navy (PLAN) was conspicuous by its absence.

The *IN*’s actions in the aftermath of the great Asian tsunami fundamentally affected our strategic thinking in two ways. First, the Quadrilateral, which is currently witnessing a resurgence, significantly reinforced the *IN*’s diplomatic role. Secondly, the *IN* realized the importance of Humanitarian Assistance and Disaster Relief (HADR), thus firmly adding the ‘Benign Role’ to its repertoire of peacetime roles. It has since dealt with many successive episodes of natural disasters and civilian evacuations from the Middle East and Africa.

Two events in 2007-08 led to inclusion of the ‘Constabulary Role’ to the *IN*’s strategic thinking as another peacetime role. The first event was the spread of piracy from the Horn of Africa in 2007, which elicited a swift response from the *IN* and several other navies. The *IN*’s Patrol of Gulf (PoG) deployments from 2008 onwards, in conjunction with other navies, successfully pushed back piracy and contained it close to the Horn of Africa. The second event was the ‘26/11’ Mumbai terrorist attack, wherein Kasab and his band of Pakistani terrorists surreptitiously entered Mumbai onboard the fishing vessel *Kuber* and killed scores of innocents. In its aftermath, ‘overall maritime security’ was added to the *IN*’s charter, thus

reinforcing the constabulary role in its strategic thinking.

Despite evolution of the IN's maritime thinking and significant maritime capabilities accretion, only tactical doctrines had been emerging sporadically from the fleets. We lacked an overall doctrine and strategy. A clear articulation of the attributes of maritime power and the roles and missions of the Navy as an instrument of state power was seen as necessary; not just for educating India's decision-makers and national security elite, but also for familiarizing the Navy's own middle-ranking leadership with the arcane logic and use of maritime power.

*Articulation of the roles
and missions of the Navy
was seen as necessary*

To provide impetus to creative doctrinal thinking and place it on a sound institutional footing, two organisations were instituted in 2005. A Flag Officer Doctrines and Concepts was created in Mumbai, and a small group of cerebral officers was constituted in NHQ as the Directorate of Strategy, Concepts and Transformation, which was placed directly under the CNS to encourage 'out of the box' thinking.

In October 2005, NHQ issued a document titled *Freedom of the Seas: India's Maritime Strategy* (IMS-2005) as a classified publication. This was followed by an unclassified version titled *Freedom to use the Seas: India's Maritime Military Strategy* (IMMS-2007), which was the IN's first strategy document to be placed in the public domain. This became the companion volume to the *Indian Maritime Doctrine*, which was issued in 2004, with a revised and updated version promulgated in 2009. A shift in emphasis was instantly discernible; from sea control and naval dominance to economic and energy security as well as good order at sea, EEZ security and disaster relief operations. The IMMS-2007 was succeeded by a strategy document titled *Ensuring Secure Seas: Indian Maritime Security Strategy* (IMSS) in 2015, indicating the Navy's dynamic thinking and pro-active approach towards a changing environment and circumstances.

The 2005 Strategy was logically followed by a blueprint for naval force development titled *Maritime Capabilities Perspective Plan* (MCP) 2005-2022, which set out the capabilities and hardware required for its execution. While figures ranging from 190 to 300 warships and submarines had been tossed around from time to time, it was decided to be as realistic as possible by using conservative figures for GDP growth rate, defence budget and the Navy's likely share. Having worked out the 'worst-case' threat scenario and

the given fund availability, the *IN* was visualized as a 'regional navy with limited aspirations of safeguarding national interests,' and sought a stabilized strength of about 150-170 ships and submarines and 350-400 aircraft. The logic of the MCPP was obviously compelling and the RM accepted it in 2005.

This triad of documents has served to provide the long overdue intellectual underpinning for the planned growth of India's maritime power and provided a clear roadmap for roles, missions, force-architecture, technology induction and an operational philosophy. As a part of the doctrinal endeavour, NHQ also decided to address the issue of foreign cooperation.

***GDP, defence budget and
Navy's share shaped IN
perspective plan***

For many years, our smaller neighbours had been seeking India's maritime security assistance, presenting a significant diplomatic opportunity. However, NHQ could not capitalize on the opportunities due to impediments created by the Ministries of Defence or External Affairs. Concerted efforts in 2005 through better coordination with ministries and a Rs. 300-550 crores (Rupees 3-5.5 billion) corpus request failed to yield results.

NHQ, therefore, decided to separate naval diplomacy from the intelligence function and place both under a new Flag officer, designated Assistant Chief of Naval Staff (Foreign Cooperation & Intelligence) or ACNS (FCI). Thus, we could expand our assistance programmes with in-house resources by undertaking training *in-situ* and often pulling out hardware from our own inventory. We gifted a patrol boat to Maldives, an OPV to Sri Lanka, and three Islander patrol aircraft to Myanmar, apart from sending out training teams to a few countries.

Having examined the evolution of the *IN*'s strategic thinking from independence to its current sound doctrinal moorings, it is necessary to now examine India's maritime leverage against China, available options, and further evolution of strategic thinking in the emerging environment.

Maritime Leverage?

Given the current Chinese intransigence and our misreading of their imperialist-expansionist intent, Sino-Indian tensions are likely to persist. If India is not to cede ground physically or diplomatically, it must muster all elements of its 'comprehensive national power,' including maritime, and

create a strong negotiating position. Apart from the balance of forces on land favouring China, there is also the Beijing-Islamabad axis that awaits activation. Keeping tensions confined to the Himalayan arena is, therefore, not only militarily advantageous to China but a continental focus also helps to keep India contained in a 'South Asia box.'

Many leaders, including Hu Jintao, believe that China's Sea Lines of Communications (SLOCs) in the Indian Ocean Region (IOR) constitute its 'jugular,' which India could threaten. The Chinese premier has referred to this vulnerability as the "Malacca Dilemma." 'Commerce raiding' is a feasible strategy during wartime and, once

*China's SLOCs in the IOR
constitute its jugular*

hostilities commence, belligerents may declare an 'exclusion zone' or naval 'blockade' against the enemy; denying entry and exit to all merchant shipping from the latter's ports. Laws of naval warfare also allow belligerents to 'visit and search' an enemy or neutral vessel to determine the character of the ship or its cargo, and to intern it if necessary.

In peacetime, however, 'maritime interception operations,' or stopping and boarding of a foreign-flagged merchant ship on the high-seas, requires permission of the flag-state or the ship's Master. A 'non-compliant' boarding is feasible in certain cases, including failure to comply with a warship's directions, suspicious conduct, flying a false flag or not flying a flag. If all else fails, the 'doctrine of necessity' can be invoked by a warship (or submarine) to board, search, divert or capture a merchant ship.

Two aspects amongst several others would be most significant regarding trade interception leverage. The first is India's ability to form an intelligence network to track Chinese trade through unconventional means, such as brokers from commodity markets in Geneva. This will enable India to not only use the leverage, but also to do it in a calibrated manner with targeted threats/ execution. The second aspect would be India's strategy to deal with a *quid pro quo* in the South China Sea. China's commerce, including energy, through the IOR is far greater than India's trade through the South China Sea, and this provides India with an inherent advantage.

Maritime Options and Strategic Thinking (2020s-2030s)

The IN's maritime strategic thinking will need to evolve substantially in the coming decades to match up to the China challenge and maintain its leverage in the maritime domain. With its naval power and central

geostrategic location, India had the upper hand in the IOR, up until now, despite the presence of several extra-regional navies. Given the PLAN handicap of operating on 'exterior lines of communication,' the *IN* still retains a relative advantage in the IOR. However, it may not be long before

IN still retains a relative advantage in the IOR

China negates this advantage through greater/superior force-levels and military bases in the IOR. Therefore, the *IN* may need to adopt innovative strategic thinking to remain inside the PLAN's OODA loop.

In a long-term perspective, two readily available options for India that need serious examination and early implementation are - first, to seek friends and partners to make common cause in the maritime domain; and secondly, to fortify itself at sea. As far as maritime partnerships are concerned, two templates are already available - Exercise *Malabar* and the 'Quadrilateral Security Dialogue' or 'Quad.'

China's extreme concern about Exercise *Malabar* as well as the Quad (and the Indo-Pacific concept) arises from the suspicion that they are precursors to 'containment' - the Cold War geopolitical strategy used by USA to isolate and engineer the collapse of USSR. China's hostility has so far aroused trepidation amongst Quad members. The time for ambivalence is over and, while India will have to fight its own territorial battles with determination, this is the moment to seek external balancing. A formal revival and re-invigoration of the Quad is called for. It is also time to seek an enlargement of this grouping into a partnership of the like-minded. Other nations feeling the brunt of Chinese brawn may be willing to join a larger 'Indo-Pacific concord,' not as an Asian NATO, but to maintain peace and tranquillity, ensure observance of the United Nations Convention on the Law of the Sea (UNCLOS) and render assistance in maritime emergencies.

The *IN*'s strategic thinking will have to take cognizance of increasing Chinese force levels in the IOR in the near future. A PLAN aircraft-carrier is unlikely to show up in the IOR till resolution of the Taiwan issue, which keeps China focused on the South China Sea and the US 7th Fleet. Bereft of integral air cover, PLAN forces in the IOR will remain vulnerable to Indian forces tasked with sea control. However, this premise may not hold good beyond 2030 or when the second and third PLAN aircraft carriers are inducted. The issue of increasing force levels is exacerbated by the Chinese acquiring bases in the IOR.

In the context of building maritime muscle in addition to force

accretion, the Andaman and Nicobar (A&N) Island chain offers tremendous opportunities. Located astride the mouth of the Malacca Strait, this archipelago is an ideal base for maintaining sustained surveillance over the straits of Sunda, Lombok, Ombai and Wetar, which offer alternative exits from the South China Sea. Provided with the necessary offensive ‘punch,’ in terms of strike aircraft, submarines and missile armed warships, the ANC can form India’s ‘forward defensive line.’

***A&N Island chain offers
tremendous opportunities***

Conclusion

Nature has ensured that India’s geographical configuration makes her as reliant on the seas as any island nation. Also, geopolitical imperatives have in the recent past served to confirm the importance of the maritime domain in our national security matrix. Fortunately, people of vision and foresight have ensured that we have a robust and professionally capable navy today.

However, what will matter is not how much maritime power India possesses, but her ability to wield it with strategic sense and ingenuity in national interest. Like every nation, India has a vision of its place in the world and actively seeks to play a key role in the international order. But, unfortunately, it has devoted inadequate intellectual capital to the articulation of its own vital interests, assessing possible threats, and taking measures to forestall them. This is a manifestation of the historical void in our strategic thought-process, which has resulted in us being repeatedly taken by surprise and offering knee-jerk responses to situations.

India’s maritime strategic thinking will need to evolve substantially in the coming decades to deal with a stronger adversary. The *IN*’s maritime strategic thought will be the determining factor, as history has shown in all cases when weaker powers have come out on top. With budgets shrinking, hardware will become even more difficult to acquire and must be substituted by ingenuity and innovation. Sound strategic thinking and corresponding build-up of combat capability, as well as operational plans for the complete spectrum of competition, will be key.

It, therefore, behooves the current generation of naval officers - stakeholders in the national security edifice to apply their minds to the future; and offer frank and forthright advice to our decision-makers, both political and military. The *IN*’s strategic thinking would benefit immensely from a freewheeling and frank debate on ‘out of the box’ options. Towards

this end, the *Indian Naval Despatch*, in its new *avatar*, could well turn out to be the ideal forum for exchanging strategic thoughts with wide participation within the *IN*, and without.



Adm Arun Prakash (Retd) served as India's 18th Naval Chief and Chairman, Chiefs of Staff. He writes extensively on strategic and security issues, and holds the Distinguished Chair at Naval War College, Goa, providing guiding light for research by faculty and course participants.

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- 1 *Raksha Mantri* is the Defence Minister.
 - 2 VAdm Anup Singh, *Blue Waters Ahoy* (Noida: HarperCollins, 2018), 312.
 - 3 VAdm GM Hiranandani, *Transition to Eminence* (New Delhi: Lancer, 2000), 1-9.
 - 4 *Ibid.*, 31-57.
 - 5 *Time*, 03 April 1989.
 - 6 *A Maritime Military Strategy for India 1989-2014* (New Delhi: IHQ MoD(Navy), 1988).
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CHINA'S MARITIME STRATEGY IN THE SOUTH CHINA SEA: MASTERSTROKE OR MONUMENTAL BLUNDER?

Vice Admiral AK Chawla, PVSM, AVSM, NM, VSM, ADC

China's actions in the South China Sea (SCS) offer a fascinating study in the evolution of its maritime strategy over the past 70 years, as also a pointer to its future evolution. A land-locked and relatively shallow sea, the SCS contains more than two hundred small islands, rocks and coral reefs, only about three dozen of which are permanently above water. Connecting the Western Pacific to the Indian Ocean, it is an enclosed sea where a significant number of global sea routes coalesce. The Malacca, Sunda, Lombok and Makassar Straits link the SCS to the Indian Ocean, through which passes more than half the annual global merchant traffic in tonnage and a third of all maritime traffic worldwide, comprising an approximate value of \$3.37 trillion. The most important commodity transported through this region is oil to East Asia, catering mainly for the energy needs of China, Japan and South Korea. Connectivity of the SCS to the Pacific Ocean is equally restrictive, being largely through the Luzon and Taiwan Straits.

The SCS is assessed to have a rich trove of mineral and non-mineral resources with estimates of 11-12 billion barrels of oil and 190 trillion cubic feet of natural gas, mostly along the margins of the sea, with very little reserves estimated under the disputed islets and reefs. A substantial amount of money has been invested by stake-holder nations in oil and gas exploration, with the China National Offshore Oil Corporation (CNOOC) alone having invested \$20 billion. This is also one of the most fished waters and, according to some accounts, amounts to 10% of the total global production, with catch now dropping because of over-fishing and environmental degradation. In fact, since 1999, China enforces an annual fishing ban between 01 May and 16 August up to the 12th Parallel, which includes the Spratly and Paracel Islands, and can be seen as another way of enforcing its sovereignty over the SCS.

The SCS, therefore, occupies immense geostrategic and economic

importance for both East Asian and Southeast Asian countries, most of them being either enclosed or fronted by this water body. The SCS is also mired in territorial disputes. While China and Taiwan lay historic claim to more than 80% of the SCS, Vietnam claims full sovereignty over the Paracel and Spratly Islands; Philippines asserts ownership of the Spratly archipelago and the Scarborough Shoal; Brunei and Malaysia claim sovereignty over the southern parts of the sea and some of the Spratly Islands; and Indonesia contests the nine-dash map as it impinges on the Exclusive Economic Zone (EEZ) accruing to it from its Natuna Islands, which lie outside the nine-dash line (see Fig1). USA and India, along with other maritime nations across the globe, do not officially align with any of the claimants, but propagate freedom of navigation and over-flight in the SCS, and settlement of the conflicting claims in accordance with United Nations Convention on the Law of the Sea (UNCLOS). While all claimant countries have taken proactive actions to occupy various islands in the SCS, China has used its growing maritime power to obtain a stranglehold over a large part of the sea.



Fig 1: Claims of Competing Parties in the South China Sea¹

At the centre of China's claims in the SCS is a dashed line map drawn in the 1940s, claimed by Beijing to be a 'historic line' (but without exact coordinates), which encompasses the heart of the entire SCS in a loop extending 1,200 miles southwards from China's Hainan Island, close off the coasts of Singapore, Indonesia and Malaysia, and enclosing all the island groups in the sea.² Despite its 'ancient and historic claims' over the islands in the SCS, the first modern record of Chinese presence dates only to December 1946, when two Chinese ships dropped a landing party on the island of Itu Aba in the Spratly archipelago. It was after this voyage that the former Government of the Republic of China (ROC) formally claimed sovereignty over the islands.³ The first official Chinese government map of the SCS with a revised list of Chinese names titled the 'Map of the South China Sea Islands' containing 11 dashes (as in Fig 2), comprising almost the



Fig 2: China's 11-dash Map of Claims in the South China Sea (1948)⁴

entire SCS, was published in 1948 by the ROC before the Communist victory in China.⁵ The 11 dashes were reduced to the current nine dashes by the People's Republic of China (PRC) in the early 1950s, to bypass the Gulf of Tonkin, as a courtesy to the Communist government in Vietnam.

After the establishment of the PRC, China became acutely aware of its disadvantage in maritime geography due to its coastline being enclosed by island chains, which limited its free access to the oceans. Its limited natural

China pursued an island-grabbing and building spree in SCS

resources and arable land, combined with a large population, also meant that it was dependent on imports for critical commodities. These shortfalls played a central role in shaping China's 'island-grabbing' and 'island-building' spree in the SCS, in pursuance of the People's Liberation Army's (PLA) primary mission of 're-unification of the motherland.' From 1949 till 1980, China followed a military strategy of *Active Defence* and a maritime strategy of *Near Coast Defence*, which limited the PLA Navy (PLAN) mainly to brown water operations, but included plans to gain control of islands close off its coast held by ROC forces (based on Taiwan), which the PRC apprehended could be used as a springboard to attack the mainland. The conquest of Hainan Island in 1950 was the first operation, with the island being quickly transformed into a major naval base with an airstrip. After almost 25 years of consolidating its presence on Hainan, China used the opportune moment of the drawdown of US forces in South Vietnam, after the 1973 Paris Peace Accords, to occupy the western half of the Paracel Islands in 1974 (China already controlled the eastern group, the Amphitrite Islands). Hainan Island was the staging base for the maritime and air forces used to enforce the occupation against the hapless South Vietnamese Navy. After occupying the Paracel Islands, the PLAN built a naval base and runway on Woody Island, one of the larger islands of the Paracel Group, to extend its reach into the SCS.

In 1977, after Mao's demise, China's attention under Deng Xiaoping was slowly but surely turning towards the seas. The military strategy of *Active Defence* was modified to *Active Defence in the New Era* in 1980, with the maritime component of this strategy being termed as *Near Seas Active Defence*. Revision of China's Military Strategic Guideline (MSG) from *total war* to *local/ limited wars* in 1985 was the first time that the PLAN and China's maritime dimension received significant attention,

prompted by its growing recognition that if China was to become an economic superpower, it would also need to be a maritime power. A significant event at this juncture, which played a major role in re-shaping China's maritime strategy, was the successful conclusion of the third and final United Nations Conference on UNCLOS on 10 December 1982. The realisation of the advantage that UNCLOS conferred, with regard to rights and responsibilities within EEZ and continental shelves, spurred the race for China and other Southeast Asian nations to claim or occupy contested islands in the SCS. Consequent to the shift to the maritime strategy of *Near Seas Active Defence*, timelines for achieving sea control over defined oceanic areas were set out by Admiral Liu Huaqing in three phases - the ocean area from China's coast to the so-called 'first island chain' in Phase 1 by 2000; extended till the so-called 'second island chain' in Phase 2 by 2020; and finally over vast oceanic expanses in Phase 3 by 2050 (see Fig 3).



Fig 3: The First and Second Island Chains and Maritime Chokepoints in the South China Sea⁶

Admiral Huaqing enumerated six maritime objectives that formed the core of strategy of *near seas active defence*, which became the primary missions of the PLAN - reunify Taiwan; enable the return of lost and disputed maritime territories in the 'first island chain'; defend national maritime resources; secure Sea Lines of Communication (SLOC); preferably preclude, but if necessary defeat decisively any seaborne attack on China; and build sufficient strategic deterrence.⁷ While the new strategy

China aimed at sea control within the 'first island chain' was essentially one of sea denial, it simultaneously aimed at sea control within the 'first island chain' with the strategic maritime objective of ensuring that China would not be denied access to its near seas and protected what it perceived as its sovereign maritime rights.

China commenced the next phase of its encroachments (after 1974) in the SCS from the Spratly Islands by occupying the Fiery Cross Reef in January 1987, which culminated in a bloody clash with the Vietnamese Navy on 14 March 1988, when the PLAN sank three of their ships and killed 74 Vietnamese sailors. Towards end 1988, China occupied Mischief Reef, well within the Philippines EEZ after another bloody clash, this time with Philippine forces. Chinese assertiveness over its claims accelerated after the end of the Cold War and coincided with its economic blossoming, which fed the double-digit growth in its military (especially naval) expenditure.

In February 1992, to implement the Law of the Sea at the domestic level, China enacted its *Law of the People's Republic of China Concerning the Territorial Sea and the Contiguous Zone of 1992*, which defined the PRC's territorial sea expansively to include areas covering Taiwan and all its islands, Macclesfield Bank, Diaoyu (Senkaku), Paracel, Spratly and all other islands claimed by China. The 1993 MSG, *Winning Local Wars under High-technology Conditions*, identified Taiwan and USA as China's strategic opponents (as against the Soviet Union earlier). The East Coast of China became the primary sector of threat, which required dependence on maritime power. In 1994-95, China started permanent construction on Mischief Reef, which it had forcibly occupied in 1988. A watershed year was 1997, as the peaceful transfer of Hong Kong from UK to China removed a potent 'threat' from democratic forces close to its mainland, and was a major step in China's quest to restore 'lost territories' to the motherland.

During Hu Jintao's leadership from 2002 to 2012, foreign policy moved from 'peaceful rise' to 'peaceful development,' which implied continued focus on its economic growth but a more proactive international leadership role by China.⁸ An outcome of this approach was the signing of the ASEAN-China *Declaration of the Conduct of Parties in the South China Sea* (DOC) in November 2002, which sought to ease tensions and promulgate guidelines for conflict resolution. This was the first time that China accepted a multilateral approach on the SCS issue. However, this was to prove a diplomatic ploy, designed to exclude USA from intruding into the discussions and, after a brief hiatus, China resumed its piratical behaviour through its time-trusted strategy of 'creeping encroachment.'

***DOC was China's
diplomatic ploy to exclude
US from SCS discussions***

The 2004 MSG, *Winning Local Wars under Conditions of Informationisation*, identified USA as the strategic opponent and China began deploying disruptive technologies and forces, clearly evident as an Anti-Access/ Area Denial (A2/AD) strategy, to make the SCS a 'Chinese lake.' The SCS was labelled as a 'core interest' by China in 2010, a year in which China also became the biggest energy consumer in the world, highlighting its dependence on the seas. September 2010 and the first half of 2011 witnessed Sino-Japanese clashes over the intrusion of Chinese fishing boats into waters off the Senkaku Islands; a series of incursions by Chinese ships into Philippine waters near the Spratly Islands, Reed Bank and Amy Douglas Bank off Palawan Island; and harassment of Vietnamese oil exploration ships in the SCS. Tensions exacerbated when the Philippines renamed the SCS as the 'West Philippine Sea' in 2011.

The year 2012 marked the ascent of Xi Jinping. He perceptibly shifted from a policy of 'peaceful rise' to a more assertive and aggressive posture, exemplified by the April 2012 incident between China and the Philippines over the Scarborough Shoal. Starting as an uneasy stand-off between the Philippine Navy and two unarmed China Marine Surveillance (CMS) craft shepherding Chinese fishermen (maritime militia) in the shoal, the escalation led to China establishing a permanent presence in the area by July 2012. This led to the Philippines filing for international arbitration under UNCLOS on 22 January 2013. Meanwhile, in June 2012, Vietnam passed a law asserting its sovereignty over the Paracel and Spratly Islands. In response, China announced the establishment of Sansha city on the

Paracels, which would administer the Paracels, Spratlys and Macclesfield Bank. China also upgraded the SCS to a 'core interest' alongside Taiwan and Tibet, which implied that it was ready to fight over it with other countries.

Discord between ASEAN nations on the SCS issue peaked when, for the first time, ASEAN failed to release its official communiqué after its annual summit in July 2012, as Cambodia opposed the move to include the dispute in the statement due to Chinese influence. Meanwhile, after Japan purchased three of the five Senkaku Islands from its private Japanese owner in September 2012 for \$26 million, China declared territorial sea baselines

Senkaku Islands are covered under US-Japan Mutual Defence Treaty

around the islands and submitted a claim over the islands to the UN in January 2013. The tensions, by now, had resulted in the increase of naval budgets across the region, with China leading the table. Not coincidentally, China's first aircraft carrier was also commissioned on 25 September 2012. In November 2013, China declared an Air Defence Identification Zone (ADIZ) over the East China Sea, including the Senkaku Islands, requiring all non-commercial air traffic to submit flight plans prior to entering the zone, without which China could take military action against unidentified aircraft. This has resulted in intensified military air activity over the region. As a consequence, for the first time, USA clearly stated that the Senkaku Islands were covered under the ambit of the US-Japan Mutual Defence Treaty. In 2013, China also turned its attention towards the Second Thomas Shoal (105 nautical miles west of the Philippine Island of Palawan in the Spratlys), though the Philippines managed to hold on to the shoal with US assistance.

From 2014 onwards, China started massive land reclamation and construction on seven of its existing outposts in the Spratly Islands, building artificial islands and military facilities on Fiery Cross (see Fig 4), Cuarteron, Gaven, Hughes, Johnson, Mischief and Subi reefs. By August 2015, a US Department of Defence report estimated that China had reclaimed over 3,000 acres of land on the Spratlys. These outposts provide maritime domain awareness capabilities across the SCS and serve as springboards to extend China's reach even further into Southeast Asia, the Pacific and the Indian Ocean.⁹ Another impact of China's threatening moves was the signing of a new Enhanced Defence Cooperation Agreement between USA and Philippines on 28 April 2014. In May 2014, tensions



Fig 4: Fiery Cross Reef after Reclamation, 27 March 2020¹⁰

between China and Vietnam again escalated to a maritime brawl involving the collision of several ships over the presence of a Chinese oil rig near the Paracel Islands, which was ultimately withdrawn by China, but not before bilateral relations had plunged to a new low. An ironic consequence was the partial withdrawal of the US weapons embargo on Vietnam, which had been in place since the end of the Vietnam War in 1975, in which China and the Vietnamese Communist regime had been close allies.

The 2015 MSG, which revised China's military strategy to *Winning Informationised Local Wars, Highlighting Maritime Military Struggle*, maintained USA as China's strategic opponent and focussed on maritime preparations to counter the threat.¹¹ China's maritime strategy was clearly enunciated in this paper stating, "in line with the strategic requirement of offshore water defence and open seas protection, the PLAN would gradually shift its focus from *offshore waters defence* to the combination of *offshore waters defence* with *open seas protection*."¹² This indicated China's intention to move outwards to the 'open seas' with the awareness that it's 'near seas' (within the 'first island chain') were now secure. In 2015, President XI Jinping had promised that China would not militarise the SCS

islands and that only 'necessary defence facilities' would be built for 'maritime safety and natural disaster support.' However, commencing February 2016, China deployed surface-to-air missiles, J-11 fighters and H-6J bombers on Woody Island in the Paracels, which could potentially target the entire Philippines archipelago (see Fig 5).

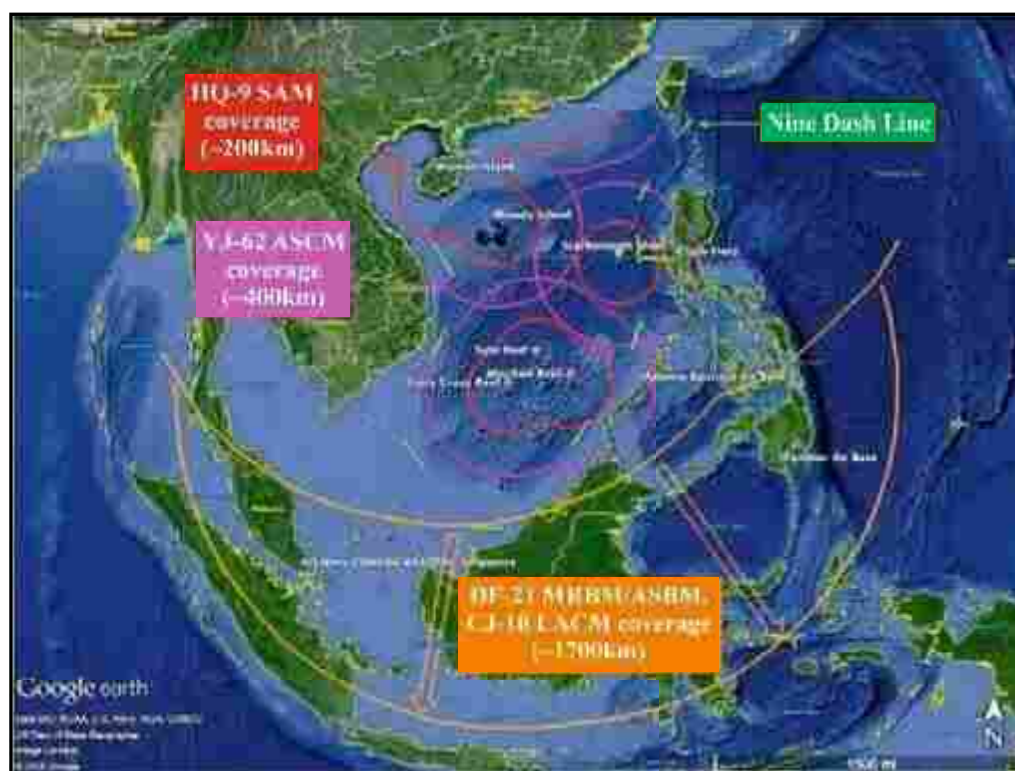


Fig 5: Range Arcs Depicting Potential Coverage of HQ-9 SAMs, YJ-62 ASCMs, and DF-21 Ballistic Missiles from China's Larger South China Sea Island Bases¹³

By 2019, China had deployed an array of air defence systems, laid an 'Underwater Great Wall' to detect enemy submarines, and built berthing, refuelling and arming facilities for ships and aircraft on the islands it controlled or had reclaimed. This led to the US Navy and other navies, such as UK's Royal Navy and the Royal Australian Navy, intensifying 'Freedom of Navigation' operations (FONOPS) in the SCS, which have resulted in incidents such as a near collision between a US Navy destroyer and a PLAN ship in September 2018. Thus far, the US Navy has conducted almost 40 FONOPS in the SCS since 2015, by sailing US Navy ships within 12

nautical miles of artificial islands claimed or occupied by China.

Meanwhile, in a major set-back to China's efforts at 'lawfare,' the International Tribunal at The Hague ruled in favour of the Philippines, on 12 July 2016, in the case that had challenged China's territorial claims in the SCS. The verdict categorically ruled that China's nine-dash line had no legal basis for its 'historical claims,' and that none of the islands fit requirements under UNCLOS to generate a 200 nautical mile EEZ, as they had been reclaimed. It also mentioned that China had broken international law by endangering

***International Tribunal
ruled that China's nine-
dash line had no legal basis***

Philippine ships and damaged the marine environment. While China boycotted the proceedings and ignored the verdict, saying that the tribunal had no jurisdiction on the issue, the decision finally opened the door for individual ASEAN countries to openly reject China's exaggerated maritime claims. They had, thus far, hesitated to take the lead in speaking out for fear of earning China's ire.

In response to the set-back, China moved quickly to reassure Southeast Asian countries of its 'peaceful' designs by engaging in negotiation processes at two levels - first by negotiating with ASEAN for framing a Code of Conduct (COC) in the SCS, with both sides agreeing to a framework on COC on 18 May 2017 aiming to reach an agreement by 2021; and, secondly, by negotiating separately with the countries with which it had territorial disputes at sea.¹⁴ But, this again proved to be a diversionary tactic as, in April 2019, Chinese ships commenced harassing the Philippine-held Thitu Island in the Spratlys to prevent landing of material to repair its airfield. Malaysia also submitted the remaining portion of its continental shelf claim in the northern part of the SCS to the UN's Commission on the Limits of the Continental Shelf (CLCS), which was a continuation of the joint submission made by Malaysia and Vietnam for the southern portion of the SCS in May 2009, and *de facto* challenged China's maritime claims in the SCS.¹⁵

China's confidence in its control over the SCS was reinforced by the 2019 White Paper, in which it claimed inalienable sovereignty over the region and stated that the sovereignty of only a few islands and reefs, and their maritime boundary demarcation, remained outstanding. In the wake of the Covid-19 crisis, tensions in the SCS have escalated in 2020, with China taking aggressive action against a Philippine warship and a Malaysian drill

ship, sinking a Vietnamese fishing boat near the Paracels, deploying its survey ships in the EEZ of Vietnam and Malaysia, and announcing two new administrative districts covering the Spratly and Paracel Islands. In April 2020, China continued its aggression through cartography by giving new names to 80 geographical features in the SCS; and, on 20 June 2020, in response to the move by Japan's Okinawa Assembly to re-name the administrative area governing the Senkaku Islands, China's Ministry of Natural Resources promulgated the coordinates and Mandarin names of 50 underwater features in the East China Sea.¹⁶

In sum, it is evident that China's aim of achieving sea control in the waters enclosed by the 'first island chain' by the year 2000 has been substantially achieved, albeit after a delay of about 20 years. Using a clever mix of raw military power against weaker adversaries; economic inducements to buy allies or break alliances; grey zone operations to restrict use of the sea by other littorals; diplomatic ploys and subterfuges, such as the simultaneous push through the COC, to gain a veto right over joint military exercises between claimants and countries from outside the region, as well as an outright ban on cooperation with extra-regional countries on oil and gas, China has clearly out-manoeuvred its principal opponent, USA, in the SCS. By consolidating its control over several disputed features in the SCS, China has significantly reduced the vulnerability of its coast from seaward attack, and its vulnerability to maritime interdiction/ blockade during a crisis, by complicating a possible strategy of 'offshore control' by USA.¹⁷

The creation of runways, naval bases and logistics depots in the SCS enables China to project power closer to all three of the major Southeast Asian straits. The island bases also greatly increase the space monitored by early warning systems, facilitate easier tracking of potential targets, and offer dispersed havens for warships and aircraft in support of China's A2/AD strategy, by threatening significant military costs on any adversary within 1,000 nautical miles off the Chinese coast and complicating US efforts to support Taiwan in case of a military conflict.¹⁸ China is also expected to use the SCS as manoeuvring space for its ballistic missile submarines, where protection from the US Navy's anti-submarine warfare is easier, as against their deployment outside the SCS through US monitored choke-points.¹⁹ Control over the SCS, along with the explosive

modernisation of the PLAN, means that China can both, establish control of the waters up to the 'first island chain' and engage in sea-denial operations beyond that, as also move forward to the next stage of 'far seas' operations, to ultimately achieve its aim of 'command of the seas.'²⁰

Masterstroke or Flawed Strategy?

While, on the face of it, China's strategy to gain control of the SCS seems a masterstroke, in the long term view there are many reasons why the strategy can be considered to be flawed. Of the six maritime objectives set out in 1986, many 'lost territories' have indeed been 'recovered,' thereby gaining control over substantial sea area to appropriate mineral and non-mineral resources; the security of its coastal areas has been enhanced; the vulnerability of its SLOCs has reduced, though only within the SCS; and China has indeed built sufficient maritime deterrence. However, the objective of increasing pressure on Taiwan to not declare independence and make the cost of US intervention over Taiwan prohibitive; and the unstated aim of supplanting USA as the pre-dominant maritime power in the region, have not been achieved.²¹

*China's strategy to gain
control of the SCS is flawed*

Indeed, China has realised that the most significant barrier to its naval development is not the geopolitical environment or lack of capabilities, but the psychological fixation over the 'island chain' concept, which has become an obstacle to PLAN's formulation of a comprehensive maritime strategy.²² Consequently, in recent times, China has moved itself away from the 'island chain' concept, with authoritative Chinese thinkers suggesting that it was out-dated with the Cold War.²³ 'Island chain' is actually a geographical security concept used to illustrate a defensive or offensive perimeter by linking islands and land masses, attributed to John Foster Dulles. The usage of the concept is inherently not 'maritime' and more an army way of thinking, which measures sea space in terms of land markers. This is not surprising because Admiral Liu Huaqing was originally an army officer, who studied at the Soviet Union's Voroshilov Naval Academy in 1958 and imbibed the Soviet way of thinking about maritime affairs. The three-phase maritime strategy of *active offshore defence*, which he formulated along with the concept of 'island chains,' caught the imagination of the Chinese leadership as it meshed perfectly with their strategy of obtaining control over the islands and resources of the SCS and

integrating Taiwan. However, the island chains actually tied the PLAN to a 'green water' strategy, and it was only in the 2015 MSG that a blue water strategy was finally enunciated.

The SCS issue is, therefore, not just about territory, but is also a litmus test of China's ambitions to become a global power and the ability of USA to retain primacy as the major maritime power in the Indo-Pacific region. In

***SCS is a litmus test of
China's ambitions to
be a global power***

order to thwart China's strategic challenge, USA needs to fulfil its security commitments in the Western Pacific, including treaty commitments to Japan and the Philippines; maintain and enhance the US-led security architecture in the Western Pacific, including its security relationships with treaty allies and partner states; maintain a regional balance of power favourable to USA and its allies and partners; defend the principle of peaceful resolution of disputes and resist the emergence of an alternative 'might-makes-right' approach to international affairs; defend the principle of freedom of the seas, also sometimes called freedom of navigation; prevent China from becoming a regional hegemon in East Asia; and pursue these goals as part of a larger US strategy for competing strategically and yet managing relations with China.²⁴

If the Chinese aim was to obtain control over the oceanic region comprising Southeast Asia, East Asia and the Western Pacific by driving out USA, its strategy has actually worked in reverse. China's aggressive behaviour in the SCS resulted in President Obama announcing that USA would 'pivot' its strategic attention to the Asia-Pacific, termed as 'Strategic Rebalancing to the Asia-Pacific.' As a result, USA is back in the region in strength after their draw down in the aftermath of the Cold War, with countries that earlier wanted USA to remove or reduce its troops and bases from their territory now welcoming them back with open arms. China's aggressive behaviour has also catalysed the formation of multilateral groupings such as the 'Quad,' as also a major shift in global geostrategic thought from a continental to a maritime orientation by renaming of the 'Asia-Pacific' as the 'Indo-Pacific.' Most importantly, it has caused a seismic shift in global attitudes towards China. In perhaps the most significant policy announcement by USA on China since their rapprochement in 1973, the US Secretary of State Mike Pompeo stated, on 13 July 2020, that USA had rejected Beijing's claims to offshore resources across most of the SCS beyond 12 nautical miles of its shores, including in

waters off Indonesia, Malaysia and Vietnam as “completely unlawful and as also its campaign of bullying to control them.” He also mentioned that, “PRC has no legal grounds to unilaterally impose its will on the region. Beijing has offered no coherent legal basis for its ‘Nine-Dashed Line’ claim in the SCS since formally announcing it in 2009.” This was a sea change from the earlier US stance of neutrality on the SCS issue. Shortly thereafter, Australia joined USA in rejecting China’s ‘historic rights’ in the SCS and was followed by UK, France and Germany. Therefore, China’s actions in the SCS have come at a significant cost. Not only has it failed to gain international acceptance of its claims, especially after the ruling by the International Tribunal at The Hague, but it has also alienated all ASEAN countries bordering the SCS, with the exception of Laos and Cambodia, and offended or threatened the global community, which uses the SCS and the East China Sea for their maritime trade and civil air traffic. Continued provocations by China have now seen the coalescing of resistance to China’s bullying in the SCS, with the ASEAN calling for early finalisation of COC in accordance with the provisions of UNCLOS, at the 2020 ASEAN summit - the first time that ASEAN countries have dared to invoke the provision that is violently opposed by China. The behaviour of China in the SCS has also changed the stance of the international community on issues such as trade, 5G technology, BRI, etc., to its detriment.

Apart from alienating friends and losing influence, China has incurred substantial financial cost in reclaiming reefs and islets in the SCS as well as building military infrastructure, such as jetties and airfields, besides now having to bear substantial annual costs towards maintaining and defending this infrastructure. The expenditure of reclamation of some major islands is estimated as follows (see Table 1): -

Feature	Total Construction Cost (over 5 years)	Annual Construction Cost	Land Reclamation
Mischief Reef	\$10.75 bn	\$2.15 bn	1,379 acres
Subi Reef	\$7.65 bn	\$1.53 bn	976 acres
Fiery Cross Reef	\$5.30 bn	\$1.06 bn	677 acres
Cuarteron	\$414.92 mn	\$82.98 mn	56 acres
Gaven Reef	\$266.17 mn	\$53.23 mn	34 acres
Johnson	\$211.37 mn	\$42.27 mn	27 acres
Hughes	\$148.74 mn	\$29.75 mn	19 acres
Total	\$24.74 bn	\$4.95 bn	3,168 acres

Table 1: China’s Island-building Programme: Reported/ Estimated Costs and Expansion²⁵

While the costs seem reasonable considering China's policy of Civil-Military Integration, closer to the Spratlys, Malaysia is building a 'Forest City' island in the strait off Johor, which will cost a reported \$86.4 billion to reclaim 4,050 acres - about \$21.3 million per acre. At that price, China's 'unsinkable aircraft carriers' could have cost it \$67.5 billion! If China expected that the territory encroached by them would give substantial financial returns from undersea mineral resources, the fact is that only 100 billion cubic feet of proved and probable reserves of natural gas lie in fields

China's 'unsinkable aircraft carriers' may be economically unviable

near the Spratly and Paracel Islands, which are at the heart of the SCS dispute, and most mineral resources are to be found on the margins of the sea. In fact, the environmental damage wrought by China in reclaiming reefs and islets has destroyed many fish habitats and further reduced the already scanty fishing stocks in the sea, because of which Chinese fishing fleets have to transit to other sea areas for fishing.

If the argument was not economic but strategic, the military utility of the reclaimed islets and reefs to defend the Chinese mainland is an out-dated 'Great Wall' type concept, as fixed military outposts and fortifications can easily be targeted and bypassed. The A2/AD concept also looks good on paper but has many limitations; it requires a complex 'kill chain,' starting with target detection, ammunition delivery, weapon guidance, damage assessment and potential re-strike;²⁶ and is also a geographically limited threat, one that can be countered by the US 'Air Sea Battle' (ASB) concept. As such, the only peer military competitor to China in the Pacific, USA, has historically not shown any intention of invading mainland China from the sea, as apprehended by China since the 1950s. Moreover, static weapon systems and sensors sitting in the open on small runways and islets are sitting targets for a variety of long-range modern weapons, and could easily be 'taken out' in war. Additionally, in peacetime, China now needs to deploy a large land-based and afloat military component to defend its outposts, which remain vulnerable to grey zone operations. Neither does it really assist in the military conquest of Taiwan, as with USA committed to coming to Taiwan's assistance in case of a Chinese attack, the possibility of China successfully invading Taiwan is remote, unless the power imbalance between USA and China shifts radically in China's favour - which does not seem likely in the near or even the distant future. In fact, the defence of its

assets in the SCS itself could tie up more than a third of China's fleet in times of war. Insofar as use of the SCS as a 'protected haven' for Chinese SSBNs is concerned, the usable area of the sea for this purpose is less than two million sq km due to depth limitations, which actually simplifies the search task for the adversary using underwater sensors.²⁷ As far as protection of SLOCs is concerned, while SLOCs within the SCS may now have better protection, they still have to pass through other oceans - where they remain as vulnerable as ever.

Finally, China's illegal actions in the SCS have had an adverse impact on China's attempts at 'global leadership' by creating a 'favourable international climate' and 'building a global community with a shared future for mankind,' which is an intrinsic part of Xi Jinping's strategy to achieve 'Great Nation Status.' The most recent Pew survey has shown that China's trustworthiness and Xi's likeability have reached the lowest levels ever, world-wide. While possession is indeed nine-tenths of the law, this is a Pyrrhic victory for China, with little return to show for all the money and resources it spent, the friends it never made, and the influence it never gained - all for strengthening the maritime defence of its mainland, which was never really threatened.



VAdm AK Chawla is serving as the Flag Officer Commanding-in-Chief, Southern Naval Command. He is a Navigation and Direction specialist who has tenanted a wide range of operational, training and diplomatic appointments in his naval career, spanning 38 years. He is currently pursuing his doctoral studies through the Naval War College, PhD Programme.

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MARITIME SECURITY COOPERATION: ASSESSMENT OF INDIA'S ACT EAST POLICY

Professor Shankari Sundararaman

Introduction

Southeast Asia has been a region of strategic rivalry for several centuries. As early as the 11th Century, trade influences from India and China touched the region, bringing with it the impact of growing trade rivalries that existed at that point. Two very critical works by Professor Anthony Reid highlight the concept of Southeast Asia's importance in the maritime extents of what is, today, increasingly being referred to as the Indo-Pacific. These two works, *Southeast Asia in the Age of Commerce* and *A History of Southeast Asia: Critical Crossroads*, critically analyse the importance of the region's vibrant historical connect with the trading empires that surrounded the areas of insular and mainland Southeast Asia.¹ As the colonial powers began to carve a space for themselves, Southeast Asia was an important space between the trading interests of the British, Dutch and French. Pivotal to this trade was linking regions of China and India together, which were major trading centres, and the rest of Southeast Asia geographically was in the middle of this region.

This was followed by the Cold War in the post decolonisation phase. Again, the region saw great power rivalry as a result of the Cold War. Ideologically, the region at this time was divided into two distinct halves. The focus of maintaining regional stability from external power rivalry pushed the original members of ASEAN to attempt formation of the regional grouping. Through the period of the Cold War, the ASEAN region remained ideologically polarized. It was only after 1991 that the actual expansion of ASEAN occurred, to cover all member states of Southeast Asia and to eventually include its various dialogue partners. One of the core dialogue partners of the ASEAN was India.

From 1992, when India evolved the Look East Policy (LEP), it began the shift towards greater integration with its eastern neighbours, primarily increasing economic integration with a limited focus on improving political and security related ties. As India-ASEAN ties are going through the third decade, several shifts are visible with ASEAN and the wider region of the

erstwhile Asia-Pacific, currently called the Indo-Pacific. In 2014, India's Look East Policy was renamed as the Act East Policy.

The reasons for the shift in nomenclature can be attributed to three factors - first, at the domestic level it heralded a change from the old to the new. As the Congress leadership gave way to the new government led by Prime Minister Modi, it also required a distinct new identity, which was

Act East Policy aimed at greater integration by expanding India's geographic reach

critically evident in the name change from Look East to Act East Policy. Secondly, the Act East Policy was to focus on ensuring a more robust approach to the erstwhile LEP, and completion of pending projects under the LEP that had remained in limbo. Thirdly, the Act East Policy also aimed to ensure that greater integration took place by expanding India's geographic reach beyond the ASEAN, with a focus on security related matters.

While ASEAN and its centrality have remained at the core, the shift was to integrate further with East Asia and the Pacific. When the Act East Policy was announced, in November 2014, it was to look at furthering India's interaction with the region along three broad areas - known as the three Cs: commerce, connectivity and culture.

Economic Indicators and Connectivity under the Act East Policy

Beyond the initial reference to furthering ties related to these three areas, a closer look at the level of development along these reveals little in terms of actual progress. It is important to remember that when the Act East Policy was conceived, India was still an integral part of the negotiations for the Regional Comprehensive Economic Partnership (RCEP). After several years of being in these negotiations, in November 2019, India announced its withdrawal from the RCEP on grounds that it did not meet the spirit of inclusiveness.

This decision was critical in terms of preserving India's domestic market from the pressures of tariff reductions, which would allow flow of goods from other countries. Looking at the RCEP from two parallels, it becomes imperative to understand the tight rope walk that was undertaken. For ASEAN countries, the inclusion of India into the RCEP is critical - ASEAN does not see India's role in strategic aspects of the region as being different or distinct from its role in economic integration. Therefore,

ASEAN looks at the economic and strategic dimensions as “two sides of the same coin.”² Probably the most critical impact of the RCEP withdrawal has been contending with the role that India seeks for its engagement with the region. Tang Siew Mun states clearly that, “finding the amicable balance between domestic interests and the undeniable benefits of regional cooperation will be key in India realizing its regional leadership potential.”³

As far as the Indian view is concerned, there has been considerable opposition to the RCEP domestically. The challenge of tariff reduction is key to

Balance between domestic interests and regional cooperation is key

understanding this opposition, because the RCEP would have led to “tariff reduction of 90% with ASEAN, Japan and South Korea, and 74% with China, Australia and New Zealand.”⁴ Moreover, Free Trade Agreement (FTA) in services has not been completed according to India’s expectation. As a global player in the services sector, India’s concerns relating to this core area have to be met by the region for moving the process forward.

In terms of trade with the region, the volume still remains below par. For 2020, the targeted trade with ASEAN was expected to reach \$200 billion, but it still remains at around \$80 billion. In case of China, India’s trade was to the tune of \$81.44 billion for the year 2017-18.⁵ Since then, it has dipped by around \$3 billion.

In comparison, the trade with Japan is around \$17.63 billion and with Australia is around \$30.3 billion. The biggest challenge has been with connectivity projects, which have faced a very serious delay in completion. The India Myanmar Friendship Road was opened only in August 2016. The trilateral highway linking India, Myanmar and Thailand is still to become operational. Even the finalization of the Kaladan Multimodal Transit Corridor is yet to be completed, especially the road link, which is currently under construction. There is a serious delivery deficit when it comes to completion of connectivity projects, which has impacted India’s image with regional states of the ASEAN.

Why is Maritime Security Critical Under the Act East Policy?

The ‘Indo-Pacific’ terminology is now being used more frequently, in several multilateral meetings and forums. It is important to look at how the region, which has been referred to by Prime Minister Shinzo Abe as the “confluence of the two seas,” wherein he quoted works of the Mughal

Prince Dara Shikoh, has emerged as the most critical region of geopolitical challenges.⁶ While the region is, more often than not, recognized by the oceanic extent of the Indian and Pacific Oceans, Rory Medcalf also highlights the growing importance of both, China and India in this region. He states that the expanding influence of these two countries brings in territorial dimensions of structural changes shaping this region, giving way to broader understandings of shifts in the Indo-Pacific.⁷

The question of major power rivalry is of critical interest to the study of the Indo-Pacific, particularly when seen from the focus of the prevailing normative order in the region, which is being contested by the rise of China. The US presence in the region has been longstanding. Since the end of the

***Prevailing normative
order in the Indo-Pacific,
contested by rise of China***

Second World War, USA has been the predominant player in this region. With the rise of China, there has been increased contestation between these two players, resulting in pulls and push for regional states, particularly members of the ASEAN. The continued presence of USA in the region was supported by two policies of the Obama and the Trump administrations - the 'rebalance to Asia policy' and the 'Free and Open Indo-Pacific' respectively. These emphasized the growing power dynamics in the region, and importance of maritime security and cooperation among regional players in this contested space.

Increasingly, in multilateral forums, there is an emphasis on the importance of the global commons, especially the maritime commons. The region of Southeast Asia is home to four of the most important choke points - the Malacca, Sunda, Lombok and Makassar Straits, which act as vital links between the Indian and Pacific oceans. The United Nations Conference on Trade and Development (UNCTAD) estimates that 80% of global trade by volume is transported through the seas, of which nearly 60% moves through the waters of Asia, making the South China Sea a critical link in the Indo-Pacific, as it oversees the movement of nearly one-third of global trade.⁸ Angel Damayanti cites a source from UNCTAD, that the volume of energy trade through this region is about 60%, and that nearly 80% of China's energy supplies pass through the waters of the Indo-Pacific, which underscores China's efforts to leverage the region as it is critically dependent on energy resources from West Asia.⁹ The increasingly strident positions taken by China over its 'historical claims' to regions of the South

China Sea, and rejection of the ruling by the Permanent Court of Arbitration (PCA), are linked to reliance of China's economic growth on uninterrupted supply of energy resources. Furthermore, China views the South China Sea as being able to deliver on its energy resource crunch, since energy reserves therein remain untapped. According to the Asia Maritime Transparency Initiative (AMTI), the US Energy Information Agency estimates that the South China Sea has natural gas reserves to the tune of 190 trillion cubic feet and 11 million barrels of oil.¹⁰

Apart from the issue of energy security, the Indo-Pacific region is also emerging as a contested area of marine resources and fisheries. As one of the primary sources of protein that is popularly consumed by littoral states around these waters, demand for fishing is likely to increase rivalry over these maritime spaces. The levels of competition between the fishing industries of littoral states has led to a significant deterioration of sea food reserves, which have reduced by about 33% during the last 30 years.¹¹ Increasingly, issues related to Illegal, Unreported and Unregulated (IUU) fishing and Distant Water Fishing are impairing relations between littoral states. A study by the Stimson Centre, which looked at problems related to Distant Water Fishing, states that China and Taiwan account for about 60% of the problem as these two countries are impacting availability of marine resources in waters of other littoral states.¹² Further, issues of energy security and food security, which earlier fell under the context of non-traditional security challenges, are pushing states to take more hard-line nationalist positions, blurring the distinctions between areas of traditional and non-traditional security. This is clearly evident in the Chinese claims to its so-called historical nine-dash line, contravening principles of the United Nations Convention on the Law of the Sea (UNCLOS).

***Issues of energy and
food security pushing
nationalist positions***

It is against this background that any effort at maritime cooperation needs to be assessed, within the context of the Act East Policy. While the Act East Policy came into focus in 2014, India's engagement with Southeast Asia from 2012 already focused closer attention to maritime cooperation. One of the important shifts under the Act East Policy has been the expansion of maritime cooperation to other regional states that are part of East Asia and the Pacific. Maritime security cooperation was made a priority concern in the 2012 India-ASEAN Commemorative Summit, making it the central

pivot of regional issues. Apropos the Act East Policy, increased emphasis has also been given to the Western Indian Ocean. In March 2015, Prime Minister Modi's visit to Mauritius and Seychelles led to articulation of the vision of Security and Growth for All in the Region (SAGAR), placing importance on areas of maritime cooperation. This was seen as a critical

SAGAR places importance on maritime cooperation

step forward in India's promotion of its Indian Ocean diplomacy, following the announcement of the Act East Policy. Subsequently, the *Indian Maritime Security Strategy* 2015 clearly identified the entire Indian Ocean as its primary area of interest and the Western Pacific as a secondary area of interest, giving further impetus to foreign policy approaches towards the Indo-Pacific region.¹³ This shift clearly brought India's approach to the Indo-Pacific into sharper focus, as there was greater convergence between areas of foreign and defence policies.¹⁴

The question of recognizing the normative order has been a critical aspect of the Act East Policy, even as India has expanded its relations with countries beyond Southeast Asia. This has been clearly endorsed in repeated stands taken by India with regard to ASEAN centrality. Within this normative context, adherence to UNCLOS and a rules-based international order has received constant support of India in various multilateral forums led by ASEAN processes. More recently, ASEAN's focus on these aspects has enhanced convergence with Indian perceptions. Both, the ASEAN Outlook on the Indo-Pacific of June 2019 and the recent ASEAN summit of 2020, emphasise importance of UNCLOS as a dispute settlement mechanism and have urged moving towards concluding a 'Code of Conduct' for the South China Sea.

Even as India has been clear in its stand on centrality of ASEAN, it will be critical for it to prioritise certain key countries. From among ASEAN states, priority countries that India needs to focus on are Indonesia, Myanmar and Vietnam. Bilateral ties with these are likely to grow further and will remain crucial. In recent times, India and Indonesia have moved ahead on areas of bilateral cooperation to forge stronger ties. In May 2018, the visit of Prime Minister Modi to Indonesia was a significant step. Prior to this, the Indonesian Coordinating Minister for Maritime Affairs had visited New Delhi to finalise the issues to be discussed.¹⁵ India and Indonesia have also made concrete efforts to address settlement of maritime boundaries of their Exclusive Economic Zones (EEZ) on the basis of UNCLOS. In August

2018, the two sides agreed to disconnect processes of maritime boundary delimitation and separately address the issues of continental shelf and EEZ.¹⁶ India's involvement in building infrastructure at Sabang is another significant step in the move towards closer relations. During the visit of Prime Minister Modi, the two countries brought out a Joint Vision on Maritime Cooperation in the Indo-Pacific, clearly highlighting core areas of convergence between the two.¹⁷

Myanmar, too, has progressed towards closer ties with India, particularly in defence cooperation. Myanmar has been part of the regional MILAN interactions since 2006. From 2013 onwards, Myanmar has shown keen interest in procuring Offshore Patrol Vessels, and this was again highlighted in 2015. The two navies also

***Closer Indo-Myanmar
ties, particularly in
defence Cooperation***

instituted Coordinated Patrols (CORPAT) annually, since 2013. The year 2017 was a watershed, with the first India Myanmar Bilateral Military Exercise. In October 2020, the Indian Foreign Secretary, Harsh Vardhan Shringla and the Chief of the Army Staff, General MM Naravane, visited Myanmar as part of an outreach strategy. The focus of this trip was to assist Myanmar in pandemic relief. Even as Myanmar was able to tackle the first wave of Covid-19 effectively, the second wave has led to greater spread of the virus and loss of lives. India's gift of 3,000 vials of Remdesivir, a medicine that is proving effective in treating Covid-19, has been an important humanitarian gesture in helping Myanmar in these times.

Vietnam's relations with India have also expanded considerably. In September 2014, India extended a \$100 million Line of Credit to Vietnam, which was further increased in 2016 to \$500 million. These were to be utilised to enhance defence cooperation between the two countries. Other critical areas of cooperation are increasingly visible in the maritime domain, where the two sides have issued a Joint Statement on maritime security cooperation as well as the importance and adherence to UNCLOS. The civil nuclear deal between the two countries is expected to further strengthen bilateral ties.

Similarly, both Japan and Australia have been significant partners of India. Ties are based on areas of mutual convergence and seek to promote issues of bilateral importance, while ensuring regional stability. In terms of the various mechanisms that India will choose to engage with, it is important to understand that current transitions in the region do not allow

for singular options to be followed. India will, therefore, choose a plethora of methods through which it will engage with the region. These include bilateral, trilateral, quadrilateral and multilateral mechanisms. Recently on 06 October 2020, the second Foreign Ministers meeting of the 'Quad' took place in Tokyo. Significance of the Quad has gained more importance, even as Chinese belligerence in the wider region has increased. The repeated emphasis of the Quad has been to look at preservation of the normative order and, simultaneously, create space for an inclusive Indo-Pacific region. As the region also battles with the Covid pandemic, the Quad will seek to address challenges of global order in a post-Covid world. Critical among these challenges will be the issue of global supply chains, wherein shifts are taking place as evident by the Supply Chain Resilience Initiative proposed by Australia, India and Japan on 01 September 2020.¹⁸

Conclusion

In assessing distinctions between the Look East Policy and the Act East Policy, it is evident that the Act East Policy has increased India's strategic focus and commitments to the region - including Southeast Asia and beyond. Under the LEP, India began to take small steps into the arena of multilateralism, and was considered to be more of an observer rather than an active participant. These steps were critical in the evolution of its journey in the region, where it began as a sectoral dialogue partner with the ASEAN. As its engagement with the ASEAN states increased, India began to take a more active role in the expansion of its diplomatic engagement across multiple areas, particularly focussing on economic and security realms. Since the current strategic imperatives demand greater attention, due to structural changes shaping the region, India's role has become more active while lending greater support to issues that impact the normative order. This shift in approach to ASEAN driven multilateral processes has allowed India to evolve a significant role for itself. This can be summarised through the words of Nitin Pai, who states that, "India was initially an observer, but currently is a more conservative contributor to the balance of power in the region."¹⁹



Prof Shankari Sundararaman is Professor of Southeast Asian Studies at the Centre for Indo-Pacific Studies, School of International Studies, Jawaharlal Nehru University, New Delhi. She is also Visiting Faculty at the Naval War College, Goa.

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EVOLVING NATURE OF INTERNATIONAL RELATIONS IN THE INDO-PACIFIC: THE MALABAR CONFLUENCE

Commodore Odakkal Johnson

Introduction

The contemporary context of the two ocean space of the Indo-Pacific has been an engaging dynamic of evolving international relations. Well past the bipolar Cold War era and the transition through the multipolar decades, international geopolitics has now turned into regional, sub-regional and trans-regional interactions. At the same time, Indian maritime resurgence has played out concurrent with the rise of China and the progress of a 'Quad' coalescence that is inherently maritime, as is the region. A specific frame of reference is the historical evolution of the *Malabar* exercise series, which could be seen, perhaps, as representing a barometer of the shifting geopolitics and the changing India's international relations (IR) approach in the Indo-Pacific region. What began as a tentative naval interaction between India and USA off the Malabar coast, took the form of serious effort to shape the maritime order in the larger region and constructively evolve as a reinforcement exercise in the global space. It's shifting from the Malabar coast to the Bay of Bengal, and alternating between the latter and the western Pacific region, suggests a strategic convergence between India and USA in the Indo-Pacific. This convergence later extended to Japan, Singapore and Australia, and in varying degrees to the other South China Sea littorals. Recognising the resumption of Australia's participation in Exercise *Malabar* 2020, this article delves into the growing discourse of maritime synergy in a rules-based effort to good order at sea.

However, the wider Indo-Pacific relationship goes way beyond the present circumspection. The western coast of India and the Malabar region was a thriving maritime space in history of the Indian Ocean and beyond. The late VAdm Manohar Awati (Retd), Founder Chairman of the Maritime History Society, shared these thoughts on Malabar at a keynote address in 1995, "... almost every merchant and every member of trading

communities of the Indian Ocean littoral, from the Arab and the Persian of the West, the indigenous Gujarati both, banya and muslim, the islanders of the Maldives, the Tamil and the Bengali, the Melankars and the Javanese, were to be found here, trading peaceably in a whole range of the produce of India and overseas.” The Malabar coast was dotted with ports that carried on a thriving commerce in the markets of the Indian Ocean Region (IOR). It evolved into a confluence of maritime trade routes, whether going westward or sailing east. A culturally diverse identity of the IOR, the Malabar was historically a melting pot of communities, religions and languages, with a social tapestry as a unique maritime anthropology. Malabar is an apt emblem of an oceanic confluence that was distinctly Indian and yet global, at the same time. That is an apt locale to begin this review.

***Malabar was a melting
pot of communities,
religions and languages***

Beyond commonality of nomenclature, medieval Malabar as a hub of Indian Ocean connectivity, and the *Malabar* exercises have a strong foothold in the concept of collaborative maritime convergence of ideas, influence and integration. The Malabar coast had a significant impact on maritime trade in the IOR, with its geographical advantages enabling maritime activities that enhanced its commercial fortunes. *Malabar* exercises have endeavoured to expand their role beyond the immediate periphery and establish significance in the Indo-Pacific.

Medieval Malabar as the Spice Garden of the World

Malabar pepper from the Indian state of Kerala was a singular commodity of Indian influence for more than three millennia across the face of this globe. Reported to have been used in the embalming process of the Pharaoh Ramesses II in the year 1224 BCE, it is safe to deduce that peppercorns would have been shipped off to Egypt from the coast of Malabar for ensuring the blue blooded incumbent a place in the pantheon of deities. The much haloed spice of Malabar was also known to the Greeks as early as the fourth century BCE.¹ It was called by its generic name ‘Piper,’ which was also the name of its nearest cousin the ‘Piper Longum’ that, like the black pepper, also originated from India. These spices were used sparingly and were high-ticket commodities, meriting a scholastic mention by Greek botanist Theophrastus. Much later, the Romans took a fascination to this spice. The Emperor Domitian 81-96 CE also stored up pepper in the

national treasury.² Later, when the Visigoths captured Rome, 1.4 tons of pepper was paid to Alaric, the King of the Visigoths, as ransom along with gold.³ The spice trade with India did cause some lacrimation to the Romans. The chronicler of this trade, Pliny, lamented at the gold drain it inflicted on Rome.

Europeans of the medieval ages too were inflicted by the same addiction for pepper. The pepper of Malabar would help them keep their meats

Black gold - pepper trading on the Malabar coast preserved for long and enhance the flavours of their cuisine. This time around, the direct

trade between the Malabar coast and the markets of Europe were hindered by the rising power of the Ottomans, who tried to spread their tentacles in the lucrative Indian Ocean maritime trade. The Portuguese devised a plan to reach India by an alternative route, by rounding the Cape of Good Hope and accessing the markets of Malabar on the other side of the Arabian Sea. Like their Roman predecessors, the lure of the black gold would entice them to discover an alternative route.

Journey to Proto Globalism

Burgeoning trade in the IOR led to a spurt in the peaceful migration of populations, largely motivated by brighter economic prospects rather than involuntary jettisoning as seen in continental settings. The Harappans were the first to have a non-resident population, as they established villages and granaries and contributed to the textile economy of the Sumerians. A thousand years later, another batch of Indians, mostly from the port town of Bharuch and the north western frontiers, made their enclaves in the northern extremities of the Island of Socotra.⁴ This island was situated on the maritime trade route that connected the Indian subcontinent to the ports of Egypt on the Red Sea. This was the same route that was used by the early Romans to fetch the precious spice of Malabar - pepper. Pot shards bearing Tamil Brahmi etchings found in Oman and Egypt show that traders from Kerala, which were then part of greater *Tamilakam*, traded in these stretches.

Malabar wasn't merely a launching pad for the dispersion of Indian culture throughout the known world, it was more a symbiosis of many cultural, religious and ethnic identities. With the pullulating maritime trade, Malabar became the focal point of traders from the far East and the far West of the known world. The IOR was an arena for many players. The Indians,

Arabs, Jews, Syrians, Romans, Indonesians and Africans often operated in these waters. In its time, the Indian Ocean was one of the busiest maritime circuits in the history of mankind. This was possible because the production centres were all stacked in the eastern hemisphere while the markets were situated in the West. Having a staging point in the centres of production was the most viable thing to do when time between arrival and departure was as long as three months. The Jews were one of the early traders to set up tents on the soil of Malabar. A copper plate inscription circa 1000 CE was issued by the Chera King Bhaskara Ravi Varma, granting the Jewish merchant Joseph Rabban 72 proprietary rights, which was normally devolved on high ranking nobles of the kingdom. Another community that called Malabar their home was the Syrian Christians who, like their Jewish counterparts, were subjected to hostility in their home land. However, in the fertile land of Malabar, they managed to preserve their unique form of Christianity, which was widely practiced in the Middle East at one point of time.

Indian Ocean was one of the busiest maritime circuits in history

The Arabs were another major group to take shelter in the palm laden coast of Malabar, much unlike the arid landscape of the Arabian Peninsula. Within the socio-cultural landscape of Kerala, the Arabs managed to integrate with the host population. The prevalent system of *Marumakatayam* allowed many Arab traders to develop nuptial bonds with local women. The marriages were solemnized in the Islamic system of *Muta*, which allowed traders to contract short term relationships while on voyage. The children born of this wedlock were called the *Mappilas*, who played an important role in the maritime history of Malabar region.

The Economic Convergence

Trade in the IOR and beyond was carried on by multinational establishments. Two important corporations in the Malabar coast were *Anjuvanam* and the *Manigramam*. The former was a conglomerate of foreign merchants with a looming presence on the coast of Kerala. They included people from diverse ethnicities, like the Jews, Syriac Christians, Parsis and Arabs. It is interesting to note that communities that were hostile to each other in the land of their origin, harmoniously worked together other under the banner of the *Anjuvannam*.

Not just West Asia but also East Asia, especially the Chinese, actively

traded with the King of Malabar coast. Marco Polo describes several Chinese ships at Kozhikode, with crews of 200-300 each, carrying 5,000-6,000 baskets of pepper. The Chinese exchanged silk, gold, silver, copper, porcelain, clove, spikenard, etc., on the coast of Malabar.⁵ Marco Polo describes the pearl fishing of Malabar in great detail, where several large

***Archaeological finds of
Chinese porcelain in
several parts of Malabar***

vessels were dispatched with expert divers skilled in the art of picking oysters with pearls.⁶ He also describes the pepper fields were not wildly grown but domestically cultivated.⁷ Such literary references are backed by several archaeological finds of Chinese porcelain in several parts of Malabar.

Contestations Challenge Freedom of Seas

Mare Liberum was a defining feature of the Malabar confluence long before its 17th Century articulation by Hugo Grotius. As Vasco Da Gama sailed to India, accompanied by two smaller vessels laden with ammunition, this was to lay the seed for weaponization of maritime trade in the IOR. Following the Portuguese came the Dutch and British. Soon, their domestic scores began to be settled on the coast of Malabar. From this period onwards, the freedom, prosperity and security of Indians across the IOR was steadily lost to the rapacious hand of colonial ingresses, until the dawn of India's independence.

Even today, the Malabar coast is an important staging point on the maritime routes across the IOR. Its importance has only increased with the meteoric rise of China, which seeks to intensify and monopolize trade in the IOR. It is from this staging point that India can monitor and control the flow of traffic, and keep a keen watch on manoeuvres by the Chinese or any other power that threatens Indian interests, in a *deja vu* moment of history. India's strategic interests dictate the need to shape a maritime order that supports its socio-economic and technological progress. The growth in India's economy has been accompanied by growth of its maritime interests, across proximate seas and also adjacent oceanic spaces. In a measured balance between multilateralism and collaborative partnerships, there is an oceanic philosophy to the emerging canvas of India in the Indo-Pacific.

Confluence of Naval Interaction: Malabar Series

The genesis of *Malabar Exercises* became a key driver in the evolution

of India's international relations and view of its neighbourhood, from a territorial centric to a more holistic perspective that encompassed the broader IOR. Throughout history, the maritime domain has been vital for shaping regional dynamics and the larger security architecture, establishing new and emerging powers. Since the late 1990s, India's endeavour to strengthen its maritime posture has gathered decisive pace. Following a post-Cold War initiative from the US side, the Indian Navy (IN) and the US Navy (USN) instituted the annual Exercise *Malabar* in 1992, as a token Passage Exercise (PASSEX). From 1992 to 2007, the scope of the exercises progressively increased, in terms of participating units, exercise area, and the complexity of naval missions. After India's nuclear tests of 1998, there was a brief hiatus till 2002, whereupon the exercises regained their regularity.

IN-USN Exercise 'Malabar' instituted in 1992

Exercise *Malabar* 2003 graduated to a three-dimensional exercise, involving surface, sub-surface and air platforms, and also included Visit Board Search and Seizure (VBSS) missions against suspect vessels.⁸ Exercise *Malabar* 2006 included expeditionary operations, which have immense applicability to ensure regional stability in the Indo-Pacific. The 2006 edition focused on involvement of the US Landing Helicopter Dock (LHD) USS *Boxer* and US Marines forces operating in conjunction with Indian Army troops and Indian Marine Commandos (MARCOs). This was a valuable lesson for the *IN* to emulate the concepts of operating expeditionary platforms and stand-off amphibious operations. Three months later, the *IN* inducted the USS *Trenton*, renamed as INS *Jalashwa*.⁹ Apart from multilateral nature and complexity enhancement, the location of the series evolved over time. Exercise *Malabar* April 2007 was conducted outside the Indian Ocean.¹⁰ It included maritime strike missions, Dissimilar Air-Combat Training (DACT) and 'buddy-refuelling' between the Indian Air Force (IAF) Jaguars, *IN* Sea Harriers and the US F-18 Super Hornet aircraft.¹¹

In 2007, the bilateral accord also expanded in participation to include Australia, Japan and Singapore.¹² A parallel diplomatic development of a nascent 'Quadilateral initiative' encountered Chinese opposition and quickly defrayed.¹³ However, *Malabar* continued, as did the regular expansion of the exercise to the western Pacific, every alternate year, with Japan being invited to the same therein, in 2009, 2011 (did not participate, in

aftermath of the tsunami), and 2014.¹⁴ A dedicated India-Japan bilateral maritime exercise, termed JIMEX, was also instituted in 2012.¹⁵ Japan finally became a permanent participant in Exercise *Malabar* in 2015.¹⁶ From carrying out bilateral naval exercises, there was an aperture in conducting trilateral exercises between India, USA and Japan.

The rationale to have *Malabar* Exercises as a multilateral confluence has been harnessed on the basis of ‘cost-effectiveness’ and ‘resource optimisation.’ India’s decision to include Japan and Australia in different editions of *Malabar* was enabled by the commonality of operating philosophies between the navies. Exercise *Malabar* 2020 has witnessed a resurgence of the confluence, notwithstanding restrictions imposed by the Chinese-origin Covid-19 being still prevalent, indicating the evolving philosophy of naval operations amidst a larger maritime construct.

Year	Country	Exercise Areas	Platforms	Sea days
1992	India-USA	Off India’s West Coast	Destroyers/ frigates	1
1995	India-USA	Persian Gulf	Indian warship and US SSN on passage (UAE to Kuwait)	1
1996	India-USA	Off Kochi	7 ships (3 from each side and a US logistics ship)	2
2002	India-USA	Arabian Sea	2 destroyers/ frigates from each side	4
2003	India-USA	Off Kochi	6 ships including US SSN, <i>IN</i> SS, US P3C Orion aircraft	3
2004	India-USA	Off Goa	7 ships including US SSN & <i>IN</i> SS	8
2005	India-USA	Off Kochi	7 ships including 2 Carrier Battle Groups (CBGs Nimitz & Viraat), US SSN & <i>IN</i> SS	8

Year	Country	Exercise Areas	Platforms	Sea days
2006	India-USA	Off Goa	US SSN, Amphibious ships, US Marines, Indian Army Landing Forces	11
2007, April	India-USA	Philippine Sea	12 ships including 3 CBGs (Nimitz, Kitty Hawk, Viraat), Amphibious ships, US SSN & P3C Orion aircraft	4
2007, Sept	India-USA-Japan-Australia-Singapore	Bay of Bengal	26 ships: US: 13; including 2 CBGs & SSN; India: 8, including CBG; Australia: 2; Japan: 2; Singapore: 1	6
2008	India-USA	Arabian Sea	15 ships including US CBG & SSN, <i>IN</i> SS	10
2009	India-USA-Japan	Off Okinawa	6 ships including US SSN	6
2010	India-USA	Off Goa	10 ships including US SSN & <i>IN</i> SS, US P3C Orion	7
2011	India-USA	Off Okinawa	8 ships including US SSN	5
2012	India-USA	Bay of Bengal	9 ships including US CBG	7
2013	India-USA	Off Visakhapatnam	4 ships including US P3C Orion & <i>IN</i> TU-142 aircraft	6
2014	India-USA-Japan	Off Nagasaki	8 ships including US CBG, SSN & P3C Orion; Japan's P3C Orion & US-2 aircraft	6
2015	India-USA-Japan	Bay of Bengal	10 ships including USN CBG, SSN, & JS Fuyuzuki	6
2016	India-USA-Japan	Philippine Sea	4 ships, including from USN 7th fleet and JS Hyuga	4

Year	Country	Exercise Areas	Platforms	Sea days
2017	India-USA-Japan	Bay of Bengal	18 ships including <i>IN</i> , USN & JMSDF CBGs, SSN, SS, P8I & P8A ¹⁷	8
2018	India-USA-Japan	Off the coast of Guam	3 <i>IN</i> ships, USN & JMSDF CBGs, SSN, SS, P8I, P8A, P1 aircraft ¹⁸	10
2019	India-USA-Japan	Off the coast of Japan	6 ships including 2 <i>IN</i> , 1 USN, 3 JMSDF, P8I, P8A, P1 aircraft ¹⁹	9
2020	India-USA-Japan-Australia	Bay of Bengal & Arabian Sea	> 10 ships, in 2 phases	8

Table 1 - *Malabar Exercises from 1992 - 2020*²⁰

Evolving Indo-Pacific Narrative

The Malabar narrative and naval activity in the Indo-Pacific region flash four trends that merit attention. First, India is encouraging other states and their navies to conduct multilateral naval exercises, which clearly suggest that coalitions are evolving to address multiple, common challenges. According to former US Secretary of Defence, Mark Esper, “bilateral relationships are good, but multilateral cooperation is better.”²¹ Accordingly, USA is encouraging Indo-Pacific countries to “expand their own intra-regional security relationships and networks of like-minded partners.”²² Secondly, the geography of these exercises have shifted from the usual comfort zones (home waters) to seas close to ‘hotspots.’ Thirdly, the participating ships in these exercises have been high-end combatants, including aircraft carriers, nuclear and conventional submarines, and missile destroyers and frigates, capable of power projection. Lastly, the aim and scope of *Malabar* exercises is different from the previous decade, when navies focused on cooperating against asymmetric and sub-conventional threats, such as piracy, terrorism, gun running and drug smuggling, to more contemporary, conventional challenges.

US-India-Japan Relations: Indo-Pacific Narrative

India, USA and Japan have moved towards a closer maritime partnership, regardless of the China factor. Yet these countries have reasons to be concerned about China's intent and growing power projection capabilities in the region. The scant respect Beijing has paid to international rules of conduct in its dealings with countries like the Philippines have also prompted other countries in the Indo-Pacific to reassess their capabilities vis-à-vis China. In this context, the growing importance of the *Malabar* exercises afforded the three nations the opportunity to build collaboration and interoperability between their naval forces. In August 2007, then Japanese Prime Minister Shinzo Abe, in his landmark speech to the Indian Parliament on "Confluence of the Two Seas" was prescient in noting that, "the Pacific and Indian Oceans are now bringing about a dynamic coupling as seas of freedom and of prosperity."²³ His words are now ringing true on the high seas of the Indo-Pacific region.

Malabar focuses on contemporary, conventional challenges

Interoperability amongst the participating navies has evolved steadily over the past decade. The normalisation of Self Defence Forces of Japan enabled the Japan Maritime Self-Defence Force to conduct military operations abroad. Japan is naturally concerned about China's rising assertive military presence in the South China Sea and East China Sea. It has been open and positive towards expanding its strategic relations with India into the military, particularly maritime, realm. The US Navy has readily fielded its latest weapon platforms and show-cased its abilities and best practices. The Indian Navy has also reciprocated with participation of its latest and most potent platforms, enabling the *Malabar* exercises to develop to the highest levels of complexity and across all dimensions. The political willingness for Australia's return to the *Malabar* series marks a significant step in cooperation and collaboration amongst the resurgent 'Quad 2.0' navies, which has the potential for addressing common challenges and threats in support of maritime security of the global commons and a Free and Open Indo-Pacific.

Malabar Confluence of Security and Interoperability

In dealing with contemporary complex situations and to maintain credible consistent influence in the Indo-Pacific, India is creating

partnerships to plug critical gaps. The neighbourhood policy is well enshrined in the territorial space, but with aggrandizing the strategic reach of *Malabar* exercises, India is engendering a new international relations approach in the Indo-Pacific, i.e. its Maritime Neighbourhood Policy. In doing so, military exercises and mature interoperability will hold the key in establishing military-to-military linkages. It can also be leveraged for joint surveillance and information sharing, as well as mutual logistics support for

***Malabar - interaction
between navies of India,
USA, Japan and Australia***

enhanced reach and sustenance. Thus, the *Malabar* exercise can be seen as a routine, regular, professional interaction amongst the navies of India, USA, Japan, and now Australia, which will strengthen mutual trust and confidence by developing and honing operational capabilities in a shared, cooperative framework. These exercises will not only enhance interoperability, but will also provide exposure to Indian planners about the latest technologies, tactical trends and best practices in the advanced partner navies.

On a larger scale, it is a reflection of the intertwining of strategic interests, and nuanced message of broader coalescence of perspectives and approach amongst the political leadership of these countries. It also highlights, in the evolving strategic milieu and challenges in the Indo-Pacific, the centrality of the maritime domain as the common interest-point and veritable lynchpin of strategic engagement. Hence, *Malabar* holds significance not just as a naval activity, but also as it underscores India's cooperative and collaborative approach to maritime security, and commitment to a free, open, inclusive and rules-based international maritime order. As such, it defines India's evolving International Relations (IR) approach towards its maritime neighbourhood.

Conclusion

Naval cooperation between India, USA and Japan has epitomised the strong and resilient relationship that has developed between the three democracies. The *Malabar* exercises, initiated in 1992 between the Indian and US Navies, have steadily grown in scope, complexity and participation, which has expanded to include Japan and, now, Australia. China's growing military strength and increasing presence in the IOR, against its assertive, aggressive and expansionist posture in recent years, has underscored the vital importance of promoting a rules-based international order and the

need for strengthening cooperation amongst countries with such common interests, for mutual support and convergence of efforts. In this evolving, dynamic strategic landscape, Exercise *Malabar* has assumed greater importance. It has been a demonstration of joint commitment and collaborative approach of these nations to address common maritime challenges, across the spectrum of operations. It will play a substantive and significant role in maintaining and enhancing maritime security in the Indo-Pacific region, which would be of benefit to the global maritime community.

Exercise *Malabar* enhances India's credibility in the maritime domain and prioritises collaborative effort towards realising the vision of Prime Minister Modi for Security And Growth for All in the Region (SAGAR). It also defines India's evolving IR perspective in the Indo-Pacific, with focus on two major maritime security objectives - of being the 'Preferred Security Partner' in the IOR and for promoting 'Collective Maritime Competence.' Accordingly, India has shown its readiness to promote cooperation in the maritime domain. These include efforts at building capacity, augmenting capability, exchanging information and improving interoperability with a number of security partners. Truly, the etymology of Malabar in the medieval framework, as a confluence of cultures and connectivity in the maritime domain, has evolved into a contemporary Malabar Confluence of maritime power, for peace, good order and security in the Indo-Pacific.



Cmde Odakkal Johnson is an alumnus of the Naval War College, and has done his PhD in Maritime Governance at the University of Mumbai. He is presently the Director of the Maritime History Society, Mumbai, and is Visiting Faculty at the Naval War College, Goa.

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INDIA'S STRATEGIC CALCULUS IN THE POST COVID-19 WORLD

Commander Apoorv Pathak

Introduction

In Ismail Merchant's classic *The Remains of the Day*, set in 1930s Britain, the host, Darlington, a British Lord, welcomes his German guest by raising toasts about "peace and prosperity." His American guest, oddly, states, "Days when you can act out of noble intentions are over, Europe has become the arena of realpolitik, the politics of reality."¹ Within a few years, this realism was widely witnessed, as nations blatantly broke pacts of 'friendship' and 'non-aggression' and the Second World War engulfed the globe. In the aftermath of this war, multipolar institutions emerged in the globalised world, leading to the liberal international order during the latter part of the 20th Century.

Covid-19 has emerged as the greatest disruptor of this international order, creating economic and political upheaval. Owing to acute economic distress, the 'pre Covid-19' divisive trends have accelerated, with sharp polarisation in domestic and international politics. Additionally, as democratic powers have been overwhelmed by medical and economic distress, resurgence of nationalism has led to an increase in authoritarianism. The pandemic has exposed the weaknesses of multilateral institutions in tackling the disorder, leading to a trend of retreating globalisation. Further, the US-China rivalry will ensure that the 'post Covid-19,' world will likely be dominated more by confrontation and competition than cooperation and collaboration.

India needs to evolve an integrated strategy to navigate through the Covid-19 induced disruptions in geo-economics and geopolitics, if it hopes to emerge unscathed and stronger. Bilateral and multilateral alliances, in addition to deft defence planning and reforms, will be critical factors in India's strategic calculus to transcend the Covid-19 times.

Global Challenges for India

In the emerging post Covid-19 international order, the Indo-Pacific has replaced Europe as the most significant strategic theatre. Therefore, owing

to its central geostrategic location, India is poised to shoulder increased role in the emerging global order. Given India's relations with other principal regional and extra-regional actors, Covid-19 is bound to have a profound bearing on India's future.

Economic Challenges

Covid-19 has deeply affected the world economy. A sharp drop in global demand has resulted in devastating impact on world trade. The western world has suffered more than the Indo-Pacific Region (IPR), further denting *Covid-19 has affected the world economy* its precarious economic situation prevailing since the 2008 financial crisis. This weakness in 'Washington Consensus' economics will be exploited by China through its alternative model of financing. However, with debts soaring and trade collapsing, even the export-based Chinese economy would be beset with unpredictable, and yet unforeseen, challenges. The US-China trade wars, coupled with tariff barriers being raised by individual countries, could create further setbacks to prospects of a quick, global economic recovery.

India's Covid-19 triggered GDP fall has been one of the worst amongst leading economies, with further dismal predictions for 2020-21. The economic downturn and a rapidly shrinking GDP is bound to affect India's geopolitical stature adversely. Economics may also blunt India's ability to maintain its strategic autonomy, due to increased necessity of attracting foreign capital. A weak economic foundation may, thus, push India towards protectionism and isolationism which is already evident in India's reluctance to join economic blocs, such as the Regional Comprehensive Economic Partnership (RCEP). The economic decline in the 'Gulf,' due to fall in oil prices, could further adversely impact dwindling remittances and India's strategic holdings in the Middle East.² Further, the ongoing crisis has created a resource crunch, which could adversely affect Indian defence modernisation plans, as well as its outreach to other countries through investment promises. However, on the other hand, India could take advantage of the situation by becoming a hub for global supply chains, which are showing signs of moving away from China. Further, India's demographic advantage could also be leveraged to achieve its long standing goal of vitalizing the manufacturing industry.

China's Rise

Beijing has evidently viewed India as an impediment to its hegemonic ambitions and has, historically, not shied away from using military force, as part of its grand strategy, to exert influence. China has also employed diplomatic engagement along with military coercion to engage India, based on its own strategic calculus. In line with Sun Tzu's dictum, "All warfare is based on deception," Beijing has utilized the tactic of 'two steps forward and one step back,' to slowly and steadily nibble Indian territory. The Chinese strategy against India 'blows hot or cold' based on its domestic situation and global compulsions. In consonance with this strategy, the stand-off in Doklam was followed by the 'Wuhan and Mamallapuram spirit' to lull and soften India's stand, including on the 'Quad' policy framework. However, at the core of the Chinese policy is Xi Jinping's 'Chinese dream' to re-assert itself as the 'Middle Kingdom' of the world - through incremental strategic gains.³ As the world remains embroiled with fighting the Chinese Covid pandemic, China's opportunism has resurged, to conceal its domestic anxieties, through an offensive posture in the international arena. The PLA's incursions in eastern Ladakh are intended to impose costs on India for its deepening ties with USA and to force acceptance of Beijing's primacy in Asia and beyond. In consonance with its global ambitions towards 'Pax Sinica,' the Chinese juggernaut is rolling through South Asia - challenging India's regional primacy in its own backyard.⁴ China will keep testing the resolve and determination of the Indian establishment, and will simultaneously try to nudge New Delhi away from Washington's embrace, using a combination of force as well as diplomacy. India's struggle to balance the rising hegemon will be a key part of its strategic calculus for a long time to come.

China nibbling on Indian territory

India's Priorities – the Need for a Defined, Integrated Strategy

India's idealism post-independence led to a 'risk-averse strategy,' resulting in minimal tangible rewards from its foreign policy.⁵ Further, disjointed civil-military relations ensured that role of military force was relegated as a measure of last resort, upon failure of the delinked foreign policy and segregated strategic calculus. The result has been the absence of a defined and integrated strategy, emboldening India's adversaries and creating significant risks, despite India's material strengths.

Owing to a 'reactive strategic culture,' major policy changes in India have occurred only during or after major crises. Covid-19 presents one such opportunity, wherein the current crisis could be utilised to bring about the required changes in the *modus operandi* for India's national security planning. China's actions, during this economic crisis, have forced India to

Formulation of a National Security Strategy is essential

balance its developmental and security goals, against the possibility of a severe resource crunch. Diverse budgetary demands for meeting national medical care requirements, economic stimuli and defence modernisation, will force the government to prioritize some expenditures over others. A proactive analysis towards defining and prioritising such goals is the need of the hour, which can be accomplished through formulation of a National Security Strategy (NSS) document. The NSS would be the blueprint through which diverse economic, foreign and defence policies could be prioritized, based on strategic goals and an assessment of available resources.

Defence Planning

The emergency procurements undertaken post Galwan bring to fore the long pending, and now urgent, requirement for effective and coherent defence planning - an aspect which is intrinsically linked with other instruments of national power. Even though India's military spending is the third highest in the world, its defence modernisation hasn't kept pace with the changing contours of global threats. A shortage in defence capital outlay has already curtailed modernisation plans of the Indian Armed Forces. Unexpected cuts due to the Covid-19 crisis would further jeopardize modernisation, with each service jostling for its share of the pie. As the Indian Army prepares itself for a long winter on the eastern Ladakh border, its budgetary requirements will further balloon. The increased expenditure may, per force, be at the cost of the Navy's modernisation, whose budget allocation is already less than 15% of India's defence expenditure. Such a development would be in China's interest - for India to remain mired in continental conflicts and stunt its maritime growth. Beijing, in contrast, through its defence reforms, has substantially reduced the People's Liberation Army's (PLA) manpower and provided a sharp focus to modernisation of the PLA Navy (PLAN), which has now emerged as the world's largest navy.⁶ Therefore, in order to overcome a myopic and

reactive approach, defence reforms are an inescapable requirement for India, with effective defence planning as the foundation.

Geopolitical Focus Areas

The essence of any strategy is the efficient linkage of resources and capabilities to achievable objectives. India has unobtrusively assumed a place on the high table, as a stakeholder in the new emerging global order. However, as India faces a Covid-19 induced GDP contraction, it needs to re-evaluate and redefine its focus areas based on its present capacity assessment. Therefore, while the US Free and Open Indo Pacific (FOIP) vision expects India to play an active role in the South China Sea impasse, the increasing Chinese influence in India's immediate neighbourhood is of greater concern to New Delhi. While India has positioned itself as the 'Preferred Security Partner' for the Indian Ocean Region, the 'two front scenario' on its continental borders is a fast approaching reality. In such a vexed and fluid environment, India would need to formulate a policy to realise its primary interests by leveraging its strategic partnerships with other pivotal actors in the region and beyond. In line with Lord Palmerston's dictum, nations have no eternal allies or perpetual enemies, only interests that are eternal and perpetual. India must utilise its unique position in the Indo-Pacific to utilize available opportunities for obtaining technology transfer, economic investments, defence equipment and collaborations from willing partners.⁷

India is the 'Preferred Security Partner' for the IOR

The Indo-US Alliance: A Natural Response

Post the Galwan Valley clash, many analysts have commented on the urgent need to strengthen the Indo-US alliance and leverage the 'Quad' as a counter to China's expansionism.⁸ In US President Donald Trump's words, "India and the US share a natural, beautiful and enduring friendship." USA, with its 'Rebalance to Asia,' recognized the need to support India against the hegemonic ambitions of China, in military, economic and diplomatic terms. India views Washington as a key strategic partner and supporter of the global rules-based order. USA also views India as a key player in its vision of a FOIP, and has strengthened this strategic partnership with the signing of three key foundational agreements since 2016. The fourth significant agreement, Basic Exchange and Cooperation Agreement for

Geo-Spatial cooperation (BECA), was signed in the recent Indo-US '2+2' Ministerial dialogue in October 2020.

However, the US insistence on fighting the 'New Cold War' - on lines similar to the Cold War - has some inherent disadvantages.⁹ This strategy, based on 'containment' through multi-national alliances, primarily focuses

***China's economic might
makes it a powerful player***

on the geopolitical and military domains. But, unlike the erstwhile USSR, China's economic might makes it a powerful player in today's global financial and economic system. It has the capacity, capability and will to use economic leverage to create fissures in the US alliance system, while enhancing its own influence. Beijing has also calibrated its strategy to harass opponents through hybrid warfare - in maritime, cyber, economic, and information domains. Its military interventions remain below the threshold of war, making it difficult for existing alliance systems to be invoked.

The Trump administration's focus on 'America First' has affected its alliance system due to the following factors: -

- Instead of 'shared interests,' Washington has been focused more on its 'prime interests,' which may not be aligned with its partners. The changing 'goal posts' of its own strategy have led to divergent interests - e.g. the 'U-turn' on the Joint Comprehensive Plan of Action (JCPOA) with Iran.¹⁰
- The end of 'strategic altruism' from the US side has taken away a key binding factor of its alliance system. Its demand for shared costs or the unilateral decision to withdraw troops, e.g. from Germany because "...they're not paying their bills," forces each partner to undertake its own cost benefit analysis.¹¹
- The Trump administration's withdrawal from international institutions (latest being WHO), as an act of 'unilateral diplomatic disarmament,' created a void to the advantage of Beijing's increasing influence in the 'global commons.'¹²

Strategic alignment with USA could entail several tangible benefits for India, even as there would likely persist several areas of disconnect and disconcert for some of India's long-held and strategic interests. The US pressure to wean India away from Russia, its unilateral peace talks with Taliban (against India's interests), removal of India from the Generalized System of Preferences (GSP), protectionism through cancellation of H1B

visas, etc., demonstrate that India should endeavour to maintain its space for strategic manoeuvre, balancing necessities and parallel interests. In a post Covid-19 world, with all countries suffering a resource crunch and heightened nationalism, this space would be critical for India to protect and pursue its interests.

India's Other Strategic Partnerships

In order to optimally utilize its resources and maintain momentum, New Delhi's strategic engagements with partners should focus on coalescing benefits in domains of economy, technology and military. These strategic partnerships should be in the form of concentric circles, with the most critical ones at the core, as proposed in succeeding paragraphs.

Strategic engagements should focus on economy, technology and military

The Indo-Pacific Triad

Despite having geographically separated and mutually exclusive spheres of influence in the IPR, India, Japan and Australia find themselves in a similar geopolitical situation due to the following factors: -

- A hegemonic China exerting influence in their respective spheres of influence, through territorial aggression and economic leverage.
- Necessity of working together to balance a rising, aggressive China.
- A determined quest to reduce economic dependence on China.

As middle powers, the 'trio' could align efforts for mutual benefit, including to harness Japan's technological prowess, Australia's material abundance and India's demographic dividend. Working together will also generate greater trust and cooperation. The trio's geographically dispersed spheres of influence could also turn out to be an advantage, by extending mutual support for common interests over a larger area. While the trio may not be able to balance China, even together, a stronger partnership would engender confidence and strengthen a rules-based order that is inclusive and focused on the common good. Therefore, it is important that this trilateral partnership forms the core of India's strategic relationships. The recent trilateral Supply Chain Resilience Initiative and India's logistics agreements with both, Japan and Australia, are important steps in this direction.¹³ Further, the Indo-Australia strategic partnership could be a game changer in the IPR, by attracting other like-minded nations.

The Big League Partnership

India's larger strategic circle should focus on the big league - USA, Russia and Europe. USA, with its military might and global leadership, could assist India in several domains, especially in the fields of high-end technology and military hardware.

The Indo-Russia strategic partnership is a unique example of Indian realism, which has paid rich geopolitical as well as geo-strategic dividends.

India should continue to nurture its time-tested relationship with Russia

Russia has continued to supply India with vital military hardware, as also extended support in multilateral institutions. As Russia also looks upon the ever growing Chinese influence in its Far East, India should continue to nurture this time-tested relationship and harness Russian influence in world affairs.

India's relations with Europe remain strong, and offer increased possibilities. France is a key Indian Ocean partner and a 'resident power' in the IPR. The President of France, Emmanuel Macron's proposal for an India, France and Australia strategic partnership has already started taking shape.¹⁴ Germany has, recently, promulgated its Indo-Pacific strategy, endorsing FOIP and tacitly noting the rising threat from China.

Bilateral Vectors

In addition, India's strong bilateral relationships across the globe could continue to provide strength and resilience to its geopolitical heft. India's unique relationship with Israel, in particular, could boost India's defence and niche technology capability. Similarly, strong bonds with the Gulf countries, which host about 10 million Indians and contribute about 60% of India's oil imports, are vital to India's growth and development.

ASEAN in general, and Vietnam, Indonesia in particular, also play an important role in India's strategic calculus. This region has been least affected by Covid-19 and is increasingly attracting a share of the global supply chains, as some manufacturing shifts out of China. With their own territorial disputes with Beijing, they are also threatened by the rising Chinese juggernaut, and would be strong beneficiaries of a 'rules-based order' in the IPR.

Conclusion

In the post Covid world, the key to success is economic resurgence, rapid development and diplomatic resilience. India, as a strong emerging power, has a key role in the 'new world order.' In order to leverage its strengths, India must set clear aims and formulate cohesive strategies to achieve them. Fast paced economic recovery with *Atmanirbhar Bharat*, accelerated defence reforms and an "understanding that strategic autonomy should not be confused with strategic ambiguity..." provide the essential way forward.¹⁵ An overall strategy, in the form of an NSS, needs to be promulgated at the earliest to shape, guide and protect our core interests.

India's resolute military response to Beijing's 'salami-slicing,' while continuing talks "to find an equilibrium or reach an understanding to establish a steady relationship" displays the alignment of all instruments of power in India's strategy.¹⁶ Through such firm and determined actions, India can develop 'strategic partnerships' towards a multi-polar world order, which could withstand the uncertainties of the China-US rivalry. India's 'soft-power' resonates around the globe - exemplified in the Covid-19 times by medical aid initiatives, Op *Samudra Setu* and *Vande Bharat* missions. In the words of Prime Minister Narendra Modi, "India will stand for *shanti*, *suraksha* and *samridhi* (peace, safety and prosperity)...India's experience will strengthen the way for *vishwa-kalyan* (good for the world)."¹⁷



Cdr Apoorv Pathak has contributed regularly to leading publications, including USI and Naval War College Journals. He is a keen student of International Relations and Strategic studies.

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STRATEGIC POWER-PLAY IN THE ARCTIC

Commander B Puneet

“India has been following the developments in the Arctic region with interest and is also ready to play a significant role in the Arctic Council.”

*Hon’ble Prime Minister of India,
Russia, 05 September 2019¹*

A principal factor affecting the geopolitical environment for the Arctic is the shift that has occurred in recent years from the post-Cold War era to a new international security environment that features, among other things, renewed great power competition. This shift, combined with the diminishing Arctic ice and the resulting increase in human activities, has several strategic implications for the region’s future. Renewal of great power competition has also raised a basic question, as to whether the Arctic in coming years will continue to be a region generally characterised by cooperation and low tensions, or instead become a region marked by competition and increased tensions. Although there continues to be significant international cooperation on Arctic issues, the region is increasingly viewed as an arena for geopolitical competition, primarily among USA, Russia, and China.

Russia’s Arctic Build-up

Arctic Territory. With a larger territory, population and military presence in the Arctic than any other country, Russia is well-positioned to assume a central role in the region’s future strategic trajectory. Concurrently, Moscow has also laid claim to more Arctic land and maritime territory than any other country. Adding to its territorial control and future ambitions is the fact that several million Russians live in the Arctic, giving it significant leverage in the region’s affairs. From an economic perspective, the region generates about one-fifth of the country’s GDP, compared with only 1% of that for USA.² In fact, President Putin in 2017, estimated the mineral wealth in the region at \$30 trillion.

Control over Arctic Sea Lanes. Acknowledging the significance of a

strong and robust ‘presence-cum-control’ along the Arctic sea lanes and its resource-rich regions, Russia is pursuing several important maritime infrastructure projects, especially in the vicinity of the Arctic sea lanes. An augmented infrastructure base would also support its Arctic shipping fleet, oil and energy drilling ventures and other associated economic activities.

Russian infrastructure projects, in the vicinity of Arctic sea lanes

An important development in this context has been development of the 5,000 km Northern Sea Route (NSR), which gives it considerable strategic as well as economic leverage in the region. The NSR has the potential to substantially reduce transit time for vessels transiting the Northern Hemisphere between northeast Asia and northern Europe, and is likely to attract considerable attention from a commercial perspective in times to come.

Build-up of Ice-Cutters. In order to support transit through the NSR, Russia has undertaken a sustained build-up of its fleet of ice-cutters. This includes nuclear-powered ice-breakers, with greater operating power and better endurance than conventionally powered vessels. It is also believed that the Russian government has regained control over most ice-cutters in the country, in consonance with its capability development plans to support civil and military operations.³

Military Posturing. In addition to controlling the region’s rich resource base and shipping lanes, Russia also aims to develop power projection and defence capability along its northern borders. Recent important actions by the Russian military, including restoration of Soviet-era facilities, strengthening of its Northern Fleet, and establishing new bases with advanced air-and sea-defence systems, is indicative of the country’s focus on security of its national interests in the region.⁴

China’s Arctic Ambitions

Arctic Strategy. To begin with, China owns no territory above 66.50° N, yet it claims to be a ‘near-Arctic’ state vying for equal rights in the region’s governance and resource exploration.⁵ It published its *Arctic Policy* in 2018, outlining a string of objectives that largely aim at greater Chinese presence and influence in the region. The policy prioritises Chinese use of Arctic shipping routes as part of a so-called ‘Polar Silk Road,’ resource exploration and exploitation in the region, and better Arctic governance. In addition to gaining access to the region’s rich resource and mineral potential, access to

the Arctic would also assist China in mitigating its Malacca Dilemma. Moreover, the estimated 30% shorter transit route to European markets through the NSR, as compared to the Malacca-Suez route, also adds to China's interests in gaining greater control over the region's sea routes.⁶

Build-up of Ice-Cutters. To substantiate its 'Polar Silk Road' vision, China is in the process of acquiring a fleet of ice-breakers for its missions in the Arctic, as well as in Antarctica. This includes construction of a 30,000-tonne nuclear-powered icebreaker.⁷ In 2019, it commissioned *Xue Long II*, which completed an Antarctic mission in April 2020 and is currently deployed on its maiden Arctic deployment. The vessel is owned and managed by the Chinese Polar Institute and is the successor to the Ukrainian-built *Xue Long (Snow Dragon)*.⁸ Till date, China has conducted 36 Antarctic and 10 Arctic expeditions.⁹

*China is acquiring a
fleet of ice-breakers*

Leveraging Russian Support. Chinese oil and gas companies are increasing their engagement with Russian firms, primarily with the objective of leveraging the latter's expertise of offshore exploration in the region. The canvas of collaboration extends from joint offshore exploration, shared ownership of projects, joint development of deep water ports and undertaking joint research projects in the High North. Adding fillip to this collaborative tempo is the increased transit revenue for Russia, generated by the surge in Chinese trade passing through the NSR. At the same time, cooperation in the Arctic over the last few years has not contributed towards alleviating the longstanding conflict between the two countries in the Russian Far East, especially on demographic issues.¹⁰

The US Response

US Policy Focus. The renewal of great power competition has raised concerns on the priority that should be given to the Arctic in overall US policymaking. During the post-Cold War era, when the Arctic was generally a region of cooperation and low tensions, there may have been less need to devote attention and resources to the Arctic. But, with increasing polar ice melting and resultant quest for resources, USA is increasing its national focus on Arctic, while adopting a more prominent position regarding the region.

Response to Russian and Chinese Arctic Ambitions. In May 2019, the US Secretary of State, Mike Pompeo, acknowledged the Arctic as "an arena

for power and for competition,” and countered China’s claims to be a ‘Near-Arctic State.’ Even though he was accommodative towards Chinese investments in the region, he insisted that it needed to be transparent and constructive, and avoid the “pattern of aggressive behaviour elsewhere.” As

Mike Pompeo acknowledged the Arctic as an arena for power and competition

regards Russia, Secretary Pompeo expressed concern about Moscow’s territorial claims, intensified military presence, and plans to integrate the NSR with Beijing’s Maritime Silk Road. Summing up the US Administration’s outlook, he said, “Under President Trump, we are fortifying America’s security and diplomatic presence in the area.”¹¹

US DoD Arctic Strategy. The US Department of Defence (DoD) released its *Arctic Strategy* in 2019 (an updated 2016 version), with specific focus on DoD’s strategic trajectory for the region. The document puts forth the department’s vision and strategic approach for protecting US national security interests in the region. Importantly, the document acknowledges the current period as an “era of strategic competition” and articulates the desired end-state for the Arctic as “a secure and stable region in which USA national security interests are safeguarded, the US homeland is defended, and nations work cooperatively to address shared challenges.”¹²

Military Actions. USA has also commenced construction of polar ice-cutters for undertaking both, Arctic as well as Antarctic missions by the US Coast Guard. As regards its operational philosophy for the region, the last few years have witnessed a strong case being made by the US administration for conducting freedom of navigation operations in the Arctic. Aimed primarily at contesting Russian claims, which categorise the NSR as an internal rather than an international body of water, these operations are an important cornerstone of the larger US strategy for the region. In a more recent development, and as a demonstration of its increased focus towards the Arctic, the US Navy deployed a four-ship Task Group in the Barents Sea in May this year.¹³ Importantly, this is the first such deployment by the US Navy in the region since the end of the Cold War.

Implications for India

India and the Arctic. India’s engagement with the Arctic started in 1923, when as part of the British Empire, it joined the *Svalbard Treaty*. The Treaty permitted signatories to undertake commercial activities on Norway’s

Svalbard Archipelago. Subsequently, post-independence, India's polar focus turned to the Antarctic, where it presently operates two research stations.¹⁴ Acknowledging the growing focus on the Arctic, in 2008, India inaugurated its first Arctic research station, *Himadri*. The other important developments included grant of Observer status in the Arctic Council in 2013, and conclusion of a deal between ONGC *Videsh* Limited (OVL) and Russia's *Rosneft* in 2014 to explore oil and gas in the region.

***First Indian Arctic
research station, Himadri,
inaugurated in 2008***

Statement by the Indian Ministry of External Affairs - 2013. A statement titled *India and the Arctic*, released in 2013 by the Indian Ministry of External Affairs (MEA), articulated India's official stance and objectives on the Arctic. It acknowledged that, "Arctic region is increasingly being effected by external global forces and in turn is poised to play an increasingly greater role in shaping the course of world affairs."¹⁵ It also stated that, "India has been closely following the developments in the Arctic region and India's interests in the region are scientific, environmental, commercial as well as strategic." Importantly, the statement identified the following objectives of the Indian research in the Arctic: -

- To study the hypothesised tele-connections between the Arctic climate and the Indian monsoon.
- To characterise sea ice in the Arctic using satellite data to estimate the effect of global warming in the northern polar region.
- To conduct research on the dynamics and mass budget of Arctic glaciers focusing on their effect on sea-level change.
- To carry out a comprehensive assessment of the flora and fauna of the Arctic vis-à-vis their response to anthropogenic activities.

Why is Arctic Important for India?

India's Arctic focus, till date, has largely been centred on scientific research. The true potential of the region, in safeguarding and promoting India's security and developmental needs, remains to be fully harnessed. With measures focused on increased cooperation and collaboration with important Arctic states, India would need to pursue a recalibrated approach to the region. The following four key issues emerge as the 'front and centre' of the Arctic's growing strategic context and merit due consideration: -

- **Access to Resources.** Receding sea ice and permafrost thaw is

significantly impacting the accessibility to the region's mineral and energy resources. A US Geological Survey report in 2008 estimated that the area north of the Arctic circle is likely to store 90 billion barrels of oil, 44 billion barrels of natural gas liquids, and 1,760 trillion cubic feet

Arctic circle estimated to store large quantities of oil and natural gas

of natural gas, collectively accounting for nearly 22% of the undiscovered, technically recoverable resources of the world.¹⁶ With advancements in exploration technology, supported through climatic changes and access to shipping routes, the quest for these resources is likely to increase with time.

➤ **Increasing Chinese Influence.** China's interest and influence in the Arctic has witnessed a significant upsurge in the last few years, implementing a threefold strategy to meet its goals. First, is to use its economic might to gain leverage over the region's vulnerable actors. Secondly, is to effectively tap into the multilateralism sentiment of many Arctic nations. And thirdly, is to invest in Arctic oil and gas, example of which is China's significant investments in Russia's *Yamal* natural gas fields. Collectively, this strategy would provide China increased access to the region and its resources, a passage through its shipping routes and, most importantly, an economic dependency for Arctic states, which it can exploit for unilateral advantage.¹⁷

➤ **Indian Investments in the Region.** India has accorded a positive focus towards oil and gas exploration in the region. India and Russia's oil and gas companies have signed agreements and are cooperating on 36 shared production projects as well as offshore exploration. Further, OVL holds a 26% stake in Russia's *Vankorneft* and a 20% stake in the Sakhalin-I project. Recently, Gas Authority of Indian Limited (GAIL) renegotiated its 20-year LNG agreement with Russia's *Gazprom*, adding two million tonnes to the previously concluded deal of 2.5 million tonnes per year and extending the term by three years. Further, in 2019, a consortium of Indian energy firms - Indian Oil, OVL and Bharat Petro Resources entered into an agreement with *Rosneft* for projects in the Arctic region.¹⁸ Expanding the basket of energy import options is an important planning agenda and, therefore, protection of these interests would remain a key security consideration in times to come.

➤ **Scientific and Environmental Interests.** Melting Arctic glaciers are the chief contributor of global sea-level rise, estimated to be adding nearly 13,000 tonnes of fresh water into the oceans every second.¹⁹ As the leading cause of rising sea levels, this phenomenon has the potential to adversely impact coastal areas in India and across the Indian Ocean Region (IOR). For example, the Arctic ice-melt is appreciated to weaken the movement of monsoon breeze into India, through a chain of causal actions, which eventually would have cross-sectoral implications.²⁰ Therefore, India has genuine reasons to be concerned of the developments in the Arctic, which are bound to have humanitarian, economic, and strategic consequences for the country and the sub-continent in times to come.

***Melting Arctic glaciers
are the chief contributor
of global sea-level rise***

Policy Recommendations

National Strategy for the Arctic. In light of the increasing inter-linkages between the Arctic region and global power-play, it is imperative that an apex-level strategy be formulated with a coherent and synergised ‘whole-of-nation’ approach to the region. It is important for such a policy document to set India’s comprehensive strategic priorities, and position India to respond effectively to challenges and emerging opportunities arising from the significant increase in Arctic activity. India’s long-term national security interests in the Arctic region, and prioritised lines of effort, would need to be conceptualised as part of this strategic framework. In this regard, the following overarching strategic objectives are recommended to steer future national effort in the Arctic: -

- Build Arctic awareness founded on the ongoing scientific research effort in the Arctic, with the aim of establishing an evidence-based causal relationship between the region’s developments and its impact on India.
- Enhance engagement with Arctic states to shape India’s future cooperative engagement, and define our continuing and constructive role in the Arctic Council. Pursuing a strategy for conducting polar engagement, under a guiding principle of ‘Polar Zone of Peace’ may find wide spread support as well as global acceptance.
- India’s firm and resolute commitment towards promoting prosperity and sustainable development of the region should serve as the guiding

vision for our future presence and sustained operations in the Arctic region.

Arctic Strategy (Maritime). The importance of polar research to India is acknowledged in the *Indian Maritime Security Strategy* (IMSS). The document recognises the contribution of India's overseas scientific research stations (*Maitri* and *Bharati* in Antarctica, and *Himadri* in the Arctic) towards researching climate and weather patterns, on which the Indian

IMSS acknowledges importance of polar research to India

monsoons and, consequently, a substantial portion of the nation's economy depends. Further, the growth in India's overseas economic and trade relations across sectors is also mentioned in the strategy document. But, while the Southern IOR, with Antarctica, is included in India's secondary areas of maritime interest, the Arctic does not feature as an identified area of maritime interest. This may be considered for inclusion in the next revision.²¹ This could flow out from the National Strategy, proposed above.

Polar Commission. At present, the Ministry of Earth Sciences (MoES) is responsible for scientific exploration and research undertaken in the polar regions of Antarctica and Arctic. While scientific research remains an important driver of India's interest in these regions, the increasing economic, environmental and commercial stakes merit a broader management of India's polar strategy. Therefore, it is recommended that, on lines of the domain of 'space,' a 'Polar Commission' be constituted. This would give a much required fillip to India's polar strategy, bringing all concerned stakeholders together and channelising their efforts in a synergised manner.

Arctic Research

India's commitment to research in the Arctic was bolstered in 2018, with the renaming of the National Centre for Antarctic and Ocean Research as the National Centre for Polar and Oceanic Research.²² Further, India's first Polar Research Vessel is also likely to be commissioned soon. This would allow planning of diverse scientific programmes, which were limited hitherto, due to the chartered nature of ice-cargo vessels used for such missions by Indian researchers. The Navy could leverage this opportunity by participating in future Arctic missions and incorporate important domain aspects into future operational planning.

The frigid operating temperature and weather conditions of the Arctic warrant construction of role-specific platforms, capable of withstanding the harsh operating conditions. Under current standards, ships would have to be built as per the 'Polar Code' to operate in this region. Therefore, *IN* ships built in Russia, which may be suitable for Arctic missions, could be considered for deployment, as and when required, with suitable availability of polar-specific equipment. Concurrently, specialised training for the crew from the perspective of ice-navigation and equipment maintenance under extremely cold temperatures would be an important line of effort.

Conclusion

The Arctic's sea ice is melting at a faster rate than ever witnessed earlier in history. Consequently, strategic commentators are increasingly discussing prospect of a great-power conquest for control of the region, on lines reminiscent of control over Africa in the 19th Century. Importantly, today, there is little consensus regarding the development of Arctic resources and the associated rights of states.

This renewed great power competition might be expressed in the Arctic in terms of issues like resource exploration, sovereignty disputes and military operations. Hence, there is need for devoting greater attention and resources to the Arctic. However, given current capacity and support constraints, it may be prudent to pursue a 'whole-of-nation' approach in crafting an overarching Indian Arctic Strategy. Downstream imperatives and enablers for the Indian Navy may be subsequently developed under such an overarching guiding framework.



Cdr B Puneet is an alumnus of the 64th Naval Academy Course and Defence Services Staff College, Wellington. He was commissioned in July 2003, and is a specialist in Communication and Electronic Warfare. He has also served in frontline ships of the IN and at Indian Naval Academy.

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NUCLEAR DETERRENCE STRATEGY FOR INDIA IN SOUTH ASIAN 'COMPLEX SITUATION'

Rear Admiral MD Suresh, AVSM, NM

Introduction

While it took over four decades for the leaders of both sides of the Cold War to realise that nuclear wars could not be won and must, therefore, must never be fought, the Mahatma Gandhi led Indian political leadership were clear of the 'political' significance of the weapon and the 'threat' of its use, specially against a nation that did not possess one. The Chinese occupation of 48,000 sq km and claiming another 94,000 sq km of Indian territory, while accepting 10,000 sq km illegally ceded by Pakistan, made sure Indian leaders were not ignorant of the potential threat that Chinese nuclear weapons posed to India.¹ The 1971 situation where the *Enterprise* Task Force arrived in the Bay of Bengal carrying nuclear weapons, exposed India to the possibility of 'nuclear blackmail' to achieve political ends.

During the end 1980s and through the 1990s, China continued to develop strategic and military relations with countries in Central Asia, Iran, Pakistan and Myanmar in southern Asia; Vietnam and Cambodia in SE Asia. As USA kept a Nelson's eye on Chinese proliferation of missiles and nuclear technologies, and actually sought China's assistance in 'managing security affairs' in Asia, India realised she was cornered. Nuclear weapons appeared to provide an insurance for India against such positions, especially when China took no steps towards dismantling or disowning its nuclear weapons.

Pakistan, on the other hand, was smarting from the military defeat of 1971, and saw nuclear weapons as the only means to check the rising disparity in GNP and conventional forces of India. Aware of the increasing proliferation of Chinese conventional and nuclear weapons technologies into Pakistan on the one hand, and the potential closing of the nuclear option window on the other hand by the operationalising of Comprehensive Nuclear Test Ban Treaty (CTBT) and Fissile Material Cut-off Treaty (FMCT), tweaking of the Nuclear Suppliers Group (NSG) guidelines in violation of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT)

itself, strengthening of the Missile Technology Control Regime (MTCR) of 1987 and emergence of the Wassenaar Arrangement to control 'dual use' technologies, as well as indefinite extension of the NPT regime in 1995, India realised that the window of keeping its 'option open' was closing. India finally decided to exercise its nuclear option on 11-13 May 1998, and became a state possessing nuclear weapons as an insurance against nuclear

***Pakistan's nuclear weapons
against Indian conventional
arms superiority***

coercion and threats. Pakistan soon followed with its own nuclear tests and the strategic situation changed in the regional context. The rationale and move from an 'option open' status by India and from 'covert' to 'overt' status by Pakistan, abetted by China, laid the foundation for developing and changing nuclear strategy parameters in the South Asian context.

Deterrence in a 'Complex Situation'

In nuclear deterrence theory, a 'Complex Situation' occurs between three or more players when actions by one player, against the actions by a second player, result in adversely affecting the security of a third player. And this cause-effect situation results in an 'affected third party,' irrespective of the combination. To illustrate, the nuclear weapons programme of Pakistan is ostensibly to neutralise the conventional arms superiority of India. India, on the other hand, develops its own nuclear weapons and delivery programmes to address the threats emerging from the Chinese nuclear and delivery programmes, which aggravates the situation for Pakistan, triggering further instability in the Indo-Pak nuclear equation. Thus, an action by any one of the players causes an effect on the second, triggering instability in the equation between the second and third players. When a fourth player, say USA, enters the fray, leading to China developing its weapon and support programmes to counter the US threat, India needs to pay heed to those developments, leading to further instability in its equation with Pakistan. Thus, the 'Complex Situation' that obtains in the sub-continent is unique. It needs to be addressed comprehensively to maintain deterrence stability among the three, and any other additional player that may get involved.

The relevance of 'deterrence' and the application of deterrence theories to the 'Complex Situation' of the India-Pakistan-China triangle merits review. Pakistan and China have an established relationship of military,

technological, nuclear and ballistic missile cooperation. Pakistan professes a 'First Use' doctrine, ostensibly to counter India's superiority in conventional forces, while India and China adhere to a 'No First Use' (NFU) doctrine and pledge non-use against non-nuclear states. It is perceived that China needs more nuclear weapons than those required to deter India, as it is involved in a global power competition with USA, and India needs more nuclear weapons than those required to counter Pakistan, as it also has to manage its nuclear equations with China.

Deterrence Theory

'Defence' is a policy of dissuasion based on counter posing such force that an attack is doomed to fail, while 'Deterrence' is a policy of dissuasion based on threatening reprisals, which would outweigh any conceivable benefit from attack.² 'Defence' is, therefore, a defensive concept while 'Deterrence' embodies an essence of offence. In the most elemental sense, it becomes clear that deterrence depends

***Deterrence is essence
of offence and depends
on 'perception'***

on 'perception' because one side deters another by trying to convince him that the expected value of a certain action is outweighed by the expected punishment.³ The 'expected punishment' part is composed of two elements - the perceived cost of punishment that the opposing side can inflict, and the perceived probabilities that he 'will' inflict them. Thus, deterrence depends on image and perception. The defender tries to establish an image to dissuade the initiator from changing status quo. This image is based, among many other things, on the defender's perception of his rival. However, if the initiator's image of the defender, according to which he interprets the deterring message, is not identical to the image that the defender 'wishes' to convey, deterrence can fail. Thus, the success of deterrence is determined not only by a clear and full conveyance of the deterrence message, but also by the way it is understood by the other players.

Conventional military forces are usually evaluated in relative terms, i.e. five Armoured Divisions are inferior to ten Armoured Divisions, but superior to one Armoured Division. Nuclear forces are different - their power is absolute, because they could threaten to destroy the enemy's cities rather than only military forces.⁴ If a country has 100 survivable and deliverable nuclear weapons, it can destroy 100 of its adversary's cities, regardless of the number of nuclear weapons in the possession of the enemy.

A country with 100 survivable and deliverable nuclear weapons, therefore, is just as powerful as a country with 500 nuclear weapons. Any country that loses 100 of its biggest cities after a nuclear attack would suffer enormous number of fatalities and could likely cease to exist as a political entity. The threat posed by 500 survivable nuclear weapons would not be significantly higher. Thus, nuclear superiority only exists when a country can destroy all

***Nuclear weapons can
be small, easily hidden,
and moved***

of its enemy's nuclear forces before they are launched. Despite providing a reasonable guideline to assess superiority in nuclear forces, theory does not translate to realistic and implementable strategies on ground so simply. How could a country develop the requisite confidence to be able to destroy all of the enemy's deliverable nuclear forces? Since nuclear weapons are relatively small, can be easily hidden, and moved from place to place with minimal difficulty, most nuclear balances would, therefore, move quickly into a nuclear stalemate, in which numerical superiority would be meaningless.

Another ambiguity in nuclear balance, despite the availability of a framework to determine complicated issues related to nuclear balance of power, is with respect to the quantity itself. What, as an example, would be 'good enough' numbers of nuclear weapons for the first disarming strike? This could be defined as the capability to destroy enough of the enemy's deliverable nuclear weapons, such that the remaining arsenal is too small to inflict 'unacceptable' retaliation. This raises the question of quantifying the term 'unacceptable' - which would depend on circumstances. To preserve its physical survival, a country may consider retaliation with a certain number of weapons to be 'acceptable.' But, if the country has to defend 'less important' national interests, like defending the homeland of an ally, the view may be different. The chance that the same number of weapons may fall on its own cities may deter any decision maker from considering a nuclear first strike. 'First Strike Capability,' therefore, is not a concrete category, but one that depends on the circumstances of the crisis. The decision makers have to determine for themselves if they have a reasonable first strike option, which promises them victory at acceptable levels of risk and cost.

Deterrence theory, which originally developed in the wake of development of nuclear weapons during the Cold War, dealt almost exclusively with relations between two main players - the defender and the

initiator. Even in the case of Extended Deterrence, where the deterrent was not the potential victim of the challenger, it still referred to two actors. However, in the South Asian context, relations of threat, coercion and deterrence always involved more than two actors and, hence, come within the ambit of a 'Complex System' as defined in strategic parlance. Their individual strategic weights, calculations and moves were important factors in the nuclear strategic scenario as it unfolded, right from its inception in 1964 when China exploded its first fission device, to 1967 when it followed up with a thermonuclear device, to 1974 when India surprised the world with a 'peaceful nuclear explosion,' to May 1998 when India and Pakistan went overtly nuclear, to date as Cold War 2.0 is well and truly underway.

Cold War 2.0 is underway

The dynamics of deterrence in the South Asian 'Complex System' is, therefore, very different from the erstwhile two-player game of the Cold War, since the recipe for successful deterrence - rational actors, credible and clear deterrence threats, and a defender that has a reputation for not always realizing its threats - all contribute to possible failure of deterrence theories, with possible cataclysmic results.⁵ The war in Kosovo, events of '9/11,' war in Afghanistan, the Gulf Wars and the war in Syria, as well as the ongoing tussle in the South China Sea, are all examples of 'Complex System' wars. These are likely to be the model of future conflicts in the international arena. The South Asian strategic waters have been further muddied by the conduct of 'sub-conventional war under a nuclear overhang.' Hence, the relevance of nuclear deterrence in a complicated 'Complex System' in South Asia gains urgency.

In the 'Complex Deterrence' situation in South Asia, where both China and Pakistan have an adversarial relationship with India, it is necessary to develop a deterrence strategy that avoids expensive and overt nuclear weapons race between the three players, as seen during the Cold War between USA and USSR, provides stable nuclear deterrence even in conditions of rising military tensions between either two, or all three, nuclear armed neighbours, and ensures India's national security and insurance against nuclear blackmail by either one, or both, the neighbours.

South Asian Geopolitics

Nations are divided into 'status quo' powers and 'revisionist' powers. It is impossible for any nation to be neither. But while viewing the world

through their respective glasses, idealists and realists will always desire changes and re-arrangements. The idealists may like the re-arrangements to be permanent, while the other powers would like 'some more re-arranging.'⁶ This tussle between *status quo* and revisionist powers constitutes the game of power politics. Despite all pretences and efforts to be an idealist, at independence, Nehru was realist enough to see the world as

Nuclear weapons are all about power politics an unequal place with residual colonialism, ideological imperialism and Cold War power politics in place. As mentioned earlier, nuclear weapons are all about power politics. To illustrate, at the end of the Cold War, USA was the only power that mattered in world politics and no country targeted it, but that did not lead to USA de-nuclearizing or reducing its weapon holdings below 2,500 residual weapons. The arsenal was being retained for power, influence and to meet any possibility of threat from potential competitors for global dominance, even after a couple of generations. The emergence of China as a global competitor proves them right.

In the South Asian context, India is a *status quo* power, happy with the state of the political environment. Pakistan on the other hand, is a revisionist power, which would like changes in the political environment, with the Kashmir issue settled in its favour and a reduction in the national power of India, if feasible. China is also a revisionist power with dissatisfaction in the unipolar world order and desirous of usurping the status of leading global power from USA. All actions of the three powers at play in the region must, therefore, be seen from this context.

Governments of India and Pakistan had crossed the nuclear rubicon in end 1980s, without overt declaration. While they coined this deterrence as 'Recessed Deterrence' or 'Non-weaponised deterrence,' its stability was suspect. The established wisdom on nuclear deterrence required: -

- Beliefs that nuclear weapons must deter.
- To deter, they must be in sufficient numbers to be credible.
- They must be renewed when their technology decays.
- The nation must have an effective command and control system to ensure weapon launches and physical safety.
- Delivery capability must be proven to eliminate misperception on credibility and vulnerability.
- Effective and reliable communication arrangements between the

Nuclear Command Authority (NCA) of both protagonists to be used in a crisis.

- Secret accumulation of stocks and launch capability must be avoided to eliminate misperception.
- Crisis stability is provided by reliable and survivable second-strike capability.
- A first strike without a second-strike capability is dangerous and destabilising.
- For a second-strike to be credible, there must be a survivable NCA.

The prime question for the nuclear protagonists of South Asia is “what deters?” To determine this, it would be necessary to examine three strategies with respect to the nations concerned. The major factors that impinge on the selection of a deterrence strategy in South Asia are:-

China moved from minimum to limited deterrence

- The large populations in value targets.
- There are economic limits to a nuclear arms race.
- Technological restrictions exist on at least two protagonists, leading to restrictive capabilities in launching platforms, command and control means, prevention of unauthorised launch, secure communications, etc.
- Geographical locations, resulting in reduced reaction times.

Options for India

The introduction of Tactical Nuclear Weapons (TNWs) into the ‘Complex System’ in South Asia throws up new challenges, and when sub-conventional operations are mounted under a nuclear overhang, it turns the situation even more complex. The Chinese have also been writing about the need to move from ‘minimum deterrence’ to ‘limited deterrence,’ which envisages counter-force and counter-value targeting with tactical, theatre and strategic nuclear forces.⁷ The Chinese introduced this concept to deter its nuclear adversaries from conflict escalation, should deterrence fail.

While the Chinese have never openly acknowledged their tactical nuclear weapons programme, the development of shorter range missiles and deploying them against specific threats like Japan, Taiwan, India and some parts of eastern Russia, drives home the fact that their doctrinal positions with regard to their tactical weapons will remain hazy. Their capacity and capability to develop TNWs is never in doubt, and their

deployment and potential for use remains officially unacknowledged. However, considering their Taiwan contingency and South China Sea (SCS) dilemmas, TNWs will remain essential tools for deterring intervention by USA and its allies. Clearly, the trajectory of Chinese nuclear weapon developments is based on China-US relations and the development of the Chinese arsenal is based on the need to deter USA. However, this development directly impacts India's security, and India's weapon and

Chinese nuclear weapon developments is based on China-US relations

system advancements will need to factor the Chinese trajectory. Notwithstanding, the continued relevance of second-strike capability and minimum deterrence policy will remain relevant in an India-China equation, provided survivability of the second-strike elements is ensured. Development of Multiple Independently-targetable Re-entry Vehicle (MIRVs), Ballistic Missile Defence (BMD) and Hypersonic Glide Vehicle (HGVs) may be necessary merely to adapt the technologies, but are largely irrelevant to nuclear stability and deterrence.

Considering the fact that China needs to retain some of its nuclear weapons to deter others, and India needs nuclear weapons beyond deterring Pakistan, there is a need for reaching an understanding with China and Pakistan on nuclear weapons. RAdm KR Menon (Retd) actually proposes a nuclear Confidence Building Measure (CBM) with China in his book, *Nuclear Strategy for India*, which would be completely different from a similar measure with Pakistan. He concedes that, while it would be helpful for India and China to identify what part of the nuclear arsenal is meant for other parties, and if a geographical separation between those meant for India and the others could be examined, it is a difficult but not an impossible proposition. He recounts that this was attempted even during the Cold War between East and West Europe, where Soviet SS 21 missiles were permitted in East Europe but not in West Europe, as demanded by the Intermediate Range Nuclear Forces Treaty (INF). But, this initiative may have to come from Beijing, while India works out nuclear CBMs for South Asia.⁸ Underlying the India-China nuclear calculus would be an indestructible second-strike capability, which would enhance deterrence. India could recognise that China has national interest needs beyond South Asia and, therefore, would not need to match Chinese nuclear weapons numbers, as long as India's second-strike capability, with hardened or mobile arsenals or

both, which could ensure its survival after a first strike and an NCA that remains impermeable to a first strike, was ensured. This diplomatic arrangement with China, if feasible in the long term, could enhance deterrence.

India wants Pakistan to realise that there is no room for nuclear threats and bargaining in a conventional conflict. Therefore, India has taken a position of a 'massive retaliation' response, even if Pakistan uses a TNW against India in its 'own' territory. India offers two options for Pakistan in the event of a war, viz. conventional defeat or nuclear annihilation.⁹ In the case of Pakistan, its

***Pakistan's options in war
are conventional defeat or
nuclear annihilation***

development of nuclear weapons has been premised on a deep-rooted, though false, notion of an existential threat from India.¹⁰ Bigger in land mass, population and resources, with growing economic and military prowess, nuclear weapons became the ultimate arbiter of power in the India-Pakistan equation.

Nuclear weapons capability has provided Pakistan with a safety umbrella, under which it could pursue its core national agenda, viz. to avenge the 1971 defeat that led to the bifurcation of the country, an embarrassment the Pakistan Army (PA) has tried very hard to camouflage and even deny. The PA, being the lone national authority within Pakistan, in order to own and run its national security agenda, began to replicate the success of *jihadi* elements in defeating the mighty Soviet Army in Afghanistan to similarly launch sub-conventional operations, using these ex-Afghanistan *jihadis*, in Kashmir and other parts of India. Pakistan has laid down four 'red lines,' without formally articulating them but through leaks by persons in authority, which covers territorial loss, significant military loss, economic strangulation and loss of internal stability.¹¹ The nuclear umbrella aims to deter India from using its larger armed forces to retaliate against the repeated actions by the PA sponsored *jihadi* groups. Terrorism under the nuclear umbrella has been a foreign policy tool and a primary strategy for the PA.

South Asia's 'Complex Situation' has been worsened by the proliferation in nuclear weapons technology between China and Pakistan, and exchange of missile technology between China, Pakistan and North Korea. Ambiguity over the capabilities and ranges of the delivery systems and the multiplicity of views, analysis and releases over the types, sizes and

yield of its warheads, are all deliberate and designed to enhance deterrence.¹² Thus, emerged the 'Complex Situation,' where Pakistan draws its rationale for nuclear weapons from the Indian 'existential threat,' while India seeks nuclear weapons citing the Chinese nuclear sword hanging over it.

While 'stated policy' is yet to stand the test of combat or national resolve under extreme conditions, policy of NFU between India and China does lay the parameters for nuclear weapons use very clearly. India and China would use their respective nuclear weapons 'only' after it has been

NFU underpins Indian and Chinese policy for use of nuclear weapons

used by the other. Limited or minimum deterrence would be more than adequate for the India-China nuclear equation, provided a first strike by one does not eliminate the second-strike weapons of the recipient nation, which is unlikely, given the large land mass and the many different arrangements of stowage, movement and delivery, adopted by both nations, including the undersea vector.

However, deterrence in the India-Pakistan equation is underscored by deliberate ambiguity in Pakistan's nuclear threshold, and its stated policy of First Use even against a conventional attack by India, qualified by a space threshold, force threshold, economic threshold and domestic threshold.¹³ The introduction of TNWs in the discourse is intended to further lower the threshold, deterring India from launching even shallow or minor operations against Pakistan's continuous sub-conventional strikes, which has been euphemistically termed 'Full Spectrum Deterrence' by Pakistan. However, this incredulous first strike posture actually points to self-deterrence in a nuclear confrontation, since from among the three parameters that determine deterrence, viz. balance of interests, balance of capabilities and balance of resolve, in at least two, India stands to advantage. By its NFU posture and propounded doctrine of 'massive retaliation' and treating use of any nuclear weapon against its forces, without distinguishing between strategic or tactical, as a nuclear attack, India has strengthened deterrence in the India-Pakistan equation. India would only carry out a nuclear strike 'in response,' thereby strengthening its resolve. Since India is a far larger country in size and capabilities, it can absorb physical damage of a first strike, but Pakistan could well cease to exist consequent to such first strike. This strengthens balance of interest in India's favour. Pakistan has been repeatedly using the nuclear card while supporting sub-conventional

attacks against India. But, recent incidents, including India's responses to Kargil, Uri and Balakot, have called its bluff. Nuclear deterrence, thus, remains stable and effective in the Indo-Pak equation.

Pakistan has been rapidly increasing the numbers of its nuclear warheads, aiming to achieve 'limited' deterrence to shift the balance of capabilities in its favour, but the sizes of the economies and strengths of indigenous capabilities will make this likely imbalance irrelevant in a matter of years, not decades. Therefore, South Asian nuclear deterrence is in place, is stable and is holding, despite the difference in concepts and implementation of nuclear war fighting doctrines by the three protagonists in the 'Complex Situation.'

Pakistan is increasing its nuclear warhead numbers

India can continue to adhere to its hitherto propounded nuclear doctrine of 'NFU' and 'massive retaliation' with a 'credible minimum deterrence' policy, notwithstanding the introduction of TNWs into the nuclear equation. This deterrence stability can only be destabilised in the event of an 'irrational actor' taking possession of a Pakistani nuclear weapon, which would threaten not just regional but probably global security. It is in the interest of continued nuclear stability, therefore, that all concerned regional and global players pool their resources together to ensure safety of Pakistani nuclear weapons from falling into *jihadi* elements in the Strategic Forces Command or the PA, and ensuring immediate retraction of nuclear warheads from Pakistan should the political stability and its leadership be threatened by internal turmoil or externally accentuated circumstances.

Conclusion

The currency of power that nuclear weapons provide to their possessors is unquestionable. However, in the South Asian crucible, the use of the erstwhile Cold War templates of deterrence are unlikely to manifest for various reasons, the major one being wisdom in hindsight! Denial strategy is unworkable, as has been adequately learnt from the experience of the Cold War. Open-ended competition would be unsupportable by the economies and populace of the region. A 'Punishment Strategy' requires lesser force levels and may be workable. 'Flexible Response' is not conducive to being accommodated in the region. 'Minimum Deterrence,' as a spin-off to the 'Existential Deterrence,' with number of warheads that would cause 'unacceptable damage' to the adversary identified, would be

the most suitable, considering the 'Complex System' prevalent in the region.

Successful deterrence prevents the use of nuclear weapons. Use of any nuclear weapon would amount to failure of deterrence, which, in the South Asian context, would be an unmitigated disaster for the world, not the region alone. The entire business of deterrence is to ensure it holds and nuclear weapons are not used. Therefore, to enhance nuclear stability and deterrence, aspects of technology in warhead and delivery systems, range of missiles, which governs kind of fuels and its use in specific vectors, accuracy of missiles, amount of fissile material available, warhead design, strategic surveillance, enhancing survivability of nuclear launch platforms, specially missiles in underground silos or placed on moving trains or creation of 'moving circles,' which would enhance survivability against first strike, and the increasing relevance of nuclear submarines with submarine launched ballistic missiles as a survivable second-strike platform, gain relevance.

The bottom line in deterrence theory study, and its operationalisation, is in ensuring survivable second-strike capability for a punishing second-strike, after absorbing the intended first decapitation strike by the attacker. This assured retaliation ability enhances deterrence as it deters the aggressor from even contemplating a first strike, and is independent of the capabilities and types of vectors the opposing nations may conjure up.



RAdm MD Suresh is currently serving as the Chief of Staff at the Southern Naval Command. He has tenanted a wide range of operational, training, diplomatic and doctrinal appointments in his naval career; spanning 37 years.

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A REVIEW OF PAKISTAN'S NUCLEAR DOCTRINE

Dr Shalini Chawla

For more than thirty years, Pakistan has relied on nuclear weapons to conduct its grand strategy. The build-up and expansion of its nuclear arsenal has been done (with Chinese assistance) on the assumption that threat of nuclear weapons would assist Pakistan's desire to neutralize India's superior conventional military capability.

In the last one year (post revocation of Article 370), Pakistan's Prime Minister, Imran Khan has repeatedly flagged the possibility of a 'nuclear war.' Highlighting the nuclear factor by Pakistan displays Pakistan's immaturity and desperation to attract global attention towards Kashmir. Abrogation of Article 370 by India in August 2019 did leave Pakistan surprised and the state has been reacting furiously on various fronts, displaying its anxiety to deal with Jammu and Kashmir's new status. Prime Minister Imran Khan in his unrelenting tweets has frequently highlighted various aspects of nuclear threat, e.g. both India and Pakistan possess nuclear weapons and, thus, any crisis in the region is alarming; Pakistan has nuclear weapons and probability of a nuclear war is high; India's nuclear weapons are a threat to global and regional security, etc.

Pakistan has long tried to balance its failings as a state by highlighting its nuclear arsenal and using the threat of nuclear weapons, which it treats as the ultimate guarantor of its survivability and security. Pakistan's nuclear doctrine and positioning has evolved over the decades, its nuclear arsenal has been expanded enormously, and the state takes immense pride in achievement of 'full spectrum deterrence.' However, there are contradictions in Pakistan's nuclear posture and, while the state has repeatedly claimed that it is a responsible nuclear power, it has consciously maintained projection of a low nuclear threshold with an element of uncertainty. It would be interesting to understand the evolution of Pakistan's nuclear doctrine.

Background

After its overt nuclearisation in 1998, Pakistan pronounced some notions regarding its nuclear thinking, which form the basis of its doctrine

and strategies. Doctrine does acquire a significant reference in the context of Pakistan's nuclear programme, given its clandestine nature and lack of empirical evidence to support critical prepositions. Although, Pakistan has consistently claimed that it developed its nuclear programme in response to security threats from India; more specifically, Pakistan traces the genesis of its programme to India's peaceful experiment in Pokhran in 1974. But, the fact is that Bhutto was seriously thinking of nuclear weapons much before India's peaceful experiment, which became an immediate excuse for Islamabad. Pakistan's nuclear weapons are certainly not in response to India's nuclear programme, but were developed because Pakistan's ruling elite believed that nuclear weapons were the only means to counter India's conventional military superiority. Prime Minister Zulfikar Ali Bhutto had openly announced Pakistan's ambition for the nuclear bomb in January 1972 (well before May 1974). Pakistan has, subsequently, endeavoured to use nuclear weapons to carry on and intensify its proxy war in Kashmir, claiming the valley to be a 'nuclear flashpoint.' Pakistan has managed to pursue its grand strategy of 'bleeding India through a thousand cuts' under a nuclear overhang.

***Pakistan's nuclear weapons
were to counter India's
conventional superiority***

The Pakistan military has pursued terrorism as a foreign policy tool against India for more than four decades now, and nuclear weapons have served as a shield for conducting its acts of terror. Terrorism in Kashmir and other parts of India, such as in Punjab, accelerated significantly after Pakistan acquired nuclear weapon capability in 1987. Pakistan has used nuclear weapons to carry on terrorism on the sly and to deter a conventional response. Threat of nuclear weapons has been used rather conveniently, and frequently, by Pakistan's leadership during times of crisis.

Evolution of Pakistan's Nuclear Doctrine

In the pre-nuclear test period, Pakistan's doctrine was that of ambiguity. Although, even today, Pakistan does not have an officially announced written doctrine, statements made by key policy makers in Pakistan have clearly outlined basic elements of its nuclear doctrine. There is an unofficial code adopted by the Pakistani leadership, based on 'Indo-centricity, credible minimum deterrence, strategic restraint and first use.' Very interestingly, and rather ironically, while the code asserts principles of a

peaceful programme revolving more around maintaining a balance against the Indian force build ups, it includes undertaking a first strike in response to 'not only a conventional attack,' but also a 'posed threat' from India. Pakistan has built-up its defence capability highlighting the perception of threat from India. Threat perceptions in Pakistan form the core of defence

Pakistan's narrative of threat sustains its military

policies, and their military strategy has remained India-centric. The narrative of threat perceptions has, thus, been sustained to allow dominance of the military, justify the covert war against India, and diversion of substantial national resources towards defence spending.

Minimum Nuclear Deterrence

This is one of the basic tenets of Pakistan's nuclear doctrine. The concept of credible minimum deterrence was not based specifically on the numbers. It signified the weapon arsenal, including the nuclear weapons, delivery systems, command and control mechanisms, as well as doctrine and strategy, based on the perceived threat from India. Credible minimum deterrent force intends to build a minimum force capable of inflicting nuclear destruction on India. Prime Minister Nawaz Sharif very distinctly talked about it in May 1999, when he highlighted the key elements of Pakistan's nuclear policy at the National Defence College, stating that "nuclear restraint, stabilisation and minimum credible deterrence constitute the basic elements of Pakistan's nuclear policy."¹

The then Foreign Minister of Pakistan, Abdul Sattar, repeated the doctrine in November 1999, stating that "minimum nuclear deterrence will remain the guiding principle of our nuclear strategy."² President General Pervez Musharraf also emphasised the concept in May 2000, stating "we refuse to enter a nuclear arms race, and seek stability in the region. Pakistan, unlike India, does not have any pretensions to regional and global power status. We are committed to a policy of responsibility and restraint by maintaining a credible minimum deterrent."³

A perceptive Pakistani commentator had stated that, "Pakistan has to copy the qualities outlined in the Indian doctrine."⁴ Therefore, Pakistan has projected its nuclear doctrine as credible minimum deterrence, but one which is India-specific and more manageable.⁵ The reasons for Pakistan's adoption of credible minimum deterrence were obvious. Pakistan was aiming for a financially viable nuclear arsenal as the whole logic of going

nuclear was Pakistan's inability to cope with India's conventional build-up, primarily due to financial constraints.

The term 'minimum' begs definition and can be interpreted differently by different states. It is unclear that Pakistan has actually quantified deterrence, and 'minimum' for Pakistan would be based on calculation of threat, owing to the numbers of nuclear weapons and missile systems with India. Pakistan's minimum deterrence appears to be based on the capability to inflict unacceptable damage or

Pakistan aiming for a financially viable nuclear arsenal

assured destruction. Zafar Nawaz Jaspal wrote, "It seems that in the present strategic scenario, Pakistan possesses enough strategic weaponry capability to provide it with minimum nuclear deterrence. The basis of this perception is that, in nuclear deterrence, parity between opponents is not based on numerical equality of the number of nuclear delivery systems, or of the number of warheads, or in the yield of megatons available to each opponent. Parity requires assured destruction capability."⁶

First Use Doctrine

Pakistan has long held the belief that, being the weaker state, it can compensate by taking a bold initiative, preferably with strategic surprise, to attack Indian military capability and, thus, reduce the adverse margin of capabilities. This has been its military strategy in all the wars that it has waged against India, including the last one, which was a limited war in Kargil in 1999 and, more importantly, the war through terrorism that it has been waging across the border for more than four decades. Seen in context of the strategic mind set, it is not surprising that it has adopted a nuclear doctrine of 'First Use.' In fact, Pakistan has often claimed that it would/could use nuclear weapons at the very beginning of a war with India if the Indian military even crossed the international border.

Pakistan's first use doctrine has been clearly stated by Lt Gen Sardar FS Lodhi (Retd) in the *Pakistan Defence Journal*, "the political will to use nuclear weapons is essential to prevent a conventional armed conflict, which would later on escalate into a nuclear war...Pakistan's Nuclear Doctrine would, therefore, essentially revolve around the first-strike option. In other words, we will use nuclear weapons if attacked by India even if the attack is with conventional weapons."⁷ He goes on to cite Professor Stephen P. Cohen that, "Pakistan would use an 'option-enhancing

policy' for a possible use of nuclear weapons. This would entail a stage by stage approach in which the nuclear threat is increased at each step to deter India from attack. The first step could be a public or private warning; the second, a demonstration explosion of a small nuclear weapon on its own

Pakistan rejected India's proposal for No First Use

soil; the third step would be the use of a few nuclear weapons on its own soil against Indian attacking forces; the fourth stage would be used against critical, but purely military targets in India across the border from Pakistan."⁸

Rejecting India's proposal for a joint 'No First Use' pledge in the aftermath of the nuclear tests, Pakistan took the stand that it will be the first to use nuclear weapons to counter India's conventional capability. Pakistan's argument has been that, in case of a conventional attack or in a situation when India has breached the defence line causing major set-back to the defence and security arsenal of Pakistan, then, due to the fear of being defeated in a conventional war against India, Pakistan has to resort to the first use option. This was openly announced in 1987, much before the Pokhran tests, when A Q Khan in an interview to Kuldip Nayar said, "Mr Nayar, if you ever drive us to the wall, we will use the bomb. You did it to us in East Bengal. We won't waste time with conventional weapons. We will come straight out with it."⁹ A 'First Use' policy according to Pakistan's leadership provides credible security guarantees to their national sovereignty.

The same logic for first use was employed by NATO during the Cold War, as they perceived that a hostile Soviet Union (former) had an overwhelming advantage in conventional forces. Following the collapse of the Soviet Union, NATO has tried to play down the role of nuclear weapons, but it maintains a doctrine that gives them leverage to use nuclear weapons first in case of a conventional attack. Given the limited resources, geo-strategic proximity, India's growing power and Pakistan's concern for strategic depth, Pakistan's leadership's claim has been that it cannot afford to adopt a 'No First Use' policy. One of the factors contributing to Pakistan's first use posture has also been the fact that a first strike nuclear force is affordable in financial terms and less complicated to build.¹⁰

Possibility of Pre-emption

Pakistan's obsessive reliance on the doctrine of 'First Use' seems to be

emerging from two factors. First, Pakistan wants to keep an option open for 'pre-emptive nuclear strikes' against India, and it is convinced that its pre-emptive strikes would lead to destruction of India's retaliatory capabilities and paralyse the Indian political decision-making. Secondly, Pakistan has failed to consider the consequences of Indian retaliation. Pakistan seems to assume that India would not retaliate with nuclear weapons, even after getting hit by Pakistan's nuclear strike. It also seems to believe that international pressure on India will build-up and not allow New Delhi to react to Islamabad's nuclear strike. India, in its nuclear strategy and doctrine, has adopted 'restraint' as a responsible and politically mature nation-state. But, the Indian restraint cannot be read by Pakistan as an unending and open-ended policy. India's nuclear doctrine also notes 'massive retaliation' to a nuclear strike. The consequences for Pakistan of nuclear adventurism would be fatal.

***Pakistan assumes
international pressure will
stop 'massive retaliation'***

The scenarios in which Pakistan could opt for nuclear weapons have been spelled out by Pakistani elites, who have cultivated the posture of 'irrational rationality' to try and enhance the effect of this posture. Lt Gen Khalid Kidwai, former head of the Strategic Planning Division (SPD) in Pakistan's Nuclear Command and Control system, claimed that, "nuclear weapons would be used only if the very existence of Pakistan as a state is at stake." But he went on to state that Pakistan would definitely use nuclear weapons in case deterrence fails and:-

- "If India attacks Pakistan and conquers a large part of its territory (space threshold);
- If India destroys a large part either of Pakistan's land or air forces (military threshold);
- If India proceeds to economic strangling of Pakistan (economic strangling);
- If India pushes Pakistan into political destabilization or creates large-scale internal subversion in Pakistan (domestic destabilization)."¹¹

The last two elements, based on economic strangulation and domestic destabilization, cannot be seen in isolation and these vaguely draw vast parameters, which can potentially include various steps taken up by the Indian government in the wake of tension or conventional confrontation. Scenarios outlined by Kidwai created ample uncertainty as they cover a

wide range of situations and potential actions by India during crisis. The broad scenarios outlined were, evidently, to deter India from any action, military, economic or diplomatic, which could hurt Pakistan in any form. Interestingly, the interview was published at a time of heightened India-Pak tensions, after the terror attack on the Indian Parliament in December 2001, which led to Op *Parakram*.

The effort from the Pakistan's leadership has been to convey a message to India that any reaction from India against Pakistan could possibly form a ground for the use of nuclear weapons. The need for Pakistan to maintain

Possibility of conventional war is not ruled out despite nuclear weapons

this position of first use is further exacerbated with India's assertion that the possibility of a conventional war is not ruled out even with the two states possessing nuclear weapons. This has been proved more than once, during the Kargil War, and again by India's retaliation in the 2016 Uri surgical strikes and 2019 Balakot airstrikes.

Weapon of Last Resort

Most of the Pakistani writings pre-1998 pointed towards build-up of nuclear capability against Indian conventional forces and implied its 'First Use.' There was an indication of a shift in Pakistan's thinking regarding the use of nuclear weapons, and adoption of a relatively moderate stand, by claiming nuclear weapons as the 'weapons of last resort.'

Abdul Sattar (former Pakistan Foreign Minister), Agha Shahi and Zulfiqar Ali Khan jointly authored an article in *The News* on 05 October 1999, which stated, "the exigency under which the Pakistan Army may use nuclear weapons is spelt out as: Although the precise contingencies in which Pakistan may use nuclear weapons have not been articulated or even defined by the government, the assumption has been that if the enemy launches a war and undertakes a piercing attack to occupy large territories or communication junctions, the '*weapon of last resort*' would have to be invoked."¹²

In April 2002, in an interview published in the German magazine, *Der Spiegel*, Musharraf made a similar statement, "If the pressure on Pakistan becomes too great then, as a last resort, the [use of] atom bomb is also possible."¹³ Musharraf's statement of 'last resort' was made in 2002 and during the same period, in his address to Army Corps in Karachi, he said

that war with India was averted due to his repeated warnings for using ‘unconventional’ means (interpreted mostly erroneously as nuclear weapons) in case of India breaching the red lines. This no doubt (also) implied use of large number of guerrilla/ *jihadi* fighters rather than nuclear weapons. Otherwise, there is a contradiction in Pakistan’s stance where, on one side, it claims to use its nuclear weapons as a last resort, and on the other, is convinced that the threat of nuclear weapons was successful in deterring Indian military posture.

Pakistan projects a mind-set for self-destruction

A weapon of last resort can be logically interpreted towards a scenario wherein no other means are left with a nation to defend itself. In case of a conventional war between India and Pakistan, if Pakistan’s military reserves are destroyed, it may not have the capacity to defend itself and, rather than losing the war, it could opt to use nuclear weapons against India. Pakistan’s use of nuclear weapons, even as last resort, would still invoke Indian massive retaliation with ‘unacceptable damage.’ Although, the weapon of last resort option stood in contradiction with Pakistan’s earlier statements and appeared moderate, it also projects a mind set for self-destruction, where complete destruction of the nation is preferred over all other possible options.

Although there has been no official statement made by Pakistan quantifying its threshold, some analysts believe that if Indian forces crossed the N-5 highway connecting Lahore to Karachi, Pakistan might escalate a conventional conflict into a nuclear one.¹⁴

Nuclear Policy based on Restraint and Responsibility

In the mid-2000s, Pakistan’s endeavour was to project itself as a ‘restrained and responsible’ nuclear power. This posture was necessary from Pakistan’s point of view as the leadership was trying to convey the message to the West and the international community that its nuclear arsenal was safe and not threatened by a potential *jihadi* takeover. In fact, Pakistan did see a remarkable rise in terrorist attacks and suicide bombings after 2007, with the creation of *Tehrik-i-Taliban* Pakistan (TTP), which gained prominence for its anti-state agenda. The need was also exacerbated with India and USA signing the nuclear deal. Pakistan was keen for a similar nuclear agreement with USA and, thus, projection of a responsible nuclear posture became necessary. In 2006, Lt Gen Khalid Kidwai, in his address to

the Naval Postgraduate School, Monterey, said that Pakistan dealt with formidable challenges by developing a nuclear policy based on 'restraint and responsibility' with four silent features: -

- "deterrence of all forms of external aggression;
- ability to deter a counterstrike against strategic assets;
- stabilisation of strategic deterrence in South Asia;
- conventional and strategic deterrence methods."

Lt Gen Khalid Kidwai talked about "deterrence to all forms of external aggression," which implies both conventional and nuclear aggression. This was very much in line with statements made by Pakistan's policy makers in

Pakistan has expanded its arsenal and delivery systems the past. Deterring India's conventional posture, however, remains the prime objective of Pakistan's nuclear weapons.

Kidwai spoke about building an ability to deter counterstrikes against strategic assets. Pakistan has expanded its arsenal and delivery systems substantively in the last fifteen years, in order to threaten a disarming strike to wipe out, or at least drastically reduce, India's retaliatory capability (deter counterstrike).

Full Spectrum Deterrence

India's stance on the possibility of conventional war under the nuclear overhang challenged Islamabad's conviction about New Delhi's consistent restraint and hesitation in responding militarily to a Pakistan sponsored act of terror. The Kargil War in 1999, immediately after the overt nuclearisation of the two countries, demonstrated the space for conventional war below the nuclear threshold, as did the punitive, retaliatory strikes against Pakistani terrorist camps by India in 2016 and 2019.

However, Pakistan has remained fixated on its doctrine and even upscaled it towards 'full spectrum deterrence.' On 19 April 2011, Pakistan tested its short-range surface-to-surface multi-tube ballistic missile 'Hatf-9,' named as *Nasr*. The official press release said, "(The *Nasr* Weapon System) has been developed to add deterrence value to Pakistan's Strategic Weapons Development programme at shorter ranges. *Nasr*, with a range of 60 km, carries nuclear warheads of appropriate yield with high accuracy, (and) shoot and scoot attributes. This quick response system addresses the need to deter evolving threats."¹⁵

Nasr provides Pakistan with a short range missile capability, in addition

to long range ballistic and cruise missiles. Also, according to Pakistan's military officials, *Nasr* belongs to the category of Tactical Nuclear Weapons (TNW) and is a low yield battlefield deterrent, capable of inflicting damage on armoured brigades and divisions.¹⁶ According to Pakistan, *Nasr* is a counter to India's Cold Start Doctrine, which envisions limited conventional response from the Indian side in response to sub-conventional attacks on India originating from Pakistan.

Pakistan claims to have developed a sea-based nuclear force to match India's nuclear triad. Pakistan's Naval Strategic Force Command was announced in 2012. In January 2017, Pakistan tested a Submarine-Launched Cruise Missile (SLCM) *Babur-3*, which is a variant of *Babur-2*, a land-based cruise missile tested in December 2016. Pakistan claims that *Babur-3* SLCM in land attack mode, is capable of delivering various types of payloads and will provide Pakistan with a 'credible second strike capability,' augmenting deterrence. It is estimated that *Babur-3* has a range of 450 km and will be carried on Pakistan's diesel powered Agosta 90B submarines.

***Babur-3 SLCM is a
variant of Babur-2 LCM***

Pakistan's eagerness for sea based deterrence can be attributed to, mainly, two factors. First, Pakistan's nuclear posture, based on an unwritten doctrine, believes in maintaining ambiguity and enhancing deterrence. Sea-based nuclear capability fulfils the ambition of enhancing deterrence by achieving a nuclear triad and a 'survivable' capability. Secondly, Pakistan constantly seeks parity with India. However, sea-based deterrence for Pakistan carries security concerns and challenges for command and control. Without going into details, it would be reasonably correct to say that not only are there a number of security risks, but also that Pakistan's sea-based weapons may aggravate crisis instability.

With *Nasr* and sea-based deterrence, Pakistan proudly claims to have achieved 'full spectrum deterrence.' It claims to have developed nuclear capability to be launched from all three platforms - land, air and sea. Looking into the nuclear posturing of Pakistan, it is clear that full spectrum deterrence for Pakistan also implies a full spectrum of scenarios, since it maintains projection of a low nuclear threshold, as well as an element of uncertainty. It relies on the threat of use of nuclear weapons to deal with a wide range of crises vis-à-vis India.

Conclusion

Pakistan's nuclear posture does reflect some distinct contradictions. It talks about being a restrained and responsible nuclear power, but at the same time relies on a 'First Use' doctrine and boasts about TNWs and full spectrum deterrence. It continues to assert that it does not want to start a war with India, highlights the disastrous consequences of a nuclear war and, at the same time, repeatedly flags the threat of nuclear conflict creating war hysteria in the region. Pakistan has very 'rationally adopted the posture of irrationality.'

Pakistan's nuclear posturing did suffer a blow, to some extent, with India's airstrikes in Balakot on 26 February 2019, in retaliation to the terror attack in Pulwama by *Jaish-e-Mohammed* (JeM) on 14 February 2019. But, it seems that Pakistan's reliance on nuclear weapons to serve its strategic objectives has not been altered. Its reliance on nuclear deterrence has intensified with the constantly growing asymmetries between India and Pakistan over the last two decades. At this point of time, Pakistan's repeated flagging of nuclear threat can be attributed to mainly three factors: -

- First, Pakistan has spent an enormous amount of national resources in the build-up of its nuclear arsenal, on the pretext that nuclear weapons are the ultimate weapons for the state's survival and security. Pakistan has always prioritised expenditure on defence, even though it has been at the cost of socio-economic development of the country. The leadership wants to justify the enormous nuclear build-up to its population, and assure them that nuclear weapons will ultimately guard Pakistan's fortunes.
- Secondly, Imran Khan wants to remind India and the international community about the presence of nuclear weapons in the region and dangers emanating from a potential nuclear war. Pakistan is certainly trying hard to get international attention on Kashmir by flagging the nuclear threat.
- Thirdly, Pakistan is currently dealing with multiple challenges and its economic crisis is adding to frustration and anger amongst its populace. Highlighting the nuclear threat provides a distraction from the failures of Imran Khan's government, which won the 2018 elections promising '*Naya Pakistan*.'



Dr Shalini Chawla is Distinguished Fellow at the Centre for Air Power Studies, New Delhi. She joined the Centre in 2006 and heads the Pakistan and Afghanistan Studies Programme. She is also Visiting Faculty at the Naval War College, Goa.

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PAKISTAN'S TNWs AND INDIA'S MASSIVE RETALIATION – IS THERE A CREDIBILITY GAP?

Dr Manpreet Sethi

The concept of credibility is central to nuclear deterrence. Unless nuclear signalling from one side is picked up by the other and deemed to be credible, there can be no deterrence. Hence, nations ensure that capability build-up and resolve to use that capability is effectively communicated to the adversary in a manner that he believes the message being conveyed. Through nuclear and missile testing, statements, doctrines, etc., countries strive to establish credibility of their deterrence. This, in fact, is critical if deterrence breakdown is to be avoided. The more the credibility of deterrence is doubted, the greater is the chance that it could tempt the other side to take steps that might cause it to breakdown. Therefore, deterrence is credible and stable not merely when the actions of one side do not sow seeds of doubt in the mind of the adversary, about what could follow in case he does something that is sought to be deterred, but rather when the message conveyed removes all doubt about what would follow that would negate any benefits hoped to be made by doing something that was being deterred.

In the case of India-Pakistan nuclear relationship, questions have been raised about the credibility of India's doctrine of Massive Retaliation (MR) in relation to Pakistan's use of Tactical Nuclear Weapons (TNWs).¹ For almost a decade now, Pakistan has projected that it would use low-yield nuclear weapons against military targets, in order to stop India's conventional offensive. It is surmised that such use would not cause much damage, especially to non-combatants. This quality of the TNWs is not only perceived to make their use more credible than larger nuclear weapons, but it is also believed to make it more difficult for India to act as per its nuclear doctrine of MR. Many express scepticism over the possibility of Indian leadership being able to attack Pakistani cities in retaliation for a 'small' first nuclear use against military targets. This is supposed to put the credibility of India's nuclear deterrence into question and cannot be conducive to deterrence stability. But, is there really a credibility gap between projected use of TNWs and the promise of MR?

This paper examines the aforementioned question to critically assess whether MR makes for a credible nuclear strategy, especially against use of TNWs. Divided into two sections, it first looks at Pakistan's rationale for TNWs and the message the projection of their use seeks to signal. The second section explores the concept of MR as ordained in India's nuclear doctrine to assess its effectiveness for credible deterrence.

TNWs in Pakistan's Nuclear Strategy

On 19 April 2011, when Pakistan first tested a very short-range ballistic missile, the *Nasr*, and declared it nuclear capable, its Inter-Services Public Relations Directorate (ISPR) lauded it for adding "deterrence value to Pakistan's strategic weapons development programme at shorter ranges." It was described as giving the country the option of a "quick response system" capable of carrying nuclear warheads of appropriate yield with high accuracy.² Director General, Strategic Plans Division (SPD), witnessed the test and claimed that it had "consolidated Pakistan's nuclear deterrence at all levels of threat spectrum."³

*TNWs meant to act
as insurance policy*

The need for such a capability had been found imperative to compress the space for conventional military actions, which Rawalpindi feared New Delhi could exploit to carry out punitive action against it, in case acts of terrorism were traced to Pakistan. Given that the primary role of Pakistan's nuclear weapons is to avoid having to engage with the Indian military capability, the suggestion of an inevitability of nuclear use through TNWs was meant to act as an insurance policy, even as its strategy of bleeding India through a thousand cuts with sub-conventional acts could continue undisturbed.

Nuclear brinksmanship behaviour is central to such a strategy and the threat of use of TNWs came to be considered an effective tool. In fact, Pakistan has no illusions about the military effectiveness of the low-yield weapon. It understands that these might destroy only a few troops or tanks in the battlefield. Several Pakistani strategists have admitted that, "the ability of low yield nuclear weapons to destroy Indian tanks is limited to the extent of being inconsequential, because to cause substantial damage to a well dispersed attacking armoured formation, a large number of 15-20 kiloton yield weapons would be required."⁴ Another analyst makes a similar point when he states that "low yield weapons envisaged to be mounted atop

Nasr are not likely to make much physical impact unless used in large numbers. Their psychological impact may be out of proportion to their capability...⁵

Indeed, the value of the TNWs lies in the enormity of the threat of its use and the concomitant resolve it indicates to escalate the conflict. Rawalpindi perceives that such a threat would appear as more credible and effective than relying solely on large-scale, counter value nuclear strikes. As

TNWs value lies in threat of use and conflict escalation expressed by a Pakistani analyst, “a weapon that is small and usable possesses more deterrent value than a weapon which is big and has strategic value.”⁶ Maj Gen Qasim Qureshi, a retired officer of Pakistan Army, accepted this logic when he stated, “It is precisely this danger (that something goes wrong resulting in a nuclear exchange) and uncertainty that from Pakistan’s point of view will ensure stability of deterrence in the conventional domain.”⁷

Evidently then, Pakistan appears to be basing its TNW strategy on three assumptions. The first of these is that the threat of use of low-yield weapons on military targets is ‘more credible’ than that of using larger yield weapons in countervalue mode. Dr Adil Sultan, who was once with the SPD, explained this development as part of a “strategy of assured deterrence” since, in response to limited military incursions by the Indian forces, the threat to destroy New Delhi or Mumbai seemed incredible and disproportionate.⁸ Second, that such use would cause little damage of military significance, which India would prefer to absorb rather than escalate the situation through nuclear retaliation, since that would only beget more nuclear attacks. Third, that such a threat would get the international community rushing in to mount pressure on India to refrain from any conventional use of force against Pakistan. Even if Pakistan had to resort to use of TNWs, India would be pressurized by global powers to refrain from nuclear retaliation, thereby allowing Pakistan to get away with nuclear use and terminate the conflict with a supposedly upper hand.

Therefore, in Pakistan’s assessment, its threat of use of TNWs would create conditions that would make it unfeasible for India to execute military action, for fear of getting into a situation that would lead to further nuclear damage and invite international interference in what India considers a bilateral matter. Rawalpindi safely assumes, therefore, that its TNW strategy adds a further deterrence dimension to its overall nuclear strategy.

This paper examines the aforementioned question to critically assess whether MR makes for a credible nuclear strategy, especially against use of TNWs. Divided into two sections, it first looks at Pakistan's rationale for TNWs and the message the projection of their use seeks to signal. The second section explores the concept of MR as ordained in India's nuclear doctrine to assess its effectiveness for credible deterrence.

India since "it could make it hard for Indian leaders to find justification for infliction of disproportionate damage to avenge against what limited damage the TNWs could inflict."⁹ It is argued that the Indian leadership would find it difficult to "react by wiping out a few cities in Pakistan - besides opening up the escalatory ladder of nuclear exchange culminating into mutual destruction."¹⁰ Based on such views, these analysts recommend that India should also build TNWs to counter the threat at the same level. Such arguments need to be thoroughly examined to assess whether they genuinely offer any advantages over India's present nuclear doctrine.

***TNW arguments are
a dangerous illusion***

The first point to emphasize in this assessment is that India has eschewed nuclear war-fighting doctrines, including the concept of 'limited nuclear war' with low-yield nuclear weapons. India believes that it would be difficult, if not impossible, to contain a situation once a nuclear weapon has been used. As put by a former National Security Advisory Board (NSAB) Chairman, "for India, the label on the weapon, tactical or strategic, is irrelevant, since the use of either would constitute a nuclear attack against India... This would invite a massive retaliatory strike. For Pakistan to think that a counterforce nuclear strike against military targets would enable it to escape a countervalue strike against its cities and population centres is a dangerous illusion."¹¹ The purpose of India's nuclear weapons, therefore, is to stop these weapons from being used, not to bait their use through suggestion of being able to fight a war of attrition with them.

In India's understanding, nuclear weapons best deter through the promise of 'disproportionate response.' Therefore, the idea of MR maximizes the fear of extreme nuclear escalation. Or, in other words, it promises the worst outcome by creating a mismatch between the political objective being sought to be achieved through the adversary's first use of nuclear weapons and the promised consequences that it would invite. Through such a suggestion, India's nuclear strategy seeks to make the

possibility of use of nuclear weapons as remote as possible. Just as Pakistan claims it has only a 'one rung escalation ladder,' which it will be compelled to climb in case of an Indian conventional attack, India's MR also signals a 'one rung nuclear escalation ladder.'

Robert Jervis wrote in 1984 that, "states may be able to increase the chance of peace only by increasing the chance that war, if it comes, will be total. To decrease the probability of enormous destruction may increase the probability of aggression and limited wars."¹² India's MR is seeking the

India's MR strategy is a one rung escalation ladder

same. It refuses to decrease the horrors of nuclear war in order to avoid any temptation to use nuclear weapons, under the mistaken assumption that the costs of the resulting war would be tolerable. Where the use of nuclear weapons is involved it cannot be so, and India's MR is only underlining the obvious.

Secondly, to answer the argument that India must also build TNWs to respond to Pakistan with similar capability, because this would seemingly deter Pakistan better than the threat of MR, it only bears reminding that fighting a war with TNWs is not as easy as it is made to sound. To start with, making use of the TNW as a means of political signalling could be highly risky, since it would entail a certain delegation of Command and Control (C2) to lower echelons in order to make the strategy look credible. Such a loosening up of nuclear C2, however, has its challenges of ensuring that no accidental or mistaken use takes place. Conduct of limited war "would make special demands on strategic command and control systems, including sensors that tell the decision maker what is and has been happening."¹³ This burden on C2 increases as the numbers, dispersal and mobility of strategic weapons increases. Not only is speedy processing of information a critical requirement, so is the need for the politico-military C2 to remain unified. Questions have been raised on whether "will it be at all possible, in this kind of war, to prevent unauthorized acts by military commanders, or to protect the entire structure from top to bottom, both civilian and military components, from interference by unauthorized persons?"¹⁴

In the case of India and Pakistan, some additional operational issues too need to be borne in mind. For instance, the use of TNWs for limited nuclear use would be complicated by the fact that in case of ground warfare, it is more likely that there will be several targets, known and unknown, in a

theatre. With industrial facilities, ports and air bases located near fairly big cities, even a counterforce strike could get out of hand and amount to an all-out war.

Moreover, it can never be easy for a leader to make a decision of using TNWs knowing fully well that he is leaving the adversary's retaliatory capabilities intact, which if used could have disastrous consequences for his own people. All wargaming exercises involving such 'limited' nuclear lobbing of weapons have inevitably ended up in larger strategic exchanges. There never can be anything proportionate about the destruction caused by nuclear weapons, given that the consequences of radiation cannot be measured or contained in time and space.

***Nothing proportionate
about destruction caused
by nuclear weapons***

Therefore, tactical nuclear war, by the very nature of the weapons involved, has an inbuilt escalation mechanism. TNWs may intend to cause minimum destruction. But, their use would certainly engender an unstable situation with a potential for enormous destruction. As Therese Delpech wrote, "limited wars without escalation may look attractive, but the guarantee that they will remain so is limited as well."¹⁵ Therefore, there is a deep flaw in a strategy that believes that the use of limited amount of low-yield nuclear weapons makes for greater credibility because such a war can be kept limited. Actually, there is no guarantee that such a war would remain limited, since nuclear weapons are essentially weapons of mass destruction.

Yet another argument made against India's MR is that a suggestion of this kind heightens the possibility of inviting a large first strike on the country. It is argued that since India is threatening MR even in case of use of TNWs, the adversary could be tempted to launch a large first strike in the first instance, thereby imposing greater suffering on India. This argument presupposes an ease in making a decision to use nuclear weapons, which ignores a very important dimension of the current nuclear reality.

It cannot be dismissed that there is a sort of an international taboo against the use of nuclear weapons that has been in force since 1945. The unacceptability of nuclear weapons use has only strengthened over time and, while no legal restriction has been accepted by nuclear weapons possessing states on their use, the psychological weight of such a decision is not trivial. Even to approve the use of one weapon is unimaginable and to believe that a large scale, coordinated, pre-meditated nuclear strike could be

ordered by a rational leader is even more remote. Especially when he is aware that it could not be a disarming and decapitating strike and, thus, sure to bring back nuclear retaliation on itself.

In such circumstances, India's MR might actually be pushing away the possibility of nuclear use and thereby strengthening the case for deterrence, which is the stated objective of its nuclear weapons. India's nuclear weapons are meant to deter the use of other such weapons. In following MR, India has signalled that it refuses to play the game of tactical/ limited nuclear war. Even if the adversary is threatening the use of 'clean, counterforce, low-yield weapons,' India should express that it would have no option but to respond with its 'dirty, counter-value weapons.' This makes for credible deterrence. Therefore, MR makes for a credible nuclear deterrence strategy.

Conclusion

The test of *Nasr* and its eventual deployment in Pakistan's nuclear arsenal is obviously a move that the country has made in keeping with its own threat perceptions, and its consideration of how it can best address them. It seeks to deter India from launching even a limited conventional action by the suggestion of an inevitable escalation up the nuclear ladder. Therefore, in Pakistan's perception, by holding out the prospect of use of TNWs, it is actually enhancing its deterrence and thereby meeting the objective of its nuclear strategy, which is to obviate the possibility of a conventional war with India.

From India's perspective, however, nuclear weapons are all the same and Pakistan's use of what it describes as TNWs would not earn any concessions on India's doctrine of MR. In response to the Pakistani signal, therefore, there is no need for India to either make any material changes in its arsenal by way of developing TNWs itself, or any changes to its doctrine of MR. The focus needs to be on exposing the futility of first use of nuclear weapons, tactical or otherwise, to achieve any meaningful political or military objectives; and on communication of our own resolve to inflict unacceptable damage in case of unacceptable actions.



theatre. With industrial facilities, ports and air bases located near fairly big cities, even a counterforce strike could get out of hand and amount to an all-out war.

1 There is no universally accepted definition of Tactical Nuclear Weapons. Differences in geographical distance between adversaries, densities of population and technological capabilities of nations possessing nuclear weapons can variably define missiles of different ranges or yields as tactical or not.

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11 Shyam Saran, "Dealing with Pakistan's Brinkmanship," *The Hindu*, 07 December 2012.

12 Robert Jervis, *The Illogic of American Nuclear Strategy* (Ithaca: Cornell University Press, 1984).

13 *Ibid.*, 25.

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15 Therese Delpech, *Nuclear Deterrence in the 21st Century: Lessons from the Cold War for a New Era of Strategic Piracy* (Santa Monica, CA: Rand, 2012), 50.

INDIA'S NATIONAL SECURITY STRATEGY IN AFGHANISTAN: NEED FOR A 'RESET'

Dr Shanthie Mariet D'Souza

India's Stakes in Afghanistan

India's core interests in Afghanistan need to be viewed within the security paradigm in the context of undiminished concerns over terror emanating from the extremely volatile Pakistan-Afghanistan border region and spilling over into the country. A strong, stable and democratic Afghanistan had been construed as a bulwark to reduce the danger of extremist violence and terrorism destabilising the region. To accomplish this, New Delhi's policy had broadly been in congruence with the US objectives of decimating the Taliban-Al Qaeda combine and instituting a democratic regime in Kabul. The broad thinking, as India unleashed its 'soft power' approach in Afghanistan 2001, was that the insurgents would be weakened and a democratic regime in Kabul would grow from strength to strength to establish stability and peace in the war-torn country.¹ That 'wishful' thinking, however, is facing a litmus test in the wake of the ongoing peace talks by the US with the Taliban, which has unveiled the possibility of a return of the insurgents in some form, including power-sharing agreement between the civilian government and the Taliban. What impact can such scenarios have on New Delhi's core security interests? Does it require a 'reset' to India's policy towards Afghanistan? This article, while analysing the key factors in India's relationship with Afghanistan since 2001, attempts to provide answer to these questions. It also provides a roadmap for improvements in the strategy pursued, thus far, to protect India's core interests in that country.

Challenges to the Soft Power Approach

India's soft power approach, since 2001, has included supporting Kabul's nascent democratic regime through various infrastructure, economic, capacity building and small development projects. India is the fifth largest bilateral donor and largest regional donor country, having pledged more than \$3 billion in diverse areas, including infrastructure, communications, education, healthcare, social welfare, training of officials,

diplomats and security personnel.² At home, India's 'aid only policy' has generated intense domestic debate; given the vulnerabilities its projects and personnel face in Afghanistan. Despite serious attacks and threats on its interests, India has steered clear of any direct military involvement in Afghanistan, so as not to raise the ante for Pakistan, who perceives India's involvement in Afghanistan as an attempt at strategic encirclement. Contrary to such perceptions, India's aid provided on the basis of the needs of Afghans has been well received and there exists considerable support for Indian projects in Afghanistan.³ This approach, however, has faced challenges from two quarters - the policy of finding strategic depth by Pakistan and a policy of imposing an externally mediated solution of Afghanistan by USA.

India has steered clear of any direct military involvement

The Pakistan military and intelligence establishment perceives the various wars in and around Afghanistan from the prism of its main institutional and national security interests, 'first and foremost, balancing India.' For Pakistan, an Afghanistan under Pakistani influence, or at least a benign Afghanistan, is a matter of overriding strategic importance.⁴ Fearing the increasing Indian influence in Afghanistan and beyond, Pakistan denies any overland trade and transit facilities for Indian goods to Afghanistan, thereby compelling India to rely on the Iranian alternative through Chabahar.

While India has been able to expand its footprint under the US security umbrella, repeated talks of US troop withdrawal by President Obama and President Trump, combined with the push for a peace deal with the Taliban, has led to considerable unease in New Delhi as well as the region. In his speech at the US Naval Academy at West Point, on 01 December 2009, President Barack Obama in addition to renewing his commitment to the Afghan war by increasing the troop numbers and terming it as a 'just war,' set a deadline of July 2014 for the conditional drawdown of forces. This led to the emboldening of the Taliban, who only had to 'wait' their time to renew the regional proxy warfare in Afghanistan.

Despite much ado during his election campaign of troop withdrawal from Afghanistan, Donald Trump's strategy for Afghanistan and South Asia, announced on 21 August 2017, was intended to highlight the novelty and surprise elements of a roadmap that purportedly sought little short of the decimation of terrorism. For all that, the 'new' strategy, its overheated

semantics and studious ambiguity notwithstanding, it was a continuation of the American trial and error method that has kept insurgent aspirations of a victory alive, even 19 years after the US intervened in Afghanistan. A minor surge of 3,000 troops ordered by Trump notwithstanding, the total number

The door is left open for insurgent takeover of US troops is expected to be reduced to 4,500 by November 2020. Not surprisingly, such drastic troop reduction has raised concerns in New Delhi that Pakistan's security establishment will attempt to regain its strategic depth in Afghanistan, and shift focus to the eastern borders with India having pacified the western border situation with Afghanistan.

In addition to the US troop withdrawal, the present efforts of the Trump administration's reach out to the Taliban through a peace deal to demonstrate progress for his re-election bid, has left the door open for an insurgent takeover. Without a clear, integrated and Afghan-led reconciliation policy and adherence to red lines, the danger of the subversion of the democratic gains by radical elements runs high and could undermine India's interest of maintaining a democratic regime. The return of the Taliban or the civil war like conditions of the early 1990s is clearly not in India's interest. Indian policy makers are seeking to avoid such a scenario by a long-term international commitment in Afghanistan and strengthening the hands of the Afghan government that would prevent any future return of the Taliban to the seats of power in Kabul. This objective, too, appears unachievable.

Peace Deal and Political Polarisation

Amidst the spiralling violence and the battle fatigue that is developing in Afghanistan, the US reinitiated a peace process after the infamous announcement by President Trump that had derailed a similar attempt back in September 2019. The process bore fruit leading to a peace deal signed in Doha by the US representative and Taliban on 29 February 2020. The deal, which has interesting parallels with the previous Paris Accords, has been characterised clearly as a necessity sought by Trump for his re-election bid. Successful projection of efforts leading to the end of America's longest war in Afghanistan and return of troops may boost his winning prospects. However, subsequent days have demonstrated the complexities of implementing the deal, particularly in building an intra-Afghan consensus. Much less is known of the details of the deal that have raised concerns not

only in Kabul but also other capitals.

The deal, which has been hailed by many, missed the key point by not including the Afghan government in the early stages of the peace process. This has resulted in considerable level of distrust and tensions between the key stakeholders. Violence levels peaked immediately after the signing of the deal, amid Ghani's initial reluctance to release upto 5,000 Taliban prisoners as agreed in the US-Taliban agreement. While the insurgents have stopped targeting the NATO forces, the Afghans did not witness any respite. It is evident that the Taliban

Taliban uses violence to negotiate with the Afghan government

is back to using their preferred tool of using violence to negotiate with the Afghan government from a 'position of strength.' That the 'infidels' are willing to retreat has emboldened the Taliban and their benefactors. On the contrary, the Afghan government's position has been severely weakened.

India's Position on the Peace Process

As the instability and violence in Afghanistan intensified and the exit strategies of Western nations gathered momentum, the Afghan government and international community initiated various steps to reconcile and reintegrate Taliban commanders and fighters. New Delhi, for long, has indicated its support for the 'Afghan-led' and 'Afghan-owned' process, as a means of finding a political solution to the Afghan war. In an interview with the *Wall Street Journal* on the sidelines of the UN General Assembly in New York, in September 2009, the then Indian External Affairs Minister SM Krishna said that, India did "not believe that war can solve any problem and that applies to Afghanistan too."⁵

At the same time, there were indications of New Delhi's support for President Karzai's overtures of a reintegration process and outreach towards the Taliban. Foreign Secretary Nirupama Rao, addressing a closed-door international seminar on Afghanistan in October 2009, declared that India would support the process of reintegrating individuals into the national mainstream - code for dialogue with the 'moderate' Taliban who agree to renounce violence. She said, "We support the Afghan government's determination to integrate those willing to abjure violence and live and work within the parameters of the Afghan constitution."⁶ This change in stance, however, came with a caveat. Pakistan, which is widely believed to support the Taliban and provide shelter in Quetta to its leaders,

would need to cease assistance to the Taliban. During his visit to Kabul in the summer of 2011, the then Indian Prime Minister Dr Manmohan Singh went a step further to state that India's Afghan policy recognised the need for an 'Afghan-led' and 'Afghan-owned' peace process.

In contrast to New Delhi's support for the nascent peace process inside Afghanistan, the peace deal between USA and Taliban on 29 February 2020 in Qatar was seen as an externally mediated deal with almost no

Need for an 'Afghan-led' and 'Afghan-owned' peace process

involvement of the Afghan government. Moreover, the contested election results and the parallel swearing in ceremonies in Kabul, combined with the sharp political polarisation, has thrown up stark policy choices for New Delhi, testing its 'soft power' and 'middle of the road' policy. New Delhi's gains may face the prospect of reversal if the political turmoil and future negotiations allow the Taliban to share power in Kabul. The signing of the peace deal and the narrative of defeating a superpower has emboldened anti-India groups, like JeM, LeT and others, which may have implications for Kashmir. The presence of the Islamic state in Afghanistan has further complicated the situation. A reset in its Afghan policy may still help secure India's interests in the country.

Securing the Fragile Gains

In the past years, the talk of US down-scaling its operations has found resonance among certain sections of the Indian government and diplomatic circles, who view it prudent to wind up India's development activities. There has been scathing criticism of India's aid diplomacy and soft power approach each time the Indian mission or personnel are targeted. At such times, the talk of sending in the Army and putting 'boots on ground' gain credence, particularly in military circles. There have been calls from various quarters for India to play a more active role and that, as a "first tier global economic power, India needs to accept the responsibilities and risks that come with that stature."⁷ At the other end of the spectrum are analysts who have internalised Pakistan's concerns and call for the downsizing of India's presence to assuage Pakistan's fears and concerns.⁸

Nonetheless, New Delhi mostly pursued a 'wait and watch' policy, the primary content of which was reactive measures to deal with evolving challenges. It was mostly hinged on the prospects that the international community will discover reason in resisting a Taliban return to Kabul and,

instead, would continue its support to strengthen the civilian government's capacities to govern and also to keep the insurgents at bay. In view of the radically changed ground realities, the 'wait and watch' policy is bound to impinge on India's interests in the country and region. There are early warning signs of India's goodwill in Afghanistan beginning to evaporate, with anti-India demonstrations and flag burning events organized in provinces like Kabul, Herat, Kapisa and Parwan. The parliament building - an edifice of democracy, which India built - may eventually be occupied by the forces it tried to defeat. Beyond such symbolic structures and aid giving, India will have to play a larger role in enabling Afghans to take charge of their own affairs, if it is to help prevent Afghanistan's further slide into instability and chaos.

'Wait and watch' policy will impinge on India's interests

As Afghan elites get to the negotiation table to talk peace with the insurgents, New Delhi has to move beyond its 'wait and watch' policy and get proactive in developing long-term tools to prevent Afghanistan's slide into chaos. While recognising the Taliban as a responsible stakeholder for the future of peace and stability in Afghanistan remains an important question, New Delhi's policy will have to be well calibrated and long term, aiming to build Afghan institutions, self-sufficiency and minimizing external interference. Flushing funds and the consequent elite buy-in will not help New Delhi achieve its national security objectives. Similarly, to be encouraged by odd statements of the Taliban leadership appreciating India's role may not be enough.

As the international community seems to be in a rush to bring its ominous gamble in Afghanistan to an end, India has a limited window of opportunity for enabling Afghans to play a lead role in their stabilisation efforts. To secure its national security objectives, India will have to deepen its levels of engagement in aiding the Afghans in their nation building process at various levels.⁹ The following set of recommendations can form the core content of New Delhi's new Afghan policy: -

- **Security Sector.** India can expand its role in training Afghan national security forces (particularly the police and officer corps of the army), and help develop the security sector. As the process of reintegration gains momentum, India's experience of building a counter insurgency grid in Jammu & Kashmir and reintegrating the militants could have some important parallels and lessons for security sector

reform in Afghanistan.

➤ **Political Sector.** India's experience of the parliamentary system, political parties, electoral processes, space for opposition, federal system, could have important lessons for political sector reform. The past presidential and parliamentary elections in Afghanistan, and the

***Past elections highlighted
presidential system problems***

present political impasse, have brought to fore the problems of a highly centralised presidential system. India can also help in the conduct of free and fair elections to avoid the political contestation and polarisation of contested electoral results of previous years.

➤ **Peace Processes.** While India has indicated support for the Afghan-led, Afghan-owned, Afghan-controlled peace process, adherence to 'red lines,' including respect for the Afghan constitution, human and women rights, would be crucial to prevent subversion from within. Afghanistan's attempts at reconciliation needs to be supported by larger political and constitutional reforms, which would necessitate provisions for dialogue, autonomy and special representation of minorities, women and marginalised groups.

➤ **Economic Opportunities and Revenue Generation.** In the economic realm, there is an immediate need for developing of alternative livelihood programmes, as well as reviving Afghanistan's traditional artisan and agricultural base. Saffron cultivation in poppy growing areas could be a useful alternative livelihood project. Natural resource exploitation, thermal power generation and industrial development in the relatively stable North and West could provide opportunities for employment for the youth. Moreover, it would help Afghanistan to graduate from being an externally dependent 'rentier state' to a 'self-sustaining economy.'

The complex and rapidly changing dynamics in Afghanistan pose a great challenge to policy making. The task of India is even more difficult. Expansion of its economic footprint is in New Delhi's long-term strategic interests, but continued vulnerabilities would make the pursuance of such a policy unsustainable. As developments in Afghanistan will directly impinge on India's security, New Delhi will have to strengthen its position as a serious stakeholder and reliable partner in the long-term stabilisation of Afghanistan. A national security strategy, with clear vision for a proactive

involvement at multiple levels in Afghanistan, is essential to protect India's national security interests in that country and the region.



Dr Shanthie Mariet D'Souza is Founder & President, Mantraya; Visiting Faculty, Naval War College, Goa; Board Director, Regional Centre for Strategic Studies, Colombo; Research Fellow, WeltTrends-Institut für Internationale Politik, Potsdam; International Advisor, Nordic Counter Terrorism Network, Helsinki. She has conducted field studies for over a decade in Afghanistan.

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EVOLUTION OF A CONTINENTAL STRATEGY AND DEVELOPMENT OF MODERN LAND WARFARE IN THE INDIAN SUB-CONTINENT

Major General BS Dhanoa (Retd)

"The essence of strategy is choosing what not to do."

Michael Porter

Introduction

As we continue to deal with the Chinese threat in eastern Ladakh, the primacy of land borders seems to be well entrenched in the minds of leaders and planners at the politico-strategic levels. And yet, the time may be ripe to reflect on and question how our security establishment has perceived threats to India's core interests through the prism of modern continental history. What are the ways in which expansion and development of military capabilities in different domains, and strategies for their employment, have slowly evolved or (in some instances) been thrust upon those charged with the security of the nation. This article will endeavour to briefly look at the evolution of the Continental Strategy as it took shape in Europe, because that is the precursor to our understanding and utilisation of its principles, some inherited, others studied and modified to suit Indian needs, and then trace the development of our land warfare doctrine and its strategies of employment since independence, before concluding with a few pointers on how warfare might be conducted in the future.

Continental Strategy

The Continental School of Strategy developed in Europe in the mid-19th Century as an outcome of the Napoleonic Wars.¹ It is from this school of strategy that most doctrines and principles concerning the conduct of land warfare, principally using land power, have been almost universally applied till present times. The American soldier-scholar John M. Collins, identifies the continental school of strategy with modern land warfare in which the key influence is the 19th Century Prussian military philosopher, Carl von Clausewitz.² It is the European Continental School that has provided

modern militaries with concepts such as the levels of war (strategic, operational and tactical) and the theory of Operational Art, whose facets today are being used as the principal means of conducting military operations, as a bridge between strategy and tactics, through a modern reinterpretation of its tenets. India owes much to the theoretical and practical underpinnings of the Continental Strategy School. It is the lessons from this school of military thought, given to us by the British, and learnt by a handful of Indian officers who cut their teeth in the vast theatres and campaigns of World War II, that we put into practice immediately on independence.

***Operational Art - a bridge
between strategy and tactics***

Consolidation of Frontiers and Territories (1947-61)

The period post-independence was a turbulent yet experiential one for India's nascent military leadership, fresh from the jolt of partition, as it was called in to deal with the threatened secession or annexation of princely states, from Jammu and Kashmir (J&K) to Hyderabad, with Junagadh in between. The first joint operation of independent India, Exercise *Peace*, was successfully conducted in October-November 1947 for the liberation of Junagadh. The most serious threat was to the state of J&K where 'irregulars,' trained, armed and led by personnel of the Pakistan Army, attempted to wrest the state by force from the newly formed Union of India. The fighting was sporadic yet extended. Principles of mountain warfare with the aim of securing and preventing key strategic nodes from being overrun, a limited use of air power for transportation and resupply of besieged positions, and combined arms operations (Battle of Zojila, November 1948, being an excellent example) were some of the lessons the Indian Army and Indian Air Force realised in the battles that were waged till December 1948. A hiatus of nation building and limited reorganization followed. The Indian Army started its long tryst with insurgency in the North East in the mid-1950s against the Nagas. The next joint operation, in December 1961, led to the liberation of Goa, Daman and Diu by means of a swift military action by multiple thrusts of Army columns, ably supported by the Air Force and Navy, which quickly overwhelmed the Portuguese. This period saw the realisation at the strategic level of the need to hold and maintain the nation's land peripheries and tamp down fissiparous tendencies of people who were now citizens of the Union of India. But the

real wake-up call and threat to land frontiers was just around the corner.

Three Wars (1962-71)

These nine years, commencing with the opprobrium of strategic defeat at the hands of the Chinese in October-November 1962, limited operational advantage over Pakistan in 1965, and ending with the strategic high of creating a new nation, Bangladesh, in December 1971 through a swift

Ground forces dominate Indian military strategy military campaign, are a watershed period for the Indian military's coming of age. It firmly established the dominance of the Army over the other two services in the minds of all who dealt with national security. The research scholar Arzan Tarapore in a paper written for the Carnegie Foundation in August 2020 states that, "ground forces dominate Indian military strategy. Since its independence, India has fought five wars along its unsettled northern land borders, and its most vexing security threats today - as illustrated by the ongoing Chinese incursions in the northern region of Ladakh - still loom across those same borders. The Indian Army commands a clear and growing majority of military budget allocations and an even larger share of military personnel."³

This is a fact that came good in 1971 and hasn't changed much since. It must also be mentioned here that the trial by fire in the 1950s of dealing with insurgency had by now become a well-developed doctrine (though not called as such), and formations of the Army were kept busy in Nagaland, Manipur and Mizoram, honing counter-insurgency tactics and assisting the civil administration to keep a firm grip on governance.

Doctrinal Renaissance (1972-1988)

The two decades following the victory in Bangladesh saw the military, especially the Army, move into a phase of expansion (initiated post 1965) through the creation of new theatres, raising and restructuring of formations (such as two additional armoured divisions and the RAPIDs to name a few), and induction of new equipment (tanks and Infantry Combat Vehicles, air defence systems, 155mm artillery, etc.). A series of important studies were ordered at the very highest levels for an understanding of the revolution in military affairs and doctrinal development that was occurring all around. This was mainly due to the military-technical revolution in weapons and tactics that was sweeping the world, as witnessed in the Middle East during

the Yom Kippur War, in the American involvement in Vietnam, the Cold War arms race, and the Soviet intervention in Afghanistan, to name but a few. A discerning study by Generals KV Krishna Rao, ML Chibber and K Sundarji, among others, was to be the mainstay in the shape and size of the Indian military's land forces for the decades ahead.⁴ However, the only reliable partner during this period for the supply of military hardware to suit the mechanised warfare doctrine, which the likes of Generals Sundarji, Joshi and Hanut Singh subsequently espoused for punishing Pakistan through deep, ground-based punitive thrusts supported by air, was the Soviet Union was the only reliable partner Soviet Union. Thus, the broad array and part philosophy of employment of the Army's offensive capabilities came to resemble the Russian Operational Manoeuvre Groups (OMG) arrayed against NATO in Central Europe. Capable army officers, schooled abroad in the employment doctrines of the West and Warsaw Pact countries, came home in the early 1980s to an army undergoing a renaissance, more in military equipment than thought, and were immediately put to the task in schools of instruction to write tactical manuals and précis on modern land warfare, which eventually were put to test in a number of large scale exercises - with *Brass Tacks* I-IV in 1986-87 being a culminating series.

General Sundarji was at the helm of the Army from 1986 to 1988. A strategic thinker and military leader of a calibre comparable to Field Marshal Manekshaw, he enthralled the nation's strategic community of the time, including Prime Minister Rajiv Gandhi and Minister of State for Defence Arun Singh, into believing his orthodox offensive military doctrine, primarily land power based but using all military instruments, to secure India's core national interests. He was involved in firming nascent geo-political concepts about the centrality of India in the affairs of South Asia, be it Sri Lanka or other neighbours, and also in militarily dealing with threats from Pakistan and China. His tenure was to have significant effect and long-term strategic consequences for the country's security concerns, especially for the nation's political leaders, in their hesitant use of the military instrument of power in the 1990s once Pakistan unleashed its sub-conventional proxy war in J&K. This long but fruitful development phase served, once again, to reiterate the dominance of land power in the formulation of strategies for a conventional and expeditionary use of the Indian military, even as the other two services started to catch the eye of

discerning leaders in the exploitation of the nature of the medium they traversed (sea and air), and the quick unobtrusive gains by them that complemented diplomacy. But the continental mindset and primacy of land power remained.

Committal and Costs (1987-1998)

A discerning eye would notice the overlap of a year between the previous phase and this. That's because 1987 was the year of the Indian military's (primarily the Army's) committal to regional security, outside the ambit of the United Nations (UN). We made the plunge in Sri Lanka in July 1987 with the Indian Peace Keeping Force (IPKF), and it was an experience

***Continental mindset
and primacy of land
power remained***

in expeditionary geo-politics like no other. It lasted till 1990 and exposed a disconnect between the desire to be a regional arbitrator and the hard reality of actually being one. The execution by the Army, supported by the Navy and Air Force, through the establishment of a Joint Task Force HQ, is a study in the challenges of joint operations in conflict below the threshold of all-out war. It exposed the glaring deficiencies in the understanding of each other's strengths and weaknesses, and of not having set procedures and staff capable of handling complex and ambiguous operations in which friend and foe changed roles frequently.

The synergy expected at the strategic level between the military and external intelligence agencies, and military leaders and operational commanders entrusted with execution of tasks in Sri Lanka, vis-à-vis actual experiences were eye-openers. Inadequacies in weapons and equipment apart, IPKF's lessons were abject examples of how not to conduct such operations in future. The few bright spots in this period of good synergy between services and achievement of strategic results were Op *Cactus* 1988 (Maldives) and Op *Chequerboard* 1987 (along the McMahon Line in Arunachal).

This period saw India's military leadership take its eye off the ball (figuratively) on conventional deterrence, as Pakistan embroiled the Army in anti-terror ops, first in Punjab and then, in 1989-90, in full force in J&K. The Army adapted to this new challenge and strategies to deal with proxy war were developed. Tailor made forces (*Rashtriya Rifles*) came into being and were expanded. Conventional deterrence was strengthened through the creation of the third strike corps, while the bogey of a nuclear threat from

Pakistan remained, USA's Pressler Amendment notwithstanding. It was a period of political and economic weakness, muddled by inimical interests, yet partly offset by the opening of the economy and strengthening relations with USA. The period was capped by the conduct of nuclear tests by India and Pakistan in May 1998, and military deterrence was never to be the same again in South Asia.

Trial by Fire and Error (1999-2020)

The current phase is over two decades long, eventful and not given to any certainty of deductions with respect to the primacy and employment of land power in the Indian security domain. The size and shape of the armed forces, their doctrinal rejuvenation, and use as an instrument of statecraft have all undergone extensive scrutiny, analysis and reform. The forces themselves have come of age in sheer numbers, but remain a bit underwhelmed in equipping themselves for 21st Century challenges, creating the right structures, looking at threats anew (from more than one front, if it may be so stated) and having key capabilities (Special Forces, space, cyber) to tackle ambiguous military problems that remain below the threshold of conventional conflict. It all commenced with Kargil and the findings of the review committee post this strategic surprise in 1999, further exacerbated through a poor military response to terror attacks in Srinagar and Delhi in December 2001.⁶ The Government looked to the military for an answer and found that it really had an 'all or nothing response,' which in itself was slow, reactive and allowed the adversary too much leeway.

Armed forces have undergone doctrinal rejuvenation, analysis and reform

Op *Parakram* ended in October 2002 on a rather dismal note, with over 800 (mostly collateral) casualties and very little to show in terms of deterring the export of terror to J&K from Pakistan.⁷ The Indian Army found itself between a rock and a hard place, as the vaunted might of its conventional forces, especially the offensive component, was perceived to be more a lumbering elephant than a nimble tiger. It had deficiencies in critical war waging equipment as well as ammunition, and most certainly the doctrine of massive conventional retaliation to an enemy provocation in the sub-conventional domain was unworkable. Renewal and rethought was the need of the decade. Thus, very deliberately the Army doctrine of Cold Start (or the Pro-Active Strategy) came to see the light of day, commencing

with discussions in 2004-06, followed by a series of field exercises and the eventual taking on board of the Air Force and the Navy, as their synergized application was *de-rigueur* to the success of this doctrine.⁸

It remains a work in progress as threats have coalesced from a single adversary in the conventional domain to a sub-conventional threat continuum capped by nuclear sabre rattling, limited to J&K or spilling over

***Threats have coalesced
from conventional to sub-
conventional domain***

to the entire Western Front (as the Army is wont to refer to the geographical border with Pakistan), with some form of collusive support from China. The China factor in the Indian Army's horizon was somewhere on the periphery at the turn of the century. Today, it very much occupies centre stage as we face a modernised and joint People's Liberation Army (PLA) along the northern borders, continually creating pressure points along the Line of Actual Control and forcing similar activity from our side. It cannot be described in any great detail over here, for the challenges posed along the land frontiers by China are a study (or several) by themselves. Suffice to say that the use of land power synergistically will be the key issue military leaders would have to face in the period ahead.

The Future of Land Power in India

Yogi Berra, the quintessential American baseball player known for his malapropisms, was probably spot on when he said, "It's difficult to make predictions, especially about the future." No strategic analyst or military writer would stick his neck out to make any far reaching predictions about military affairs in a region beset by inimical relationships, nuclear armed adversaries and revanchist regimes. From the current force structure of the Indian Armed Forces, dominance and primacy of land power is evident. And yet, we seem to be unable to exploit this vast human resource and war machinery to the maximum. Revenue expenditure on manpower costs remains a drain on the defence budget, with the biggest share of the pie going to the Army. It has dawned on many stakeholders in the national security apparatus that the conventional army is unable to optimally tailor force packaging for immediate retaliation without a change in organisation, equipping and employment philosophies. The study and restructuring initiated in 2018 to create Integrated Battle Groups (IBGs) is but one step to obviate such a lacuna. New doctrinal terms are being coined, with some

having been given expression in the new Land Warfare Doctrine, unveiled in December 2018.⁹ It is felt that, going forward, a debate may be essential on the recommendations for the Indian Army as given by Arzan Tarapore in his paper of August 2020, i.e. first, consider new theories of victory; secondly, consider how to be the supporting element in a joint force; and thirdly, consider new niche capabilities.¹⁰

The aforementioned recommendations may seem basic at first glance, but are worth considering in the complex politico-military dilemma we find ourselves in when dealing with Pakistan and China. Maybe a complete relook at the way we employ military components of power, and a reworking of the inter-se priorities/ relationships between them have become necessary. The setting up of the

*Need a complete
relook at the way we
employ military power*

office of the Chief of the Defence Staff (CDS) and the establishment of the Department of Military Affairs (DMA) are but start points of such a debate and eventual reform. Restructuring our industrial age army cannot be done suddenly. It will need at least a decade, if not more, for new effective organisations to emerge, while the threats are 'here' and 'now.' It is not an easy task, as numerous previous attempts at reform and transformation have floundered either due to institutional resistance, lack of political and budgetary support, or the suspicion of sister services about motives behind such reforms. The threats that we currently face from China and Pakistan are here to stay. These have to be tackled by deft diplomacy, political and economic farsightedness, and using the military instrument wisely. Ongoing reforms of higher defence must be complemented by inhouse reforms of changes to doctrine, professional military education and the best use of trained manpower than is currently the case.

Conclusion

This essay has been a sprint through the theory of a Continental School of Strategy, and the 73 years of the Indian Army, as it has transitioned through different phases, playing its part in the nation's rise to eminence and prosperity in a difficult strategic neighbourhood. The last word on the pre-eminence and future of land power in an Indian context has not been written and many such attempts would surely follow. It remains to be seen how the Army jointly gauges the future and finds a force fit that needs no serious tinkering when a grave security challenge presents itself.

Continental Strategy and Land Warfare in the Sub-Continent

Maj Gen BS Dhanoa (Retd) was commissioned into the Armoured Corps in December 1983. He last served at the Army's premier institution, the Army War College, mentoring future leaders of the Armed Forces. He has commanded an armoured brigade and an infantry division on the Western borders. At present, he is Adjunct Faculty at the Naval War College, Goa.

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STRENGTHENING MARITIME AND COASTAL SECURITY IN INDIA BY STATES AND UNION TERRITORIES

Captain Himadri Das

Maritime Security and its Governance

Literally, 'security' means the state of being free from danger or threat, including the 'safety of a state or organisation against criminal activity such as terrorism, theft, or espionage.'¹ As per the *Ensuring Secure Seas: Indian Maritime Security Strategy* document, "in the broadest sense, security can be understood in terms of the presence of freedom and the absence of fear and want - with regard to pursuit of the core purpose and values governing the existence and evolution of a society and state." Furthermore, "national security is viewed in a holistic framework, which extends to all aspects of societal well-being and growth, including physical, economic, energy, food, water, health, and environment."

The concept of 'maritime security' is relatively new with its origins in the 1990s.² It does not have a universally accepted definition and, its usage being largely contextual, can be viewed comprehensively to encompass security from both, traditional and non-traditional threats to security in the maritime domain and adjoining coast. Or, it could be viewed from narrower compartmentalised and fragmented perspectives to exclude certain elements. A typical approach to classic maritime security, especially in an Indian context, would entail 'defence' (against State actors), 'security' (primarily against non-state actors, or state-sponsored non-state actors, particularly those resorting to 'unlawful acts against safety of maritime navigation' at sea, or those using the sea to commit acts of violence ashore), and 'maritime crime' (enforcement of laws applicable to the maritime domain).³ Consequently, maritime security governance encompasses a wide range of functions, which includes operational actions, but is not limited to it.

As per *Ensuring Secure Seas*, "maritime governance relates to structured and coordinated actions to govern the maritime domain under

India's jurisdiction, with multiple agencies and functions involved." This essentially includes mechanisms for policy and review, centralised monitoring mechanisms, and the legislative and regulatory framework. The strategy document also highlights that the "legislative and regulatory framework for maritime domain requires regular review and revision, to identify and address any limitations."⁴ In essence, the strategy alludes to the need for a whole-of-government approach and structures for cooperation between the Centre and States/ Union Territories (UTs).

Conceptually, the *US Maritime Security Sector Reform* Guide defines six functions for the maritime security sector, primarily at the national level

<u>Maritime domain needs a whole-of-government approach</u>	- maritime governance, maritime civil and criminal authority, maritime defence, maritime safety, maritime response and recovery, and maritime economy. While the functions apply across all levels of governance, in particular, the Guide highlights the roles of 'sub-national' level structures with respect to the following: - ⁵
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- Delineation of roles and responsibilities between national and sub-national agencies, to ensure inter-agency and intergovernmental coordination in support of national strategy (maritime agency organisation).
- Delineation of roles and responsibilities within maritime agencies with defence roles, at the national and sub-national levels, and to coordinate in support of national strategy (maritime defence administration).
- Aid to civil power (maritime defence assistance to civil authorities).
- Response to maritime-related incidents (emergency response administration).

Cmde Sam Bateman, Royal Australian Navy (Retd), has posited that, "capacities for maritime security are required at the provincial, national, regional (and international) levels. Such capacities are required in the form of institutional arrangements (work allocation, committees, Information Centres, Op Centres, etc.); legislative framework, including state legislations; and, availability of resources in terms of assets, manpower, technology, etc."⁶

This paper examines the role of states in security - particularly maritime and coastal security - and how it could be strengthened, especially with an operational focus. The relevance of the paper is in the fact that the Indian

Navy is the agency responsible for overall maritime security, including coastal and offshore security.

Maritime Security Governance in India

India has a federal structure of governance. The key features of a federal system include dual governments (the national or federal Government and the Government of each component state); division of authority between the national and state governments; supreme powers vested with the government, whether national or state; and, the overriding authority of Courts to interpret the Constitution (independent judiciary).⁷ The relation between the Union and the States is covered in Part XI of the Constitution. It includes Legislative Relations (Chapter I) and Administrative Relations (Chapter II). In accordance with Article 246 and Seventh Schedule of the Constitution of India, legislative powers are distributed amongst the Union and the State, through the Union, State, and Concurrent List.

Maritime security covers law enforcement to national defence

In general, the distribution of executive powers follows the distribution of legislative powers.⁸ The Union and the State have exclusive executive power over matters included in List I and List II of the Seventh Schedule respectively. For matters in the Concurrent List (List III of the Seventh Schedule), the executive function ordinarily remains with the states, but is subject to provisions of the Constitution or any law of the Parliament conferring such function expressly on the Union.

Considering the provisions of the Constitution of India and the concept of maritime security, which covers a wide swath - from law enforcement to national defence (and the overlaps therein) - the governance of maritime security in India transcends all the three lists, and is undertaken concurrently by the Centre and States in coordination with each other.

Increasing Role of the States in Maritime Security

Since independence, the overarching responsibility for maritime defence and security has been with the Centre, viz. the Indian Navy. In the backdrop of discussions at the 3rd Conference on the Law of the Sea (UNCLOS III) on the creation of *sui generis* zone, viz. the Exclusive Economic Zone (EEZ), the raising of the Coast Guard was proposed by the Indian Navy to avoid duplication and economise effort, and to enable the

Indian Navy to focus on its primary warfighting charter.⁹ The Coast Guard was raised in 1977 “for ensuring the security of the maritime zones of India with a view to the protection of maritime and other national interests in such zones and for matters connected therewith.”¹⁰ However, the overall responsibility for maritime security continued to be with the Centre.

In 1983, a commission under Justice RS Sarkaria (Sarkaria Commission) comprehensively reviewed the working of the existing arrangements between the Union and States.¹¹ Chapter VII of the

***Self-reliance of the State
Police is recommended***

Commission’s report pertained to deployment of Union Armed Forces in states for public order duties. *Inter alia*, it recommended self-reliance of the State Police, so that assistance of the Union is necessary only during severe disturbances; personnel exchange between State and Central Police, including common training centres; and financial support to states for strengthening armed police.

Subsequent to the 1999 Kargil War, based on the recommendations of the Kargil Review Committee (KRC), a Group of Ministers (GoM) was set-up in April 2000 to review the national security system in its entirety and to formulate specific proposals for implementation. The creation of a Department of Border Management (DoBM) and the setting up of specialised Marine Police in all coastal states and island territories were some of the major recommendations with regard to coastal border management. The subsequent implementation of the recommendations marked a paradigm shift in the management of maritime security in India, with focused attention to ‘coastal borders’ at the national-level by the DoBM and a greater operational role of states in territorial waters.

The setting-up of the Marine Police in states was undertaken through a Ministry of Home Affairs (MHA) financed Coastal Security Scheme (CSS) Phase I. The components of the scheme included provisioning of boats, establishment of Coastal Police Stations (CPS)/ check-posts/ outposts, and procurement of vehicles.¹² While the provisioning of boats was undertaken by the MHA on behalf of the states, all other components were progressed by the states with financial support from MHA. The MHA driven scheme was a key driver for the ‘marinisation’ of the police force. In addition to the recommendation for Marine Police, some other recommendations related to states included integration of the Navy’s War Watching Organisation into

the surveillance and reporting chain; development of island territories; and representation of the Indian Navy and Coast Guard in State Maritime Boards/ Maritime State Development Council (MSDC).¹³

In 2007, a commission under retired Justice Madan Mohan Punchhi examined and reviewed Centre-State relations, in view of the changes in the polity and economy of India since the Sarkaria Commission.¹⁴ The commission submitted its report in 2010. Volume V of the report addresses the issue of management of internal

***Indian Navy made responsible
for overall maritime security***

security in a federal set-up. Towards improving the interface of the Centre and State with regard to internal security, the Commission recommended that specific internal security problems be addressed through greater emphasis on development; improving the security apparatus and ensuring similarity of objectives of the Centre and concerned states; implementation of police reforms; and, adoption of new approaches and tools to criminal justice system involving all levels of government.

Subsequent to the '26/11' terrorist attack, from Pakistan, a new paradigm of maritime and coastal security emerged. At the level of the Centre, the Indian Navy was designated as the agency responsible for overall maritime security, including coastal and offshore security, and the Coast Guard was entrusted with the responsibility for coastal security in territorial waters, as also for overall coordination between Central and State agencies in matters related to coastal security. Other measures pertained to capacity building and capability augmentation of maritime security agencies, particularly the Coast Guard; increased focus on electronic surveillance, Maritime Domain Awareness (MDA) and networking by central agencies, such as the Indian Navy, Coast Guard, the Director General Lighthouse and Lightships, and a Public Sector Undertaking, viz. Offshore and Natural Gas Commission (ONGC); and, establishment of coordination mechanisms across levels of governance, including the national-level coordination mechanism, viz. the National Committee for Strengthening Maritime and Coastal Security Against Threats from the Sea (NCSMCS) under the Cabinet Secretary, involving all major maritime stakeholders including the States.

The new paradigm also involved a significant greater role for States in coastal and maritime security. Although there is variance in the

implementation of measures by various States/ UTs, *inter alia* the development trajectory has included the following: -¹⁵

➤ **Governance**

- Integration of state level departments/ agencies/ stakeholders in the maritime/ coastal security construct. This includes the departments of fisheries, forest, home, ports, transport, forest and wildlife, etc.; state-level security agencies, such as the Coastal Police/ State Marine Police (SMP), State Police, State Reserve Police, State Industrial Security Force, Home Guards/ Marine Home Guards (MHGs), India Reserve Battalions (IRBn), etc.
- Setting-up of state-level and district-level coordination committees for coastal security.¹⁶
- Establishment of State Maritime Boards (SMBs)/ equivalents.
- Allocation of jurisdiction to one Coastal Police Station in each state to deal with maritime crime in 'international' waters.

➤ **Capacity-Building/ Capability-Augmentation**

- Capacity-building of the SMP by implementation of MHA CSS Phase II.
- Raising of dedicated wings of the Police in some states, such as the Marine Task Force (MTF) in Gujarat and the Marine Enforcement Wing (MEW) in Tamil Nadu.
- Capability-building through ad hoc training programmes to SMP with the assistance of the Indian Navy and Coast Guard.
- Coastal Mapping.
- Active support, coordination and participation of state-level stakeholders in exercises and drills, such as the major national coastal defence Exercise *Sea Vigil*, biannual coastal security exercises (Exercise *Sagar Kavach*), and security drills such as Exercise *Sajag*.

➤ **Inter-agency Coordination**

- Integration with inter-agency coordination structures, such as through the Joint Operations Centre (JOC) and the 'hub-and-spoke' model.

➤ **Sectoral Initiatives**

- Implementation of measures for improved monitoring and control of the fisheries sector. This included registration of fishing boats; issuance of biometric identity cards to fishermen; colour coding of

boats; notification of fishery landing sites and establishment of monitoring measures for such sites; establishment of lanes in some harbours, etc.

- Implementation of measures for improved security of non-major ports/ Single Point Moorings (SPMs) in accordance with MHA guidelines.

➤ **Community Engagement**

- Focus on community engagement through Community Interaction Programmes (CIP), engagement of community as MHGs, etc.

The new paradigm necessitated greater coordination and integration between the central and state agencies for coastal security for a wide range of security-related activities across maritime sectors. In other words, coastal security now entailed a holistic approach

Coastal security entails a holistic approach to security

to security. It is evident that, in the past decade, States have taken substantial initiatives towards strengthening maritime and coastal security.

Strengthening the Role of States in Maritime Security

The states have emerged, post 26/11, as key stakeholders in the national quest for strengthening maritime and coastal security, with a pivotal role across the spectrum of functions for maritime security. Notwithstanding, as brought out earlier, the role of the Centre and States in public order/ security is inherently complex. For example, the proposal for setting up a National Counter Terrorism Centre (NCTC) was opposed on the grounds that it would violate the principles of federalism.¹⁷ Some inherent issues of security governance in a federal governance structure, especially from a maritime security perspective are: -

- The blurring of concepts of 'security' and 'defence,' necessitating a greater role of states in the security and defence of the nation.
- Multiplicity of agencies (and overlaps in jurisdiction and responsibilities) with respective chains of reporting reduces agility in decision-making, information-sharing, and response.
- Dependence of states on the Centre for financial support for capacity-building/ capability-augmentation.
- Differing threat perceptions lead to differing approaches to security.
- Non-uniform implementation of national projects/ directives across states.

- As coastal security gained considerable focus only after 26/11, lack of institutional orientation, knowledge and expertise within the state governments relating to maritime security.

Between 2011 and 2018, the Parliamentary Accounts Committee (PAC), Parliamentary Committees, the Comptroller and Auditor General (C&AG), have examined issues related to coastal security, including coastal policing and implementation of the CSS.¹⁸ Some of the issues highlighted/ recommendations include the following: -

- Slow progress with regard to implementation of CSS Phase II, including procurement of boats and construction of jetties.
- Poor maintenance support for boats and shortfalls in patrolling effort.
- Shortage of manpower in the SMP and lack of adequate training.
- Need for improving coordination and consultation between Central and State Governments
- Enhancing MDA.
- Legal empowerment of maritime security agencies.
- Strengthening of measures for port security.
- Strengthening fisheries Monitoring, Control and Surveillance (MCS) by fitment of tracking devices on fishing boats, registration of all boats, improving measures for safety and security of fishermen at sea, etc.
- Further integration of coastal communities into the security framework.

The above leads us to the question as to what are the contours for strengthening the role of states in maritime and coastal security. The suggested broad areas of focus include the following: -

- Capacity-building of the SMP, and other agencies of the State, such as the MTF and MEW, with the aim of states exercising complete jurisdiction over the entire adjoining territorial waters.
- Capability-augmentation of the coastal police by raising a dedicated force/ specialised teams; procurement of larger vessels and aerial assets such as UAVs; transition to a network centric operational concept; revitalisation of training, etc.
- Focus on inter-agency operational coordination and information-sharing by establishing active linkages with Operation/ Information Centres, and integration of information sources/ sensor data with

overarching national-level systems, such as the National Command, Control, Communication and Intelligence (NC3I) Network. This will facilitate better coordination and greater transparency of the coastal and maritime spaces, and development of a Common Operational Picture (COP) across all maritime security agencies.

- Strengthening of security (and safety) mechanisms in maritime sectors, which are primarily governed by states, such as fisheries, port, shipping, and tourism.
- Strengthening (and institutionalisation) of mechanisms for community-participation in the maritime/ coastal security construct.
- Strengthening the legislative framework for maritime enforcement, such as in the fisheries sector.
- Periodic review of Standard Operating Procedures (SOPs) and regular focused audits of specific elements of the maritime security construct.
- Leveraging institutional mechanisms for coastal and maritime security, at the national- and state-levels, to incrementally consolidate on gains made and to address identified gaps.

This leads us to the final question as to how state-led initiatives will contribute to overall maritime security. The likely effects of robust state-level mechanisms on overall maritime security are listed below: -

- Removal of overlaps in jurisdiction and responsibilities, especially in the territorial waters. This will also contribute to achieve the overarching aim of 'one border-one force' and unitary responsibilities in designated maritime zones.
- COP and real-time awareness amongst all maritime security agencies and other stakeholders (Central or State) will enhance MDA and speed-up operational responses. This will contribute towards economising effort and enhancing cooperation and synergy amongst stakeholders.
- Strengthening MCS ashore and at sea, complemented with other measures such as transponders on smaller boats, has the potential to significantly mitigate one of the most challenging aspects of operations at sea – identification of small craft.
- Strengthening the legislative framework in States, such as penalties for non-compliance to security-related initiatives in maritime sectors and empowerment of agencies for enforcement, will not only deter to

offenders, but will also facilitate a 'legal finish' to maritime crime.

- Enhanced engagement of the large maritime community in the security construct through institutional mechanisms has the potential for contributing significantly towards improving security and response to emerging situations at sea, and for enhancing safety at sea.
- In view of the inextricable linkages between security and defence, several elements of wartime coastal defence such as war-watching organisation, naval control of shipping, activation of coastal batteries, establishment of swept channels, etc. are undertaken in coordination with state/ district administration and local authorities. Robust inter-agency peacetime linkages are a foundational requisite for coordination for wartime defence.

Conclusion

There has been a paradigm change in the management of maritime security in India over the past decade. The responsibility for maritime security in India is shared between the Centre and States and their multiple organs, wherein states have a pivotal role. Post '26/11,' the role of States in maritime security has increased manifold, which augurs well for overall maritime security. Activities at sea are invariably linked to activities on land - robust mechanisms at the state-level are a facilitator and enabler for effective operational response to both, traditional and non-traditional threats, at or from the sea. Furthermore, progressively strengthening role of states in maritime security has the potential to reshape the maritime security construct, especially at a time when India faces increasing challenges from external aggression and, in accordance with its proactive foreign policy, strives to be a net security provider in the wider Indian Ocean Region.¹⁹



Capt Himadri Das is a Research Fellow at the National Maritime Foundation (NMF) and a PhD candidate at the Naval War College, Goa. He is an MPhil in Defence and Strategic Studies, with post graduate degrees in Nautical Sciences and IR. He also holds a PG Diploma in Maritime Law and Management. He is the author of Coastal Security: Policy Imperatives for India.

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COHERENT AND COGENT COMMUNICATION STRATEGY - A CHALLENGE FOR ARMED FORCES

Commodore Nitin Kapoor

"It's not what you upload, it's the strategy with which you upload"
Will Kenan

Introduction

Over the last six hundred years, developments in the field of Communication and Information Technology have seen significant transformation and exponential innovation. From the time of invention of the first printing press in 1440 in Germany, followed by the Industrial Revolution in the 18th and 19th Centuries, to the advent of the Information Revolution in the 20th Century, communication and dissemination of information has metamorphosed in its reach, speed and content, representing the very essence of 'globalisation' and the ability to connect 'every corner of the globe' through concomitant development of mass media. Communication techniques, platforms, strategies, etc., have become the new buzzwords, which have been intertwined and integrated into the very fundamentals of doing business, be it in governments, public sector or private corporations. The ability to disseminate ideas, communicate effectively and influence public opinion have gained equal, if not more, importance than the core task of an organisation itself.

Amongst these rapid changes, and development of new information/communication techniques and platforms, which are occurring at a blistering pace, armed forces across the world are facing constant change and transformation, and grappling with dilemmas of developing a relevant and suitable communication strategy between the 'old' closed, restrictive model of communication and the 'new' open and expressive one. These conflicting ideologies, therefore, pose significant challenges, which are more pronounced in large armed forces of democratic nations, as opposed to those of non-democratic nations where narratives are spun, thrust and weaved by the authoritarian power.

Large and Complex Structure and Organisation

One of the foremost challenges to developing a coherent communication strategy in armed forces is their size and complex structure, with units and personnel distributed across a vast geographic expanse. A study of the media organisation of the US Armed Forces would reveal the colossal network and organisational challenges, as well as magnitude of content coordinated by the Defense Media Activity (DMA) of the US Department of Defense (DoD). While

Speed and efficiency needed for communication and media

the DMA handles the overall communication and information load of the DoD and the US Armed Forces, individual services (viz. US Navy, Army, Air Force, Marines, Coast Guard) concurrently have their own media channels pollinated and managed through respective websites, Facebook pages, Twitter handles, Instagram, Snapchat Accounts, etc.

As another template, in the Indian context, the Directorate of Public Relations of the Ministry of Defence (MoD) has 29 Defence Public Relations Officers (DPROs) or spokespersons (three at the respective Army, Navy, Air Force HQs, and 26 in the field), who are embedded in various formations across the country. These DPROs are representatives of the MoD, who are authorised to interact and coordinate media activities of the armed forces by leveraging strengths of both, national and international media. In summary, expansive military organisations result in creation of intricate channels of communication, with underlying hierarchical levels of authority, to clear content before it can be posted or shared. This has a bearing on the speed and efficiency demanded by modern communication and media handling.

The Challenge of Creating a Story for the Armed Forces

Communication strategy in the world of products and services deals with 'branding' and their associated stories. In the 21st Century, successful products have transcended from assessment parameters related to quality, durability, satisfaction or robustness, to being associated with their 'story' or the 'values' they stand for or represent, which goes deeper than judgements based on core utility of the product. Audiences now link and connect with products, which epitomize a narrative, a message or an idea. Therefore, the 21st Century content and communication strategies are now focussed on creation of narratives as the new form of mass communication.

This is evident from the campaigns associated with successful products like Apple, Coca Cola, Volkswagen, Toyota, Ikea, Walmart and many others, which have inspiring and appealing concepts, *mantras* and stories connecting them to their followers. Captive consumers of these products patronize them not only because of the qualitative satisfaction derived from their use, but also the values or essence that the brand projects or stands for.

Creation of the aforementioned stories and narratives in respect of a product or a service has quantifiable gains in monetary/ non-monetary

Golden Circle theory deals with What, How and Why

terms. However, creation of a similar story for the armed forces, in accordance with the theory of the 'Golden Circle' posited by Simon Sinek, a British-born American author and motivational speaker, is quite a challenge. Simon's Golden Circle theory deals with how great leaders communicate and inspire action, or how a company markets itself, and is based on three critical facets. 'What' an organisation does, 'how' it does it, and 'why' it does it.¹ Sinek professes that leaders or organisations that communicate with target audiences on the 'why' component are likely to meet with greater success, as opposed to organisations that focus primarily on the 'what' and 'how' components. An illustration of this concept is 'Apple,' whose success can be attributed to the fact that it focusses on the 'why' component, which is "challenging the status quo" as its inspiration, when communicating with its buyers and captive consumers.

What are the end-products of an armed force, and how do we assess its quality in peacetime, when there is little or no threat to a nation (like the relevance or question on requirement of maintaining large armed forces being raised in European nations)? Why do we have an armed force, at all (beyond the standard national security question) and what does it represent or stand for? Since the what, how and why components of the armed forces lie in the surreal domain, attempting to align them with the Golden Circle Theory poses a considerable challenge. Notwithstanding the lack of quantifiable assessment of the 'what' and 'how' components in respect of armed forces, the 'why' component can still be effectively utilised by military leaders to motivate, encourage and inspire their followers. This was demonstrated by Martin Luther King Jr with his ability to influence huge masses in USA, utilising the 'why' component of his beliefs and ideologies, while linking leadership and communication.

Consequent to the challenges highlighted above, the material distributed by armed forces on their media platforms tend to be a well-produced narrative (in terms of content, quality, editing) of their daily activities, operations, initiatives, campaigns, messaging from senior leadership, contribution to civil society, except when the media managers and PROs are undertaking 'risk communication' with a targeted audience or segment of society, albeit without focus on a narrative, story or philosophy.

***Media consonance
and synergy need
care and attention***

Another associated facet, linked to the size of armed forces, is the 'number of stories' that can be created for each individual service and organisation, unlike the 'one specific story or narrative' for 'one product' in the civil world. Further, since the armed forces in democratic countries are answerable to civilian leadership, the narrative or story of the civil administration and the armed forces have to be in consonance, to bring out a common and legitimate media product. The recent disconnect displayed between the higher echelons of the US Navy, particularly the Commanding Officer of the *Theodore Roosevelt* (Aircraft Carrier with Covid-19 cases) and the Acting Secretary of the Navy, is a burning example of inconsonance and clash of narratives between involved players. These have a direct bearing on the morale of men in uniform, and impact the image of the service and its internal management. Accordingly, this media consonance and synergy have to be accorded the highest care and attention, especially in the age of modern social media communication.

Predominance of Social over Conventional Media

An analysis of the media and communication strategies of armed forces with respect to utilisation of platforms would indicate that information and content distribution is predominantly based on web based/ social media platforms as opposed to conventional media, viz. television, print, audio, etc. One of the primary reasons for this is the reluctance of armed forces to utilise paid media, due to prohibitive costs as well as not owning a dedicated media channel. A study of communication platforms by armed forces across the world would indicate proliferation of web based/social media platforms as their primary channels of communication due to negligible cost, deeper penetration of the targeted audience and primary control over content. Since both, the web based and social media, largely remain unregulated

fields, in contrast to conventional media, armed forces face the associated challenges of complexity, with every single smart phone and its owner having the potential to become a news generator.

Who is the Audience for Armed Forces?

The public and social marketing strategies of renowned and well-known products or services invest significant energy, science, time and effort in identifying the target audience for their deliverable products, with the aim of creating a captive market in an environment surfeit with competition and competing market strategies. Deep analysis of potential, available and penetrated markets is undertaken to formulate the story or narrative of a product that will appeal to the identified market. And finally, sales or market share are quantifiable milestones on assessing the success of the marketing strategy. Unfortunately, in the absence of methodology and wherewithal, except for probably population surveys or analysing number of hits, views or downloads of hosted material, there are no means to ascertain or infer the success, or lack thereof, of communication strategy of armed forces. The communication strategy of armed forces is aimed at three types of audiences:-

No means to measure success or failure of armed forces communication strategy

- **Internal Audience.** This audience comprises policy makers at the apex level in the government involved with ‘matters defence’ as well as serving personnel in uniform. The focus is to keep abreast of developments, operations, initiatives, communication from senior leadership, as well as shape and educate the official environment.
- **External Audience.** This audience comprises the general public as well as veterans of the armed forces. The messaging is focussed on all of the above, including ‘risk communication.’
- **International Audience.** This segment comprises friendly foreign countries as well as adversaries, and the messaging strategy could be utilised for information warfare or strengthening of deterrence.

Content Challenges

As was illustrated in the challenges emanating from the size of an armed force, an associated problem area is ‘content.’ With the reduction of attention spans of audiences, emergence of new stories by the hour,

proliferation of platforms, concept of “just enough information - just in time,” the ability to occupy the air waves in terms of both, volume and pace; all pose significant considerations in devising and formulating communication strategies in the armed forces. How much information to share, when to share, and at what pace to share, remain dominant aspects, while balancing the requirement between attracting ‘eye balls’ and risking ‘over exposure.’ Different services within the armed forces also have different communication strategies.

Some may follow an ‘aggressive’ media doctrine, while others may

Different services have different communication strategies

choose to remain ‘low key,’ which may result in a virtual ‘competition of visibility’ between the services. The doctrine is also not inked in stone and the media philosophy of individual services witnesses ‘ebbs’ and ‘flows’ with frequent changes in the top leadership, who shape the direction, rate and magnitude of media engagement based on their own cognitive judgement and bias.

Even if a service develops a cogent, comprehensive and well-coordinated media strategy, issues with respect to censorship, control, verification and vetting of what can be said and what cannot, will remain a prime consideration. The underlying inhibition pertains to ‘when does information become intelligence’ and assist the adversary in ratifying information that may have already been obtained through traditional intelligence gathering sources and mechanisms.

Civil - Military Cohesive Communication

Media and communication strategies that are ‘in-sync’ with Government policies, narratives, initiatives and programmes tend to assist individual services in expansion and realisation of their future ‘force structuring’ and ‘capability’ as well as ‘capacity development plans.’ This strategy is being successfully utilised by the Indian Navy in supporting the Indian Prime Minister’s vision for Security And Growth for All in the Region (acronym SAGAR, which also means ‘Ocean’ in Hindi).² It can be seen in the ‘Make in India’ initiative as well, to highlight its current capabilities and dovetail future infrastructure development and capacity/capability induction plans to support these programmes.³

Risk Communication

The operating environment of the armed forces is replete with threats, risk and dangers, which are their occupational and professional hazards. Consequently, its personnel are trained to negotiate perils to keep the nation safe from external aggression and internal disorder. The armed forces are constantly involved in providing the necessary security envelope to civil

Need to be ready, vigilant and prepared for 'risk communication'

society at large, 24x7, 365 days a year. In the course of conducting these operations, there are many times when developing crises may entail loss of precious lives or damage/ loss of assets, requiring the armed forces to also be ever ready, vigilant and prepared for 'risk communication.' Sharing crisp, relevant and adequate details will prevent development of false or alternate narratives, which may be exploited by inimical groups with vested interests. Such false narratives may lead to speculation, emergence of conspiracy theories and avoidable media attention, consonant with the idiom "bad news makes interesting stories." The risk of such stories emanating from internal sources also constitutes an omni-present threat and possibility, which increases exponentially if the official responses are inordinately delayed. The armed forces do not have the liberty to create a 'spin' to a developing situation and the communication strategy in such circumstances is best served by projecting an accurate and correct picture. A recent example of 'risk communication' is the emergence of 26 positive cases of Covid-19 in an Indian Naval Base, leading to release of a statement to all media houses simultaneously to present the facts and elaborate on the measures undertaken to contain the situation.⁴

Recommendations for a Comprehensive Communication Strategy

A few recommendations on development of cogent and coherent communication strategies (which may already be in practice to some extent in large armed forces across the globe) are elucidated below: -

- 21st Century conflicts and great power rivalries are no longer played or restricted to a few domains. Competition, collaboration and conflict require 'whole of government' strategies with coordinated responses across the entire spectrum of the DIME.⁵ Accordingly, a nation's communication strategy has to flow from a unified entity at the apex level, with communication strategies plugged and meshed into it. This

would facilitate cogent and effective strategic communication as an output.

➤ A well-established, well-structured and streamlined media organisation, with trained and experienced manpower at multiple levels, is a necessity. Such media organisation at formation/ command levels will facilitate seamless and efficient media handling, and effective communication dissemination.

➤ Since success of an operation or mission has assumed visual and sensory connotations ('smell' or 'taste' of victory has transformed to 'see' and 'hear'), aimed at both internal and external audiences, inclusion of a mission specific media strategy in

Success has assumed visual and sensory connotations

plans for every mission/ operation would facilitate effective utilisation and harnessing of media.

➤ Establishment of efficient and bureaucracy-free communication channels, both intra and inter-service as well as in Ministries, with focus on a healthy balance between 'centralization' and 'decentralization' for content sharing. The underlying principle of "just enough information - just in time," to harmonise speed of dissemination with accuracy of information, should form the backbone of communication strategies.

➤ In view of inherent limitations of developing a cogent narrative or story, formulation of 'annual themes' could be considered, which could be the baseline for media engagement for a calendar year. All activities for that calendar year could be focussed on the chosen theme, thus creating a comprehensible, cogent story for that year, facilitating in effective messaging.

➤ Develop a clear understanding of corporate/ commercial/ public/ social marketing and media strategies, and implement suitable and adaptable tenets in the content and communication strategies of respective armed forces.

➤ Avoidance of both 'over' and 'under' exposure, as well as competition amongst services, for 'monopolising eyeballs or airtime.'

➤ All Services need to be prepared for 'risk communication' 24x7, and should endeavour to be the first to expeditiously break 'bad news' and shape the media environment, as opposed to issuing tedious and tenuous clarifications at subsequent junctures. Risk communication should be a sub-set of the operation plan for every mission. Preparation

of 'ready use risk communication templates' for possible crises will come in handy for handling actual emergencies where 'time' and 'timing' are of essence.

- Media organisation of the armed forces should have the technical expertise and 'state of the art' equipment to facilitate provision and production of cross platform content. Inability to create content, which can be simultaneously shared on all platforms, severely restricts reach and accessibility.

- Formal media training for officers across the rank and file is a necessity. Visualisation of confident, well-groomed and well-spoken officers from the field (especially young officers) contributes significantly in appealing to audiences and bringing the true essence of armed forces into the living rooms of the public at large, or rather to the 'five screens,' viz. televisions, desktop computers, laptops, I-Pads and mobiles.

- Development of interesting, informative and appealing websites assist in enhancing visibility and attracting audiences, as opposed to content heavy, laborious, overtly busy, complex web pages with outdated or lack of updated information and posts. The 'quality' of websites and their web pages are reflective of the ethos, efficiency and effectiveness of an armed force.

- Media management and PR teams of armed forces must endeavour to measure effectiveness of the employment of communication and media strategy through number of hits/ views/ clicks, etc.

- Communication strategy of armed forces should always be a sub-set of, or in-sync with government narratives, to achieve maximum all-round benefit as well as further national interests.

- Exposure to 'strategic communication' for mid-level officers would facilitate in harnessing strength of the media and developing experience in this critical field of modern information warfare. The specialised field of communication and media management should also be considered for inclusion as a field of study as part of professional military education of an armed force.

- And finally, despite the overwhelming penetration and reach of social media, armed forces should continue to simultaneously harness the credentials and content credibility offered by traditional sources of media, viz. print, audio and television.

Conclusion

The world of media and communications is indeed a fascinating and intriguing one, and can be effectively leveraged to project, shape or influence targeted audiences with a comprehensive and cogent strategy. At the same time, mismanagement of media or an incoherent communication strategy can undermine credibility and reputations developed over years of perseverance and commitment, in a relatively miniscule moment, reverberating on both, the government and its armed forces. The armed forces, therefore, have no option but to adapt and imbibe tenets of modern communication in their work ethos, as well as engage media and manage communication to further organisational goals and objectives. They must ensure that their stories, intent and content are properly ‘comprehended’ and ‘understood’ by the intended audiences.



Cmde Nitin Kapoor was commissioned in the Executive Branch of the Indian Navy in January 1992. He is a post-graduate in Defence and Strategic Studies from the Defence Services Staff College, Wellington as well as in Political Science (Defence and Security Studies) from the National Defence College, Israel. He is presently appointed to the Naval War College, Goa as Directing Staff, since August 2020.

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5 Diplomatic, Information, Military & Economic.

OPTIMISING NAVAL FLEETS THROUGH MAINTENANCE MANAGEMENT USING AI AND BDA

Commander MSN Murthy and Commander Navdeep Manhas

Introduction

The Indian Navy (*IN*) has undergone a significant transformation over the years from a fledgling navy at independence, to its current avatar as a blue water navy. In order to meet India's national maritime security objectives, it is imperative that the *IN* continues to grow not only in scale, but also acquires superior technologies to maintain an edge over its adversaries. Accordingly, the *IN* has invested in state-of-the-art technologies towards achieving and maintaining optimal force levels required to undertake its envisaged roles, missions, objectives and tasks.

The maritime domain is intrinsically linked with national prosperity, and accretion of sea-borne assets is a significant aspect of maritime power. Operational health of sea borne assets is, therefore, one of the most significant aspects for achieving optimal asset availability, resulting in reliability and optimal performance of onboard equipment and machinery emerging as critical factors. The limited availability of *INS Vikrant* in the 1971 Indo-Pak War, due to a defective boiler, serves as a reminder about how equipment condition can impact operational readiness.¹

Lately, *IN* ships have been deployed far and wide, on 'Mission Based Deployments,' posing daunting maintenance challenges. Deployment and maintenance share a linear relationship, wherein deployment is the dependent variable. In the classical maintenance model, an increase in deployments necessitates a proportionate increase in maintenance schedules. However, the ratio of operational availability to maintenance periods can be improved by adopting methodology of 'Reliability Assessment,' a maintenance model that takes into consideration equipment history and present status to predict future performance, based on monitoring of parameters.

All by itself, 'Reliability Assessment' has limited functionality in the dynamic environment of a warship. But, when supported with Artificial Intelligence (AI), the outcome is extraordinary. The methodology has the

potential to keep onboard equipment, both machinery and weapon systems, in optimum condition whilst minimizing maintenance overheads, thus, substantially improving asset availability. Reliability Centred Maintenance (RCM) is a concept based on the ‘Reliability Assessment’ model, which can be further enhanced using AI and Big Data Analytics (BDA). This article discusses a concept of integrating these aspects to enhance reliability, while minimising maintenance.

***RCM can be enhanced
using AI and BDA***

Gaps in Current Life Cycle Management of Shipboard Equipment

The *IN*’s current maintenance strategy is based on Planned Preventive Maintenance (PPM). Condition Based Predictive Maintenance (CBPM) was envisaged to replace/ optimise PPM on a progressive basis. However, it has, more or less, been accepted as another supplementary methodology, in addition to PPM.

As per current practices, decision-making on shipboard equipment life cycle management, including induction, operation and maintenance, are largely human centric. This persists despite the rich and long experience of handling hi-tech equipment available with the *IN*’s maintenance support agencies. A consolidated database of curated and usable data, to aid and bring a level of AI enabled automation into the decision-making process, remains a capability gap. Such a database would require analysis and archiving, as per a common accepted protocol, and would form the core of the proposed concept. The requirement of an efficient and effective organisation using state-of-the-art technologies, including AI and BDA, for life cycle management of machinery and equipment of warships cannot be overemphasised. Some gaps in the current life cycle management of shipboard equipment are summarised as follows: -

- Limited onboard defect analysis capability.
- Manual recording of equipment parameters, leading to limitations in data analysis for predictive maintenance.
- Non-availability of real-time ship equipment data at shore based agencies for real-time analysis.
- Non-availability of quantifiable equipment reliability metrics, to aid operational decision-making processes.
- Non-availability of statistical analysis of a large amount of data for ascertaining optimal operating parameters, which could facilitate in

optimisation of endurance and costs.

- Traditional manual methods of failure detection and analysis, which are time consuming and inefficient as compared to methods employed in RCM.
- Continued dependency on Original Equipment Manufacturers (OEM) for formulating maintenance routines, despite the possibility of routines being inflated to serve vested interests.
- Reliance on a human centric approach for resolution of maintenance problems/ situations, rather than relying on statistical tools involving advanced computing.

Maintenance Optimisation - Industry Trends

Maintenance of shipboard engines and machinery is evolving rapidly, with communications and IT playing an increasingly significant role. Implementation of these new concepts is reducing maintenance costs for ship owners and vessel operators in the merchant marine, by extending lifecycles of machinery. Vessel operators and manufacturers can remotely monitor machinery condition, modify maintenance programs, and identify as well as predict potential failures. Examples of such technologies are General Electric's (GE) 'Predix-2' and 'Digital Twin' as shown in Fig 1, wherein gas turbines across the globe are monitored and analysed for continuous optimisation using AI.

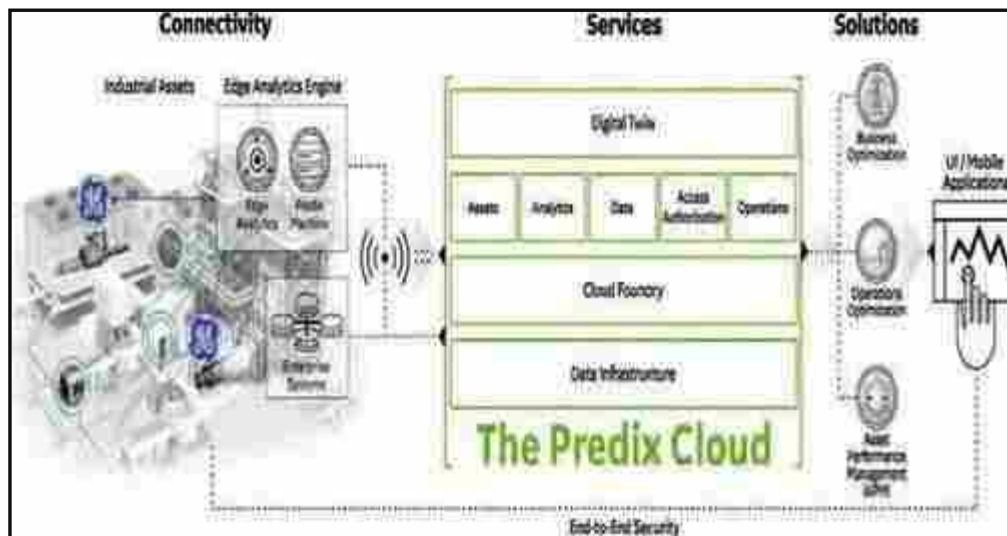


Fig 1: Operations and Maintenance Optimisation Model by GE³

AI is commonly used to help remote inspection and maintenance of difficult to reach places onboard ships, reduce risk to human life, cut costs, improve fuel efficiency of vessels by providing greater insights into ship performance, and support predictive maintenance, enabling early detection of equipment failures in real-time. 'Expert Insight' by M/s Wartsila is another example. Vessel maintenance is also being improved using 3D models of ships, known as 'Digital Twins.' Availability of AI tools has aided Research and Development (R&D). Optimisation of Gas Turbines has been done, wherein a variety of models and software tools have been developed for real time performance adaptation, with different levels of complexity, fidelity, accuracy and computer performance requirements. Numerical Propulsion System Simulation (NPSS), developed by NASA, is one such powerful gas turbine simulation tool with impressive capabilities.²

RCM determines the most effective maintenance approach

RCM

RCM is the process of determining the most effective maintenance approach to achieve desired reliability.⁴ The RCM philosophy employs PPM, CBPM, 'Real Time Monitoring' (RTM), 'Run-to-Failure' (RTF)/ 'Reactive Maintenance' and 'Proactive Maintenance' techniques in an integrated manner. The process increases the probability of achieving desired equipment performance over its designed life cycle, while minimizing maintenance.^{5,6}

Reliability and performance of each equipment onboard is quantified using reliability engineering and mathematical methods. Historical data of each equipment, which includes repairs/ maintenance, spares usage and performance characteristics of each sub-equipment/ component is utilized in quantifying reliability.^{7,8,9} Reliability Analysis can be extended from individual equipment to the parent system and, even further, to mathematically provide a quantifiable measure of reliability. Propulsion, power generation, communication, sub-surface warfare, etc., are some examples of equipment that could benefit from RCM. Theoretically, in future, the data can be further integrated to quantify the reliability of an entire warship or even a fleet. Enhancements in safety and pollution control could be additional benefits of RCM.¹⁰

AI-Significance in Maintenance Management

As is evident, reliability quantification would be highly dependent on the collected and processed equipment performance data.^{11,12} The accuracy of results would improve consistently with regular population of data. The RCM approach of quantifying reliability is impossible using manual methods, due to the need for multi-level integration and involvement of large amounts of data. With the advent of high computation power, time is ripe for implementing AI to provide a practical solution through establishment of an 'Integrated Maintenance Management Organization' (IMMO).¹³

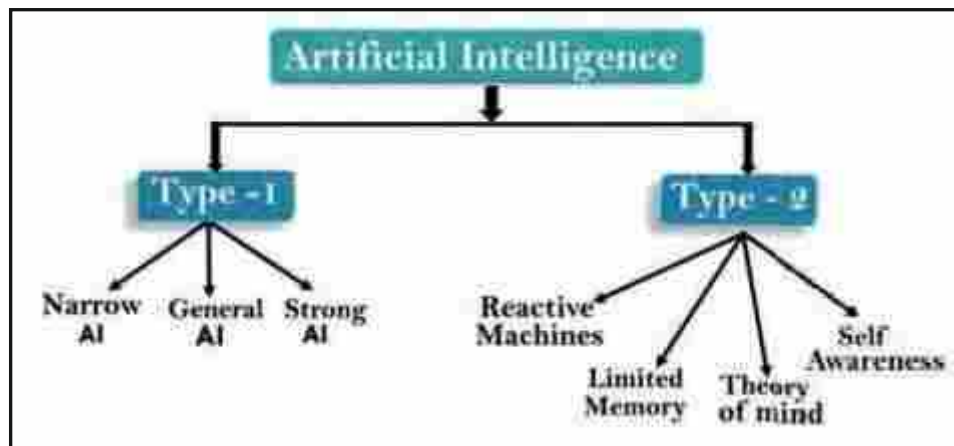


Fig 2: Types of AI¹⁴

Of the various types of AI (see Fig 2), narrow AI, which has reached an adequate level of technological maturity, is suitable for the proposed application. From the functionality perspective, reactive or limited memory concepts would be utilized to achieve the proposed solution along with BDA. BDA is a complex process of examining large amounts of data to uncover hidden patterns, correlations and parameter trends. The most common predictive techniques that use BDA are regression techniques to predict equipment failure, and machine learning techniques, which emulate humans learning by detecting patterns amongst variables that have, in the past, led to equipment failure. Challenges include data capturing, analysis, curation, search, sharing, storage, transfer, visualisation and information security.

IMMO

An 'IMMO,' which will be primarily based on AI applications, may be the way ahead to harness the benefits of RCM. Key aspects of the concept which could be considered for the *IN* are as follows: -

- **Data Collection.** Equipment performance data, like running parameters, process values, and recordings from each equipment would be consolidated at the ship's 'Integrated Platform Management System' (IPMS). The sampling rate of data can be adjusted to optimize and match available computational resources.
- **Data Transmission.** The collated data can be encrypted onboard and transmitted to a shore-based facility, hypothetically designated as 'Indian Navy Reliability Assessment Centre' (INRAC), using existing satellite communication networks or hired satellite bandwidth. The data would be decrypted at INRAC and added to the existing data base.

INRAC

INRAC would be equipped with state-of-the-art infrastructure comprising advanced computing hardware. The data received from ships would be analysed using automated algorithms, with minimal human intervention, to predict key performance deviation indicators aimed at quantification of reliability of each equipment, as well as overall functional capability of the ship. The data analysis would provide maintenance alerts based on time, as well as condition based predictive methods, using current and past data. Other spin-offs from INRAC could be:-

- **Data Assessment and Alerts.** Parameter deviations of equipment can be forwarded to concerned trial agencies, where decisions on remedial measures against impending failures/ breakdowns can be deliberated. The predictive maintenance alerts and decisions/ analysis can, thereafter, be communicated to ships for remedial measure implementation.
- **Database Sharing.** Equipment reliability assessment can be made available in real time at all operation centres, wherein assessment of the actual material state of a ship can become part of the decision-making process. Real time, or near real time data, in a segregated manner would be available to select stakeholders, like trial agencies and professional directorates. The data could also be used to take informed decisions on equipment-fit selection for future acquisitions.

- **Data for Posterity.** INRAC could also function as a data repository centre for the entire life cycle of an equipment. This data, with the help of AI, would cater for retention of institutional knowledge. Repository of such a database would be a prime asset for the IN as well as OEMs, for design optimisation.
- **Data Errors.** With data collation and assessment at shorter data sampling rates, incorrect data/ sensor errors can be picked up by an AI enabled system and the concerned entity can, thereafter, be alerted. Central collation of large amount of performance data would also aid in continuous improvement of reliability assessment results.

Operational Optimisation

The 'IMMO' concept links equipment condition assessment with operations and deployment. This link provides an ideal feedback loop amongst various agencies, through a realistic assessment of quantified equipment reliability metrics. Relative assessment of each capability aspect of the ship, from main propulsion, power generation, auxiliaries, weapons and sensors, etc., can be utilised to choose the 'most suited' platform available for a particular mission. Performance assessment can also be used to optimise varied functions, like the most optimal cruising speed of a ship, which could not only result in optimisation of fuel consumption, but could also enhance endurance and reach.

Way Ahead

A project on prototype implementation of the concept can be initiated on a small scale through a navy-industry partnership, including collaboration with a 'start-up.' The concept would involve quantification of reliability of a sample equipment, using tenets of reliability engineering and creation of a simulated set up of IMMO. The application of the concept could then be implemented on an IPMS ship. Evaluation of hardware and software requirements for implementation on a larger scale in the IN could then follow in due course, post successful technology demonstration.

Conclusion

The proposed concept is based on a 'maintenance-management organization,' which will cater to current requirements and capabilities of our rapidly growing Navy. Employment of cutting edge technology,

including BDA, AI and RCM methods, would optimize reliability while significantly reducing maintenance overheads and mean time between failures. Additional benefits that could accrue would be greater self-reliance, improved safety, and environmental protection.

Naval Equipment Reliability Analyser (NETRA) project, initiated by the Indian Naval Ship Maintenance Authority (INSMA), reiterates the significance and need to migrate towards RCM philosophy.¹⁵ However, for effectively utilizing RCM, implementation of the 'IMMO' concept is considered as the 'way ahead.' The proposed concept, using AI, BDA and RCM, could revolutionise maintenance management of *IN* ships by minimising maintenance and enhancing combat potential, through accurately predictable and quantified reliability.



Cdr MSN Murthy is an alumnus of the Naval College of Engineering and Naval War College, Goa, where he underwent the 25th Technical Management Course. He is an MTech in Thermal and Fluid Engineering from the Indian Institute of Technology (IIT), Mumbai, and is currently pursuing his PhD from the same Institute.

Cdr Navdeep Manhas is an alumnus of the National Defence Academy and Naval College of Engineering. He is an MTech in Marine Engineering from Defence Institute of Advanced Technology, Pune.

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DE-ITALICIZING ‘JUGAAD’: MAKING INNOVATION SUCCEED

Commodore Arun P Golaya

In 2017, the word ‘Jugaad’ officially made an entry into the Oxford English dictionary and was defined as “a flexible approach to problem solving that uses limited resources in an innovative way.”¹ This art of problem solving - using limited means but an innovative mindset - is increasingly gaining global recognition as a valid approach to innovation. Jugaad epitomises frugal ‘work-arounds,’ which can lead to outstanding results and is largely driven by the end-users themselves. The term was detailed in the Harvard Business Review Blog in 2010 and described as “a creative improvisation - within a framework of deep knowledge and experience.”²

The Indian Navy recently launched the Naval Innovation and Indigenisation Organisation (NIIO) in August 2020.³ The expectations from the organization are high. The Indian Navy’s foray into indigenisation in the 1960s - when a decision was taken to construct a frigate indigenously - reaped rich dividends, not only for the Navy but, indeed, at the national level. Hundreds of thousands of jobs today are a direct outcome of that decision over half a century ago. Therefore, this conscious effort by the Navy to inculcate innovation and target the ‘to fight’ component is obviously being closely watched.

Whether the fledgling organisation can deliver on the promise and sustain in the long term, or whether it will degenerate into a ‘self-licking ice cream cone,’ would largely depend upon how well we recognise our strengths and weaknesses.⁴ We need to put in place processes to build upon our strengths whilst managing to overcome the limitations. The biggest strength of the Indian Navy when it comes to innovations is, arguably, jugaad. Yet, it is a term that we ourselves are not comfortable with, and which is also sometimes perceived as having negative connotations.

When the presentation on the aims of the NIIO was being prepared, to brief the apex naval leadership during the Naval Commanders’ Conference, ‘promoting a culture of jugaad and grass-root innovation’ was listed as one of the aims. The word was initially placed in italics and eventually removed

as the presentation went through multiple rounds of review before being shown to the intended audience. Diffidence in recognising an Indian concept that has been our core strength need to be, similarly, overcome.

Jugaad needs to be de-italicized

Even if there are certain negative connotations to the word, the elements that suit us can be refined and put to use. The word itself needs to be accepted, not only in our lexicon, but also in our quest for innovation. Jugaad needs to be de-italicized!

The placement of the word in italics and its eventual removal from the NIIO presentation are, both, also indicative of what may, perhaps, be our biggest weakness - 'The Frozen Middle' (the term is used to describe the impediment to innovation by middle level management. The effects of the same in the Indian Naval context have been discussed in detail later). This article aims to take a look at our strengths and weaknesses, not only within the Navy but also at the larger national level, to make a case for unshackling the NIIO to permit it to work both, 'within' and 'outside' the system.

Understanding Jugaad - A Core Strength

Historically, the Indian Navy has used jugaad gainfully and many examples can be cited of how it has helped to give us an operational edge. Jugaad is not limited to technology alone and can indeed be in operational planning, and even execution. Towing the missile boats to launch the famous attack on Karachi harbour in the 1971 War was jugaad at its best.

To take another fine example of jugaad, we can study the placement of sonobuoys atop the masts of ships, which was undertaken during Op *Parakram* in 2002 when an India-Pakistan military standoff took place, after the terrorist attack by Pakistan raised terror groups on the Indian Parliament in New Delhi, on 13 December 2001. Since the problem this jugaad aimed to solve has since been removed through institutional mechanisms, the story can now be told. The Indian Armed Forces - including the Navy - field equipment from a number of countries. Interoperability and compatibility between equipment is, thus, often a challenge. During Op *Parakram*, the issue of incompatibility between the IFF (Identification Friend or Foe) of Russian and Western origin was a major constraint. A simple, yet effective, 'hack' was to place sonobuoys atop ships. Since the Russian origin Maritime Patrol Aircraft (MPA) could receive the position of the sonobuoys, they would be able to identify ships

so fitted as friendly! Other than the negligible cost of the sonobuoys (which are disposable as it is), all that this jugaad required was a power source to be plugged-in to keep the sonobuoys transmitting even when not in water. A seemingly insurmountable technical problem had been instantly solved, at virtually no cost, with results which could match the expectations of the users. This is creative thinking. This is jugaad!

US-based French innovation strategist of Indian origin, Navi Radjou, who popularised the term in the West and is one of the authors of the book *Jugaad Innovation: Think Frugal, Be Flexible, Generate Breakthrough Growth*, said in an interview, "Everyone says we need to produce more PhDs. We need the PhDs, but we need to also be comfortable with the MacGyver stuff. The term is based on the title character of a 1985 television series.⁵ Angus "Mac" MacGyver, the protagonist of the series, is often shown finding simple yet elegant solutions to problems using existing resources. The term "MacGyver" in colloquial American English lexicon is the equivalent of the Indian Jugaad."

Finding simple yet elegant solutions

As per Radjou, the three key weaknesses of the US innovation system are that it is expensive, elitist (only a few scientists innovate) and inflexible (taking very long to deliver).⁶ There is, nonetheless, little doubt that the US system has produced some outstanding results. Equally, there is little doubt that replicating the same in the Indian context may prove to be difficult - if not impossible - as the underlying factors that make the US system successful may be missing in the Indian context. Therefore when we debate whether a 'Defence Advanced Research Projects Agency (DARPA)-like' organization is feasible in India, we must first acknowledge that our R&D budget (to take just one factor) may never match up. It would, therefore, be prudent for us to look for a methodology more suited to our context. This could possibly include harnessing jugaad, which has been our strength - not only in the Navy but at the national level.

Jugaad as an approach to innovation need not imply concentrating only on low-level modifications or cutting-corners. Jugaad can equally effectively be utilized for big projects as well. Again, to take an example, Computational Research Laboratories (CRL), a subsidiary of the Tata group, developed *Eka* (meaning the number one in Sanskrit) in 2007, which was then the fourth fastest computer in the world. Using standard components, a novel near circular design for the computing core, off-the-

shelf servers, dual data rate fiber-optic technology and the Linux operating system, the supercomputer achieved the same result as the best in the business, but at a fraction of the cost.⁷ The jugaad did not end at the hardware itself, but was carried forward to the use that the computer was put to. CRL was one of the first organisations to offer superconducting as a service, with over 40 companies, including Boeing and Tata Motors, renting the capability.⁸

On the flip side, the word jugaad may also have the connotation of compromising on quality. Detractors of jugaad claim that, “It is an instinct

***Affordability and sustainability
are integral to Jugaad***

of someone living in scarcity and in a survival mode.”⁹ This is certainly true to an extent, but it is debatable if the

underlying themes behind jugaad (low cost, broad-based, result-oriented) are worth discarding on this basis alone. CK Prahalad (former Paul and Ruth McCracken Distinguished University Professor of Strategy at the University of Michigan’s Ross School of Business) and RA Mashelkar (former Director General of India’s Council of Scientific and Industrial Research) writing on the subject stated that they preferred the term ‘Gandhian Innovation’ to jugaad, since the latter may have negative connotations of compromising on quality.¹⁰ The twin traits of ‘affordability’ and ‘sustainability,’ which were valued by the Mahatama, are an integral part of the jugaad methodology.

Building on Our Strengths

Other than jugaad, there are some other factors that we can use to our benefit. These offer us an advantage and, coupled with our inherent innovative streak, can be game-changers in the years to come.

The changing nature of warfare itself may be an advantage for us. It is often said that India transitioned from the agricultural age to the information age without spending enough time in the industrial age. We never developed the requisite expertise in manufacturing to the level desired, to be able to produce state-of-the-art weapon systems. Even when we had the know-how as well as the know-why, we sometimes lacked the infrastructural base that was necessary to achieve the level of precision in manufacturing. Even Transfer of Technology (ToT), therefore, often remained only on paper. Limitations in our metallurgy (to take an example) just did not permit us to produce some systems. That is now changing to our

advantage. As the world discovers that the next wars will increasingly be fought with Artificial Intelligence, autonomous systems and in the cyber domain, the gap between us and the most advanced nations has suddenly narrowed. It is important that we do not let this become another missed opportunity.

Proliferation of technology, which is more accessible to all nations and not limited to a select elite club, is another factor that can be an advantage for India. Swarm drones can produce the same results

***Technology as an equaliser
is an advantage***

(or possibly even better) than could hitherto be produced only by high-end missiles. The technology is not only easier to develop indigenously, and customisable for specific user requirements, but is also relatively cheaper and has a much shorter development cycle. Technology as an equaliser is an advantage.

The involvement of 'end users' in innovation has been well established in the Indian Navy. The term 'users' is, however, difficult to define. As far as the industry or even the DRDO is concerned, any naval officer would be an 'end user.' The actual young officer or sailor specializing on a particular system would probably understand the 'pain-points' better than the more senior uniformed personnel at Naval or Command Headquarters. Whilst experience and seniority have no substitute, neither does 'hands-on' and 'current-on-the-job' experience. Fortunately, the Navy has had a culture of grass root level innovation. With the shift to the operator-maintainer concept and the emerging new breed of technologically aware operators, this advantage will only become more pronounced in the days to come. We need to put in place the correct systems to capitalise on this.

Next, we have the advantage of scale. Any innovation needs numbers to be commercially viable. Innovations undertaken in-house by the Navy, or even by the private sector companies in India, have a large market within the country. If the technology is dual-use and has civil applications as well, it is even better. This is a major advantage, but one that we have not yet fully capitalised on. The large market size itself provides scope of partnering with foreign firms with niche technology, who may prefer 'Make in India' not only for the lower manufacturing costs but also as a means to enter the huge market. This infusion of technology, even whilst not directly being innovation by itself, can nonetheless indirectly benefit us and help build the ecosystem that has been lacking.

Lastly, the early thrust on indigenisation by the previous generations of naval officers has created an ecosystem that is relatively well developed as compared to the sister services. Even after the shift away from the industrial age, highlighted above, some manufacturing capability would be required. The Navy has a clear advantage here, in the public as well as the private sector.

Limiting the Bottlenecks

The biggest bottleneck to in-house innovation in our context would possibly be the procedures, which are by design ‘risk-averse.’ Failure is inherent to innovation and no ‘High Powered Committee’ will put money in

***L1 bidder may not
be the ideal choice***

a risky proposition. The ‘L1’ bidder may not be the ideal choice when it comes to problem solving. Even the limited budget available for R&D can often not be optimally utilised due to procedural bottlenecks. This is a major limiting factor, which must be addressed on priority. The other major disadvantage, could be the ‘frozen middle.’ The term is often used in the context of corporate innovation, and is also increasingly being used by the US Department of Defence (DoD) to describe barriers to innovation.¹¹ This is not unique to the Indian Navy. The US Navy Chief of Naval Operation’s Rapid Innovation Cell (CRIC), for example, which was set up to fast track induction of technology in the Navy and also build a culture of innovation, was only partially successful, despite being steered at the very apex level. The ‘frozen middle’ was possibly to blame.¹²

In any organisation, the apex leadership would be keen on innovation as they desire the benefits that can accrue. The innovators themselves would be keen on innovation since the idea originated from them. Their ideas can often not ‘bubble up’ to the apex level due to the ‘frozen middle,’ who are often risk-averse and career oriented. Innovation carries an element of risk and is, therefore, not suited to the ‘staff process.’ This must be acknowledged and systematically mitigated for innovation to succeed.

The ‘middle,’ by definition, are the personnel who both give - and implement - orders. This would, of course, be true at any level in the officer cadre. The ‘middle’ may, therefore, be seen as the officers who can push through the actual implementation of a new idea or, conversely, nip it in the bud. In hierarchical organizations like the armed forces, this ‘middle’ is very often quite senior in rank. Again, this is not something unique to the

Indian Navy. In the US Naval context, for example, it has been opined that, “Without exception, those who have a tendency to resist innovation, and the power to do something about it, are the senior managers in the Navy. This group is the ‘frozen middle’ of the Navy. It is both the group that is most resistant to change, and also the group that is most needed to carry forward change.”¹³ This military bureaucracy

Military bureaucracy supports routine, repetitive, orderly action

is a strong proponent of routine, repetitive, orderly action, which goes against the very spirit of innovation.¹⁴ The frozen middle is used to giving (also taking and implementing) orders. Innovation, on the other hand, “is outside this capability. The order to innovate is likely to be ambiguous because what is being ordered is not some familiar, well-defined task, but something that has never been done before.”¹⁵

The three tiered structure envisaged for the NIIO will hopefully help overcome the problem of the ‘frozen middle.’ The only other option would be to identify key individuals within the ‘frozen middle’ who are not frozen. Such people can not only act as technology evangelists but also facilitators for innovation. They may not be innovators themselves, but can be useful enablers for the innovators. The nominated members of the NIIO (who will be individually selected regardless of rank) may be useful for fitting in this role.

Learning from History

NIIO is not the first organisation the Indian Navy is setting up with a focused aim. Many other organisations have been set up - including for innovation - and have shown good results, albeit to varying degrees. Weapons and Electronics Systems Engineering Establishment (WESEE) and Directorate of Network Centric Operations (DNCO) are two such examples that have delivered beyond expectations but which, possibly, also became victims of their own success as they evolved.

Some of the initial successes and the most outstanding achievements of WESEE - when it was set-up - centred on jugaad. The problem of interoperability between systems from disparate sources, for example, was solved by WESEE through initiatives such as the Modular Interface for Shipborne Systems (MISS) Box, which converted between inputs and outputs for various different systems within a ship. The Indian Navy’s official website, today, takes pride in stating that “WESEE is the first

defence service organisation to achieve CMMI Maturity Level 3 Rating for software development and maintenance projects. This has demonstrated our ability to deliver world class systems complying with international standards.”¹⁶ In our quest for complying with standards, did we also lose the inherent maverick streak which has served us so well? Is it desirable, or even feasible, to put ‘out-of-the-box’ thinking into a neat organizational box? There may be no easy answers.

Another organization that took birth from the culture of jugaad was the DNCO. The history of the Indian Navy records that, “the Navy’s yearning *Trigun changed the way the Indian Navy operated at sea* to graduate to network centricity spurred a band of young Indian naval officers to innovate through self-education and experimentation.”¹⁷ It further acknowledges that, “*Trigun* changed the way the Indian Navy operated at sea (*Trigun* was the name given to the Sensor Grid Application designed in-house by a team of naval officers at DNCO).” Given that the organisation had achieved success beyond what was imagined at the time of its creation, this should have been reason enough to nurture the innovative spirit of self-education and experimentation that led to the creation of DNCO. Did that really happen?

NIIO is another organization created with the aim of harnessing the innovative streak - or, to put it bluntly, the demonstrated ability of jugaad at the individual level. Whether it will sustain depends on how it is handled now and in the future. Institutionalising jugaad is good, but it comes with its own drawbacks.

We have to acknowledge, and guard against, what Williamson Murray commented on in the US context, “Courses on innovation, or offices of innovation, or even the creation of innovation specialties within the services will only draw individuals interested in a safe ‘career’ niche, rather than the driving, imaginative crusaders for innovation. If anything, such efforts to institutionalize innovation will inhibit rather than foster the process...The bureaucratization of innovation - particularly in the current framework of the US military - guarantees its death.”¹⁸

Conclusion

It must be accepted that whilst innovation is often enthusiastically discussed, and terms like Revolution in Military Affairs (RMA) are bandied about in militaries worldwide, they are “tradition-bound and rather

conservative with regard to (major) military innovations and are, therefore, not quick to adopt new technologies.”¹⁹ The initial attempts to introduce wireless communication into the US Navy (in 1899), which were resisted for over 15 years, amply show how a technology that is radical will be resisted, even when its benefits are - or at least ought to be - obvious.²⁰ On the other hand, it is also true that, “militaries that have failed to innovate have often suffered at the hands of competitors who have more effectively developed and employed new warfighting abilities.”²¹ We have to make a choice. The liberty of making a wrong choice may not be with us.

The NIIO has just been setup. It remains to be seen how the new organisation will develop. Keeping its focus on the aim identified and systematically removing the bottlenecks would be the key. We also need to build upon our strengths. The problems being faced and the changes required should be openly and honestly debated. It is time that these are handled upfront.

With apologies to Lewis Carroll,

*The time has come, the Walrus said,
To talk of many things:
Of innovation- and ships - and sealing-wax -
Of cabbages - and kings-
And, how the frozen middle must be dismantled -
And, whether Jugaad is such a bad thing!*



Cmde Arun P Golaya was commissioned in the Indian Navy in January 1992 and is a Navigation and Direction specialist. In addition to several frontline ships, he has held a number of appointments ashore including Joint Director Network Centric Operations and a tenure at the National Security Council Secretariat. He is currently in-charge of the newly created Technology Development Acceleration Cell (TDAC) responsible for spearheading naval innovation.

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ADHAR KUMAR CHATTERJI- THE ADMIRAL WHO SHED HIS VICE AND BUILT THE NAVY

Commodore Srikant B Kesnur

The sixth of August that just passed by marked the death anniversary of Admiral Adhar Kumar Chatterji, one of India's greatest sons and Indian Navy's revered icons. In true traditions of the silent service that is the Navy, Chatterji has remained largely unknown outside the domain of the white uniformed fraternity. The launch of the inaugural edition of the flagship journal, *Indian Naval Despatch* is an apt occasion to remember people like him who made trail blazing contributions to the navy and the nation.

AK Chatterji (or AKC, as he was often referred to) was the third Indian Chief of Naval Staff (CNS), assuming office in the rank of Vice Admiral on 04 March 1966. Halfway through his tenure, the Government took the decision to make the appointment of CNS tenable by a full four star Admiral, and bring him on par with the other two services. Consequently, on 01 March 1968, AKC became the first CNS in the rank of Admiral. Many newspapers then reported the event with the humorous headline "The Admiral Sheds his Vice," which, many years later, also became the title of an anecdotal biography of AKC.

What the papers did not report then, and what needs to be underscored, is that the Admiral who shed his Vice also built the Indian Navy, and can be considered to be the architect of its growth and development. While making due allowance for the fact that all such growth stories are about continuity, team work and multifaceted contributions of many, some people stand out for their vision, pioneering initiatives and ability to think far ahead of their times. AKC was one such. Thus, his promotion to Admiral was not a matter of pomp or protocol, and rather 01 March 1968 was the day of restructuring of the Indian Navy. It was the day when the Western Naval Command, the Eastern Naval Command, Southern Naval Area and the Western Fleet were all formed, and plans made for the formation of the Eastern Fleet, which took shape a couple of years later. These developments underlined that the fledgling Indian Navy, the smallest among the three services, had grown its wings and was now ready to take off. The year 1968 marks that point when

the Navy turned a decisive corner and propelled itself into a higher orbit. And, in many ways, AKC was the man responsible for this transformation.

Today, the Indian Navy is an internationally, highly regarded professional force with three dimensional capabilities. The 140 ship Navy of 2020 with an aircraft carrier and nuclear submarines in its arsenal, is a far cry from the Navy of 1947 that consisted of less than half a dozen sloops. The narrative of its growth has also seen other success stories, such as its

***AKC was responsible for
the IN's transformation***

achievements in indigenisation, wherein it pioneered making in India or its impressive world class niche capabilities in fields such as hydrography, underwater medicine, diving and ocean sailing, to name a few. More importantly, as 'matters maritime' become increasingly important in international affairs and India becomes an important player in the Indo-Pacific as well as a 'preferred security partner' in the Indian Ocean Region (IOR), the Navy is set to become a significant asset in our foreign policy and international cooperation matrix.

In some ways, much of this spectacular success owes to the seeds that were sown in 1968. At the dawn of independence in 1947-48, the Indian Navy had authored a 'Plans Paper' that was audacious in scope and envisaged a two fleet navy, with two aircraft carriers, two light cruisers, eight submarines and several blue water surface ships. The Government approved the planned force levels, albeit without any financial commitments. Given the situation over the next two decades on our land frontiers and other development imperatives of a newly independent nation, the Navy faced huge budgetary and other constraints. The sea remained a distant horizon for our political apex and the Navy grew at a snail's pace, despite the best efforts of its top leadership.

In March 1966, when VAdm AK Chatterji took over the reins of the Navy, the strategic situation was fraught with uncertainty. Britain had indicated its desire to withdraw west of Suez, the Cold War was in full swing, and USA and USSR were competing to extend their influence in the IOR. Indian politics was entering an era of uncertainty after the long tenure of Jawaharlal Nehru and the sudden demise of his successor Lal Bahadur Shastri. Within the Indian Navy, there was considerable disquiet about not being given an opportunity for action in the 1965 War with Pakistan. During the war, the lack of a submarine in the Indian Navy's inventory was acutely felt and this became a top national priority immediately after.

A year later, in October 1967, an Israeli Navy destroyer *Eilat* was sunk off Port Said, by missile attacks from small Egyptian missile boats. This was to change surface warfare forever, with surface to surface missiles launched from ships as a new potent weapon. Indian Navy and AKC were closely following all these developments as they chalked out the Navy's plans.

It is one of those great coincidences of history that Chatterji as a Commander had been the lead author of the aforementioned Plans Paper of 1948, as the first Director of Naval Plans and Intelligence, at the relatively young age of 32. Now he was in a position to be the principal architect and bring the grand design to fruition. He did

***Cdr Chatterji was lead author
of the Plans Paper of 1948***

so in splendid fashion. In November 1967, the Navy's fleet tanker, INS *Deepak*, was commissioned giving the Fleet much needed reach and mobility. Adm SM Nanda, who was the Flag Officer Commanding Indian Fleet (FOCIF) at that time and who succeeded AKC as Navy Chief, says in his book, *The Man Who Bombed Karachi*, that "with this development, ships got proficient in the process of underway replenishment at sea and were enabled to stay out for prolonged periods. The helicopter on board came in handy to deliver mail and essential stores at sea and often pitched in to evacuate patients whenever the aircraft carrier was not in company." Thus, fleet operations started taking a new hue.

In December 1967, India entered the submarine age with the commissioning of INS *Kalvari* in the erstwhile Soviet Union. The *Kalvari* reached Visakhapatnam in July 1968, and the submarine arm was formed. The Navy had now become truly three dimensional. October 1968 witnessed another momentous event - the launch of INS *Nilgiri*, the nation's first indigenous major warship. The keel of the second ship in this class, INS *Himgiri*, was laid a month later in November 1968. In quick succession, in December 1968, the Navy commissioned the submarine depot ship INS *Amba*, two anti-submarine frigates - the *Petyas*, and the second submarine INS *Khanderi*. The *Petyas* (three more joined before 1971) were to form the fulcrum of the Eastern Fleet in later years. The submarine and surface ship acquisition also saw the Navy turn away from its traditional supplier United Kingdom to the Soviet Union. It was a course alternation that would result in other acquisitions, new doctrines, Standard Operating Procedures (SOPs) and, verily, a new culture.

The decision to buy OSA class missile boats around the same time from the Soviet Union was amongst the most significant. Fondly named AK boats (after the initials of the CNS, AK Chatterji) by the service, they were to prove decisive in the 1971 War in setting 'Karachi ablaze' and forcing a quick resolution of the conflict. The Navy Day is celebrated every year on 04 December to commemorate that attack and, in the process, raise a silent toast to AKC for the foresight shown in acquiring these small but formidable ships.

In 1967, after a lot of discussion and tarrying, the Government approved the 'Ten year Defence Plan 1966-77,' which gave the Navy its impetus for expansion and modernisation. In the words of ***OSA missile boats set Karachi ablaze in 1971*** Adm Nanda, "the emphasis was on self-reliance, self-sufficiency and indigenisation." It needs emphasis that since its earliest days, the Indian Navy was a pioneer of 'Make in India' and *Atmanirbhar Bharat* (a self-reliant India), contributing not merely to its own growth, but also to the national technology ecosystem.

The decision to acquire a submarine rescue vessel and Sea King anti-submarine helicopters was also made in 1968, the latter fetching up just before the 1971 war. That year also saw two new maritime reconnaissance Alize aircraft, with modern sonobuoys, added to the Navy's inventory. A little later, in March 1969, the Navy's Alouette helicopter squadron was commissioned. The maritime soul of the nation, long dormant, was slowly being stirred into consciousness. The other momentous events and initiatives, in 1968 or thereabouts, included the launch of the Naval Dockyard in Visakhapatnam, which in turn made it possible for the Navy to establish the Eastern Fleet there, just before the onset of the 1971 War, and thereby realise our long held dream of a two fleet navy; the setting up of Naval Academy, then in temporary barracks in Kochi and which today is the pride of our nation at Ezhimala in Kerala; setting up of Boys Training Establishment for streamlining training of Sailors; expansion of Naval design organisation, which today boasts of outstanding indigenous ship designs; streamlining the officer cadre with rational promotion policies and unique personal numbers to all; creation of the rank of Master Chief Petty Officer to retain sailors with expertise, and introduction of trousers in white uniform, which is the standard outfit today.

It may, thus, be seen that the restructuring of the Navy on 01 March 1968 formed the template that lasts till today and provided the Indian Navy

with the framework to transform itself into a world class force. The visionary changes, made more than 50 years ago, bear the imprint of Admiral Chatterji and continue to serve the Navy well even today.

But what about the man himself? Surely, we ought to know more about someone who transformed the Service. AKC was born on 22 November 1914 in Dhaka (now in Bangladesh). He had his early education at the Ravenshaw Collegiate School, Cuttack, and after his matriculation in 1930, he passed the Intermediate Science Examination of Calcutta University from Brojo Mohan College, Barisal (now in Bangladesh). He was awarded a Government Scholarship for standing first in the Dhaka division. He, thereafter, joined the Physics (Honours) course at the Presidency College, Calcutta. Known to be very bright in

AKC was educated in Cuttack, Barisal and Calcutta

studies, he topped the Federal Public Service (FPSC, predecessor of UPSC) examination in 1933 for selection to the Royal Indian Marine (later Royal Indian Navy and, on 26 January 1950, the Indian Navy).

He was commissioned on 01 September 1935 and, after four years of afloat training, selected to specialise in Anti-Submarine Warfare (ASW). As the preface to his autobiography brings out, "British officers greatly appreciated the sharp intellect, grasp of naval warfare and leadership qualities in this young officer. On completion of the course in August 1940, his outstanding performance was recognised when he was immediately appointed as instructor in HMS *Osprey*, the ASW School of the United Kingdom (UK). It was indeed a rare honour for an Indian officer in pre-independence era." An interesting piece of trivia is that one of his 'students' for a week long ASW orientation course was then Capt Lord Louis Mountbatten. Mr Probir Roy, a corporate leader and son of the late Vice Adm MK Roy recalls that, "My father used to call him 'cent percent Chatterjee,' as he maxed all his courses in the UK."

His ASW expertise was brought to bear upon in his subsequent appointments on the sloop HMIS *Sutlej*, which undertook Atlantic and other convoys in a dense submarine environment, giving him experience of the War; as the first Officer-in-Charge of India's ASW School established at Castle Barracks (today's INS *Ange*) in Mumbai; and as the Staff Officer responsible for fitting ASW equipment on ships. In 1944-45, he assumed Command of fleet minesweeper HMIS *Kathiawar* and participated in the Burma campaign. His technical bent of mind made him a good choice to

head another institution, the Navy's Radar School HMIS *Chamak* in Karachi, before he was deputed to UK for his Staff Course in January 1947.

On his return to India, he was appointed as the Director of Naval Plans. Here, his colleagues were Lt YN Singh (regarded as the pioneer aviator of the Indian Navy) and Lt Cdr N Krishnan, who rose to the rank of VAdm and

***AKC's Plans Paper
became the model
for future Navy***

distinguished himself as a great combat leader. In his autobiography, *A Sailor's Story*, Krishnan regarded as one of the Navy's bright sparks, talks of the esteem and affection for AKC and says, "Adhar was an extrovert, supremely confident of himself. He had good reason to be so, because he had a brilliant brain backed by phenomenal memory. He could read pages from the seamanship manual and repeat them from memory that was word perfect."

AKC's brilliance is, in fact, a constant theme among officers of that generation. Adm JG Nadkarni, considered one of the Navy's most erudite officers said of him, "he was undoubtedly one of the finest officers of the Indian Navy. He was certainly the most intelligent." Talking of his Plans Paper, Nadkarni said, "The plan not only became a foundation on which all other plans were based, but became a model of how these papers should be prepared. The plan has never been bettered."

After this stint, AKC was appointed to the cruiser INS *Delhi* as her Executive Officer (Commander), and soon thereafter as the Commanding Officer (CO) and the first Indian to command a Capital Ship. From there, he did a two year stint as our Naval Adviser in London (a first again), before returning to command the INS *Delhi* for a second time. Interestingly, AKC's first tenure as CO *Delhi* was brief, from 01 June 1950 - 03 October 1950 - and he assumed command at Indonesia, where Pandit Nehru had proceeded, embarked onboard the *Delhi*. The second command tenure was from 01 April 1953 - 13 October 1954. At UK, he oversaw the training of several hundred cadets and junior officers on deputation to that country.

His subsequent tours of duty in the intervening years between 1953 and 1966 as Commodore-in-Charge, Bombay (COMBAY), participant at the Imperial College of Defence Studies (now RCDS), Deputy Chief of Naval Staff (DCNS), FOCIF and Commandant, National Defence College (NDC), further burnished his image of a tech savvy, highly professional, far sighted person who was also an extremely warm and affectionate human being. As Krishnan recollects, "working with him was always an

exhilarating experience.”

During his tenure as FOCIF, he laid high emphasis on the integration of the Indian Navy’s first aircraft carrier INS *Vikrant* with the Fleet, which had catapulted the Indian Navy to a select league of nations that possessed such capability. Former Flag Officer Commanding-in-Chief (FOC-in-C), Eastern Naval Command and scholar, VAdm PS Das, who was the Flag Lt to AKC as FOCIF recalls, “His memory was razor sharp and his knowledge of tactical publications unmatched. He was a Staff Officer’s nightmare one moment, but a caring person the next. It was my privilege to serve as his first Flag Lieutenant. He was a short, but very tall man.” Cmde KK Sanjana, CO *Mysore* when AKC was Fleet Cdr, adds, “AKC was undoubtedly one of our most distinguished officers of the time and had a reputation of being a highly professional Admiral.”

***Razor sharp memory and
unmatched tactical
publications knowledge***

In 1962, soon after the India-China conflict, he was entrusted with the task of recommending long term measures for the defence of Andaman and Nicobar (A&N) islands, the nation’s strategic outpost in the Far East. He embarked INS *Trishul* and undertook survey of the islands for 10 days. His report on the infrastructure and facilities to be created for the A&N islands was accepted in totality by the Government and became yet another blueprint of perspective nature, which was steadily progressed and materialised. He was also an active advocate of indigenous shipbuilding, and was associated with both, Garden Reach Shipbuilders & Engineers Limited, Kolkata, and Hindustan Shipyard Limited, Visakhapatnam, as a Director between 1958 and 1964.

Thus, when he became the Chief, there were huge expectations from him. It was not easy translating his ideas for the Navy in a system plagued by several constraints – continental mind-set, distractions on land borders, ill-informed criticism of the Navy’s defensive role in the 1965 War, reduced budget and competing demands on the polity. Rahul Roy-Chaudhury, brings out the problems in his introduction to AKC’s biography, “On the role of naval forces in the changing strategic environment, the Indian Navy and Government held opposing views.” Chatterji, thus had the onerous burden of advocating the Navy’s view, persuade them to implement the Navy’s expansion plan, and restore the fighting spirit of the force.

On some occasions AKC did court controversy, but with the good of

service and nation at heart. In the very first year of his tenure as CNS, he wrote a forceful article, "India and Seapower," in *The Hindu* newspaper, on 11 December 1966, arguing that, "the vacuum of maritime power by withdrawal of Britain west of Suez had implications for India's maritime security and advocated expansion of the Indian Navy to act as a moderating

Government rejected the need for a two fleet navy force in the vast (Indian Ocean) region." A little over a year later, on 04 March 1968, he claimed that, "Indian Navy would assume complete charge of Indian Ocean in the wake of Britain's military withdrawal from the area."

The government of the day disagreed with AKC and his assessment, rejected the notion of a power vacuum, dismissed the need for a two fleet navy and remained unsympathetic to his point of view. But, as has been pointed out by many, his advocacy needed to be seen in context of his being a strategist of repute and proponent of naval expansion, as rhetoric "to goad the government into some sort of action rather than as intent of policy." Furthermore, as Adm Vishnu Bhagwat brings out, the straightforward AKC implied that, "the vacuum would have to be filled albeit steadily." Another eminent academic, Prof GVC Naidu too terms the statement as "considerable exaggeration," but one that gave an indication of the Navy's vision.

But, if history is any judge, it would seem that AKC stands vindicated. The militarisation of IOR that he had alluded to came true, with several extra regional navies now operating here. Meanwhile, for us, the two fleet navy is now a reality and, as India moves to become the preferred security partner in IOR, with the Indian Navy as its most predominant vector in the maritime domain, one would have to admire the perspicacity of AKC. Most importantly though, the pieces slowly fell into place and as the plans got approved, despite the headwinds, the higher political and military apex started to see a role for the Navy 'beyond the defence of shores.' As brought out by Prof Naidu in his book, *Indian Navy and South East Asia*, a huge expansion took place in the Indian Navy between 1965 and 1971 in terms of both, manpower and hardware. This can be majorly attributed to AKCs indefatigable efforts at being both, planner and implementer. A small instance of this is how, after having inducted submarines in our inventory, he was able to negotiate special submarine pay for personnel of the submarine cadre in the teeth of some opposition from others in the Ministry.

Thus, it may be seen that AKC was blessed with several attributes. Apart from what has been brought out hitherto, his colleagues and juniors describe him variously as - “most mathematically minded,” “analytical bent of mind,” “progressive approach,” “ardent advocate of indigenisation,” “excellent manager of time,” “gifted with remarkable memory,” “supremely confident of his facts and figures and able to quote facts to second or third places after decimal,” “of mercurial temperament but he cooled down quickly,” “a very well-read person Well-read person who could speak at ease on any subject” “kind and considerate,” “easily approachable,” “universally popular,” “equipped with pithy sense of humour,” “great extrovert,” “full of hearty laughter,” “lover of technology,” “great eye for detail,” “devoted family man,” “loving husband and father” and similar such encomiums. This is rich praise indeed.

Socially, Adm and Mrs Chatterji endeared themselves to the naval fraternity through their kindness, simplicity and jovial nature. “*Cholo Madhobi*,” as the Admiral would urge Mrs Chatterji to take leave from a function, had become one of the pet phrases in the naval fraternity, reflective of the convivial atmosphere the couple created during their social interactions. One interesting episode that illustrates his friendly yet simultaneously combative nature, which resulted in another pioneering venture, is that Adm Chatterji as CNS, on learning about Army besting the Navy at a sailing competition, was upset and decided to form a Polo team to settle scores! Thus, was formed the Navy Polo team and, in due course, it did defeat the Army at the game. While he may have been conscious of his own brilliance, AKC was also encouraging of others views and perspectives. As Krishnan brings out, “Chatterji was a man of considerable strategic acumen and receptive to ideas both conventional and unconventional.” Adm Vishnu Bhagwat, a Chief known for his intellectual bent of mind, who was the Flag Lt to AKC when the latter was the Chief, brings out, “Despite their imposing personalities, officers like AKC and many Admirals of that generation were liberals and open minded professionals, and appreciated young officers and their strategic and tactical thinking.”

VAdm JS Bedi, former FOC-in-C, Western Naval Command, who spent many years associated with naval plans, gives a broad spectrum view of his legacy recollecting that, “we were Midshipmen on *Mysore* in July

1968, when he spent a few days at sea. Vishnu Bhagwat was his Flag Lt. AKC spent an evening in the Gun Room with us and that is when we heard about the likely induction of OSA boats and *Kalveri*. Much later, while in Plans, I had the good fortune to see some of his file notings. They were brilliant. The First Plans Paper has his hallmark on it. One of the greatest reasons for the planned and balanced growth of our Navy can be attributed to the steady and professional approach of the Plans Directorate. Each incumbent there has refused to see the Navy through any coloured glasses and has assiduously pursued the balanced growth of our Navy and its facilities within the meagre resources.”

**He was a very big votary
for nuclear submarines**

AKC retired on 01 March 1970, at the relatively young age of 55. However, he led an active post retirement life. He wrote and commented on matters of national security in many articles for various journals and newspapers. He also joined the Birla Institute of Scientific Research and Birla Economic Research Foundation as Adviser. He authored four books on maritime issues - *Indian Navy's Submarine Arm* (1982), *Naval Aviation - a World History* (1985), *Monsoons, Cyclones and Floods* (1992) and *The Oceans* (1992). Nadkarni described the naval aviation book as “a textbook on the subject,” while Asha Rani Mathur, the well-known TV anchor, who is also a writer and editor said of his books that, “she was impressed by the logical presentation and flow of matter and the text’s concise explanations.” Always ahead of his times, he was also a big votary for India to acquire nuclear submarines and actively lobbied for them.

Illustrating his versatility, post retirement, he also became a gourmet cook bringing his perfectionist attitude to make a range of marmalades, jams, jellies, pickles, sauces, kebabs, *biryani*, *Sandesh*, other Bengali sweets and numerous other dishes. He also was a keen photographer, inveterate traveller and lover of nature and he indulged in these passions with gusto. VAdm MP Awati, a navy legend himself, described AKC as “a giant of a man, most bright and with an endearing Bengali accent.”

AKC will be remembered above all and most fondly for his Plans Paper at the dawn of independence, and for his stewardship of the Navy at a crucial juncture in the 1960s. As VAdm Krishnan sagely reminds us, “although such exercises as planning come naturally to us in the present day, at that period of time we were venturing forth into uncharted waters. And yet, they were able to bring out an ambitious document, led by AKC,

because we were clear in our minds that the Indian Ocean was no longer a British lake... India occupied a position of strategic pre-eminence in the vast ocean of her name. The use of this ocean without let or hindrance was vital not only to our economy but our every existence as a free country.”

As Cmde AP Golaya brings out, on a range of issues as diverse as importance of maritime trade, exploitation of oceans for economic reasons (today often used in context of Blue Economy), maritime diplomacy, use of satellites for oceanic surveillance and meteorological and hydrological ocean phenomenon, AKC could gaze far into the future and predict their possible impact.

AKC passed away on 06 August 2001. His foresight, vision, intellectual depth, range of interests, planning ability and steadfastness in the face of challenges, mark him out as truly one of the great Indians and maritime heroes. However, he was more than that. Beyond a mere listing of his many attributes and achievements, is the acknowledgement that he was the architect of the modern Indian Navy. A true ‘renaissance man’ with eclectic interests and passions, he would in the opinion of this author, occupy the same place as Homi Bhabha, Vikram Sarabhai, Satish Dhawan, MS Swaminathan as a leader par excellence, pioneer and builder of modern India. Let us doff our caps in tribute to AKC.



Cmde Srikant B Kesnur was commissioned in July 1986 and has had extensive experience afloat, ashore and in training. A PhD from University of Mumbai, he holds five post graduate degrees. He is presently the Director Maritime Warfare Centre, Mumbai and Officer-in- Charge, Naval History Project.

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ADMIRAL AB CUNNINGHAM- BRITAIN'S FORTUNE IN WW II

Commodore G Prakash, NM (Retd)

Countries have to often wage war in circumstances beyond their control. At that time, they are forced to fight with what they have at hand. Invaluable in such times, are senior leaders who are capable of pressing home the offensive in the face of heavy odds. Britain was lucky to have someone like that in World War II (WW II). Here is a brief account of that person, Admiral Andrew Browne Cunningham, known as ABC. This diminutive man was a giant, as a fighter. Naturally, he is second only to Nelson as a war hero for Britain. And mind you, he was no perfect man.

Extreme Higher Leadership

The Mediterranean was an important theatre for the Allies in WW II. They had to keep their Sea Lines of Communications (SLOCs) open, maintain their forces and disrupt enemy forces in North Africa, and defeat the Italian Navy. However, ABC, the Commander-in-Chief (C-in-C) of Britain's Mediterranean Fleet, had very few resources and little hope of reinforcements. Most scarce was shore based air support and capital ships.¹ But, the British were lucky. In ABC, they had a commander who was worth an entire army.²

From 05 June 1939, when he arrived in Alexandria as C-in-C, ABC kept up a relentless offensive. With victories at the battles of Taranto (November 1940) and Cape Matapan (March 1941), he defeated the Italian Navy.^{3,4} However, the Battle of Crete, which started on 20 May 1941, went terribly wrong and 32,000 British troops had to be evacuated to safety.⁵ ABC threw every ship he had at his disposal for the rescue. Time was very short, and the danger very high. In the absence of any useful air power of their own, the fleeing Allied forces were being hunted down by the German Air Force at will. Massive hits were being taken.

It was in these circumstances that ABC visited HMS *Calcutta* on 30 May 1941, as she limped into Alexandria harbour from Crete. In the previous days, the *Calcutta* had been in the thick of action, absorbing death

and destruction, and watching ships going down around them. But, as the relentless operation continued, the *Calcutta* continued to brave the enemy, and provide anti-air protection to evacuation forces plying between Alexandria and Crete. For ABC, HMS *Calcutta* was not just another ship. He had been her Commanding Officer (CO) from 1926 to 1928. Only those who have commanded warships would know the paternal love for their ships that Captains carry to their grave.

Capt Dennis M Lees, the CO, spoke his heart and ABC listened carefully. Knowing ABC well, Capt Lees made a fervent plea against any

***Saw the Army, Navy and the
Air Force as a single entity***

further trip to Crete for more evacuation. But ABC had a duty to perform. He had great respect for the Army, and wouldn't spare any effort to help them. He also didn't see the Army, Navy and the Air Force as different entities. He saw them as one combined power that could win the war for his country and her allies. As Capt Lees feared, ABC ordered the *Calcutta* back to Crete. The ship sank the next day, about 100 nm north of Alexandria, resulting in the loss of about 150 crew.⁶ ABC was in tears, as he met the 250 survivors brought back the next day.

This disaster only further hardened ABC. He persisted with his offensive despite serious losses of ships and men. When General Wavell, C-in-C Middle East told him that he had done enough and that he didn't have to risk ships and men the way he was doing, he told him that, "the Navy had never yet failed the Army in such a situation, and was not going to do so now, (and that) he was going in again that night with everything he had, which would float." He also warned his staff against any thought of giving up, saying, "you can build a new ship in three years but you can't rebuild a reputation in less than three hundred years."⁷ Such is extreme higher leadership in war.

ABC - The Genesis

How did someone like ABC happen to the British Navy? Was it a fluke? By the time he joined HMS *Britannia* as a Cadet in 1897, at the age of 14, the Royal Navy (RN) was in the thick of the deterioration they had suffered in their warfighting skills in the nine decades since the Battle of Trafalgar, during which time they had no major battle experience. As a Midshipman, he gained operational experience as a part of the Naval Brigade fighting on land, alongside the Army in the Boer War.⁸ There he met young Lt Walter

Cowan, ADC to Lord Kitchener, the Commander of the British Forces in South Africa.⁹ Cowan, 12 years older than ABC, took an immediate liking for the Midshipman. They shared a great passion for offensive action and were, both, destined to be legendary warriors. While ABC would rise to the rank of Admiral of the Fleet and become Britain's star in WW II, Cowan would retire as an Admiral in 1931 and then, incredibly, accept the rank of Cdr at the age of 70 to fight in WW II as a commando for two years.¹⁰

***ABC had a long association
with Destroyers***

From the time he was a SLt, ABC disliked big ships.¹¹ On these ships, junior officers never got individual responsibility and were just minions. So he sought appointment on smaller ships and luckily got them. His appointment as Executive Officer (XO) HMS *Locust*, a 20 m long, 300 ton Torpedo Boat Destroyer in September 1903, turned out to be the beginning of a long association with Destroyers. On this ship, he had scope for initiative, opportunity to refine his seamanship, and a chance to shape a weapon system that was rapidly evolving. He has written about the excitement he got from bold and dangerous operations off the Greek coast, which had plenty of team work, action and opportunity to take instant decisions. He also loved his Captain, a virtual slave driver.

Promoted to Lt in 1904, he took a huge gamble. He opted not to undergo a specialization course. This was unthinkable in those days for an Executive branch officer. People were vying to get selected for Long Gunnery, Navigation and Direction or Communication courses. As a 'salt horse' in the Navy of 1904, he was aware, that he would have to display outstanding qualities as a Commanding Officer to merit promotions. But, this was exactly what he knew he could do. However, luck was not on his side for some time, and he spent the next four years on several big ships.

In 1908, at the age of 25, he got his first Command, a 270 ton Torpedo Boat.¹² This was followed by the command of HMS *Vulture*, HMS *Roebuck* and finally HMS *Scorpion*, a 945 ton ship, which he was to command for seven years. This long shot at command was rare luck. ABC was also lucky to serve under superiors who were of the same offensive bent of mind like him. He also ended up serving in only one theatre, i.e. the Mediterranean, of which he developed deep knowledge. This was to stand him in good stead in the future as C-in-C Mediterranean. It also had its pitfalls.

WWI

World War I (WW I) gave ABC adequate offensive action. Owing to limited forces available in the Mediterranean, the flotilla of small ships had to do more than their fair share, including Mine Counter Measures (MCM), Naval Gunfire Support (NGFS) and escort of High Value Units (HVUs) in support of the Gallipoli campaign, for which he earned a Distinguished Service Order (DSO). Subsequently, he was also awarded a bar to his DSO. In 1912, he became a Lt Cdr and, on 30 June 1915, got accelerated promotion to the rank of Cdr.

Gallipoli debacle gave him lasting lessons for life

The Gallipoli debacle suffered by the allies, of which he had personal experience, gave him lasting lessons for life. He learnt how to perform tasks unanticipated in peacetime, how to remain resolute under fire, how to improvise in action, and the need for inter-service cooperation. He also gained a deep love for the Army, whose raw fighting he would have loved to emulate. His competence in offensive action also impressed Adm Roger Keyes, C-in-C Mediterranean, a future Admiral of the Fleet. The admiration was mutual, as Keyes too was known for utter fearlessness. He also gained a reputation for stern discipline, high efficiency, adaptability, and a way with keeping warfare simple and straight. But, he was not a peoples' man and was almost feared.

Between the World Wars

ABC's fortunes steadily rose between WW I and WW II. One key reason was his lucky opportunity to command HMS *Seafire*, a Destroyer, in a flotilla under his old friend, Walter Cowan, who was now an Admiral.¹³ Cowan had become famous for his remark that, "he was disappointed that WW I had ended."¹⁴ Such words were music to ABC's ears. Cowan expected high standards of alertness and responsibility from his subordinates. He also told his Captains to constantly watch for officers who shine in emergencies and do well in difficult situations. He also wished that such officers be brought to the notice of the Admiralty, and that every effort be made to ensure their advancement in service. ABC easily fitted this description and Cowan's reports are perceived to have been influential in his becoming a Flag Officer. He was promoted much ahead of his peers to Capt in 1920, at the age of 37.¹⁵

Post WW I, as the Navy was downsizing and officers were being laid

off, ABC was retained, having been identified as a future leader by the Admiralty. He had displayed sustained war fighting skills and courage under real fire to merit deep selection. There could be another reason. Jolted by the setbacks of WW I in general, and the Jutland debacle in particular, RN was seeing a wave of operational reform. Aiding this, was the fact that two-thirds of the 20 years between the two World Wars saw Admirals Beatty and Chatfield, both lovers of offensive action and reform, becoming the First Sea Lord.¹⁶ They would have loved a record like ABC's.

So, ABC got more command appointments. Command of a Destroyer Flotilla and later, HMS *Lochinvar*, a Destroyer Base. From 1926 to 1928, he became the Flag Captain and Chief Staff Officer to Admiral Cowan in the North America and West Indies Squadron. In 1928, ABC attended the Army Senior Officers' School at Sheerness, where he learnt important aspects of land campaigns, which made him appreciate the Army even more.¹⁷ After this, he also attended the Imperial Defence College (IDC). ABC became a RAdm in September 1932, at the age of 49. After attending the Senior Officers' Technical and Tactical courses, he was appointed as RAdm Destroyers, Mediterranean Fleet. From his flag ship, he directed three, nine-ship flotillas. He used this time to practice fleet handling, for which he was to receive much praise in WW II. There were also fleet exercises in the Atlantic Ocean, in which he learnt the skills and value of night action that he would use to great effect in the future.¹⁸

*Appointed as Rear Admiral
Destroyers, Mediterranean
Fleet*

WWII

ABC took over as C-in-C Mediterranean just before the start of WW II.¹⁹ He was energetic and aggressive as ever. His superiors assessed him as being capable of sizing up situations immediately, and taking lightning fast decisions without doubt or second thoughts. It was no wonder that, in later years, General Dwight D Eisenhower wrote in his diary, "Admiral Sir Andrew Browne Cunningham remains in my opinion at the top of my subordinates in absolute selflessness, energy, devotion to duty, knowledge of his task, and in understanding of the requirements of allied operations. My opinions as to his superior qualifications have never wavered for a second."²⁰ His orders were simple, direct and coherent. However, several serious tactical blunders that were committed in the Mediterranean, which

led to great losses of men and units, can also be attributed to ABC's lightning fast decisions and his refusal to change his opinion.

Mediterranean was not the primary theatre for the Admiralty. For them, it was the Atlantic. Italy's loyalties being unknown, the situation was not clear. But, with Churchill taking over as the First Lord in September 1939, the focus shifted to the Mediterranean. However, within weeks of

***ABC kept up pressure on
the Admiralty for resources***

taking over command, ABC found that his big ships were taken away and he was left with just one Destroyer Flotilla. Further, the main British base at Malta had no useful Air Defence. ABC kept up relentless pressure on the Admiralty for resources, without avail.²¹ Shortly before Italy declared war, on 10 June 1940, ABC's Fleet moved into a commercial harbour at Alexandria without any preparation for this deployment. As the Theatre Commander, he didn't even have a proper base. In May 1940, Churchill became the Prime Minister and started interfering in operations, by demanding all kinds of support to furthering his land war plans in Europe and North Africa. But ABC, who understood his real tasks and limitations, ignored Churchill's orders and conducted operations the way he thought were right. He, of course, enjoyed the confidence and support of his own Chief, Adm Dudley Pound, under whom he had served earlier.

In three years, ABC defeated the Italian Navy and kept the Mediterranean under Allied control. So much was the effect of ABC's feared fighting paradigm, of striking at everything, anywhere, all the time, that his departure after handing over command of the Mediterranean Fleet was not announced, to avoid raising enemy morale. ABC went on to perform many more important military tasks for Britain and her allies till his retirement as the Naval Chief in 1946, as an Admiral of the Fleet. What is there to learn from ABC today?

Offensive

At the level of tactics, there is his sustained display of relentless offense, regardless of the balance of forces. His willingness to try something new, like the first ever night engagement (Cape Matapan), and the first ever all aircraft attack (Taranto), displayed a character trait of trying anything to succeed. By relentlessly attacking even the smallest enemy craft, he constantly conveyed his total commitment to complete annihilation, which

won him admiration even from the enemy. In his memoirs he also mentions watching German *Stukas* with admiration as they made daring dive bombing runs on his own Carrier, putting her out of action.²² The fighter in him enjoyed a good performance, wherever it came from.

Ability to Maximise Advantages

ABC was also fortunate in several ways. He stayed mostly in one theatre, which went against the conventional wisdom of affording future Senior Officers an all-round exposure. How would he have fared had he operated in the Atlantic or in the Pacific later? It appears *He happened to be in the right place at the right time* that he just happened to be in the right place at the right time, by sheer providence, and initially a bit of manoeuvring of career by him. But, this turned out to be beneficial for Britain. He was also fighting Italy, the weakest of the Axis powers in WW II. The Italians had an inefficient command system, poor communications, inadequate air power, no experience in night fighting, no radar, a dogmatic belief in the concept of Fleet-in-Being, which kept the Fleet in harbour for long, and a cipher that had been broken by the British. However, down history, many leaders have squandered such advantages too.

Building Personal Invincibility

At a higher level, it is interesting to see as to how, when on two occasions, he caused exit of his most critically required Aircraft Carriers from the theatre of operations, both times due to his personal folly; for which he was spared. Numerous people had paid for lesser failures with their jobs. How did ABC escape? Was his persona too intimidating for strong men like Churchill to rather let him make serious mistakes than face the public's ire for running down a man who had been made a hero through publicity? Britain needed heroes badly, and ABC was one sure candidate to be projected. Perhaps Britain wanted this man, who could deliver a good punch with inadequate resources.

Jointness

His belief in jointness stemmed from the respect he developed for the Army, after watching them in South Africa and during WW I. Later, the Battle of Toronto taught him to love aviation. A useful lesson here is the

importance of bleeding together to develop bonds.

Negotiation Skills

Senior military leaders often need to negotiate with top echelons from other services, industry, government, foreign allies, and even adversaries. The skills required are both, inborn as well as developed. Many successes of ABC are excellent material for study. At the core of his negotiation skills lay his simplicity, which made man-to-man communication simple. Added to this was his war record, which gave him professional respectability. However, it is most likely that his emotions, when he saw that adversaries did not see things the way he saw them, would easily show. This added a bit of intimidation too, into his tools for negotiation. Running confrontations with several high profile people, including Churchill, reveal ABC's obstinacy, which could not have been useful in negotiations. His negotiation skills were tempered only by the natural mellowing that came with age, and his personal experience of seeing much death and destruction. Luckily, it all turned out the way Britain wanted. ABC was just what the doctor ordered in the circumstances, and his evolution was natural.

Epilogue

War needs fighters at every level. No amount of technology or (unproven) notions about the nature of future wars can take away the need for fighters, at all levels. Ecosystems that spot those with the right skills, and nurture them, will do themselves great service. For, war can come without warning. Why doesn't ABC find a mention in our curricula or in discussions on naval strategy? With his known hate for theory, and relative disdain for high academic skills or technical knowledge, he wouldn't have endeared himself to the thinkers or technology buffs from his time. He abhorred silly details or useless information. His strength, raw, unrestricted fighting, belonged to a genre that could not easily be theorized. Is it right to assume that there is not much to learn from ABC, 'now that warfare and strategic thought has moved on'? Only another good fight will tell.



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Naval War College
INS Mandovi, Verem, Goa - 403109
Email: Indes-nwc@navy.gov.in