

Second Sapru House Lecture

by

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on

‘China’s Maritime Challenge in the 21st Century’

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I must start by confessing that Ambassador Bhatia's invitation took me by surprise on two counts. Firstly; that he should ask me to speak on a maritime related issue – something that is, normally, distant from the minds of landlocked Delhiites who are assumed by the Navy as suffering from “sea-blindness”. The more pleasant surprise came when I offered him the choice of two topics; India's maritime power and China's maritime challenge. His preference for the latter topic would surely have gladdened the heart of Master Sun Tzu, who had said:”...*if you know your enemies, you can win a hundred battles without a single loss.*”

One of the biggest challenges of statecraft is the accurate prediction of a nation's future intentions; and history is replete with instances where misperceptions of statesmen have led their countries to grief. In September 1938, British PM Neville Chamberlain loftily predicted, on return from Munich after his talks with Hitler; “*I believe it is peace for our time*”. Less than a year later, he was proved, not only a false-prophet, but utterly naïve, when Hitler remarked at the outbreak of war: “*Our enemies are little worms. I saw them at Munich.*”

Closer home, it was the egregious misreading of China's intent by our own political leadership which led to India's humiliating military defeat in 1962. Perhaps their idealism blinded them to the reality that nations conduct themselves in keeping with tenets of political realism; which postulate that states are obsessed with security, territorial expansion and acquisition of scarce resources. Realism also places national interest and security above ideology and morality; opposing power being the only restraining factor.

Opinion remains divided on the utility of history as an aid for crystal-gazing, but if we assume that historical tendencies are likely to prevail in the future, it would be prudent to take mental note of a theory which says that since the international system is more likely to remain stable when a single nation-state is the dominant power, it seeks a hegemon. Using historical precedents of the past 500 years, political scientist George Modelski posits that hegemonic dominance occurs in a series of long-cycles, each lasting 100-120 years, and is underpinned by naval power and economic dominance. According to him, the era of US dominance commenced declining in the 1970s.

China's leadership has ensured that the country's sustained increase in economic prosperity has been used for steadily boosting its military muscle, and enhancing capabilities in maritime, space and information warfare domains. Every nation is entitled to take the steps it considers necessary to safeguard its national interests but China's Communist regime, obsessed with secrecy, has offered no rationale, whatsoever, for its huge military expansion.

US Secretary of Defence Robert Gates summed up universal concerns about this lack of transparency, when he posed this question to the Chinese delegation at the Shangri-La Dialogue a few years ago: *"Since no nation threatens China, one must wonder: Why this growing investment in offensive systems; why these continuing large and expensive arms purchases?"* The response he received from a senior PLA general confused everyone in the audience even further.

The Trauma of 1962

Those of us who grew up in the 1950s would recall frequent references to "Panchsheel" and the non-aligned movement which regularly peppered headlines and radio news. We often saw photographs of smiling Premiers Jawaharlal Nehru and Chou En Lai in newsreels and papers; and the famous slogan: *"Hindi-Chini bhai-bhai"* was enthusiastically adopted by the Indian public in good faith. In 1950 China invaded the independent state of Tibet and incorporated it as an autonomous republic. When India tamely accepted Chinese suzerainty over Tibet in 1951, few realized that this would eliminate a huge buffer state, and bring China right to our northern doorstep; with deleterious consequences.

India's humiliating military defeat at China's hands in 1962, proved a historical watershed in many ways. For one, it shook the political leadership out of its complacent thought-process, which had assumed that the profession of non-violence and Panchsheel would render us immune to aggression. By Nehru's own admission: *"We were getting out of touch with reality in the modern world and living in an artificial atmosphere of our own making"*. For all his broad vision and statesmanship, Nehru had acquired a disdain for the armed forces which he considered superfluous as an instrument of state policy. In hindsight it is obvious that the Indian

leadership, which grossly misread the intentions of China's newly triumphant Communist regime in 1949, also ignored the few pragmatic voices which tried to raise an alarm.

India's home minister Sardar Patel's wrote a detailed letter in November 1950, on Tibet, to Pandit Nehru which contains this warning: "*The Chinese Government has tried to delude us by professions of peaceful intention....at a crucial period they managed to instill into our Ambassador a false sense of confidence in their so-called desire to settle the Tibetan problem by peaceful means; all the while, concentrating for an onslaught on Tibet.*"

The Ambassador that Patel refers to is Sardar KM Panikkar who served in Peking right after independence. Interestingly, Panikkar, in his book, "India and the Indian Ocean", written in 1945, had this remarkable prediction to make: "*That China does intend to embark on a policy of large-scale naval expansion is clear enough from the attitude of both the Nationalists and the Communist....the latter have demanded that the Japanese Navy should be handed over to them after the war.*"

We know that "*no prophet is honoured in his own country*", so it may be alright to have ignored Patel and Panikkar, but our ambivalence towards China is now 65 years old.

India's Ambivalence

Half a century after the traumatic events of 1962, there continues to be a lack of clarity, in India's political and diplomatic circles, about how we should frame policies, and shape our strategic stance towards the PRC. This ambivalence arises from an inability to interpret the geopolitical significance of China's actions and statements, in the light of her past, as well as our own, more recent, experiences.

Our diffidence towards the PRC is rooted, essentially, in a fear of the unknown; viz our profound ignorance about this huge neighbour. We have neither created a substantive pool of Mandarin speakers in the country, nor fostered many organizations dedicated to researching China's history, culture, economy, industry and strategic thought. Consequently our data banks

about Chinese capabilities remain sparse; and we tend to grope in the dark about the nuances of their statements and their long-term intentions.

With strange perversity, we have, for years, been spurning the huge window that a willing and cooperative Taiwan has been offering to us, into PRC. Under these circumstances, it is not surprising that our response to recent Chinese actions and utterances has been lacking, both in clarity and resolve.

Other concerned nations have certainly not been remiss on this account. The US Congress, for example, has mandated not only the Department of Defence to render an annual report, but also tasks its own Congressional Research Service to provide regular inputs on China's military power. In all the studies undertaken in the US, the issue that, currently, seems to draw the greatest attention is what scholars term as "China's turn to the sea"; more specifically its dramatic naval modernization.

China's Turn to the Sea

As far as India is concerned, the maritime dimension is a relatively new factor in the Sino-Indian strategic equation. The rapid growth of both economies has led to increasing reliance on energy and raw materials, sourced from all over the world, and transported by sea. This has focused sharp attention on the criticality, for both economies, of uninterrupted use of the sea- lanes for trade and energy transportation. With improving technology, the seabed is seen, increasingly, as a potential cornucopia of energy and mineral wealth; thus creating bones of territorial contention in exclusive economic zones.

We, in India, without adequately analyzing the phenomenon of China's growing naval power, ourselves, have generally accepted the line adopted by American researchers, including the somewhat superficial phrase; "the string of pearls strategy". While the focus of US analysts is on the challenge that China will pose to US naval mastery over the Indo-Pacific, we need to look past, both the American hyperbole, as well as the sugar-coating by the Indian establishment, and focus realistically on China's maritime challenge to our interests in the years ahead.

As two of the world's largest geographic, demographic and military entities, each in quest of scarce resources to fuel its growing economy and meet the aspirations of its people, China and India are going to make uneasy neighbours. For the two nuclear-armed nations to rise, almost simultaneously, in such close proximity without conflict will require either adroit diplomacy or a miracle; perhaps both.

Before actually embarking on an exploration of China's maritime challenge, one needs to spend some time in gathering the different strands of this country's cultural and historical background which will help explain the evolution of Sino-Indian relationship, and our perceptions relating to each other. So do bear with me for a little while.

The Evolution of Sino-Indian Relations

When India's non-violent struggle for independence concluded in 1947, China had been engulfed in bloody conflict for nearly four decades, during which it had shaken off imperial rule, faced a bloody civil war and a brutal Japanese occupation; and participated in WW II. Finally in 1949 the Communists, having defeated the Nationalists of the Kuomintang Party, drove them into the island of Taiwan. While India chose the path of democracy, the victorious Communists imposed a ruthless totalitarian regime on mainland China.

The Western powers refused to recognize the PRC and Taiwan was given a seat in the UN and in the Security Council. At this juncture, PM Nehru actively espoused the cause of the PRC in the hope that the two nations could form an Asian grand-alliance to fight colonialism. India was, thus, one of the few nations which advocated China's admission into the UN and UNSC, which eventually happened in 1971.

Looking back, it now seems clear that very soon after the end of the civil war, the senior Chinese Communist leadership had taken two crucial decisions; firstly, that China would become a nuclear power on par with the great powers; and, secondly, that it would brook no rival for leadership of Asia. The treacherous Chinese attack of October 1962, therefore, dealt not just a

physical blow at India's security, but also left our national psyche traumatized by the humiliation of military defeat: exactly the result desired by China.

As Henry Kissinger says in recent his book, *On China*; for Mao Tse Tung, it was a replay of the American experience in Korea; *"an underestimation of China by an adversary, flawed intelligence estimates, and grave errors in understanding how China reacts to perceived security threats."* Having assured himself through diplomatic channels that the USA would not interfere, in his Himalayan venture, and that, treaty partner, USSR might even back him, Mao assembled his CMC colleagues in early October 1962, and announced sarcastically: *"Since Nehru sticks his head out and insists on fighting us, for us not to fight would not be friendly enough. Courtesy demands reciprocity."*

Fifty years later, we seem to have come full circle; with China repeatedly and aggressively reiterating its claims on India's territory, and assuming postures which hark back to 1962. It is against this backdrop that Indians must retain absolute clarity about a number of issues which bear on emerging Sino-Indian relations.

Firstly; the competition between China and India in the economic and military spheres, no matter how asymmetric, makes it inevitable that the two will have to contend for the same strategic space in Asia. Our own efforts to put a soft gloss on this competition are belied by China's vociferous reiteration of its territorial claims and antagonistic stance in international fora.

Secondly; with Sino-Indian bilateral trade having crossed the US\$ 70 billion mark, China is our largest trading partner. But trade could become a Trojan horse if it lulls us into complacency. We must not forget that, historically, trade has never prevented nations from pursuing their national interest or even waging war.

Thirdly; China has made a conscious effort to encircle India, by providing military and economic aid to countries all round us. In this context, Gwadar, situated at the mouth of the

Persian Gulf and Hambantota on the south-eastern tip of Sri Lanka are the first two in a chain of strategic Indian Ocean ports that China is helping to develop.

At US\$ 100 billion, China's 2012 declared defence budget is more than three times our own, and next only to that of the US. An equal amount is known to be spent secretly on strategic forces and special projects. China's military expansion and modernization is marked by total opacity of purpose, and there is no sincere attempt on its part to rationalize the huge expenditure, or to reassure its neighbours.

And finally; there is no precedent for the manner in which China has indulged in nuclear and missile proliferation in our neighbourhood. It is known to have handed-over not just the designs and expertise, but also actual nuclear warheads and a whole family of ballistic as well as cruise missiles to Pakistan. By these actions, China has completely skewed the natural balance of power on the sub-continent and put India on the back-foot.

China's Strategic Thought-process

Before proceeding further, I would like to draw your attention, in passing, to two interesting aspects of the Chinese thinking; as much for their own significance as for the insight they give into Beijing's strategic thought-process.

First, is what they term as, Comprehensive National Power or CNP, which forms a unique tool for strategic assessment of the future security environment and prediction of relations among the major nations. Sun Tzu had warned that the outcome of war depends on the correct assessment of power through calculations and estimates of enemy strengths and weaknesses. So, in all likelihood, India is assessed, on a regular basis, by Chinese strategists against the CNP yardstick.

This evaluation of current and future strength requires the inclusion of factors, such as territory, natural resources, military force, economic power, social conditions, domestic government, foreign policy, and international influence. Chinese analysts have developed their

own extensive index systems and equations for assessing CNP. It is obvious that their analytical methods are neither traditional Marxist-Leninist dogma, nor Western social science but something unique to China.

As a matter of interest, on a scale of 100, the US is graded first at 90 points, China comes behind UK, Russia, France and Germany at sixth with 60 points, and India finds tenth place with 50 points.

A second small window into the Chinese mind is provided in Kissinger's book when he reflects on the contrast between chess and the traditional Chinese game of *Wei qui*. Whereas chess, played with 32 pieces, is about manoeuvre, direct attack and total victory by checkmate, *Wei qui*, is played with 180 pieces, and is about a protracted campaign, seeking relative advantage through occupation of vacant spaces and strategic encirclement of the adversary. In sum, whereas most nations pursue war through direct conflict, the Chinese way is to wear down the opponent and gain psychological advantage. The 1962 war, according to Kissinger, was an exercise of *wei qui* in the Himalayas.

China's Past

A comprehension of the motivations and rationale that have underpinned China's rise is a prerequisite to formulation of an effective response to this phenomenon. A brief glimpse into China's past throws up three dominant factors which provide us a possible insight into this nation's present postures.

Firstly; China has an imperial tradition going back many centuries, in which a well-defined heartland overwhelmingly populated by ethnic Hans, exercised military dominance over the surrounding peripheral states. Thus China has historically had a "great-power" self-image, underpinned by the abundance of resources, economic self-sufficiency and vastness of the imperial state and its population.

Secondly; in tandem with the cultivation of a “great power” persona, the Chinese people have also nurtured a deep seated “victim mentality” as a result of China’s defeat, subjugation and humiliation by foreign powers.

During the 19th century, China’s inability to resist Western military pressures led to the Opium Wars and signing of, what they called, the “Unequal Treaties” with USA, Russia, UK and other European powers. These treaties violated China’s sovereignty by granting trading, judicial and other extra-territorial rights on Chinese soil to foreigners. In 1900 China suffered the humiliation of an invasion by a coalition of Western powers to put down the Boxer rebellion. In 1937 Japan invaded China, and in the intense 8 year war that followed, China suffered at least 20 million casualties and many atrocities at the hands of the ruthless Imperial Japanese troops.

Thirdly; this “victim syndrome” has served to intensify a strong urge to emphasize foreign threats and justify the creation of a powerful Chinese nation which not only commands international deference, but can redress past wrongs.

Finally; maintenance of internal order and domestic well-being is considered the foundation of China’s national security. Given China’s history of internal turmoil, the Communist regime faces a number of challenges in this arena.

- Chairman Mao had believed that the country must be kept in a continuous state of revolution to achieve the goals of communism. To this end he organized two movements: the Great Leap Forward in 1958 and the Cultural Revolution in 1966, each lasting for a decade. Both of them caused great hardship and led to mass imprisonment and starvation deaths by the million. The legacy of deep divisions and discontent in Chinese society persists till today.
- The current Communist system, still repressive and corrupt, exists alongside a market economy; and the Chinese people often question the compatibility of the two. There is a growing demand for the political and social systems to change in consonance with the economy.

- There is enormous pressure on the present regime to sustain high levels of economic growth, in order to cope with a rising population, and sharp emerging economic disparities between the industrialized coastal provinces and the agrarian hinterland.
- Finally; ethnic tensions simmer just below the surface in non-Han majority areas like Tibet, Sinkiang, Mongolia, and Manchuria, incorporated into China in the last century. Frequent outbreaks of ethnic violence represent an additional source of insecurity for the state.

Against this backdrop, let us, finally, look at the PLA Navy's historic legacy.

PLA Navy's Legacy

The Chinese stake claim to an ancient maritime tradition, going back to the 1st millennium BCE, which gave rise to important navigational and shipbuilding innovations, and saw the opening of many trading routes to Asia and Africa. Early 15th century narratives, of the Ming Dynasty (1368-1644) describe Admiral Cheng Ho's remarkable fleet of huge junks, carrying troops, treasure, merchandise and victuals; which made seven epic voyages to India, the Middle East and Africa. This era of impressive Chinese naval power lasted a mere 30 years, as a combination of fiscal and political compulsions led the Ming Emperor to impose a ban on further voyages, and order destruction of Cheng's "treasure fleet."

Over the next few centuries, protracted threats from the north and west, ensured that China's naval power remained at low ebb and, therefore, incapable of repelling European imperialists who came by sea in the 18th and 19th centuries. China's inability to resist Western commercial and military pressures led to the Opium Wars and signing of the "Unequal Treaties" that I just mentioned.

On its official founding, in May 1950, the PLA Navy (PLAN) was equipped with warships and submarines supplied by the Soviets, who also helped establish training and maintenance infrastructure. The Sino-Soviet split of 1960, followed by the decade long Cultural Revolution were both major setbacks for the PLAN, and hindered its technological development.

It is noteworthy that well before the Sino-Soviet doctrinal falling-out of 1960; the Chinese leadership had ordered the systematic purloining of Soviet weapon technology on a massive scale. Once the break actually occurred, in mid-1960, the Chinese leadership proclaimed the general policy of self-reliance based on reproducing the Soviet technology. This was to be a reverse engineering project, termed *guochanhua* in Mandarin, mounted at the national level.

China's Maritime Perspective

China's early maritime outlook was shaped by the 2000 or so naval advisers positioned by USSR at staff, command and unit levels to disseminate Communist dogma along with Soviet naval doctrine. This doctrine emphasized coastal defence against amphibious assault by capitalist navies, using small craft and submarines to wage "guerrilla war" at sea. Even as the Soviet Navy underwent a dramatic change after the Cuban missile crisis, the PLAN clung to its coastal defence and peoples' war doctrines through the Cultural Revolution.

It was a combination of Deng Xiaoping's economic reforms, the induction of nuclear submarines and the appointment of General Liu Huaqing as PLA Navy commander, in 1982, that triggered the process of its transformation, from a relatively inconsequential coastal force, to a substantive blue-water navy. Liu, a graduate of the Voroshilov Naval Academy, had a strong technological background, and outlined a strategy for the PLAN which would give it all-round combat capabilities, including aircraft carriers and global reach by mid-21st century. The impressive force that we see, emerging, through a combination of indigenous construction, reverse engineering and import, is largely a result of Liu's vision.

A former army officer, Liu was very influential in the Central Military Commission and rose to be a senior Vice-Chairman. As such, he had the influence to push through his vision in

which the PLAN moved away from the “coastal defence” paradigm to “offshore defence” and then split the term “offshore” into different maritime zones to be brought under China’s influence in phases in three phases.

In Phase 1, to be attained by 2000; the PLAN was to establish itself in the area delineated by the “first island chain”, which is defined by a line running through the Kurile Islands, Japan, Taiwan, the Philippines, Borneo and the northern tip of Indonesia. Phase 2 of Liu’s strategy envisaged control of the “second island chain”, marked by a line running through Japan, 2000 miles south to the Mariannas and Carolines islands in the Central Pacific by the year 2020. The 3rd and final Phase envisaged the PLAN becoming a global force by 2050.

The non-attainment of Phase 1 weighs heavily on the consciousness of PLAN strategists, because the first island chain is seen as a geographical barrier obstructing China’s access to the high seas. In the Chinese perception it also constitutes a “blockade” which could enable interdiction of PLAN forces. In this context Taiwan is perceived as the single most critical asset which, if restored to the PRC, would break the constricting barrier and enable the creation of a major maritime base for offense and defence in the Pacific.

PLAN forces based in Taiwan could also control the waters of the 2nd island chain and pose a significant threat to US assets based in Guam. Till this objective is achieved, it is assumed that the PLAN will follow a strategy of sea denial designed to make waters around the homeland untenable for any opposing navy.

Till a few years ago, an underlying sense of insecurity could be sensed in the PLA establishment in the maritime context. This diffidence was apparent in the great reluctance exhibited by the PLA Navy to venture out of home waters or to participate in multi-national activities, including humanitarian assistance like the 2004 tsunami relief. However, all this seems to have changed with the dispatch, in December 2008, of a task force for an extended anti-piracy patrol to Somalian waters. Since then, there has been a continuous PLA Navy task force on station off the Horn of Africa. While the primary objective of these deployments has been to

protect merchant traffic passing through the Gulf of Aden against piracy, their success has boosted China's confidence and resolve to use maritime power to protect its overseas interests.

Contours of the PLA Navy

The PLAN's 21st century maritime strategy, calls for surface-ships, supported by nuclear submarines and naval aviation, in order to undertake the following broad missions:

- Protection of vital SLOCs running across the Indian and Pacific Oceans.
- Deterring and pre-empting any Taiwanese moves towards independence.
- Enforcement of Chinese territorial claims in waters of South and East China seas.
- Maintaining a credible underwater nuclear-deterrent against the USA, Russia and India.

The PLA Navy's maritime forces are allocated to three geographical commands designated North Sea Fleet with HQ at Qingdao, East Sea Fleet with HQ at Dinghai, and South Sea Fleet with HQ at Zhen Jiang. A Naval Air Force composed of strike, air defence, ASW, and MR aircraft operates from 25 air-bases divided between the three fleets.

In order to discharge its assigned roles and missions, the PLA Navy has embarked on an ambitious acquisition programme which is a mix of indigenous production and imported platforms. The current PLA Navy strength, in terms of major combatants is; 28 destroyers, 52 frigates, 65 submarines and 290 aircraft.

Some of the newer significant ships, submarines and aircraft are:

- Russian *Sovremennyi* class 8000 ton guided missile destroyers armed with the *Moskit* SSM and two *Kamov* helicopters.
- The 7000 ton *Luzhou* class air-defence destroyers, armed with the advanced Russian S-300 air defense missiles systems of 150 km range *Luyang* and *Jiankai* class multi-role guided missile frigates. These are all Chinese built and all have stealth features.

- Diesel-powered Russian-built Kilo class submarines armed with anti-ship as well as land-attack Klub missile.
- Chinese built *Song* and *Yuan* class diesel boats.

Currently, in the context of Taiwan, if faced by superior US forces, the PLA Navy faces a set of severe constraints, including lack of ASW and anti-air warfare capabilities. In order to overcome these lacunae, the PLA Navy has been engaged in developing what the Americans have termed an “anti-access” and “area denial” or “A2AD strategy”. The aim of this strategy is to; essentially, deny access to the US Navy’s aircraft carrier battle groups to waters of the South China Sea, including the Taiwan Straits.

The putative A2AD strategy seems to be underpinned by two significant concepts. One is the evolution of a version of the Dong Feng-21D ballistic missile which can, theoretically, engage a fast moving carrier group as far as 900 miles away from China’s coast. The other is infliction of attrition by means of layered defences comprising cruise-missiles, submarines, shore-based aircraft and minefields. It is also reported that the 2nd Artillery Corps, so far the repository of China’s nuclear deterrent, may have been tasked with a secondary strike role against ship and shore targets with conventionally armed missiles.

Experts are of the belief that Chinese naval modernization plans look well beyond the restoration of Taiwan to mainland rule, and that the PRC is engaged in creating power-projection capabilities to facilitate a much more expansive role for the PLAN in Indo-Pacific waters over a longer timeframe. The A2AD strategy is, therefore, merely a stepping stone to an ultimate objective which is open to conjecture.

The Quest for an Aircraft Carrier

Primarily, the Chinese urge to own aircraft-carriers arises from the sense that its naval forces deployed on the high seas are defenseless without an umbrella of integral air power. It is a clear

indication of this navy's intent to operate in distant waters for extended periods of time. Their anti-piracy deployments have shown that in foreign waters or close to unfriendly shores there is always a possibility for such forces to be overwhelmed by multi-dimensional threats in the absence of round the clock tactical air support. A carrier is also considered a major status symbol; as evident from General Liang Guanglie 2009 statement stressing that China was the only big nation that did not have aircraft carriers and declaring that such a situation could not be allowed to prevail forever.

Commencing 1985 the Chinese acquired three hulks of retired aircraft carriers – one from Australia and two from the Ukraine – as part of a master-plan to study and undertake the reverse engineering of such a ship. In 2000 the 20 year old, 65,000 ton *Varyag* was purchased, from the Ukraine and placed in the hands of a shipyard in Dalian. *Varyag's* fate remained the subject of speculation for nearly a decade, but now it is known that the ship was delivered and commissioned into the PLAN as the *Liaoning* on 25th September, after extensive sea trials.

As far as the availability of aircraft for the *Liaoning* is concerned there is speculation that it will be the J-15 Flying Shark; a reverse-engineered version of the Sukhoi-33 carrier-borne fighter. However, major doubts persist; both about the status of this newly developed machine, and the readiness of the ship to operate combat aircraft in the near future. In other words, the PLAN has to traverse considerable distance in many areas before this ship can be declared an operational platform.

However, the *Liaoning* is, certainly, a declaration of intent by China to deploy carrier-borne air-power in the Indo-Pacific waters, and that should provide considerable food for thought to its immediate maritime neighbors in the Asia-Pacific as well as to us in the Indian Ocean.

The Nuclear Submarine Force

The PLA Navy sent its first *Han* class nuclear propelled attack submarine to sea in 1974, but apparently, reactor and other problems have prevented boats of this class from attaining operational effectiveness, and venturing too far, too frequently. The *Han* has been followed by

the more successful *Shang* SSN, and apart from providing protection to their ballistic-missile subs, these units represent a major Chinese sea denial capability, currently in the Pacific and in the near future in the Indian Ocean.

China's single *Xia* class nuclear propelled ballistic missile submarine has been superseded by the brand new *Jin*, first sighted, in 2010, near the submarine base in Hainan. Armed with a battery of twelve 8000 km range Ju Long-2 SLBMs missiles, which can target both San Francisco and New Delhi from the South China Sea, this new class of 5-6 boats will represent a quantum jump for the Chinese nuclear deterrent.

Although the Chinese nuclear submarines may be technologically inferior and perhaps noisier than their Western counterparts, they could pose a significant impediment to USN carrier battle group operations. The new *Jin* class SSBN endows China with greater coercive power, as far as India and the region is concerned, and perhaps a better deterrent against a US first strike.

India's Maritime Stake

The logical question, then, would be; what exactly are the implications of the emerging PLAN order of battle for India? In a nutshell; India's emergence as a nation of global significance is dependent on its economy, which, in turn, is linked to global trade. Despite the recent slow-down of the world economy, India's trade and commerce remains buoyant. Between 2006 and 2012, India's foreign trade increased three-fold to US\$ 800 billion. The larger significance of this can be gauged from the fact that India's share of world trade, a miniscule 0.9% in 2006, has dramatically doubled to 1.8% in 2012, and is set to grow further.

Since more than 95% of this trade and energy traffic is carried by sea, it is evident that the prosperity of an economically resurgent India is dependent on its sea-lanes.

The Indian Ocean sees over 100,000 merchant ships transit its waters, annually, carrying trade and energy worth over a trillion US dollars. As piracy has demonstrated; any serious disruption in the supply of energy or commodities could send prices skyrocketing, and

destabilize economies world-wide. Imagine the havoc that the warships, submarines and aircraft of a hostile navy could play with this traffic.

A Maritime Response

As discussed earlier, at a macro level, the next few decades are going to witness the decline of America's economy, and with it, her maritime power and global influence. This will be accompanied by the phenomenal ascendance of China in the economic, industrial and military fields; with concomitant gains in terms of international clout. At the regional level, China is likely to retain its hard-line adversarial posture towards India; using Pakistan as a willing and useful tool.

Having observed China's truculent posturing in recent days; over the Indian state of Arunachal Pradesh, change of posture over Pak occupied Kashmir, and renewed claims over South China Sea, one can only hope that our diplomats are reading the signals correctly.

The Sino-Indian military equation along the Himalayan borders, given the relative geographical location of air bases, missile sites and army formations, coupled with quality of lines of communication, is heavily tilted in China's favour. Moreover, in case of a Sino-Indian conflict, Pakistan will render instant support by opening a second front. Under these circumstances, the best that the Indian army and Air Force can hope to achieve is a precarious stalemate. It is against this background that we need to look seawards and examine what the maritime domain has to offer.

According to American analyst Robert Kaplan, China worries that India's Andaman & Nicobar Islands can be used as a "*metal chain to lock shut the western entrance of the Malacca Straits*" and thus cause serious disruption to trade and energy supplies. President Hu Jintao himself has echoed similar sentiments by making references to China's "Malacca dilemma".

The growth of the Indian Navy has been structured so that over the next few decades the Service can shoulder its responsibilities in the Indian Ocean and meet all foreseeable challenges.

The ability of our navy to dominate and, if required, interdict Indian Ocean sea-lanes must be factored into the larger security calculus. It is in India's interest that the Indian Ocean be made the arena wherein our maritime forces can be brought to bear in a reckoning with an adversary.

So, while the tool for India to exploit its invaluable maritime advantage is being crafted, it is essential that we also evolve a set of cohesive long-term strategies to guide our actions and safeguard our interests.

Strategies

China's inexorable rise poses an existential dilemma for India, and the options before us to counter threats or coercion are stark. Either we accelerate our economic growth and boost military muscle to stand up on our own, or we strike alliances with willing partners who have convergent aims. If neither is possible, our diplomats must do all they can to avoid a serious confrontation and buy time. However, in the interim there are some specific areas that we need to focus upon, as part of a national strategy.

Firstly; we need to take up indigenization on a war footing. While China exports \$ 2 billion worth of arms annually, India has the dubious distinction of being the second largest arms importer in the world. Within two decades of the Sino-Soviet split in 1960, China had accomplished the reverse engineering of major weapons and heavy machinery required by its armed forces; and systems of Soviet origin under serial production included, ballistic missiles, diesel and nuclear submarines, MiG-21 series of fighters and destroyers, frigates and patrol craft.

Secondly; India's shipbuilding industry is a strategic asset which must be carefully nurtured and guided by the navy. Apart from undertaking urgent modernization, the shipyards must be encouraged to seek partnerships with the private sector, upgrade their technology and improve productivity.

Thirdly: the Navy's most important contribution to the nation during peacetime is as an instrument of diplomacy, providing support for political objectives and foreign policy initiatives.

In coordination with Ministry of External Affairs a sharp focus must be retained on reaching out to our maritime neighbours in the Indian Ocean littoral and offer assistance in areas of training, hardware and expertise.

Finally; our maritime forces currently encompass weapons, sensors and platforms of formidable range and capability. With the induction of the aircraft carrier *Vikramaditya*, systems like the BrahMos missile and new classes of submarines, our capabilities at sea will be further enhanced. In order to exploit their full potential, we need to establish a system of net-worked operations wherein naval units can become part of a command and control network covering the entire Indian Ocean through a dedicated maritime communication satellite,

Conclusion

The PLAN has a rapidly growing surface ship fleet and its force of homebuilt nuclear submarines is now ready for operational deployment. China's first aircraft carrier is at sea, and more are, probably, on the way. This Navy has also been reforming its organizational structure, doctrine, and training, and upgrading technology in order to attain its ambition of becoming a world class force. The extended PLA Navy anti-piracy patrols in the Horn of Africa have helped hone its skills for deployment in distant waters.

As China progressively extends its maritime reach and capability to control, first its near seas and then, the larger Pacific, it is bound to challenge the existing order in the Asia-Pacific. How the USA manages this power-transition will be of great interest to India, because it will decide how and when the PLAN heads for waters of the Indian Ocean. When that happens, how far away will China reach out to extend hegemony? And what levels of coercion would it be willing to use in the process? Apart from its demonstrated prowess in space and cyber warfare, China has evolved new maritime concepts that have the US Navy seriously worried. Similar concerns will impinge on the Indian Navy sooner or later. We better start thinking about them with all seriousness.

Given their longstanding territorial disputes, respective geo-strategic ambitions and competition for scarce resources, it would be naive to take for granted, the peaceful rise of China and India, in such close proximity, as China and India. Finally, we must continuously remind ourselves that the Chinese leaders draw on a strategic culture that relies on subtlety to maneuver adversaries into positions of disadvantage. They hope, in this way to bend the will of adversaries and win victories without engaging in combat.

